



# **ELECTRICAL EQUIPMENT CATALOGUE**

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**EKF**

**EKF IS A LEADING MANUFACTURER &  
SUPPLIER OF ELECTRICAL EQUIPMENT  
AND DERIVED SOLUTIONS**

**IN-HOUSE R&D**

**WIDE RANGE OF PRODUCTS FOR MOST  
ELECTRICAL APPLICATIONS**



**21 years** of experience in electrical equipment



over **1500 employees** worldwide



our company **operates in 20 countries** across Eastern Europe, Central and South Asia



more than **5 000 projects** annually all over the world implemented with over **1 000 engineering consultants**



over **17 000 SKU** in catalogue

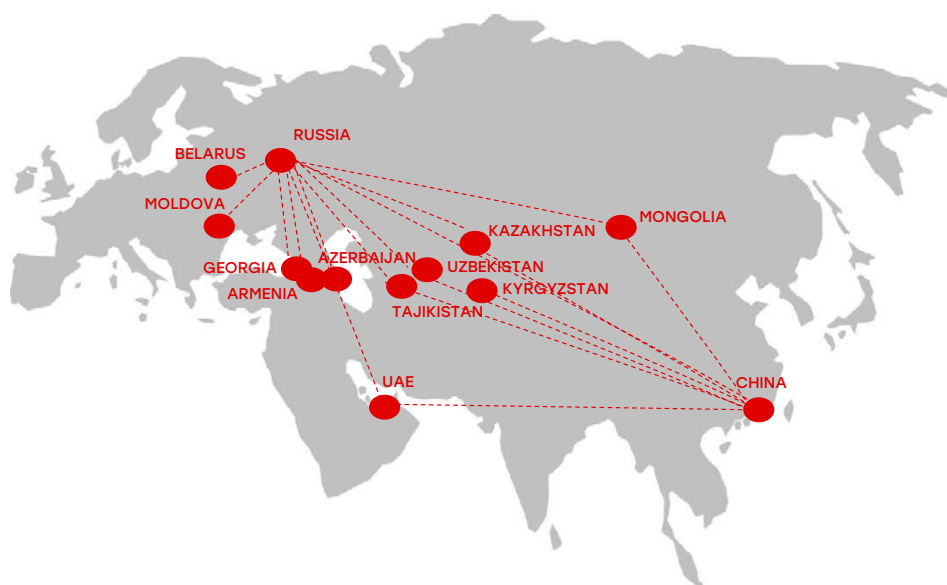


**35 000 m²** of own production facilities in Eastern Europe



over **350 distributors** all over the world

**Global Team  
with Local Presence  
at Eastern Europe,  
Asia and Middle East**



**GLOBAL.EKFGROUP.COM**



## R&D AND PRODUCTION

**Comprehensive R&D**, comprising products, software and solutions

35 000 m<sup>2</sup> of **own production facilities** in Eastern Europe, complemented with OEM-synergy with Asian factories



## QUALITY AND RELIABILITY

Quality control by the **in-house team of engineers**  
& world's **largest expert organization** in the TIC sector



## TRUSTED ELECTRICAL SOLUTIONS

Every year with over **5000 successfully implemented projects**

Over **1 000 engineering consultants** collaborate with us on energy efficiency for Residential & Commercial Construction, and Industry



## LOCAL AND GLOBAL CUSTOMERS

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### Industry & Construction

Over **3 000 facilities** use EKF electrical equipment and solutions



### Residential & Commercial Facilities

Over **5 000 facilities** use EKF electrical equipment and solutions



## RELIABLE PARTNER

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We manufacture **top-quality reliable electrical equipment with warranty up to 10 years**

We **certify** our **equipment** in the world's largest expert organizations

We continuously engineer and introduce **new products, solutions** and innovations with in-house R&D

We are **the best bargain**

We keep in touch to **solve any issue efficiently**





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## Miniature Circuit Breakers AV-6, AV-6 DC, AV-10, AV-15 AVERES



MCB AV-6 (6 kA), AV-6 DC (6 kA), AV-10 (10 kA), AV-15 (15 kA) EKF AVERES are designed for quick control of electrical circuit sections and for protection against overload and short-circuit currents in administrative, industrial and residential premises. The switches have one-, two-, three- and four-pole versions. Complete set of accessories for the expandability. The warranty period is 10 YEARS.



**Tripping characteristics** is the response range of the electromagnetic protection.

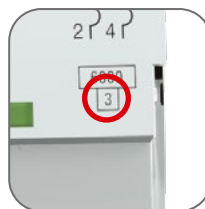
**C** – MCB will trip between 5- and 10-fold values of the rated current. They are used in mixed-load networks with moderate inrush currents (residential and office buildings).

**B** – MCB will trip between 3- and 5-fold values of the rated current. They are used in networks with low or no inrush currents (illumination).

**D** – MCB will trip between 10- and 14-fold values of the rated current. They are used for starting the motors with high inrush currents.



**Breaking capacity** is the maximum current that the MCB is able to interrupt WITHOUT BEING DESTROYED.



**The third energy limiting class** – the disconnection occurs in 1/3 of the half-period (2.5-6 ms).



**Rated current** – the basic value of the current, in comparison with which the protective actions of the MCB occur in case of overload current.

### APPLICATION

- Current performance in normal mode.
- Quick control of electrical circuits sections.
- Protection against overload and short-circuit currents.
- They are used as the main element of the final distribution system.

### ADVANTAGES



Instantaneous switching mechanism (ISM)



Rugged housing, 9 rivets



Convenient display for the electric circuit marking



Molded front panel



Contact position indicator sealed with transparent cover



Copper and aluminum wire connections are supported



## Accessories AV-OF, AV-SD, AV-SNT, AV-SNT2, AV-SNT DC, AV-MIN, AV-MM, AV-L EKF AVERES



Accessories EKF AVERES fit any industrial application tasks. The accessories are designed for servicing, monitoring and control of the electrical equipment assembled on the basis of MCB, RCCB and RCBO of the AVERES series. The warranty period is 10 YEARS. Accessories AV-SNT are installed on the right, AV-MIN and AV-MM are installed on the left side to the AV-6, AV-10, DV, DVA-6, DVA-10 to indicate status, trip the device remotely or by invalid voltage. The auxiliary contact AV-OF indicates the status of the device's contacts (AV-6, AV-10, DV, DVA-6, DVA-10). The shunt release AV-SNT-2 is connected to the left of DVA-6 and DV.

The alarm contact AV-SD indicates the device (AV-6, AV-10, DV, DVA-6, DVA-10) emergency trip (by short circuit, overload, leakage current). The shunt release AV-SNT trips AV-6, AV-10, DV, DVA-6, DVA-10 when the control terminals receive a signal. The undervoltage release AV-MIN trips AV-6, AV-10, DV, DVA-6, DVA-10 in case of invalid undervoltage. The overvoltage and undervoltage release AV-MM trips AV - 6, AV-10, DV, DVA-6, DVA- 10 in case of invalid overvoltage or undervoltage. Copper and aluminum wire connections are supported.

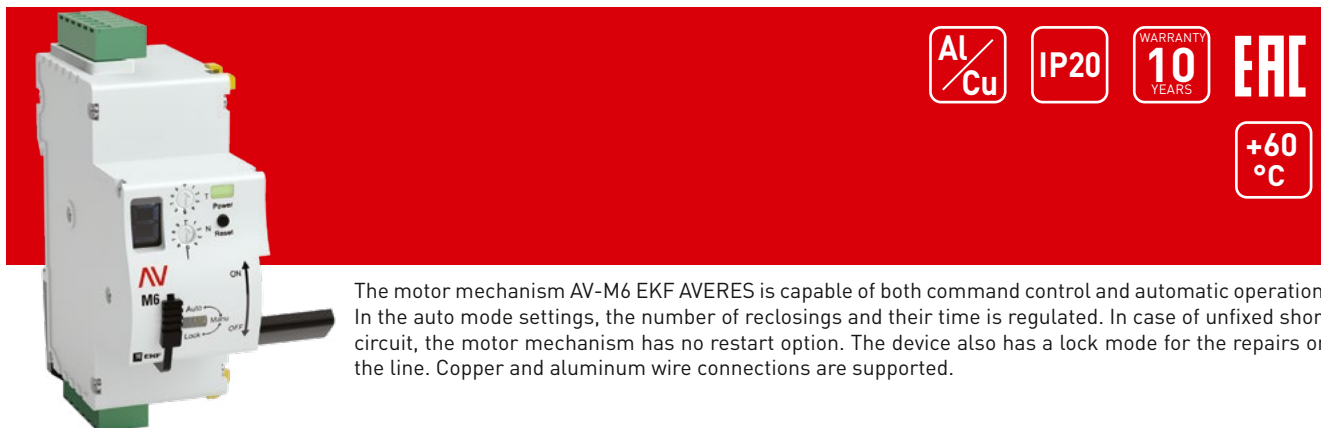
### APPLICATION

- Servicing, monitoring and control of electrical equipment assembled on the basis of RCBO and RCCB.
- It is used within the automation systems of processing equipment.

Designation	Application	Product ID
AV-OF EKF AVERES	The auxiliary contacts AV-OF EKF AVERES are used in AC and DC auxiliary control and signaling circuits. The auxiliary contact AV-OF indicates the status of the device contacts. Can be connected to MCB AV-6/AV-6 DC/AV-10/AV-15 EKF AVERES and also to MCB VA47-63N EKF PROXIMA.	av-of-averes
AV-SD EKF AVERES	The alarm contacts AV-SD EKF AVERES are used in AC and DC auxiliary control and signaling circuits. The alarm contact AV-SD indicates the device emergency trip (short circuit, overload, leakage current).	av-sd-averes
AV-MIN EKF AVERES	The undervoltage releases AV-MIN EKF AVERES are designed to trip one-, two -, three- or four-pole MCB of the AVERES series in case of invalid voltage drop.	av-min-averes
AV-MM EKF AVERES	The overvoltage and undervoltage releases AV-MM EKF AVERES are designed to trip one-, two -, three- or four-pole MCB of the AVERES series in case of invalid overvoltage or undervoltage. Can be connected to MCB AV-6/AV-6 DC/AV-10/AV-15 EKF AVERES and also to MCB VA47-63N EKF PROXIMA.	av-mm-averes
AV-SNT EKF AVERES*	The shunt releases AV-SNT are designed to remotely trip one -, two -, three- or four-pole MCB of the AVERES series. AV-SNT are made by the size of a single-pole MCB AV.	av-snt-averes
AV-SNT-2 EKF AVERES*	The shunt releases AV-SNT-2 are designed to remotely trip RCCB DV and RCBO DVA-6 (in case of these devices connection, we recommend to contact technical support). AV-SNT-2 are made by the size of a single-pole MCB AV. Can be connected to MCB AV-6/AV-6 DC/AV-10/AV-15 EKF AVERES and also to MCB VA47-63N EKF PROXIMA.	av-snt-2-averes

\*The AV-SNT and AV-SNT-2 group kit includes the connection pins

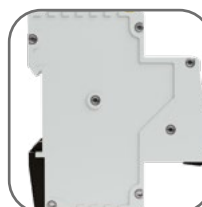
## Motor mechanism with automatic reclosing AV-M6(S) EKF AVERES



### APPLICATION

- Remote control by the modular devices (on/off).
- Automatic reclosing of modular devices (in the mode of device reclosing).
- Setting option of the number and time of the reclosings.
- Display for visual indication of the O-C cycles.
- The lock option for the repair works on the line.
- Built-in alarm contact.

### ADVANTAGES



Rugged housing, 7 rivets

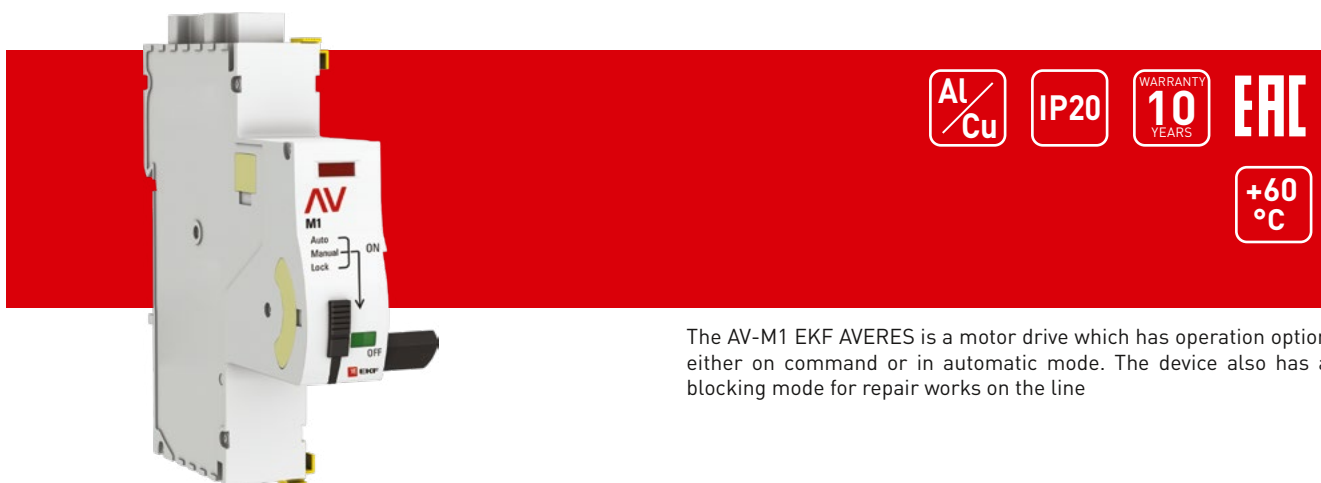


Commutation Counter Box with indication of the O-C cycles number



Setting of the number and time of the reclosings

## Motor mechanism AV-M1 1P/2P EKF AVERES



### APPLICATION

- Remote control by the modular devices (on/off).
- Automatic reclosing of modular devices (in the mode of device reclosing).
- The lock option for the repair works on the line.

### ADVANTAGES



Compact size in 1 module



Contact position indicator



Copper and aluminum wire connections are supported

## Miniature Circuit Breakers up to 63A VA 47-63 4,5 kA, VA 47-63 6 kA EKF PROXIMA



MCB are mechanical switching devices manufactured in one-, two-, three- and four-pole versions. The MCB of this series features advanced design. The MCB has plastic screw shields that hide access to screw terminals to seal the MCB and thus prevent unauthorized access to wires. The MCB housing is reinforced with additional rivets to avoid its splitting. The MCB front panel features an indicator of contact physical position. With the advanced clamp design, the MCB can be easily installed on the DIN rail.

### APPLICATION

The MCB are used in administrative, industrial and residential buildings:

- current performance in normal mode;
- quick control of electrical circuits sections;
- protection against overload and short-circuit currents;
- as the main element of the final distribution system.

### ADVANTAGES



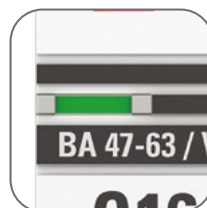
Max. tightening torque and cable stripping length marked on the housing



Two-position DIN rail clamp



Molded front panel



Contact position indicator



Increased case rigidity



Screw shields for the terminals sealing



Automatic adjustment of the operating handle



Increased hardness of screws



Recesses for easy removal from the DIN rail.



Terminals with notches



Copper and aluminum wire connections are supported

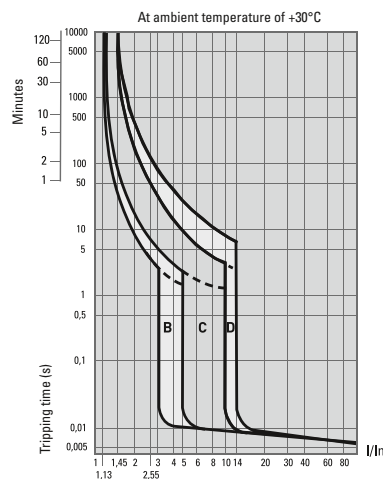


Recesses on the housing for the device cooling

### TECHNICAL PERFORMANCES

Parameters	Values
Rated voltage $U_e$ , V	230 / 400
Frequency $f_n$ , Hz	50
The number of poles	1, 2, 3, 4
Rated current $I_n$ , A	0,5–63
Rated impulse withstand voltage $U_{imp}$ , kV	4
Tripping curve	B, C, D
Degree of protection	IP20
Rated short-circuit breaking capacity $I_{cn}$ , A	4500 / 6000
Energy limiting class	3
Mechanical endurance, O-C cycles	20000
Electrical endurance, O-C cycles	10000
Operating temperatures, °C	-25...+55
Cross-section of connection wires, mm <sup>2</sup>	1–25
Tightening torque, max. N·m	2,5

### Tripping curve



## Miniature Circuit Breakers VA 47-63N 6 kA EKF PROXIMA



Miniature circuit breakers VA-47-63N 6kA is an upgraded platform of miniature circuit breakers VN-47-63 6kA EKF PROXIMA which have been proved remarkably effective on the market. Miniature circuit breakers are mechanical switching devices and correspond to IEC 60898-1. This series features upgraded design. Miniature circuit breakers have screw shields to close access to screw terminals and serve for circuit breaker sealing, thus preventing unauthorised access to the conductors. The housing is reinforced with additional rivets for maximum rigidity. Miniature circuit breakers have a convenient operating handle to ensure reliable operation. Color contact position indicator is marked on the front panel of the miniature circuit breakers. Due to two-position clamp, the miniature circuit breakers can be easy mounted onto DIN rail.

### ADVANTAGES



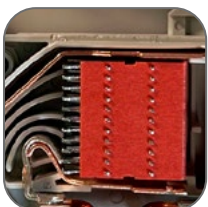
Tightening torque:  
3,5 N·m



Patented integrated  
screw shields for  
terminal sealing



Molded front panel



11 plates in arc chute



6 rivets ensure  
housing rigidity



Increased hardness  
of screw terminals



Copper and  
aluminum wire  
connection options  
are supported



Possible connection  
with PIN and FORK-  
type bars both from  
the top and the  
bottom



Housing made of  
flame retardant  
plastic



Contact position  
indicator sealed with  
transparent cover



Heat dissipation  
channel in the form  
of a recess in the  
housing



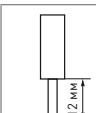
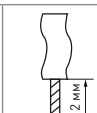
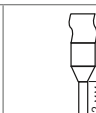
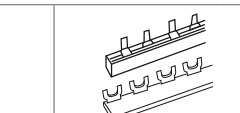
Full range of  
accessories  
to enhance  
functionalities

### TECHNICAL PERFORMANCES

Parameters	Values
Rated voltage Ue, V	230 / 400
Frequency fn, Hz	50
Number of poles	1, 2, 3, 4
Rated current In, A	0,5 - 63
Rated impulse withstand voltage Uimp, kV	4
Tripping curve	B, C, D
Degree of protection	IP20
Rated short-circuit breaking capacity Icn, A	6000
Energy limiting class	3
Mechanical endurance, O-C cycles	20000
Electrical endurance, O-C cycles	10000
Operating temperatures, °C	-25 ... +55
Cross-section of connection wires, mm²	1-25
Tightening torque, max. N·m	3,5

### Mounting and Features

#### 1. Connection

Connector			Connecting bar
rigid	flexible	With plug	PIN, FORK
			

#### 2. Accessories connection

- Copper and aluminium wire connection options are supported;
- Installation of auxiliary contact AV-OF EKF (left-side);
- Installation of alarm contact AV-SD EKF (left-side);
- Installation of under/overvoltage release AV-MM EKF AVERES (right-side);
- Installation of shunt release AV-SNT, AV-SNT DC EKF (right-side).
- Installation of motor mechanisms AV-M1, AV-M6/M6S EKF AVERES (left-side)



## Miniature Circuit Breakers up to 125 A VA 47-100 10 kA, VA 47-125 15 kA EKF PROXIMA



IEC 60898-1  
IEC 60947-2

IP20

CE

EAC

+55  
°C

WARRANTY  
7  
YEARS

Al  
Cu

Due to the high switching capacity limit of 10 kA and 15 kA, the MCB VA 47-125 and VA47-100 EKF PROXIMA can be used instead of power MCB. The MCB housing is 1.5 module (27 mm) wide. The MCB are manufactured with rated currents up to 125 A in single-, two-, three- and four-pole versions. For reliable arc control, a double contact gap and two arc chutes are used. Optimal current conductivity is provided by a silverized spring assembly. Copper and aluminum wire connection options are supported.

### APPLICATION

MCB VA 47-125 and VA47-100 EKF PROXIMA are used in administrative, industrial and residential buildings:

- current performance in normal mode.
- quick control of electrical circuits sections;
- protection against overload and short-circuit currents;
- as the main element of the final distribution system.

### ADVANTAGES



The service area is closed by a dielectric



Two-position DIN rail clamp



Contact position indicator



Increased case rigidity



Screw shields for the terminals sealing



Recesses on the housing for the device cooling



Molded front panel



The notched terminals for a reliable connection with the conductors



Automatic adjustment of the operating handle

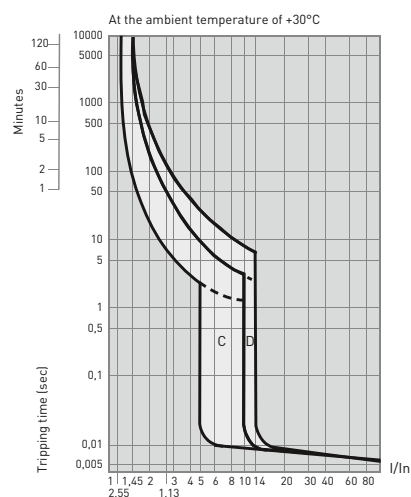


Copper and aluminum wire connections are supported

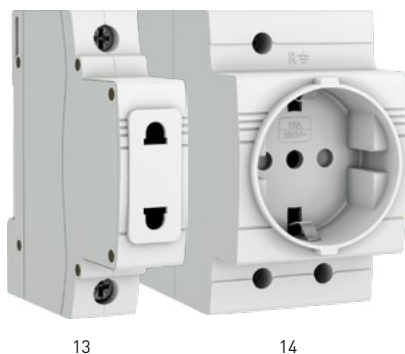
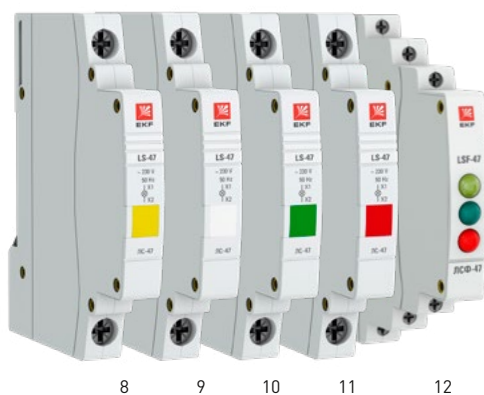
### TECHNICAL PERFORMANCES

Parameters	Values
Series name	VA 47-100
Rated voltage Ue, V	230 / 400
Frequency fn, Hz	50
The number of poles	1, 2, 3, 4
Rated current In, A	10-125
Rated impulse withstand voltage Uimp, kV	4
Tripping curve	C, D
Degree of protection	IP20
Rated short-circuit breaking capacity Icn, A	10000
Energy limiting class	3
Mechanical endurance, O-C cycles	20000
Electrical endurance, O-C cycles	10000
Operating temperatures, °C	-25...+55
Cross-section of connection wires, mm <sup>2</sup>	1-35
Tightening torque, max. N·m	2,5

### Tripping curve



## Accessories EKF PROXIMA



1. Alarm contact AK-47 EKF PROXIMA.
2. Auxiliary contact BK-47 EKF PROXIMA.
3. Overvoltage and undervoltage release RMM-47 EKF PROXIMA.
4. Shunt release RN-47 EKF PROXIMA.
5. Modular push button KM-47 (red) EKF PROXIMA.
6. Modular push button KM-47 (grey) EKF PROXIMA.
7. Modular bell ZD-47 EKF PROXIMA.
8. Single indicator light LS-47 (yellow) EKF PROXIMA.
9. Single indicator light LS-47 (white) EKF PROXIMA.
10. Single indicator light LS-47 (green) EKF PROXIMA.
11. Single indicator light LS-47 (red) EKF PROXIMA.
12. Three-phase indicator light LSF-47 EKF PROXIMA.
13. Modular socket RD-47 240V EKF PROXIMA.
14. Modular socket RDE-47 (EURO with protective earth-contact) 240V EKF PROXIMA.

### APPLICATION

- Servicing, monitoring and control of electrical equipment assembled on the basis of RCBO and RCCB.
- It is used within the automation systems of processing equipment.

### ADVANTAGES



The housings are made of flame retardant plastic



Unification of all accessories



Molded front panel



Application of a LED lamp instead of a neon one (LS-47 & LSF-47)




Increased rigidity thanks to 6 rivets on the housing



Optimization of product sizes (LS-47) – space saving

Item name	Auxilliary devices
MCB VA 47-63 (4.5 kA) EKF PROXIMA	RN-47, RMM-47, AK-47, BK-47
MCB VA 47-63 (6 kA) EKF PROXIMA	RN-47, RMM-47, AK-47, BK-47
MCB VA 47-100 EKF PROXIMA	RN-47, RMM-47, AK-47, BK-47
Residual current circuit breaker with overcurrent protection AD-32 EKF PROXIMA	RN-47, RMM-47

## Bell transformer VT-230V/12-12V 15VA (30VA) EKF



IP20

WARRANTY 7 YEARS

EAC

+55 °C

Al/Cu

Bell transformer VT EKF PROXIMA (BT EKF PROXIMA) is a stationary single-phase isolation transformer designed specifically for home bells and similar alarms with load connection for short periods of time. The high quality of the applied materials guarantees the reliability of these devices

### APPLICATION




- Video surveillance systems
- Bells house intercoms
- Automation devices

### ADVANTAGE

- Primary voltage 230 V.
- Secondary voltage 12-12 V.
- Power of the connected load 15, 30 VA.
- Mounting on a DIN rail.
- Copper and aluminum wire connections are supported.

## Arc fault detection device (AFDD) up to 63A EKF PROXIMA

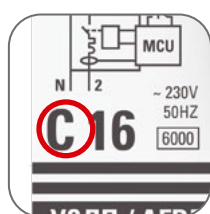


IEC 62606:2013/AMD1:2017+AMD2: 2022

**+55 °C** **IP20** **EAC**

**WARRANTY 7 YEARS** **AL/Cu**

The unique Arc-fault detection device (AFDD) EKF PROXIMA, combined with a circuit breaker, will minimize the risk of fire under the influence of arc fault currents by the detection and limitation of the arc current. This device also protects the power grid from short circuits and overloads. AFDD EKF PROXIMA is made in the 1P+N version.



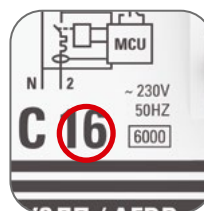
**Tripping characteristics** is the response range of the electromagnetic protection.

**B** – MCB will trip between 3- and 5-fold values of the rated current. They are used in networks with low or no inrush currents (illumination).

**C** – MCB will trip between 5- and 10-fold values of the rated current. They are used in mixed-load networks with moderate inrush currents (residential and office buildings).



**Breaking capacity** is the maximum current that the MCB is able to interrupt without being destroyed.



**Rated current** – the basic value of the current, in comparison with which the protective actions of the AFDD occur in case of overload current.

### APPLICATION

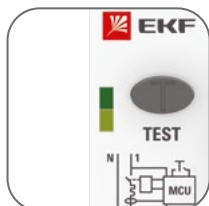
EKF PROXIMA AFDDs are used in administrative and residential buildings:

- fire prevention by the arc current detection and limitation;
- fire risk reduction under the impact of arc fault currents;
- current performance in normal mode.
- quick control of electrical circuits sections;
- protection against overload and short-circuit currents;
- as the main element of the final distribution system.

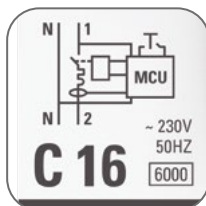
### ADVANTAGE



The power supply is connected from top



AFDD status indicator



Built-in protection against short-circuits and overload currents




Copper and aluminum wire connections are supported



Mounting holes for connecting U-shape bars type FORK



## Miniature circuit breakers VA 47-29 4,5 kA up to 63A Basic



IEC 60898-1

MCB VA 47-29 4,5 kA BASIC are designed to provide reliable electrical equipment at an affordable price. They are produced in one -, two- and three-pole versions.

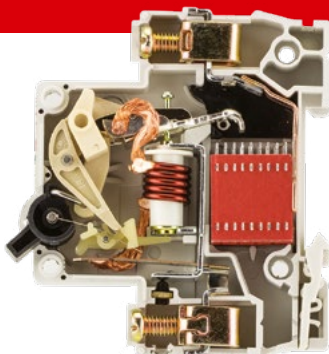
+50  
°C

Al  
Cu

EAC

IP20

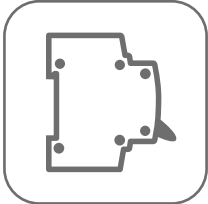
WARRANTY  
3  
YEARS




**APPLICATION** Miniature circuit breakers VA 47-29 4.5kA up to 63A Basic are used in administrative, industrial and residential buildings:

- current performance in normal mode;
- quick control of electrical circuits sections;
- protection against overload and short-circuit currents;
- they are used as the main element of the final distribution system.


### ADVANTAGES




Reliable and verified design



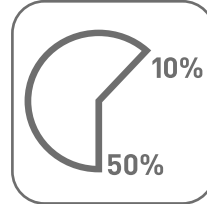
Wide product range and reliability



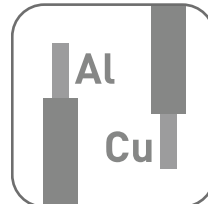
Operational comfort usages



Quality corresponds to international standards



Austerity budget 10-50% in comparison with European brands

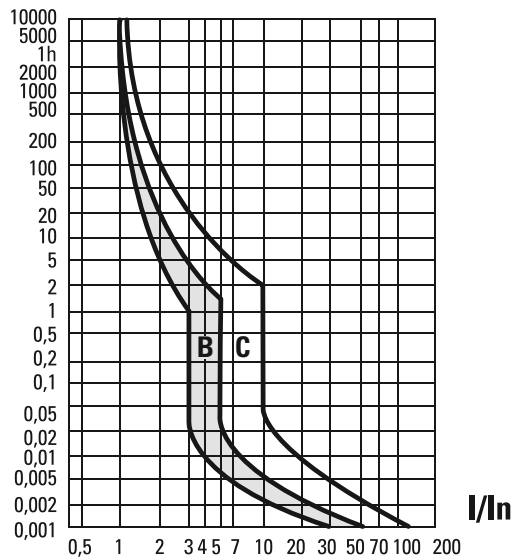


Copper and aluminum wire connections are supported

### TECHNICAL PERFORMANCES

Parameters	Values
Rated voltage Ue, V	230 / 400
Frequency fn, Hz	50
The number of poles	1, 2, 3
Rated current In, A	6-63
Rated impulse withstand voltage Uimp, kV	4
Tripping curve	B, C
Degree of protection	IP20
Rated short-circuit breaking capacity Icn, A	4500
Energy limiting class	3
Mechanical endurance, O-C cycles	20000
Electrical endurance, O-C cycles	6000
Operating temperatures, °C	-25...+50
Cross-section of connection wires, mm <sup>2</sup>	1-25
Tightening torque, max. N·m	2,5

### Tripping curve



The graph shows the tripping characteristics of the MCB. The y-axis represents the current ratio  $I/I_n$  on a logarithmic scale from 0.001 to 10000. The x-axis represents the current ratio  $I/I_n$  on a logarithmic scale from 0.5 to 200. Two curves are shown: Curve B (for 10ms) and Curve C (for 30ms). Both curves show a sharp increase in current leading to a rapid trip, with Curve C being more sensitive to higher currents.

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The most up-to-date information is always available by request: [sales@ekfgroup.com](mailto:sales@ekfgroup.com)

13

## Residual Current Circuit Breakers with Overcurrent Protection DVA-6 up to 63A EKF AVERES



IEC 61009-1

IP20

WARRANTY  
10  
YEARS

EAC

Al  
Cu

+60  
°C

RCBOs DVA-6 EKF AVERES are designed for protection against leakage, overload and short-circuit currents. The special design of the lever provides the device informativity, indicating the cause of the failure (only part of the lever is lowered – short circuit or overload, both parts of the lever are lowered – leakage current). After the cause of the trip has been eliminated, the device lever must first be lowered all the way down and then reclosed (reclosing from the trip position is not possible). Complete set of accessories for the expandability. The warranty period is 10 YEARS.



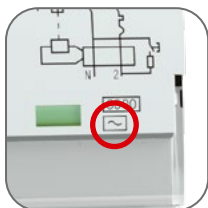
**B** - MCB will trip between 3- and 5-fold values of the rated current. They are used in networks with low or no inrush currents (illumination).


**C** - MCB will trip between 5- and 10-fold values of the rated current. They are used in mixed-load networks with moderate inrush currents (residential and office buildings).


**D** - MCB will trip between 10- and 14-fold values of the rated current. They are used for starting the motors with high inrush currents.



**Breaking capacity** is the maximum current that the MCB is able to interrupt without being destroyed.

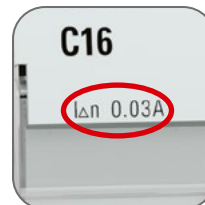


 **Type AC** – responds to sinusoidal AC leakage current, it has icon in the form of a sine wave.


 **Type A** – responds to simultaneous AC or DC (P.C.) leakage current, that occur suddenly or rise slowly.



**Rated current** – the basic value of the current, in comparison with which the protective actions of the RCBO occur in case of overload current.



**Nominal tripping residual current  $I_{\Delta n}$**  – is the value of the tripping residual current at which the RCCB must operate under specified conditions.

 **Selective** – specially pre-assigned for a pre-set time limit value of non-disconnection, when the differential current flows.

### APPLICATION

- Protection of people against electric shock by direct & indirect contact;
- Protection of electrical equipment (EE) in case of damage to the insulation of conductors and failures of electrical equipment (EE);
- Protection of equipment against fires caused by leakage currents to housing or ground;
- Auto disconnection of electrical circuit section in case of overloads and short circuits.

### ADVANTAGES



Double lever – alarm, causes of trip



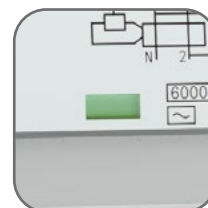
The electrical protection shutter of the terminal



Convenient display for the electric circuit marking



Molded front panel

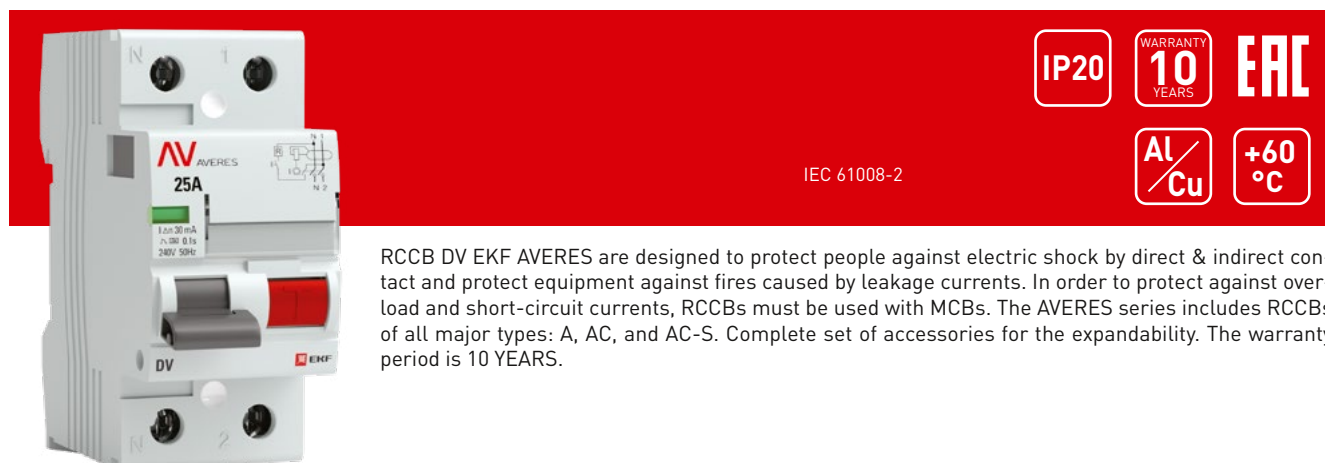


Contact position indicator sealed with transparent cover



Copper and aluminum wire connections are supported

## Residual Current Circuit Breakers DV up to 100A EKF AVERES



RCCB DV EKF AVERES are designed to protect people against electric shock by direct & indirect contact and protect equipment against fires caused by leakage currents. In order to protect against overload and short-circuit currents, RCCBs must be used with MCBs. The AVERES series includes RCCBs of all major types: A, AC, and AC-S. Complete set of accessories for the expandability. The warranty period is 10 YEARS.



**Rated RCCB (residual current breaker) current** – the maximum current which the RCCB can withstand for a long period of time, while maintaining its work capacity and safety features.

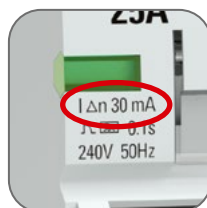


**Rated voltage  $U_n$**  – the actual value of the voltage at which the RCCB has full work capacity.



**Type AC** – responds to sinusoidal AC leakage current, it has icon in the form of a sine wave.

**Type A** – responds to simultaneous AC or DC (P.C.) leakage current, that occur suddenly or rise slowly.



**Nominal tripping residual current  $I_{\Delta n}$**  is the value of the tripping residual current at which the RCCB must operate under specified conditions.

**Selective** – specially pre-assigned for a pre-set time limit value of non-disconnection, when the differential current flows.

### APPLICATION

- Protection of people against electric shock by direct & indirect contact;
- Protection of electrical equipment (EE) in case of damage to the insulation of conductors and failures of electrical equipment (EE);
- Protection of equipment against fires caused by leakage currents to housing or ground;
- RCCB type A is used in buildings and residential areas with household appliances (TV, personal computers, adjustable light sources, modern washing machines, etc.).

### ADVANTAGES



High value of withstand short circuit currents  
 $I_{\Delta n}=10\,000\text{ A}$



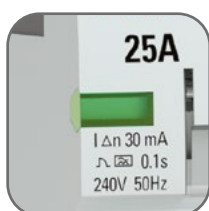
The electrical protection shutter of the terminal



Convenient display for the electric circuit marking



Molded front panel



Contact position indicator sealed with transparent cover



Copper and aluminum wire connections are supported

## Residual Current Circuit Breakers with Overcurrent Protection AVDT-63M 6 kA EKF PROXIMA



IEC 61009-1

IP20

WARRANTY  
7  
YEARS+60  
°CAl  
Cu

EAC

The small-size RCBO AVDT-63M EKF PROXIMA is a device which combines the functions of MCB with electronic RCCB type AC in a one-module housing. If the circuit breaker detects leakage current (damage) to the ground or overcurrent (overload or short-circuit current) on the protected circuit section, the device trips, which leads to disconnection of the circuit. The main difference between RCCB and RCBO is the overcurrent protection unit.

### APPLICATION

- Protection of people against electric shock by direct & indirect contact;
- Protection of electrical equipment (EE) in case of damage to the insulation of conductors and failures of electrical equipment (EE);
- Protection of equipment against fires caused by leakage currents to housing or ground;
- Auto disconnection of electrical circuit section in case of overloads and short circuits.

### ADVANTAGES



Compact housing with  
a width of one module



Housing made of  
flame-retardant  
plastic



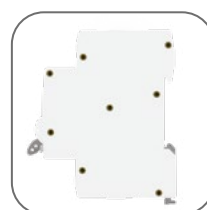
Molded front panel



Built-in power surge  
protection



Contact position  
indicator

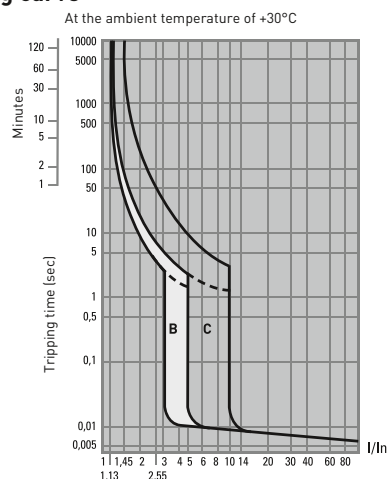


Increased case  
rigidity

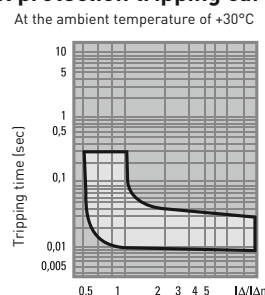
### TECHNICAL PERFORMANCES

Parameters	Values
Rated voltage $U_e$ , V	230
Frequency $f_n$ , Hz	50
The number of poles	1P+N
Rated short-circuit breaking capacity $I_{cn}$ , A	6000
Rated current $I_n$ , A	6, 10, 16, 20, 25, 32
Rated breaking residual current $I_{\Delta n}$ , mA	10, 30, 100
Tripping curve	B, C
Residual current tripping type	A, AC
Type by time delay	no time delay
Rated residual non-operating current $I_{\Delta no}$ , mA	0,5 $I_{\Delta n}$
Leakage protection type	Voltage dependent (electronic) RCBO
Degree of protection	IP20
Mechanical endurance, O-C cycles	10000
Electrical endurance, O-C cycles	4000
Operating temperatures, °C	-25...+55
Cross-section of connection wires, mm <sup>2</sup>	1-16
Tightening torque, max. N·m	2,5

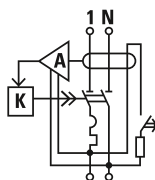
### Tripping curve



### Residual current protection tripping curves

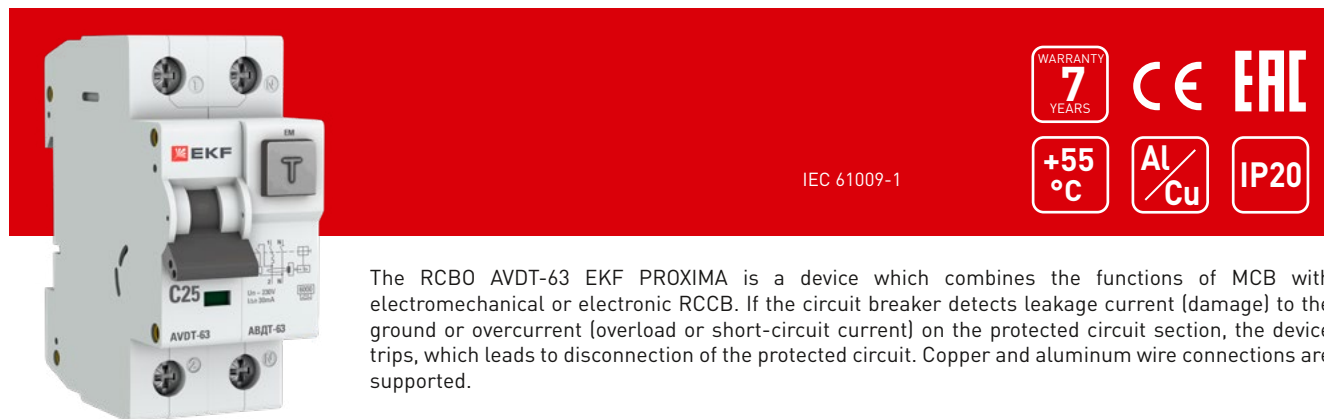


### Wiring diagrams





## Residual Current Circuit Breakers with Overcurrent Protection AVDT-63 6 kA EKF PROXIMA

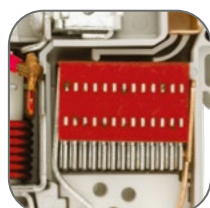


The RCBO AVDT-63 EKF PROXIMA is a device which combines the functions of MCB with electromechanical or electronic RCCB. If the circuit breaker detects leakage current (damage) to the ground or overcurrent (overload or short-circuit current) on the protected circuit section, the device trips, which leads to disconnection of the protected circuit. Copper and aluminum wire connections are supported.

### APPLICATION

- Protection of people against electric shock by direct & indirect contact;
- Protection of electrical equipment (EE) in case of damage to the insulation of conductors and failures of electrical equipment (EE);
- Protection of equipment against fires caused by leakage currents to housing or ground..
- Auto disconnection of electrical circuit section in case of overloads and short circuits.
- RCCB (residual current circuit breaker) of type A is used in buildings and residential areas with household appliances (TV, personal computers, adjustable light sources, modern washing machines, etc.).

### ADVANTAGES



Arc chute with 13 plates



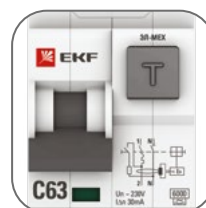
Modern electronic board with enhanced protection against pulse interference



Contact position indicator



Recesses for easy disassembly with the DIN rail. It can be removed with a single screwdriver



Molded front panel

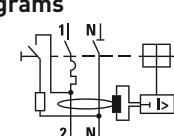


Mounting holes for connecting U-shape bars type FORK

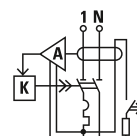
### TECHNICAL PERFORMANCES

Parameters	Values
Rated voltage $U_e$ , V	230
Frequency $f_n$ , Hz	50
The number of poles	1P+N
Rated short-circuit breaking capacity $I_{cn}$ , A	6000
Rated current $I_n$ , A	6, 10, 16, 20, 25, 32, 40, 50, 63
Rated breaking residual current $I_{\Delta n}$ , mA	10, 30, 100
Tripping curve	B, C
Residual current tripping type	A, AC
Type by time delay	no time delay
Rated residual non-operating current $I_{\Delta no}$ , mA	0,5 $I_{\Delta n}$
Leakage protection type	Voltage dependent/ independent (electronic and electromagnetic)
Degree of protection	IP20
Mechanical endurance, O-C cycles	10000
Electrical endurance, O-C cycles	4000
Operating temperatures, °C	-25...+55
Cross-section of connection wires, mm <sup>2</sup>	1-25
Tightening torque, max. N·m	2,5

### Wiring diagrams



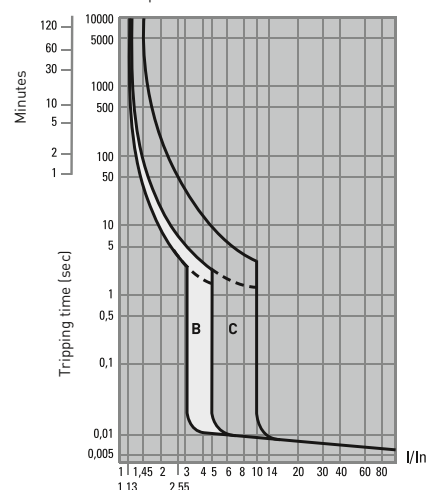
AVDT-63 (electromagnetic)



AVDT-63 (electronic)

### Tripping curve

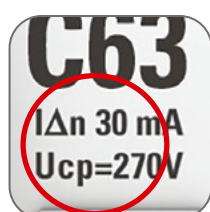
At the ambient temperature of +30°C



## Residual Current Circuit Breakers with Overcurrent Protection AD-32 up to 63A 4,5 kA and 6 kA EKF PROXIMA



RCBO AD-32 EKF PROXIMA is a device which combines the functions of MCB with RCCB. If the circuit breaker detects leakage current (damage) to the ground or overcurrent (overload or short-circuit current) on the protected circuit section, the device trips, which leads to disconnection of the circuit. RCBO AD-32 include selective versions, type A and type AC devices.



**Nominal tripping residual current  $I_{\Delta n}$**  – is the value of the AC voltage at which the device operates under normal conditions.

**Pickup voltage** – the maximum voltage level above which the built-in protection trips.



**S Selective** – specially pre-assigned for a pre-set time limit value of non-disconnection, when the differential current flows.

**~ Type AC** – responds to sinusoidal AC leakage current, it has icon in the form of a sine wave.

**⋈ Type A** – responds to simultaneous AC or DC (P.C.) leakage current, that occur suddenly or rise slowly.

### APPLICATION

- Protection of people against electric shock by direct & indirect contact;
- Protection of electrical equipment (EE) in case of damage to the insulation of conductors and failures of electrical equipment (EE);
- Protection of equipment against fires caused by leakage currents to housing or ground;
- Auto disconnection of electrical circuit section in case of overloads and short circuits.

### ADVANTAGES



Reset button for trip indication by residual current



Recesses in the housing for the device cooling



Copper and aluminum wire connections are supported



Notched and rounded terminals for secure conductor connection



Mounting holes for connecting bars type FORK

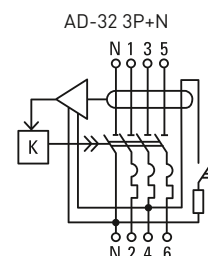
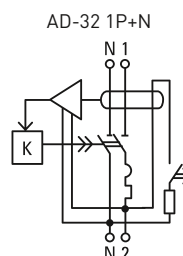


Modern electronic board with enhanced protection against pulse interference

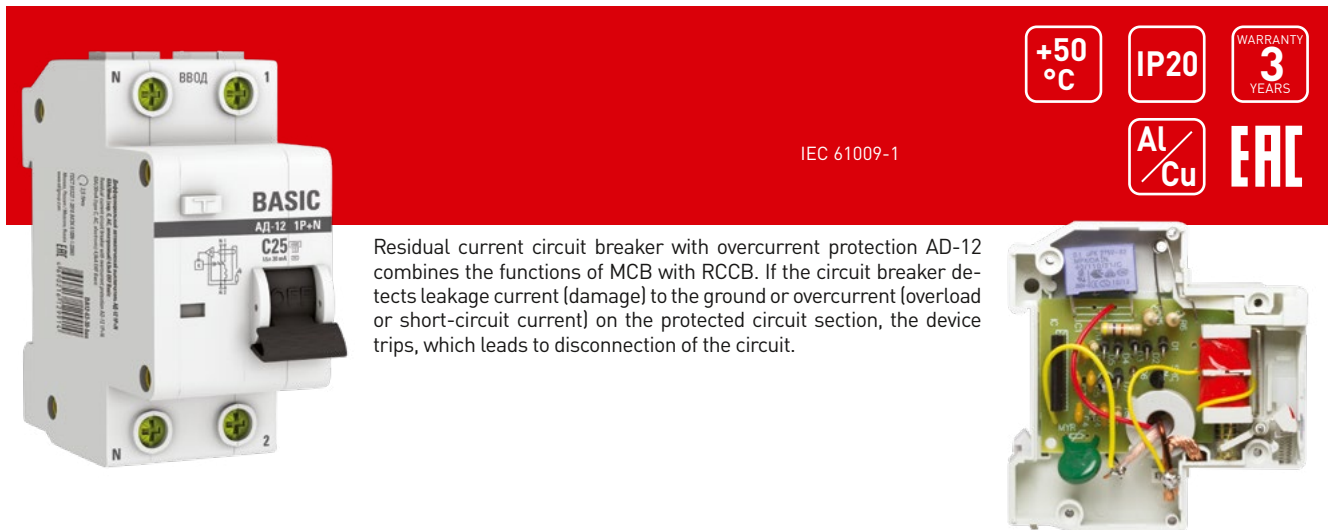
### TECHNICAL PERFORMANCES

Parameters	Values
Rated voltage $U_e$ , V	230 / 400
Frequency $f_n$ , Hz	50
The number of poles	1P+N, 3P+N
Rated short-circuit breaking capacity $I_{cn}$ , A	4500
Rated current $I_n$ , A	6, 10, 16, 20, 25, 32, 40, 50, 63
Rated breaking residual current $I_{\Delta n}$ , mA	10, 30, 100, 300
Tripping curve	B, C
Residual current tripping type	A, AC
Type by time delay	S (type AT)
Rated residual non-operating current $I_{\Delta no}$ , mA	0,5 $I_{\Delta n}$
Overvoltage protection (only for AC type), V	270 $\pm$ 5%
Leakage protection type	Voltage dependent (electronic)
Degree of protection	IP20
Mechanical endurance, O-C cycles	10000
Electrical endurance, O-C cycles	4000
Operating temperatures, °C	-25...+55
Cross-section of connection wires, mm <sup>2</sup>	1–25
Tightening torque, max. N·m	2,5

### Wiring diagrams



## Residual Current Circuit Breakers with Overcurrent Protection AD-12 up to 63A 4,5 kA Basic



Residual current circuit breaker with overcurrent protection AD-12 combines the functions of MCB with RCCB. If the circuit breaker detects leakage current (damage) to the ground or overcurrent (overload or short-circuit current) on the protected circuit section, the device trips, which leads to disconnection of the circuit.

### APPLICATION

- Protection of people against electric shock by direct & indirect contact;
- Protection of electrical equipment (EE) in case of damage to the insulation of conductors and failures of electrical equipment (EE);
- Protection of equipment against fires caused by leakage currents to housing or ground;
- Auto disconnection of electrical circuit section in case of overloads and short circuits.

### ADVANTAGES



Copper and aluminum wire connections are supported

Reliable and robust design

Operational comfort and reliability of use

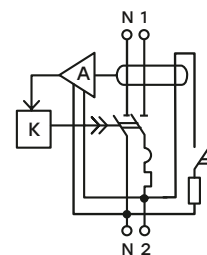
Quality meets the international standards

Budget economy of 10-50% in comparison with European brands

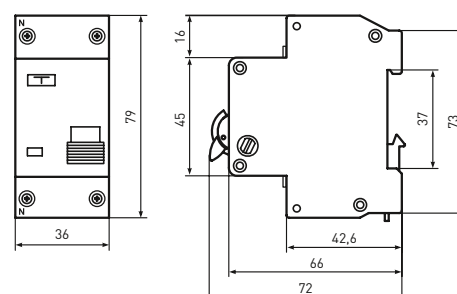
### TECHNICAL PERFORMANCES

Parameters	Values
Rated voltage Ue, V	230 / 400
Frequency fn, Hz	50
The number of poles	1P+N
Rated short-circuit breaking capacity Icn, A	4500
Rated current In, A	10, 16, 20, 25, 32, 40, 50, 63
Rated breaking residual current IΔn, mA	30
Tripping curve	C
Residual current tripping type	AC
Type by time delay	no time delay
Leakage protection type	Voltage dependent (electronic)
Degree of protection	IP20
Mechanical endurance, O-C cycles	8000
Electrical endurance, O-C cycles	4000
Operating temperatures, °C	-25...+50
Cross-section of connection wires, mm <sup>2</sup>	1-25
Tightening torque, max. N·m	2,5

### Wiring diagrams



### Dimensions



## Residual Current Circuit Breakers VD-100 up to 100A 4,5 kA and 6 kA EKF PROXIMA



IEC 61008-2

WARRANTY  
**7**  
YEARS

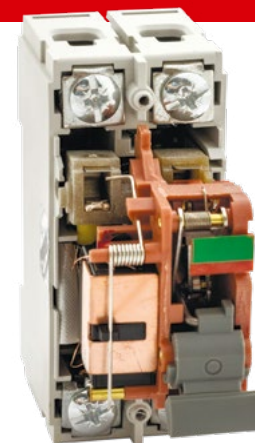
CE

EAC

+55  
°CAl  
Cu

IP20

The residual current circuit breaker (RCCB) VD-100 EKF PROXIMA is a new generation of devices used to protect people against electric shock by direct & indirect contact and protect equipment against fires caused by leakage currents. In order to protect the consumers against overload and short-circuit currents, RCCB must be used in together with MCB. Selective performance.



### APPLICATION

- Protection of people against electric shock by direct & indirect contact;
- Protection of electrical equipment (EE) in case of damage to the insulation of conductors and failures of electrical equipment (EE);
- Protection of equipment against fires caused by leakage currents to housing or ground;
- RCCB type A is used in buildings and residential areas with household appliances (TV, personal computers, adjustable light sources, modern washing machines, etc.).

### ADVANTAGES



Contact elements from oxygen-free copper with content of silver



Contact position indicator



Two-position DIN rail clamp



Housing made of flame-retardant plastic



Copper and aluminum wire connections are supported

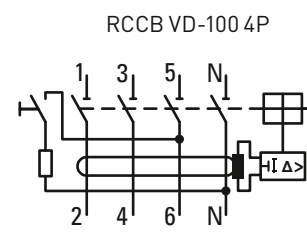
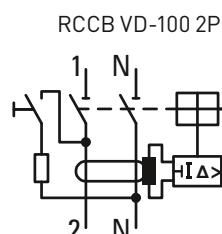


Notched terminals for reliable connection to conductors

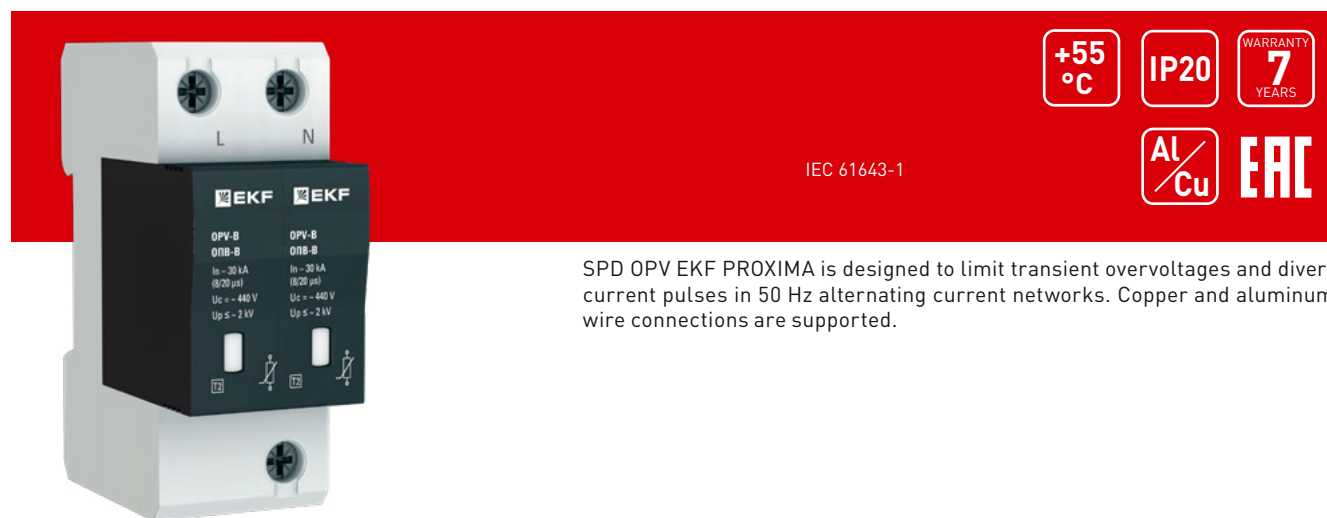
### TECHNICAL PERFORMANCES

Parameters	Values
Rated voltage $U_e$ , V	230/400
Frequency $f_n$ , Hz	50
The number of poles	2, 4
Rated short-circuit breaking capacity $I_{cn}$ , A	4500/6000
Rated current $I_n$ , A	16, 20, 25, 32, 40, 50, 63, 80, 100
Rated breaking residual current $I_{\Delta n}$ , mA	10, 30, 100, 300
Tripping curve	B, C
Residual current tripping type	A, AC
Type by time delay	S (AC type)
Rated residual non-operating current $I_{\Delta no}$ , mA	0,5 $I_{\Delta n}$
Leakage protection type	Voltage dependent (electromagnetic)
Degree of protection	IP20
Mechanical endurance, O-C cycles	10000
Electrical endurance, O-C cycles	2500
Operating temperatures, °C	-25...+55
Cross-section of connection wires, mm <sup>2</sup>	1 - 25
Tightening torque, max. N·m	2,5

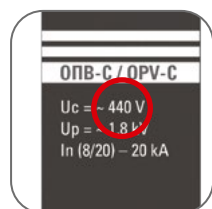
### Wiring diagrams



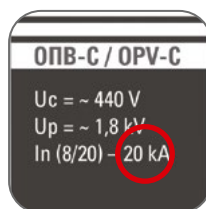
## Surge Protective Devices OPV EKF PROXIMA



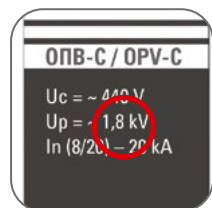
SPD OPV EKF PROXIMA is designed to limit transient overvoltages and divert current pulses in 50 Hz alternating current networks. Copper and aluminum wire connections are supported.



**Maximum operating voltage  $U_c$**  – the maximum voltage of the AC or DC current value, which is applied for a long time to the terminals of the SPD (Surge protective device).



**Rated discharge current  $I_n$**  is the peak value of the current flowing through the SPD (Surge protective device), with a waveform of 8/20 microseconds.



**The protection voltage level  $U_p$**  is a parameter which characterizes the SPD (Surge protective device) in terms of the voltage limitation at its terminals, the value of which is selected from among the preferred values. This value must be higher than the highest of the measured limited voltages.



### Type of SPD

Type 1 - withstands direct lightning discharge.  
Type 2 - serves as the second level of lightning protection and protects electrical networks.  
Type 3 - designed to protect the equipment and household appliances.

### APPLICATION

The SPD is designed for protection:

- against lightning overvoltages of electrical installations caused by direct lightning strikes to the external circuit, indirect lightning strikes (within or between clouds or nearby facilities), lightning strikes to the ground
- against switching overvoltages in electrical installations resulting from:
  - switching in high-capacity power supply systems;
  - switching in power supply systems close to electrical installations;
  - resonant voltage oscillations in electrical circuits;
  - damage to systems, e.g. ground faults, arc faults.

### ADVANTAGES



Connection option by comb-type or U-shape bars



Connection option of auxiliary contact



Notched terminals



SPD status indicator



Replaceable varistor module



They can withstand at least five launches at rated discharge current



## Surge Protective Devices Type 1 EKF PROXIMA



Surge protective devices type 1 is designed to limit transient overvoltages and divert current pulses in 50 Hz alternating current networks.



**Maximum operating voltage  $U_c$**  – the maximum voltage of the AC or DC current value, which is applied for a long time to the terminals of the SPD (Surge protective device).



**$I_{ft}$ : 7 kA.** The RMS value of the flow current which can be limited by the device.



**Pulse discharge current  $I_{imp}$  (10-350 microseconds): 25 kA.**

### ADVANTAGES



Flame-retardant plastic housing



Notched terminals



Convenient connection of conductors with a cross section from 4 to 35 mm<sup>2</sup>



SPD status indicator



Copper and aluminum wire connections are supported

### APPLICATION

The SPD is designed for protection:

- against lightning overvoltages of electrical installations caused by direct lightning strikes to the external circuit, indirect lightning strikes (within or between clouds or nearby facilities), lightning strikes to the ground;
- against switching overvoltages in electrical installations resulting from:
  - switching in high-capacity power supply systems;
  - switching in power supply systems close to electrical installations;
  - resonant voltage oscillations in electrical circuits;
  - damage to systems, e.g. ground faults, arc faults.

## Surge protective devices Type I+II EKF PROXIMA



Surge protective device Type I+II is designed to protect against direct lightning strikes in overhead lines or in external air-termination system and acts as a 2nd stage protection against lightning strikes, thus protecting most electronic and electrical equipment.

### ADVANTAGES



Housing made of flame-retardant plastic



Notched terminals



Replaceable varistor module



SPD status indicator



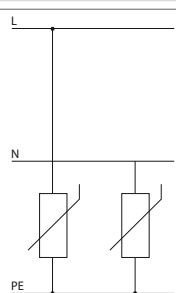
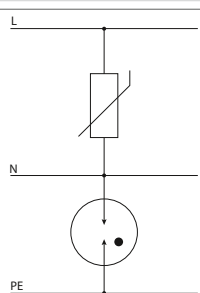
Connection option of alarm contact

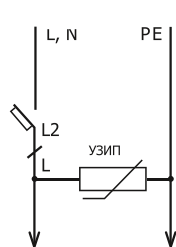
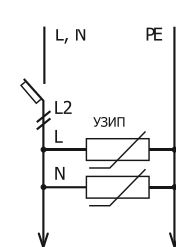
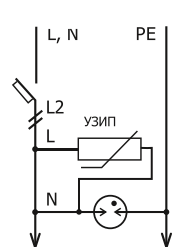
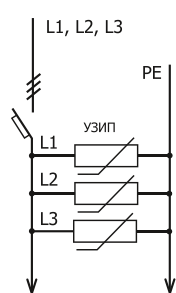
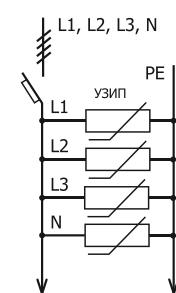
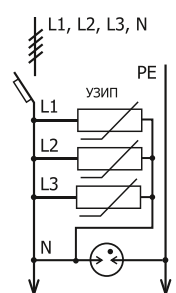


Copper and aluminum wire connections are supported

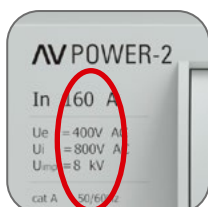
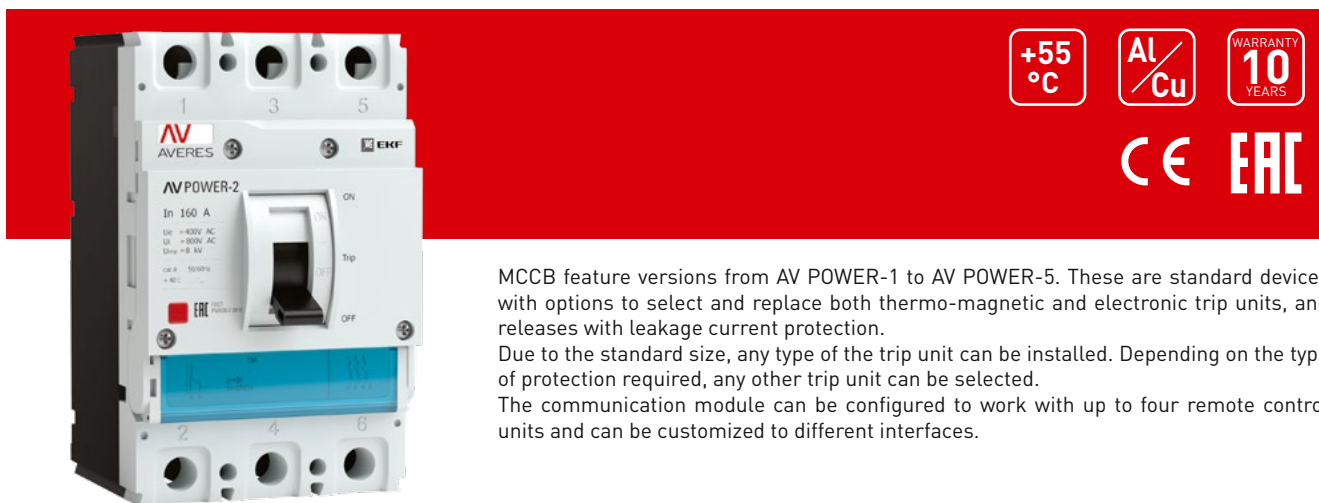
### TECHNICAL PERFORMANCES

Parameters	Values
Maximum operating voltage, $U_c$ , V	275
Pulse current (10/350 µs), $I_{imp}$ , kA	12,5
Rated discharge current (8/20 µs), $I_n$ , kA	20
Protection voltage level, $U_p$ , kV	≤1.6
Operating temperature, $T_u$ , °C	from -15 to +50
Protection degree	IP20
Cross-section of connected wires, mm <sup>2</sup>	4–35
Parameters of alarm contact	$I=3$ A, $U=250$ V, $f=50$ Hz

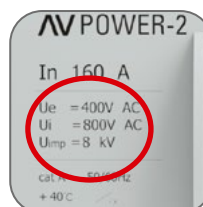
Overvoltage	
In-phase (asymmetrical)	Anti-phase (symmetrical)
	
Impact on insulation or equipment between conductors and ground connection.	Interaction between conductors of the same cable line.
For TN-S networks, the "1+1" ("3+1") circuit is recommended as the most suitable when the source of the surge is not known, while the "2+0" ("4+0") circuit is used when the overvoltage surge develops from ground.	

Number of poles		
1P	2P	1P+N
		
3P	4P	3P+N
		

## Molded Case Circuit Breakers AV Power up to 1600A EKF AVERES



**Rated current – basic current value  
Type of trip unit**



### Standard functions:

Ui: rated insulation voltage;  
Uimp: rated pulse voltage;  
Ue: rated operating voltage;  
Icu: rated ultimate breaking capacity;  
Ics: rated breaking capacity.

## ADVANTAGES

As the main circuit breaker for industrial applications and complex infrastructure projects:

- civil residential construction;
- commercial construction projects;
- production sites;
- in the reserve power supply systems;
- sectioning (three MCCB) and no sectioning;
- remote switching of electrical equipment;
- in dispatching and energy-saving systems and automated power consumption metering systems.

## APPLICATION



The self-positioning contact system allows to increase the contact area.



Redirection of gas movement in the arc chute



Increase in performance by 5-10%.



In case of contact wear, the pressure on closed contacts remains constant.



Silverized contact pads

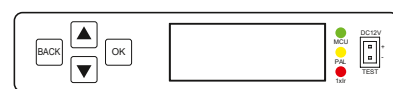
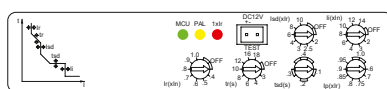


The option to select the necessary trip unit for the user's needs

**TM** - thermomagnetic trip unit (distribution trip).

**ETU2.0** - electronic trip unit (standard).  
**ETU2.2** - electronic trip unit (standard type of connection).

**ETU6.0** - electronic trip unit (LCD).  
**ETU6.2** - electronic trip unit (smart type of connection - LCD).



## Accessories AV POWER EKF AVERES

The molded case circuit breakers AV POWER can be equipped with additional accessories: shunt release, undervoltage release, auxiliary and alarm contacts, extended rotating handle and motor mechanism. Additionally, the ETU2. 2, ETU6.2 electronic trip units are equipped with a communication module for data transfer to standard databusses. When using the ETU2. 2, ETU6.2 electronic trip unit it is possible to create remote control and protection circuits on the basis of controllers with various communication modules and protocol converters, remote programming and indication panels. Additional accessories are not included in the delivery scope of the molded case circuit breakers AV POWER, except for the AV-TX2 communication module, which is included in the scope with the ETU2.2 and ETU6.2 trip units. The user purchases this equipment independently and completes the molded case circuit breaker AV POWER in accordance with the features of the protected object.



## Display module AV-CM1 EKF AVERES




The display module AV-CM1 EKF AVERES can be installed in the panel and on the cabinet's door. During normal operation, the display module shows the actual current parameters and information about the reasons for the device disconnection.

## Converter AV-DP EKF AVERES




The module provides Protocol conversion from the level of channel data bus line. By this module, various data from products that use specialized data transfer protocols or products with a common protocol can be combined into a network with data exchange.

The products comply with GB 14048.2 standard and the operating environment standard IEC61158 (Type III) and EN50170 V. 2:

- ambient temperature from -5 to +40 °C;
- pollution class 2;
- installation type III.

## Converter AV-RS1 EKF AVERES




It converts USB format into RS-485 / RS-422 and has USB power supply.

### Main functions

- Convert of RS-485 / RS-422 to USB2. 0
- Port circuit protection against static electricity and lightnings
- The internal smart module identifies and transmits the RS-485 / RS-422 signal stream without delays
- High data transfer rate up to 300 ~ 115.2 Kbps



## Undervoltage release UVT EKF AVERES



The undervoltage release trips the MCCB when the input voltage reduces to 70% of the rated voltage, and also prevents it from turning on if the voltage in this circuit is less than 85% of the rated voltage. The main purpose of the undervoltage release is to disconnect electrical equipment in case of inadmissible voltage reduction.

## Alarm contact + auxiliary contact (AL+AX) EKF AVERES



Alarm contact indicates MCCB emergency trip. Auxiliary contact indicates MCCB status.

## Alarm contact AL



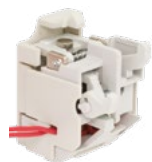
Alarm contact indicates MCCB emergency trip.

## Auxiliary contact AX EKF AVERES



Auxiliary contact indicates contact status of the circuit breaker

## Shunt release SHT EKF AVERES



It is designed for remote trip of MCCB. It is an electromagnet which trips the molded case circuit breaker while energized from external power supply.

## Motor mechanism CD-EKF 2 AVERES



The motor mechanism is designed for remote switching of the MCCB. The product has a manual and remote control mechanism. The rotary handle is connected to the front panel. Copper and aluminum wire connections are supported.

## Extended rotary handle CS1, CS2 EKF AVERES



Extended rotary handle CS1 - with a central charging mechanism.  
Extended rotary handle CS2 - with an eccentric charging mechanism.  
The extended rotary handle is designed for manual switching of the MCCB through the enclosure door.

## Molded Case Circuit Breakers VA-99M up to 1600A EKF PROXIMA



The molded case circuit breaker VA-99M is designed as a monoblock and consists of a base and cover with a frame for the operating handle and the push-button "TEST" to test the tripping mechanism.

**WARNING!** The operating handle of the molded case circuit breaker has three positions "ON", "OFF" and "TRIPPING". To switch on after tripping, the handle shall be moved from the intermediate position to the "OFF" position and then to the "ON" position.

IEC 60947-2:2006

### APPLICATION

As the input circuit breakers in the switchboards and cabinets for civil residential construction, commercial construction projects, production sites:

Purpose:

- protection of electric motor circuits;
- protection of outgoing lines, as well as the main switchboard, power distribution panel, distribution board;
- in the reserve power supply systems;
- sectioning (three MCCB) and no sectioning;
- VA-99M (BA-99M) with sizes of 400, 630, 800, 1250, 1600 in addition to the above-mentioned applications can be used in order to protect the outgoing lines on the low side of the transformer p / St 10/0. 4 kV;
- together with motors for switching and automatic control of electrical equipment operation:
- remote switching of electrical equipment;
- infrequent starts of asynchronous motors;
- in dispatching and power saving systems.

### ADVANTAGES



Internal conductive parts of electrical copper



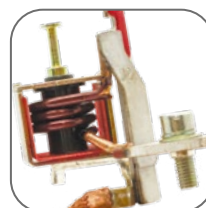
Uniform-thick thin and solid plates are the best conditions for arc quenching



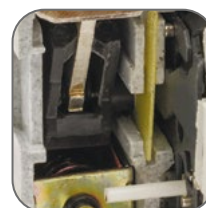
Uniform bimetal plate provides stability over time



VA-99M rated 1250A and 1600A have pre-installed motor mechanism



Magnetic release in the form of coils provides more stable work on the short-circuit



Instantaneous switching mechanism



Simple, reliable design



Complete set of accessories



The silverized composite soldering provides low transient resistance and high fracture resistance



The housing made of thermo-resistant and flame-retardant plastic



Connection bus lines made of electrical copper with silver coating. Better electrical conductivity – less heating



Copper and aluminum wire connections are supported

## TECHNICAL PERFORMANCES

Parameters	Values																
	VA-99M 63		VA-99M 100			VA-99M 250			VA-99M 400		VA-99M 630		*VA-99M 800		VA-99M 1250		VA-99M 1600
Rated operating voltage U <sub>e</sub> , V	AC 400 V	DC 250 V	AC 400 V	AC 690 V	DC 250 V	AC 400 V	AC 690 V	AC 400 V	AC 690 V	AC 400 V	AC 690 V	AC 400 V	AC 690 V	AC 400 V	AC 690 V	AC 400 V	AC 690 V
Ultimate short-circuit breaking capacity I <sub>cu</sub> , kA	25	10	35	10	10	35	10	42	15	50	15	50	35	35	25	35	25
Service short-circuit breaking capacity I <sub>cs</sub> , kA	18	6	26	5	6	25	5	31,5	8	35	8	30	15	35	12,5	35	12,5
Rated currents I <sub>n</sub> , A	16, 20, 25, 32, 40, 50, 63	16, 20, 25, 32, 40, 50, 63, 80, 100, 125			100, 125, 160, 200, 225, 250			250, 315, 400		400, 500, 630		630, 800		800, 1000, 1250		1600	
Min. mechanical endurance, O-C cycles	7000							4000					2500		2500		
Min. electrical endurance, O-C cycles	2000													1500			
Rated peak short-circuit current I <sub>cm</sub> , kA	2,1xI <sub>cu</sub>							2,1xI <sub>cu</sub>		2,2xI <sub>cu</sub>				2,2xI <sub>cu</sub>			
Rated insulation voltage U <sub>i</sub> , V	800																
Utilization category according to IEC 60947-2:2016	A																
Type of trip unit	Thermal-magnetic																
Set point of electro-magnetic trip unit	10xI <sub>n</sub>							10xI <sub>n</sub>					10xI <sub>n</sub>				
Number of poles (standard)	3P																
Power consumption, W	25	25			70			85		100		160		160		160	
Protection degree	IP30																
Operating temperature, °C	from – 25 to + 40																
Weight, kg	1	1,25			2			5,75		8,25		24,6		26,8			
Min. service life, years	10																

\* Motor mechanism 230V AC VA-99M 800 EKF shall not be used with molded case circuit breaker VA-99M 800/1000A 3P 50kA EKF.

### Technical data of VA-99M with electromagnetic trip unit

Parameters	Values									
	VA-99M 100			VA-99M 250			VA-99M 400		VA-99M 800	
Rated operating voltage Ue, V	DC 250 V	AC 400 V	AC 690 V	DC 250 V	AC 400 V	AC 690 V	AC 400 V	AC 690 V	AC 400 V	AC 690 V
Ultimate short-circuit breaking capacity Icu, kA	10	35	10	10	35	10	42	15	35	30
Service short-circuit breaking capacity Ics, kA	6	26	5	6	25	5	31,5	8	35	15
Rated currents In, A	32, 63, 100, 125			160, 250			400		630	
Min. mechanical endurance, O-C cycles	7000						4000			
Min. electrical endurance, O-C cycles	2000									
Rated peak short-circuit current Icm, kA	2,1xIcu						2,2xIcu			
Rated insulation voltage Ui, V	800									
Utilization category according to IEC 60947-2:2016	A									
Type of trip unit	Electromagnetic									
Set point of electromagnetic trip unit	10xIn									
Number of poles (standard)	3P									
Power consumption, W	25			70			85		100	
Protection degree	IP30									
Operating temperature, °C	from – 25 to + 40									
Weight, kg	1,25			2			5,75		24,6	
Min. service life, years	10									

## Accessories devices for VA-99M EKF PROXIMA

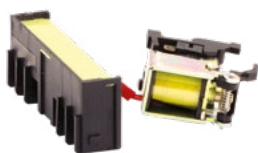
The molded case circuit breakers VA-99M EKF PROXIMA can be equipped with additional accessories: shunt release, undervoltage release, auxiliary and alarm contacts, extended rotating handle and motor mechanism, etc. Additional accessories are not included in the delivery scope. The user purchases this equipment independently and completes the molded case circuit breaker VA-99M EKF PROXIMA in accordance with the features of the protected object.

Conductors are carefully placed and the pads are secured in the side slots of the case with the false panels first pulling apart. Automatics shall be assembled in reverse order.

### Shunt release EKF PROXIMA

(IEC 60947-2-98)

Designed for remote trip of MCCB. It is an electromagnet which trips the molded case circuit breaker while energized from external power supply. After remote trip, the MCCB shall be reclosed manually or remotely with the motor mechanism.



### Undervoltage release EKF PROXIMA

(IEC 60947-2-98)



The undervoltage release trips the MCCB if the voltage drops at the input to 70% of nominal, and also prevents its start if the circuit voltage is less than 85% of nominal. The main purpose of the undervoltage release is to disconnect electrical equipment in case of invalid undervoltage. The undervoltage release can also be used as a shunt release if a normally closed MCCB is connected in series to the control circuit. If the contact of the push-button switch is briefly opened, the undervoltage release device will trip the circuit breaker.

### Extended rotary handle EKF PROXIMA

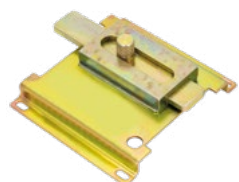
(IEC 60947-2-98)



Extended rotary handle is designed to convert rotational motion into progressive motion for MCCB operation. The motor mechanism is attached directly to the MCCB, and the rotary handle switches the MCCB through the door of the distribution enclosure.

### Mechanical interlock VA-99M EKF PROXIMA

(IEC 60947-2-98)



Mechanical interlock is designed to exclude the simultaneous trip of MCCB VA-99M EKF PROXIMA in automatic reserve input circuits.

### Auxiliary contact EKF PROXIMA

(IEC 60947-2-98)



Auxiliary contact indicates contact status of the circuit breaker.

### Alarm contact EKF PROXIMA



Alarm contact indicates MCCB emergency trip by overcurrent (overload or short circuit), shunt release, undervoltage release, and button «TEST». When the MCCB returns to its original position, the alarm is turned off.

### Alarm contact + auxiliary contact EKF PROXIMA

(IEC 60947-2-98)



### Motor mechanism VA-99M EKF PROXIMA

(IEC 60947-2-98)



Designed to switch MCCB. The charging mechanism automatically prepares the spring system.

### Connection plates VA-99M EKF PROXIMA



The connection plates for VA-99M are designed for connection of MCCB with bus lines.



## Molded Case Circuit Breakers VA-99C (Compact NS) up to 1600A EKF PROXIMA



IEC 60947-2

+50  
°CWARRANTY  
7  
YEARSAl  
Cu

IP30

EAC

The molded case circuit breaker VA-99C is designed as a monoblock and consists of a base and cover with a frame for the operating handle and the push-button "TEST" to test the tripping mechanism. **WARNING!** The operating handle of the molded case circuit breaker has three positions "ON", "OFF" and "TRIPPING". To switch on after tripping, the handle shall be moved from the intermediate position to the "OFF" position and then to the "ON" position.

The movable contacts rotate in the guides, providing the necessary gaps to increase and equalize the pressure on the movable contacts.

The return spring is locked by the components of the operating handle, which are resting in one straight line with one end on the "Reset" pivot and the operating handle. The operating handle is reset by a flat bar, actuated via the adjusting screws pushing bimetal plates of thermal and electromagnetic trip units.

### APPLICATION

- As the input circuit breakers in the switchboards and distribution cabinets for civil residential construction, commercial construction projects, production sites;
- protection of electric motor circuits;
- protection of outgoing lines, as well as the main switchboard, distribution board;
- in the reserve power supply systems;
- sectioning (three MCCB) and no sectioning;
- protection of outgoing lines on the low side of 10/0.4 kV transformer substations.
- together with motors for switching and automatic control of electrical equipment operation;
- remote switching of electrical equipment;
- in dispatching and power saving systems.

### ADVANTAGES



#### Electromagnetic trip unit

Adjustable set point for thermal current  $I_r = (0.4-1 I_n)$  and overload current  $I_r = (2-10 I_n)$



#### Rotary mechanism

Low transient resistance and high resistance to destruction of the contacts when commutations

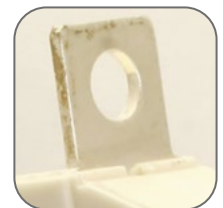


#### Silver-containing composite soldering, with tungsten



#### Adjustable release coils

Adjustable set point by heat current  $I_r = (0.8-1 I_n)$  and current overloads  $I_r = (5-10 I_n)$  with silver



#### The best conductivity

Connecting bars made of electrical copper with silver coating



#### Instantaneous switching mechanism



#### Flame-retardant Heat-resistant plastic housing



#### Professional automation with extensive thermal and short-circuit current trip settings



#### Complete set of accessories



#### Copper and aluminum wire connections are supported

## Accessories for VA-99C EKF PROXIMA

The molded case circuit breakers VA-99C EKF PROXIMA can be equipped with additional accessories:

- connection plates
- shunt release MX
- undervoltage release MN
- auxiliary and alarm contacts (OF, SD, SDE)
- motor mechanism CD2.

Additional accessories are not included in the delivery scope and shall be purchased separately. Releases and contacts are installed in the slots of the MCCB case under the false panel.

Conductors are carefully placed in the slots of the case with the false panels first pulling apart. Secondary circuit wires with a cross section of up to 1.5 mm<sup>2</sup> are connected to the built-in terminal. The additional releases and contacts are universal and suitable for all circuit breakers of the VA-99C EKF PROXIMA. Copper and aluminum wire connections are supported.

### Undervoltage release MN EKF PROXIMA

(IEC 60947-2-98)



The undervoltage release is designed to trip the MCCB in case of invalid undervoltage.

### Shunt release MX EKF PROXIMA

(IEC 60947-2-98)



The shunt release is designed for remote trip of MCCB. The command to disable the shunt release can be pulse (20 ms) or continuous.

Wear resistance is 50% of the MCCB mechanical resistance.

### Auxiliary contact EKF PROXIMA

(IEC 60947-2-98)



The auxiliary contacts transmit signals about the MCCB status, are used for signaling, electrical blocking, relay protection, etc.

Functions:

"OF" (ON/OFF): alarm signal of the device power contacts position;

"SD" (emergency trip): indicates trip by:

- short circuit;
- shunt release;
- "Test" button.

"SDE" (electrical damage): alarm about device trip as a result of:

- overload;
- short circuit;

The auxiliary contacts return to their initial position when the circuit breaker returns to its original position.

The "OF", "SD", and "SDE" functions are implemented by a single model of the auxiliary contact in accordance with the location in the device, and are attached by snapping under front panel of the MCCB.

The "SDE" function in a device with a magnetothermal release requires the installation of the "SDE" actuator.

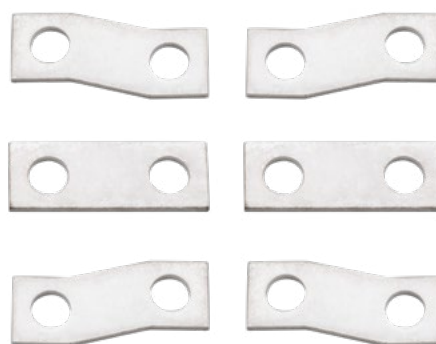
### Motor mechanism CD2 EKF PROXIMA

(IEC 60947-2-98)



The motor mechanism CD/2 EKF PROXIMA is designed for remote control of the MCCB VA-99C EKF PROXIMA with nominal currents up to 630 A, facilitating their switching on/off, and for start after auto trip. The MCCB with motor mechanism feature reliable and efficient operation.

### Connection plates EKF PROXIMA



## Air Circuit Breakers VA-45 up to 6300A EKF PROXIMA



The air circuit breakers VA-45 EKF PROXIMA feature a trip-free release mechanism and contact operation by spring-loaded charging mechanism. The circuit breaker is designed as a mechanical device mounted on a rigid frame. The main operating and indication elements are on the front panel. Complete set of accessories for the expandability.

### APPLICATION

As input circuit breakers in the switchboards and distribution cabinets for civil residential construction, commercial construction projects, production sites:

- protection of electric motor circuits;
- protection of outgoing lines, as well as the main switchboard, distribution board
- in automatic transfer systems with sectioning (three circuit breakers) and with no sectioning;
- together with motors for switching and automatic control of electrical equipment operation;
- remote switching of electrical equipment;
- in dispatching and power saving systems.

### ADVANTAGES



Fixed and withdrawable versions



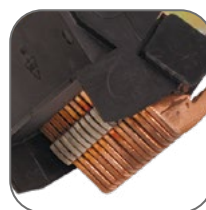
Current-carrying parts of electrical copper



Manual and customized ModBus remote control



Connecting bars made of electrical copper with silver coating



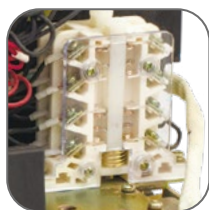
Silver-containing composite solderings with tungsten on the main contacts



Microprocessor release with selective programmable protection



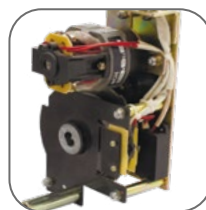
Copper and aluminum wire connections are supported



Auxiliary contacts in the basic configuration



Opening/closing releases in the basic configuration



Motor mechanism in the basic configuration



Undervoltage release in the basic configuration



Assembling the missing configuration on order

## Accessories for VA-45 EKF PROXIMA

### Access lock for control push-buttons

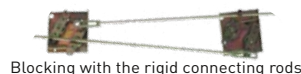
EAC



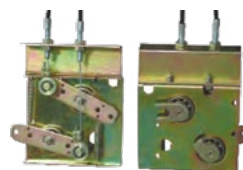
Access lock for control push-buttons the VA-45 EKF PROXIMA or VN-45 EKF PROXIMA is used to prevent manual switching on/off of the air circuit breaker VA-45 EKF PROXIMA and switch disconnector VN-45 EKF PROXIMA. The lock frame is installed on the front panel. The transparent cover blocks access to both buttons. The lock can be ensured with a padlock or a seal.

## Mechanical interlock

EAC



Blocking with the rigid connecting rods



Blocking with the flexible cables

The mechanical interlock is designed to prevent simultaneous trip of air circuit breakers VA-45 EKF PROXIMA or switch disconnectors VN-45 EKF PROXIMA in automatic transfer circuits. Structurally, the mechanical interlocking of two circuit breakers can be performed by rigid rods or flexible cables. When we apply mechanical interlocking of two circuit breakers with rods, the circuit breakers are placed one above the other, when we apply the mechanical interlocking with cables, the circuit breakers can be installed either side by side or one above the other. Only for withdrawable versions.

## Air Circuit Breakers VA-450 up to 1600A EKF PROXIMA



WARRANTY  
7  
YEARS

Al  
Cu

IP20

EAC

The air circuit breakers VA-450 EKF PROXIMA with the microprocessor control and rated currents from 200 to 1600 A are designed to protect AC low voltage power circuits (up to 690 V) from overload and short-circuit currents with time delay (selective versions), quick On/Off operations in the circuits under the direct operator control or by command signals for automatic control system of the electricity distribution with the undervoltage release to disable the network in case of invalid undervoltage or power off.

### APPLICATION

As input circuit breakers in the switchboards and distribution cabinets for of civil residential construction, commercial construction projects, production sites:

- protection of electric motor circuits;
- protection of outgoing lines, as well as the main switchboard, distribution board;
- in automatic transfer systems with sectioning (three circuit breakers) and with no sectioning;
- protection of outgoing lines on the low side of 10/0.4 kV transformer substations.

A circuit breaker with a rated current of 630 A or lower can also be used for distribution networks with an asynchronous 50 (60) Hz and 400 V motor to protect it from overload, short circuit, phase break, ground fault, etc.

### ADVANTAGES



The most compact air circuit breaker



High electrical endurance



One size for all currents



One size for all current rates  
Vertical and horizontal outputs (only for VA-450 1600 A)




Fixed and withdrawable versions



Copper and aluminum wire connections are supported



## Contactors KME 9-95A EKF



IEC 60947-4-1:2018

IP20

WARRANTY  
**7**  
YEARS

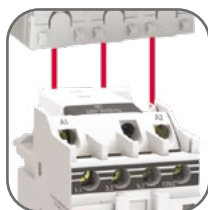
Al  
Cu

+60  
°C

**EAC**

The contactors KME EKF consist of a housing with fixed and movable contacts that are fixed rigidly in the movable part of the magnetic system. The fixed part of the magnetic system is fixed rigidly in the housing. The spring prevents the contacts from linkage. When a voltage is applied to the control coil, a magnetic field occurs in the contactor's magnetic system, which overcomes the resistance of the spring and closes the magnetic system and contacts. When the voltage is disconnected from the control coil, the spring links the contacts. Copper and aluminum wire connections are supported.

### APPLICATION



- Enabling / disabling of machines and equipment, as well as high-precision automatic lines, control and automation solutions. Illumination switching on / off : industrial, street, office, commercial facilities.
- Commutation of various mechanisms in the residential and utilities sector, commercial real estate and industrial premises (power stations, electric motor control stations, ventilation, automatic gates and doors).
- Production of mass-use equipment: heat guns, heaters, modular air conditioners, electrical equipment for gardens and cottages.

### ADVANTAGES



The housing and movable crossbar are made of heat-resistant and flame-retardant plastic.



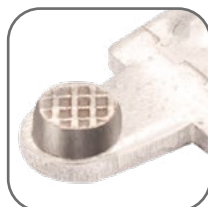
Installation option both on the DIN rail and on the mounting plate



Auxiliary contacts for automation



Marking plate in the kit for identification of contactors on the switchboard



Ribbed surface of auxiliary contacts to increase conductivity and connection reliability



Plate clips for better wire connection



High electrical endurance



High electrical endurance. The silver-containing composite on the contacts for low transient resistance and high fracture resistance



The magnetic system is equipped with rubber dampers, that reduces noise during the operation



The core is made of high-quality electrical steel, which allows the coil to reliably keep the contacts in the enabled position at the normal voltage of the control coil



Core of the magnetic system with reduced windage losses




**Self-positioning movable contacts.** They can swing, are spring-loaded, and have a spherical surface. The bridge contact creates conditions for rapid arc control

## TECHNICAL PERFORMANCES

Parameters			Values									
			KME-0910, KME-0901	KME-1210, KME-1201	KME- 1810, KME-1801	KME 2510, KME 2501	KME 3210, KME 3201	KME-4011	KME-5011	KME-6511	KME-8011	KME-9511
Rated power, kW	<+40C, 230V	AC-3	2,2	3	4	5,5	7,5	11	15	18,5	22	25
	<+40C, 400V		4	5,5	7,5	11	15	18,5	22	30	37	45
	<+40C, 660V		5,5	7,5	10	15	18,5	30	33	37	45	45
Rated operating current, A	<+40C, 400V	AC-3	9	12	18	25	32	40	50	65	80	95
		AC-1	25	25	32	40	50	60	80	80	125	125
Number of poles			3P									
Available auxiliary contacts			1NO, 1 NC			1NO, 1 NC		1NO + 1 NC				
Maximum short-time load [t<1c], A			162	216	324	450	576	720	900	1170	1440	1710
Rated AC operating voltage Ue, V			230, 400, 660									
Rated impulse voltage Uimp, kV			6				8					
Rated insulation voltage Ui, V			690									
Conventional short-circuit current Inc, A			1000		3000				5000			
Dissipation power at Ie, W/pole	AC-3		0,2	0,36	0,8	1,25	2	2,4	3,7	4,2	5,1	7,2
	AC-1		1,56		2,5	3,2	5	5,4	6	6,4	12,5	12,5
Rated voltage of control coil Uc, V			230, 400									
Control voltage ranges	tripping		[0,8 - 1,1]*Uc									
	release		[0,3 - 0,6]*Uc									
Power consumption of control coil at Uc, VA	tripping cos f = 0,75		60	60	60	90	90	200	200	200	200	200
	holding cos f = 0,3		7	7	7	7,5	7,5	20	20	20	20	20
Tripping time of control coil, ms	closing		12-22	12-22	12-22	15-24	15-24	20-26	20-26	20-26	20-26	20-26
	opening		4-19	4-19	4-19	5-19	5-19	8-12	8-12	8-12	6-20	6-20
Power dissipation of control coil, W			3	3	3	3,5	3,5	10	10	10	10	10
Electrical endurance of control coil, mln. cycles	AC-3		1,65	1,65	1,65	1,21	1,10	1,10	1,10	1,10	0,99	0,77
	AC-1		1,43	1,43	1,43	1,43	1,43	1,43	1,43	1,43	1,10	0,77
Mechanical endurance	mln. cycles		15	15	15	12	10	10	10	10	5	4
Overall dimensions, mm	width		45	45	45	56	56	74	74	74	84	84
	height		74	74	74	84	84	127	127	127	127	127
	depth		80	80	80	93	98	114	114	114	125	125
Connection of power circuit, mm	flexible cable		1-4	1-4	1,5-6	1,5-6	2,5-6	6-16	10-25	10-25	16-35	16-35
	rigid cable		1,5-4	1,5-4	2,5-6	2,5-6	4-10	10-25	16-35	16-35	25-50	25-50
	tightening torque, Nm		1,5			2,5	5				9	
Connection of control circuit, mm	flexible cable		1-4									
	rigid cable		1-4									
	tightening torque, Nm		1,5									
Main accessories for contactors	auxiliary contact block		PKE-02, PKE-04, PKE-11, PKE-20, PKE-22, PKE-40			PKE 02, PKE 04, PKE 11, PKE 20, PKE 22, PKE 40		PKE 02, PKE 04, PKE 11, PKE 20, PKE 22, PKE 40				
	pneumatic time delay attachment		PVE-11, PVE-12, PVE-13, PVE-21, PVE-22, PVE-23			PVE 11, PVE 12, PVE 13, PVE 21, PVE 22, PVE 23		PVE 11, PVE 12, PVE 13, PVE 21, PVE 22, PVE 23				
	interlocking devices		Mechanical interlocking up to 32A					mechanical interlocking from 40A				
	thermal overload relay		RTE-1305, RTE-1306, RTE-1307, RTE- 1308, RTE-1310 RTE-1312 RTE-1314 RTE-1316 RTE-1321			RTE 2322, RTE 2353, RTE 2355		RTE 3353, RTE 3355, RTE 3357, RTE 3359, RTE 3361, RTE 3361, RTE 3363, RTE 3365				

## Contactors KTE 115-630A EKF



IEC 60947-4-1:2018

IP00

WARRANTY  
7  
YEARS

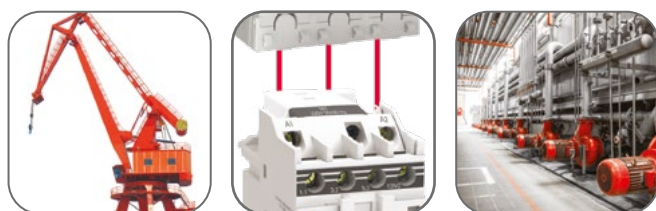
EAC

AL  
Cu

115A-  
630A

The contactors EKF consist of a housing with fixed and movable contacts that are fixed in the movable part of the magnetic system. The fixed part of the magnetic system is fixed rigidly in the housing. The spring prevents the linkage of contacts. When voltage is applied to the control coil, magnetic field occurs in the contactor's magnetic system, which overcomes the resistance of the spring and closes the magnetic system and contacts. When the voltage is disconnected from the control coil, the spring links the contacts. The reverse circuit of the contactors EKF consists of two contactors EKF mounted on two rails, with a mechanical interlock between the contactors that prevents the two contactors from being switched on simultaneously. The contactor terminals are connected by corresponding bars.





### APPLICATION



#### Industry

- Enabling / disabling of machines and equipment, as well as high-precision automatic lines, control and automation solutions.
- Control of lifting mechanisms.
- Illumination switching on / off: industrial, street, office, commercial facilities.
- Commutation of various mechanisms in the residential and utilities sector, commercial real estate and industrial premises (pump stations, electric motor control stations, ventilation, automatic gates and doors), input distribution devices.

### PRODUCT RANGE

Image	Designation	Image	Designation
	Contactors KTE 115 A EKF		Reverse contactors KTE 115 A EKF
	Contactors KTE 150 A EKF		Reverse contactors KTE 150 A EKF
	Contactors KTE 185 A EKF		Reverse contactors KTE 185 A EKF
	Contactors KTE 185 A EKF		Reverse contactors KTE 225 A EKF
	Contactors KTE 265 A EKF		Reverse contactors KTE 265 A EKF
	Contactors KTE 225 A EKF		Reverse contactors KTE 330 A EKF
	Contactors KTE 400 A EKF		Reverse contactors KTE 400 A EKF
	Contactors KTE 500 A EKF		Reverse contactors KTE 500 A EKF
	Contactors KTE 630 A EKF		Reverse contactors KTE 630 A EKF

36

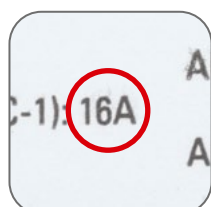
The most up-to-date information is always available by request: [sales@ekfgroup.com](mailto:sales@ekfgroup.com)

ENERGY. KNOWLEDGE. FUTURE.

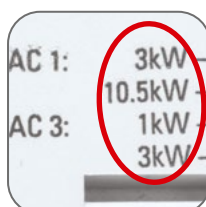
## Modular Contactors KM 16-63A EKF PROXIMA



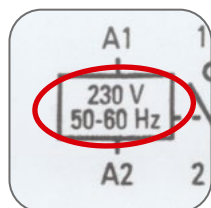
Contactor in a classic modular housing. It consists of fixed contacts, movable contacts that are fixed in the mobile part of the magnetic system. The fixed part of the magnetic system is fixed rigidly in the housing. The spring prevents the contacts from linkage. When voltage is applied to the control coil, magnetic field occurs in the contactor's magnetic system, which overcomes the resistance of the spring and closes the magnetic system and contacts. When the voltage is disconnected from the control coil, the spring links the contacts. Copper and aluminum wire connections are supported.



**Rated current** – the base current value.



**Maximum load power** is the maximum power of the equipment which can be connected to the contact.



**Control coil voltage** – the voltage at which the contactor is switched on.

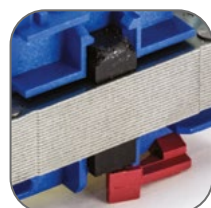
### APPLICATION



Control and automation systems for residential, office, industrial and hospital premises, management:

- lighting;
- heating, including underfloor heating, walls, heaters;
- ventilation;
- pumps.

### ADVANTAGES



Rubber damper reduces noise during operation



Two-position DIN rail clamp



Silver-containing composite on the contact elements




Connecting bridge for quick arc quenching



Contact position indicator

## Enclosed Direct-on-Line Starters KME 9-95A IP65 EKF



IEC 60947-4-1:2018

WARRANTY  
**7**  
YEARS

Al  
Cu

IP65

EAC

The enclosed direct-on-line starter KME EKF is a complete device which consists of contactors, a temperature relay, a shell with gaskets and control buttons. The starters are designed to remotely start direct network connection and stop three-phase asynchronous motors with squirrel-cage rotor for AC voltage up to 400 V, and also to protect motors from overloads of inadmissible duration and overcurrents that occur when one phase is interrupted.

### APPLICATION

- Protection of the electric motor or electrical line against overload and short circuit.
- Gates.
- Ventilation.
- Control of various pumps.
- Lifting mechanism.

### ADVANTAGES


Contactors and thermal relay are pre-installed in the starter housing

Start and Stop buttons at the front plate

Backlit start indicator optional

Motor overload protection

## Enclosed Reverse Direct-on-line Starters KME 9-95A IP44 EKF



IEC 60947-4-1:2018

WARRANTY  
**7**  
YEARS

Al  
Cu

IP44

EAC

The enclosed reverse direct-on-line starters KME IP44 EKF are designed for starting, stopping and reversing the electric motor, as well as for protecting electric motors from overloads and overcurrents that occur when one of the phases is interrupted.

### APPLICATION

- Protection of the electric motor or electric circuits against overload and short circuits.
- Gates.
- Ventilation.
- Control of various pumps.
- Lifting mechanism.

### ADVANTAGES

The reverse circuit performance

Three buttons: "Start", "Stop" and "Reverse"

Metal housing, IP44

Motor overload protection

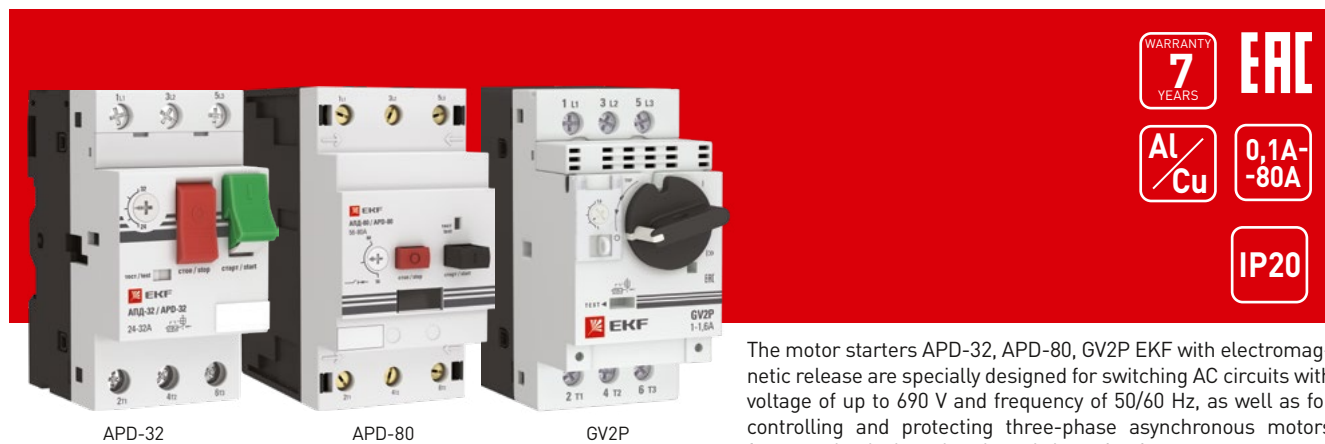
38

The most up-to-date information is always available by request: [sales@ekfgroup.com](mailto:sales@ekfgroup.com)

**ENERGY. KNOWLEDGE. FUTURE.**



## Motor Starters APD-32, APD-80, GV2P EKF



The motor starters APD-32, APD-80, GV2P EKF with electromagnetic release are specially designed for switching AC circuits with voltage of up to 690 V and frequency of 50/60 Hz, as well as for controlling and protecting three-phase asynchronous motors from overload, phase break, and short circuit.

### APPLICATION



Control and protection of pumps in residential buildings and utility services, in suburban and private areas.

- Ventilation systems.
- Gate management.
- Construction control.
- Control of lifting mechanisms.

### ADVANTAGES



Housing made of flame-retardant plastic



Marking plate in the kit



"Test" Button



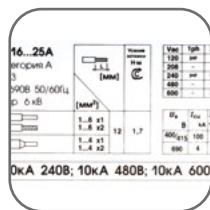
Wide range of accessories



Easy setup of thermal release: scale in amperes



Protection from overloads, phase loss (by thermal current of the remaining two phases), and short-circuits



Detailed information on every slot



Marked terminals



Plate clips for secure wire connection



Copper and aluminum wire connections are supported

## Accessories for motor starters APD-32 EKF



The accessories are designed for monitoring and controlling of electrical equipment assembled based on the APD-32 EKF, and are used in the equipment automation systems. The accessories are not included in the delivery scope and shall be ordered separately. Copper and aluminum wire connections are supported.

IP20

WARRANTY  
**7**  
YEARS

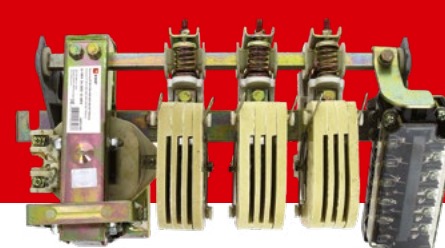
Al  
Cu

EAC

### PRODUCT RANGE

Auxiliary contact DK11 for APD-32	Alarm contact AK-1001 for APD-32	Auxiliary contact BK11 for APD-32	Undervoltage release RMN-22 for APD-32	Shunt release RN-22 for APD-32
				

## Contactors KT-6000 100-630A EKF



IEC 60947-4-1:2018

The contactors KT 6000 EKF consist of a frame, internal fixed non-visible contacts, arc chutes and a static part of the magnetic system, mobile contacts that are fixed in the movable part of the magnetic system. The spring prevents the contacts from linkage. When voltage is applied to the control coil, magnetic field occurs in the contactor's magnetic system, which overcomes the resistance of the spring and closes the magnetic system and contacts. When the voltage is disconnected from the control coil, the spring links the contacts. Copper and aluminum wire connections are supported.

WARRANTY  
**7**  
YEARS

Al  
Cu

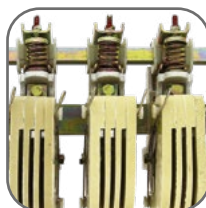
EAC

### APPLICATION

Efficient in adverse conditions:

- lifting mechanisms - antiphase braking;
- escalators;
- street lighting;
- control of electric drives.

### ADVANTAGES



Tripolar version for currents from 100 to 630 A



6 customized auxiliary contacts



Natural air cooling



Arc chute design provides free access to the power contacts

## Contactors KMep 9-95A EKF



IEC 60947-4-1:2018

WARRANTY  
7  
YEARS

Al  
Cu

IP20

EAC

The contactors KMep EKF consist of a housing, fixed internal contacts, and movable contacts that are fixed in the movable part of the magnetic system. The fixed part of the magnetic system is fixed rigidly in the housing. The spring prevents the contacts from linkage. When voltage is applied to the control coil, magnetic field occurs in the contactor's magnetic system, which overcomes the resistance of the spring and closes the magnetic system and contacts. When the voltage is disconnected from the control coil, the spring links the contacts. Copper and aluminum wire connections are supported.

### APPLICATION

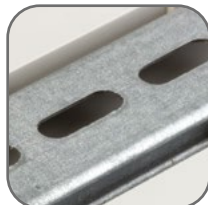


- Enabling / disabling process of machines and equipment, as well as high-precision automatic lines, control and automation solutions.
- Illumination switching on / off: industrial, street, office, commercial facilities.
- Commutation of various mechanisms in residential buildings and utilities, commercial real estate and industrial premises (pumping stations, electric motor control stations, ventilation, automatic gates and doors).
- Production of mass-use equipment: heat guns, heaters, modular air conditioners, electrical equipment for gardens and cottages.

### ADVANTAGES



The housing and movable crossbar are made of heat-resistant plastic



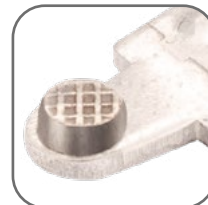
Installation option both on the DIN rail and on the mounting plate



Auxiliary contacts for automation



Marking plate in the kit for identification of contactors in the switchboard



Ribbed surface of auxiliary contacts to increase conductivity and connection reliability



Plate clips for better wire connection



Connecting bridge for rapid arc control



High electrical endurance. The silver-containing composite on the contacts for low transient resistance and high fracture resistance



The magnetic system is equipped with rubber dampers, which reduces the noise during the operation



The core is made of high-quality electrical steel, which allows the coil to reliably keep the contacts in the enabled position at the normal voltage of the control coil



Core of the magnetic system with reduced windage losses



Self-positioning movable contacts. They can swing, are spring-loaded, and have a spherical surface. Copper and aluminum wire connections are supported.

## Mini Contactors MKE 6-16A EKF



The mini contactors MKE EKF consist of a housing, fixed contacts, and movable contacts that are fixed in the movable part of the magnetic system. The fixed part of the magnet system is fixed rigidly in the housing of mini-contactor. The spring prevents the contacts from linkage. When voltage is applied to the control coil, magnetic field occurs in the contactor's magnetic system, which overcomes the resistance of the spring and closes the magnetic system and contacts. When the voltage is disconnected from the control coil, the spring links the contacts. Copper and aluminum wire connections are supported.

### APPLICATION



The contactor is optimal for limited-space installations:

- conditioners;
- home appliances, underfloor heating;
- lighting;
- low-power motor control.

### ADVANTAGES



High electrical endurance. The silver-containing composite on the contacts for low transient resistance and high fracture resistance



Universal fastening: mounting on DIN rail and mounting plate



Plate clips for reliable wire connection



Auxiliary contacts for automation systems



Marking plate in the kit for identification of contactors in the switchboard



Compact dimensions



## Interface Relays 5-10A EKF



10A

WARRANTY  
7  
YEARS

EAC

Al  
Cu

SERVICE LIFE  
>20  
YEARS

IP20

Interface relays RP-22 and RP-25 EKF are designed for currents up to 10 A, and can be equipped with relay sockets RM-22 and RM-25 for mounting onto 35 mm DIN rail. Terminals, switching contacts, and coils are mounted on the relay sockets. Copper and aluminum wire connections are supported.

### APPLICATION

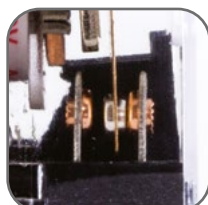
The interface relays RP-22 and RP-25 EKF are used in AC control circuits up to 230 V and DC circuits up to 24 V, and in automation systems and control cabinets:

- for linkage and disconnection of power circuits up to 10 A;
- galvanic isolation;
- control commands transfer from the controller to the actuators.

### ADVANTAGES



Silver-containing contacts for extending the lifetime of the device



High rated currents (use in circuits up to 10 A)



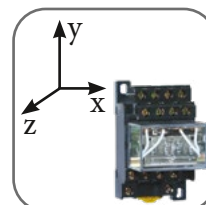
Small sizes



DIN rail mounting option



Mounting plate optional (with relay sockets)



Any position in space

### PRODUCT RANGE









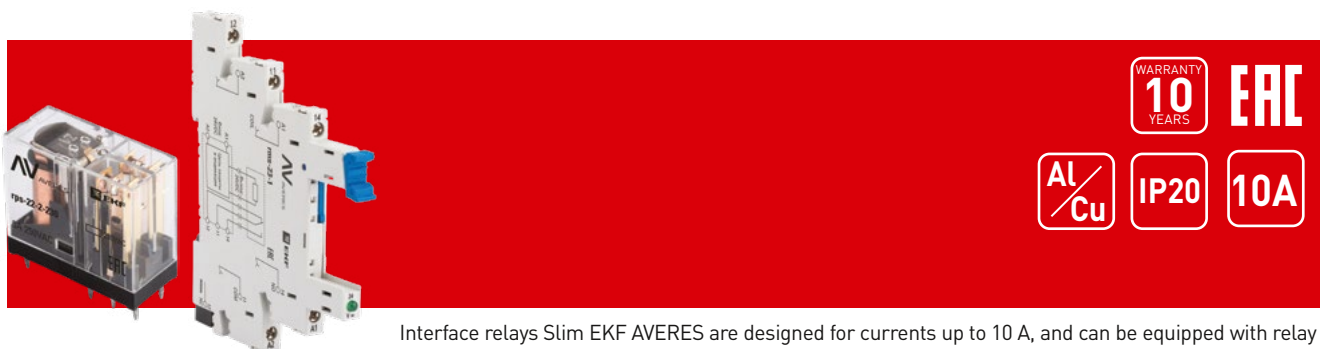
Image	Designation
	Interface relay 22/3 5 A 12 V AC EKF
	Interface relay 22/3 5 A 12 V DC EKF
	Interface relay 22/3 5 A 24 V AC EKF
	Interface relay 22/3 5 A 24 V DC EKF
	Interface relay 22/3 5 A 230 V AC EKF
	Interface relay 22/4 5 A 12 V AC EKF
	Interface relay 22/4 5 A 12 V DC EKF
	Interface relay 22/4 5 A 24 V AC EKF
	Interface relay 22/4 5 A 24 V DC EKF
	Interface relay 22/4 5 A 230 V AC EKF
Image	Designation
	Relay sockets 22/3 EKF
	Relay sockets 22/4 EKF

Image	Designation
	Interface relay 25/3 10 A 12 V AC EKF
	Interface relay 25/3 10 A 12 V DC EKF
	Interface relay 25/3 10 A 24 V AC EKF
	Interface relay 25/3 10 A 24 V DC EKF
	Interface relay 25/3 10 A 230 V AC EKF
	Interface relay 25/4 10 A 12 V AC EKF
	Interface relay 25/4 10 A 12 V DC EKF
	Interface relay 25/4 10 A 24 V AC EKF
	Interface relay 25/4 10 A 24 V DC EKF
	Interface relay 25/4 10 A 230 V AC EKF
Image	Designation
	Relay sockets 25/3 EKF
	Relay sockets 25/4 EKF



## Interface Relays 5-10 EKF AVERES



Interface relays Slim EKF AVERES are designed for currents up to 10 A, and can be equipped with relay sockets RM-22 and RM-25 for mounting onto 35 mm DIN rail. Terminals, switching contacts, and coils are mounted on the relay sockets. Copper and aluminum wire connections are supported.

### APPLICATION



The interface relays Slim EKF AVERES are used in AC control circuits up to 230 V and DC circuits up to 24 V, and in automation systems and control cabinets:

- for linkage and disconnection of power circuits up to 10 A;
- galvanic isolation;
- control commands transfer from the controller to the actuators.

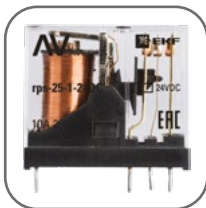
### ADVANTAGES



The high silver content in the contacts



15.6 and 6.3 mm versions



Switching currents up to 6 A



Convenient mounting hole




Relay retainer



DIN rail mounting option

### PRODUCT RANGE

Image	Designation	Image	Designation
	Interface relay Slim 25/1 10A 24V DC EKF AVERES		Relay socket Slim 25/1 EKF AVERES
	Interface relay Slim 25/1 10A 230V AC EKF AVERES		Relay socket Slim 22/2 EKF AVERES
	Interface relay Slim 22/2 5A 24V DC EKF AVERES		Relay socket Slim 23/1 EKF AVERES
	Interface relay Slim 22/2 5A 230V AC EKF AVERES		
	Interface relay Slim 23/1 6A 24V DC EKF AVERES		

## Solid State Relays 25-80 A



**WARRANTY 7 YEARS**

**ERC**

**80A**

**Al/Cu**

The Solid state relays provide contactless switching of power circuits in the most widespread industrial current ranges (up to 80 amperes) of the resistive or inductive load type. Remote control allows to avoid sparks and arcs, and also increases the speed and frequency of the relay operation. By the control type, the solid state relays are classified into phase-controlled relays (LA) and zero-switched relays (DA and AA). The phase control allows the smooth and discontinuous control, and switching the load when the voltage passes through neutral minimises electromagnetic disturbances. The cooling elements are used to remove heat generated by a solid-state relay. The cooling elements are required if the current in the power circuit of a solid-state relay is five or more amperes. Otherwise, the relay may fail as a result of overheating.

### APPLICATION




The solid-state relay EKF is used for smooth load regulation, switching of power circuits and AC control circuits up to 480 V. It is used in automation systems and control cabinets.

- Smooth lighting control.
- Smooth control of heating elements.
- Frequent load switching.
- Frequent switching in control circuits.

### ADVANTAGES



The compound provides additional protection from moisture, dust and overheating



Indication of the relay operation



Zero noise operation



No sparks







No surge when switching



Any position in space

### PRODUCT RANGE

Cooling elements			
25 A	40 A	60 A	120 A
			

## Capacitor contactors



The capacitor contactors KMEK are two-stage contactors for capacitors switching in the power factor correction units. The capacitor contactors KMEK consist of fixed and movable contacts that are fixed in the movable part of the magnetic system. The charging resistors are connected to the first row of contacts. The fixed part of the magnetic system is fixed rigidly in the housing. The spring prevents the contacts from linkage. When voltage is supplied to the control coil, magnetic field occurs in the contactor's magnetic system, which, overcoming the resistance of the spring, closes the magnetic system and the upper group of contacts first and after 0.1-0.2 sec. – the second power group of contacts. In this case, the in-rush starting current of the capacitors is extinguished by the resistors. When the voltage is disconnected from the control coil, the spring links the contacts. Copper and aluminum wire connections are supported.

### APPLICATION



#### Industry:

- The capacitor contactor is used in regulated and unregulated reactive power factor correction devices for switching of cosine capacitors.

### ADVANTAGES



The core is made of high-quality electrical steel, which allows the coil to reliably keep the contacts in the enabled position at the normal voltage of the control coil



High electrical endurance. The silver-containing composite on the contacts for low transient resistance and high fracture resistance



Additional group of contacts by the charging resistors reduces the in-rush currents and increases electrical endurance



Marking plate in the kit for identification of contactors on the switchboard



Ribbed surface of auxiliary contacts to increase conductivity and connection reliability



Plate clips for reliable wire connection. Copper and aluminum wire connections are supported



The bridge contact creates conditions for rapid arc control



The housing and movable crossbar are made of heat-resistant plastic.



The magnetic system is equipped with rubber dampers, that reduces noise during the operation



Auxiliary contacts for automation



Core of the magnetic system with reduced windage losses



**Self-positioning movable contacts.** They can swing, are spring-loaded, and have a spherical surface.

## Accessories for contactors KME, KTE and KT-6000 EKF

The accessories are designed to expand the use of contactors in the process automation systems, facilitate installation and significantly simplify the operation of electrical installations, providing flexibility and adaptability in accordance with the customer's specifications.

Copper and aluminum wire connections are supported.



### Auxiliary contact block PKE



Auxiliary contact block PKE is designed to increase the number of auxiliary contacts for contactors EKF. Each of the contactors support the installation of 2 or 4-contact block with a different set of opening and closing contacts. The auxiliary contact blocks are mechanically connected to the contactors and secured with a clip.

### Mechanical interlock



The mechanical interlock is designed to prevent simultaneous disconnection of the contactors on a common platform in reverse circuits and low voltage automatic transfer systems. Mechanical and electrical interlocks can be installed together. The mechanical interlock shall be installed on the side of the contactor, between two contactors.

### Time delay attachment



Used get the delay of the auxiliary circuit closing or opening from 0.1 to 180 s. The accessory has one normally open (NO) and one normally closed (NC) contact. The contact attachment is mechanically connected to the contactors and it is fixed with the latch. The mounting method ensures a rigid and reliable connection between the attachment and the contactor.

### Set of copper busbars for revers KTE



A set of copper busbars is designed for the assembly of the reverse circuit on the contactors.

### Mounting rails



The DIN rails are designed to connect contactors for assembly of a reverse circuit or low voltage automatic transfer system, serving as an installation platform.

### Mechanical interlock for KME



The mechanical interlock is designed to prevent simultaneous disconnection of the contactors on a common platform in reverse circuits and low voltage automatic transfer systems. Mechanical and electrical interlocks can be installed together. The mechanical interlock shall be installed on the side of the contactor, between two contactors.

### Set of power contacts



The set of power contacts includes spare power contacts to replace those already used.

### Motor protection relay MPR EKF



The motor protection relay MPR is designed for continuous monitoring and protection of three-phase asynchronous motors with a short-circuited rotor against overloads, load asymmetry, and phase break.

Motor protection relay MPR can be mounted on either 35 mm DIN rail (20 and 80 A motor protection relay) or mounting plate (200 and 400 A motor protection relay).



## Thermal relay

(IEC 60947-4-1: 2009)

The thermal relays of the thermal relay EKF PROXIMA series are designed to protect three-phase asynchronous motors with a short-circuited rotor from current overloads of unacceptable duration, as well as those that occur when one of the phases fails. Thermal relay-1XXX — thermal relay-3XXX are used as components in electric drive control circuits together with contactors of the Small contactors EKF PROXIMA series. The thermal relay-4XXX and thermal relay-5XXX are used as components in control circuits of electric drives together with contactors of the contactors EKF PROXIMA series. All thermal relays EKF PROXIMA correspond to the 10th class.

Thermal relays EKF



## Control coil KME

Control coil KME



## Control coil KTE

Control coil KTE



The coils are designed to control contactors by the voltage supply to the coil.

## Control coil KT-6000



The coils are designed to control contactors by the voltage supply to the coil.

## Auxiliary side contacts KME



The additional side contacts for Small contactors PROXIMA and Basic are designed to increase the number of auxiliary contacts for contactors with a nominal value up to 65A inclusively. Up to two side contacts with different kits of opening and closing contacts can be installed on each of the contactors. In case of two-side contacts installation, it is not possible to use a lockout device. The side contacts of the additional side contact for Small contactors are mechanically connected to the contactors and fixed by a clip.

## Relay holder

Thermal relay 1304-1322	Thermal relay 2353-2355	Thermal relay 3353-3365
		

Holders to the thermal relay are used for separate, independent installation of the thermal relay in the electrical circuits.

## Arc chute for KT-6000



The arc quench chambers are spare parts for the contactors KT-6000 EKF PROXIMA. They are made to replace failed arc quench chamber. The distinctive features are: heat resistance, environmental friendliness, electrical insulation properties.



## Frequency Converters VECTOR-100



0,4 – 2,2 kW      4 – 7,5 kW      11 – 400 kW

WARRANTY  
**3**  
YEARS

SERVICE LIFE  
**>10**  
YEARS

**EAC**

LIQU  
DISPLAY

FOR  
1P \ 3P  
NET

MICROPROCESSOR  
DEVICE

AL  
Cu

The industrial VEKTOR-100 EKF PROXIMA variable speed drives provide precise motor speed maintenance in accordance with the external factors, as well as reduction of power consumption by 30 percent or more. They are produced at rated capacities from 0.4 to 400 kW. Aluminum and copper commutation is possible.

### APPLICATION



The industrial VEKTOR EKF PROXIMA variable speed drives are used in ventilation automation systems, pumping equipment, electric drive systems for conveyors, elevators, etc. The model provides:

- smooth start of the electric motor;
- speed control of the electric motor;
- protection of the electric motor from overloads;
- reduction of in-rush starting current;
- Conversion of a single-phase network to a three-phase network (single-phase converters).

### ADVANTAGES

- Two motor control modes: scalar-V/f and vector - free without feedback.
- The starting moments of 150% 0.25 Hz for use in conveyor belt lines and other devices critical to starting moments.
- The overloads of up to 150% are allowed for 60 seconds, it is possible to use with more powerful engines.
- Built-in RS-485 interface with Protocol support
- Modbus for integration into dispatching systems.
- Ambient temperature from -10 to +50°C for operation in control cabinets with a large number of additional equipment.
- Built-in programmable controller for the setup of the simplest control algorithms.
- The remote display for installation on the nameplate of the control panel and access restriction of the service personnel inside the cabinet.



Free management software and programming



Boards are covered with lacquer



The location of the tanks does not interfere with air convection



Cable come in set



Control panel in the kit



Fan mount, easy to remove for replacement, standard size

ENERGY. KNOWLEDGE. FUTURE.

The most up-to-date information is always available by request: [sales@ekfgroup.com](mailto:sales@ekfgroup.com)

49

## EMS Filters



3  
PHASE

WARRANTY  
7  
YEARS

EAC

The EMC filters for the EKF PROXIMA variable speed drives work on the basis of passive elements: capacitors, resistors and inductors. EMC filters are required to comply with electromagnetic compatibility in places with high network requirements (hospitals, data centers, laboratories, etc.) in terms of the harmonics. Three-phase EMC filters for the EKF PROXIMA variable speed drives can significantly reduce the interference in a given frequency range.

### APPLICATION



EMC filters for the EKF PROXIMA variable speed drives provide protection against interference from the converter and can be used in systems that have high requirements for noise protection:

- hospitals;
- laboratories;
- data-centers.

### ADVANTAGES



Box frame



High resistance-  
stability isolation



Against power surges  
up to 1500 V

### PRODUCT RANGE




Image	Designation
	EMS filters for frequency converters 0,75-1,5 kW
	EMS filters for frequency converters 2,2-4 kW
	EMS filters for frequency converters 5,5-7,5 kW
	EMS filters for frequency converters 11-15 kW
	EMS filters for frequency converters 18,5-22 kW

Image	Designation
	EMS filters for frequency converters 30-37 kW
	EMS filters for frequency converters 45 kW
	EMS filters for frequency converters 55 kW
	EMS filters for frequency converters 75 kW

## Automatic Transfer Switch TCP1


SHELF LIFE  
**5**  
YEARS

WARRANTY  
**5**  
YEARS

SERVICE  
**10**  
YEARS

IP00

AL  
Cu

EAC

The low voltage automatic transfer switch of TSR1 EKF PROXIMA is designed to provide backup power supply to the load circuit which is connected to the power supply system with the main and backup inputs. The low voltage automatic transfer switch automatically connects the backup power line in case of a power failure on the main line.

### Design and operating principle

The low voltage automatic transfer switch TSR1 EKF PROXIMA is made in the form of a monoblock and consists of a contact block and a control unit. The control unit has a manual shift lever, a locking mechanism for switching to manual or automatic control modes, and a locking mechanism that provides switching blocks for the device of low voltage automatic transfer switch.

The contact block case is made of heat-resistant ABS plastic. The switching mechanism provides for the transfer of bridge-type contact groups that close the circuits, either the main line or the backup line, and there is a position when both lines are disconnected.

An electric motor, drive mechanism and control relay are mounted in the metal case of the control unit.

The control relay is supplied from the main input line L3. If there is a voltage on the L3 line of the main input, the control relay supplies voltage to the electric motor, which closes the contact groups of the main input and is switched off by the limit switch after the main contacts are closed. An attempt to manually switch the input leads to activation of the electric control motor, which returns power from the main input. If the main input voltage is lost, the control relay will supply the voltage from the main input to the control motor. The operation of the low voltage automatic transfer switch from the backup input is similar to the operation of the low voltage automatic transfer switch from the main input. When a voltage appears on the main input, the low voltage automatic transfer switch automatically switches to the main input.

### APPLICATION



Mandatory load redundancy for the consumers of category I:

- hospitals;
- large-scale metallurgical production (for example, blast furnace, steel continuous casting plants);
- transport infrastructure;
- objects of the Ministry of defense of the Russian Federation;
- thermal stations
- fire protection systems;
- agricultural farms.

Desirable application of low voltage automatic transfer switch for the consumers of category II:

- Assembly line of automobile plants and other industries;
- administrative buildings;
- as input circuit breakers in the electrical switchboard;
- for provision of civil residential construction and commercial construction projects.

### ADVANTAGES



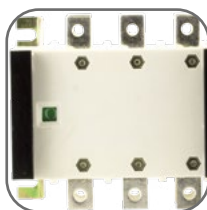
Manual activation lock



Manual and automatic modes



Simple design



Commutation mechanism - reverse circuit breaker



Copper and aluminum wire connections are supported

## Automatic Transfer Switch TCM



The EKF PROXIMA TSM low voltage automatic transfer switch is designed to provide backup power supply to a load connected to a power supply system which has a main and backup inputs. The low voltage automatic transfer switch automatically connects the backup power line in case of a power failure on the main line. The low voltage automatic transfer switch TSM has the function of protection against overload currents and short circuits of distribution networks and electric motors.

The low voltage automatic transfer switch TSM can be configured by several switching programs.

### A. Supply lines: power grid – power grid:

- The automatic switching to backup power line when the parameters of the main feeder electric line beyond the limits, auto reset from the reserve line to the main line after the settings restore of the main line within the established limits. The delay time setting for switching between electrical lines;
- automatic switching to the second electric line when the parameters of the first power supply line go beyond the set limits, without automatic return from the second line to the first one after the parameters restore of the first

line within the set limits. Switching to the first line occurs automatically after the parameters of the second power supply line exceed the set limits. The delay time setting for switching between the electric lines;

- manual switching between the power supply lines.

### B. Supply lines: power grid – generator:

The automatic switching to backup power generator when the parameters of the main feeder electric line beyond the limits, auto reset from the reserve generator to the main line after the settings of the main line restore within the established limits. The time delay settings for switching between the electrical lines;

- manual switching between the power supply lines.

### Design and main functions.

The low voltage automatic transfer switch is made in the form of a monoblock and consists of a contact block, a control unit and two power power switches in a cast case. The control unit has a manual shift lever. This design has the option to reduce the installation height and area of the low voltage automatic transfer switch.

## APPLICATION



Mandatory load redundancy for the consumers of category I:

- hospitals;
- large-scale metallurgical production (blast furnace, steel continuous casting plants);
- transport infrastructure;
- objects of the Ministry of defense of the Russian Federation;
- thermal stations
- fire protection systems;
- agricultural farms.

Desirable application of low voltage automatic transfer switch for the consumers of category II:

- Assembly line of automobile plants and other industries;
- administrative buildings;
- as input circuit breakers in the electrical switchboard;
- for provision of civil residential construction and commercial construction projects.

## ADVANTAGES



Compact design:  
monoblock



Manual and remote  
control



Ability to configure  
security settings



There is a protection  
against short-circuits  
and overload currents



Protection  
from the phase-to-  
phase short-circuit:  
mechanical  
and electrical  
blockings



Control: advanced  
multi-function  
controller



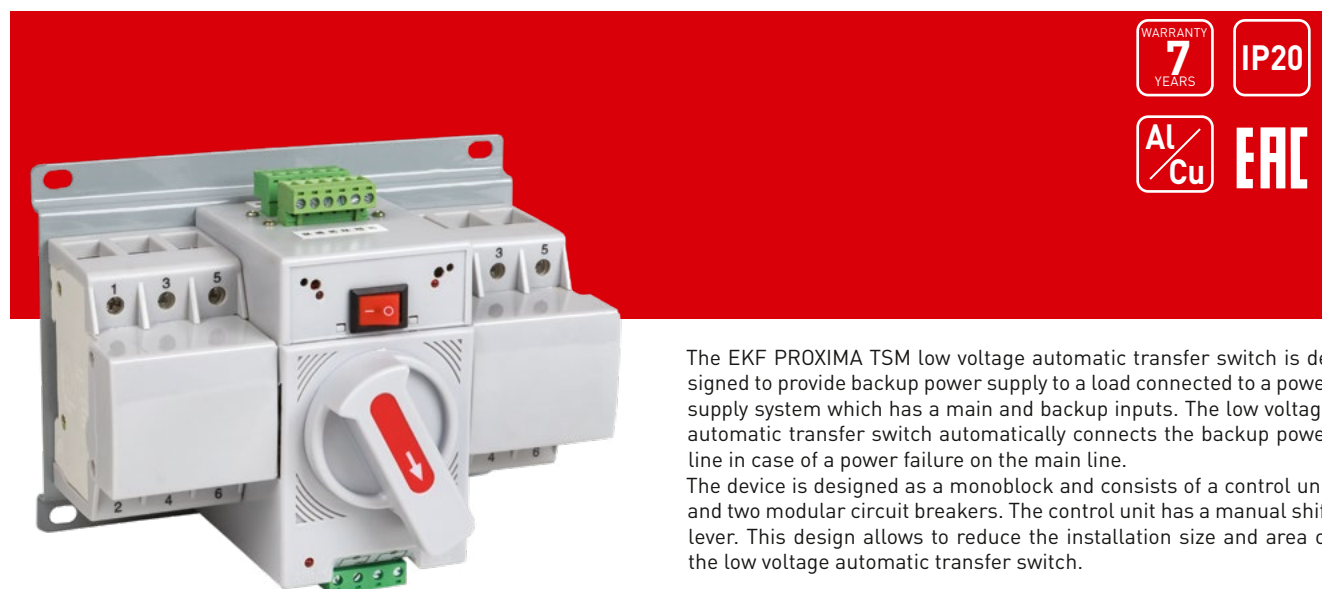
## Accessories for automatic transfer switch TSM

### Cable for controller remote installation of automatic transfer switch TSM



The controller cable is used for remote connection of the controller to the low voltage automatic transfer switch TSM.

## Automatic Transfer Switch MCB



The EKF PROXIMA TSM low voltage automatic transfer switch is designed to provide backup power supply to a load connected to a power supply system which has a main and backup inputs. The low voltage automatic transfer switch automatically connects the backup power line in case of a power failure on the main line. The device is designed as a monoblock and consists of a control unit and two modular circuit breakers. The control unit has a manual shift lever. This design allows to reduce the installation size and area of the low voltage automatic transfer switch.

## APPLICATION



Desirable application of low voltage automatic transfer switch for the consumers of category II:

- secondary production loads
- administrative buildings;
- as input circuit breakers in the electrical switchboard;
- civil and commercial construction projects;
- private agricultural production.

## ADVANTAGES



Manual and automatic modes



Compact version



Provision of protection against short-circuit currents and overloads



Mechanical blocking



Copper and aluminum wire connections are supported



## Electronic Timer EKF



Electronic timer with LCD display series electronic timer TE-80 EKF PROXIMA is a relay, which moment of operation (on/off) is set by the installation of the required day time. The timers have a clock in their design, which allows you to track the current time. In addition, the timers are equipped with the pulse function, which allows you to generate a pulse length of 1-99 seconds. For example, you can use this function to send school calls. Aluminum and copper wire switching is possible.

### APPLICATION

The electronic timers with an LCD display of the electronic timer TE-80 EKF PROXIMA series are used in the industrial and household segments. Designed for:

- commutation of a single-phase load in accordance with the specified parameters;
- contactor and starter controls;
- countdown of the specified exposure time;
- the load enabling and disabling by day of the week and time of a day.

### ADVANTAGES



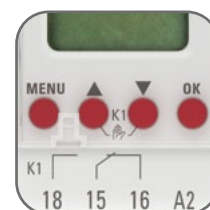
Option of sealing



Universal power supply



Protective cover



Manual control relay

## Astronomical timer TM-AS EKF



Astronomical timer TM-AS EKF PROXIMA is a relay with two independent groups of contacts, which moment of operation (switching on/off) occurs at the time of sunset and sunrise in accordance with the coordinates of the location. The timer can be triggered (80 programs) at a given time and day of the week. The timer includes a clock, which allows you to track the current time.

### APPLICATION

Astronomical timer TM-AS EKF PROXIMA is used in industrial and household segments: in lighting systems (outdoor lighting of streets, squares, courtyards, illumination, billboards), ventilation and heating. Designed for:

- enabling and disabling the load at the time of sunset and dawn;
- the time calculation of sunset and sunrise;
- direct commutation of a single-phase load in accordance with the specified parameters;
- contactor and starter controls;
- countdown of the specified exposure time;
- the load enabling and disabling by day of the week and time of a day.

### ADVANTAGES

1. The ability to work on the time of dawn and sunset.
2. Two independent channels.



Task up to 80 programs



Real-time clock works for 10 YEARS without power supply



Secure mounting of conductors up to 4 mm<sup>2</sup>



Universal power supply A1 and A2



Option of sealing



Cast front panel

## Multi-function timer TM-24 EKF



The multi-function timer TM-24 EKF PROXIMA is a relay with two independent groups of contacts, which moment of operation (switching on/off) occurs in accordance with the set time t1 and t2 and the selected function (24 functions). Aluminum and copper wire switching is possible.

### APPLICATION

The multi-function timer TM-24 EKF PROXIMA is used in industrial and household segments: in lighting systems (presence indication), ventilation and heating. Designed for:

- switching on and off the load in accordance with a given program (cyclic operation, pulse relay, switching delay, etc.);
- direct switching of a single-phase load in accordance with the-the given parameters;
- contactor and starter controls;
- countdown of the specified exposure time;

### ADVANTAGES

- 24 functions.
- Two independent channels.



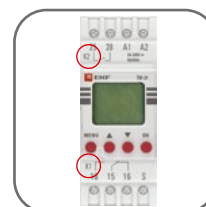
Two built-in relays for currents up to 8 A



Universal power supply A1 and A2



Option of sealing



Two independent channels

## Timer relay (for motors "star-triangle") RT-SD EKF



The RT-SD EKF PROXIMA time relay is manufactured on the basis of a microcontroller and is an electronic communication device for starting an electric motor by the "star-triangle" method. This method of the engine launch allows to reduce the starting currents of the engine, create a smoother start and thereby extend its lifetime.

### APPLICATION

The RT-SD EKF PROXIMA time relay is designed for high-power industrial equipment engines with high starting currents. The relay performs the following functions:

- switching the engine operation from the «star» to the «triangle» mode;
- time delay in case of the engine start in the «star» mode;
- time delay in case of switching from the «star» to the «triangle» mode.

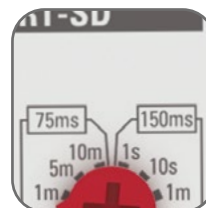
### ADVANTAGES



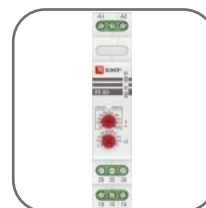
Adjustment interval presets delay time for the mode shutdown «star»



Time adjustment, from 10 to 100% of the preset

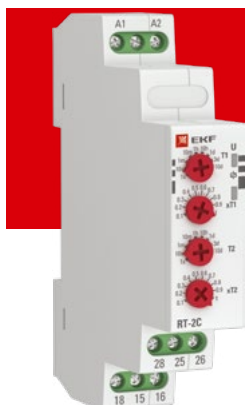


Time adjustment, switching from the mode «star» on the mode «triangle»



Width 18 mm

## Time relay RT-2C EKF



The RT-2C EKF PROXIMA time relay is an electronic switching device with adjustable time settings. The relay has settings for two time intervals (on/ off) T1 and T2. The time ranges are switched by the rotary switches located on the front surface of the relay. Aluminum and copper commutation is possible.

### APPLICATION

RT-2C EKF PROXIMA time relays are used in industrial and civil areas, where a delay in switching on/off time is required, and cyclic operation of equipment is required.

Purpose:

- control of commutation equipment (contactors, starters, relays);
- count of two time intervals;
- a scheme circular operation design.

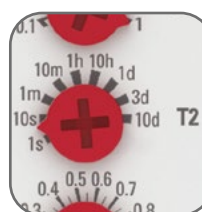
### ADVANTAGES



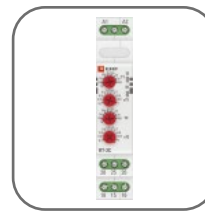
Pre-adjustment-  
installation-  
independent-time  
delay for switching  
on T1



Possibility of  
adjustment of the  
time from 10 to 100%  
of the preset

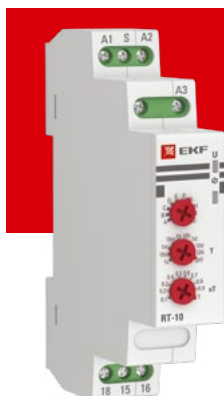


Possibility of inter-for  
the two of on/ off time  
intervals



Size in 1 module

## Time relay RT-10 EKF



The RT-10 EKF PROXIMA multi-function time relay is an electronic switching device with adjustable operating modes and adjustable time setting. The time ranges switching and modes operation is performed by the rotary controls located on the front surface of the relay. Aluminum and copper wire switching is possible.

### APPLICATION

The RT-10 EKF PROXIMA multi-function time relay is used in industrial, administrative, and residential buildings to control equipment, where a delay in the on/off time and cyclic operation of the equipment are required.

Purpose:

- commutation equipment management;
- count of two time intervals;
- scheme circular operation design.
- load control by additional signal;
- operation in a pulse relay mode.

### ADVANTAGES



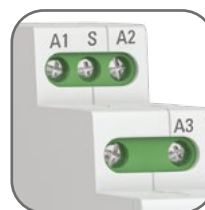
Possibility to choose  
any out of 10 functions



Possibility of  
adjustment time  
interval presets



Possibility of adjust  
the power time from  
10 to 100% of the  
preset



Possibility to the  
activation on the front  
and the rear edges of  
the pulse S

## Time relay RT-SBA (on-delay) EKF

## Time relay RT-SBB (on-pulse) EKF

## Time relay RT-SBE (no-signal off-delay) EKF



The time relay is an electronic switching device with an adjustable time settings that work for the launch. The time range is switched by a rotary controller which locates on the front surface of the relay.

### APPLICATION

The multi-function time relay is used in industrial, administrative, and residential buildings for the equipment control, where it is necessary to turn on the equipment on the leading edge of the control signal, and turn off the equipment with a time delay.

Purpose:

- the load activation by a signal and the launch delay when the signal is lost;
- control of commutation equipment (contactors, starters, relays);
- time intervals count in accordance with a signal.

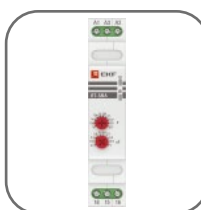
### ADVANTAGES



Option to adjust the preset time interval



Option to adjust the time from 10 to 100% from pre-installed



Width 18 mm



Option of forced switch-on and shutdown

## Motor protection relay MPR EKF



The motor protection relay of the MPR EKF PROXIMA series is designed for continuous monitoring and protection of three-phase asynchronous motors with a short-circuited rotor against overload, load asymmetry, and phase breakage.

The motor protection relay of MPR EKF PROXIMA series can be installed on either a 35 mm DIN rail (20 A and 80 A motor protection relays) or on a mounting plate (200 A and 400 A motor protection relays). Aluminum and copper wire switching is possible.

### APPLICATION

The motor protection relay of the MPR EKF PROXIMA series is used in the industrial sector to protect high-power electric motors with rated currents up to 400 A and performs the following functions:

- motor overload protection;
- protection against load asymmetry;
- protection in case of phase conductor breakage;
- commutation equipment management;

### ADVANTAGES



Convenient holes for connection of current-carrying cables



Engine monitoring with rated current up to 400A




Classes of operation: 5-30



Indication of modes operation



## Phase monitoring relay with LCD display (with neutral) RKF-2S EKF



LIQU  
DISPLAY

Al  
Cu

5A

WARRANTY  
7  
YEARS

EAC

FOR  
3P  
NET

MICROPROCESSOR  
DEVICE

SERVICE  
>10  
YEARS

IP20

The RKF-2S EKF PROXIMA multi-function phase control relay with a liquid crystal display is a microcontroller-based device. The relay has option to display the voltage in relation to phase and zero (operation in voltmeter mode), allows to set the turn-on delay time at the first turn-on or after an emergency, allows you to turn on or off the automatic turn-on mode after an emergency occurs, allows you to turn on or off the voltage monitoring functions and phase alternation.

### APPLICATION

The phase control relay is designed for use in relay automation systems (motor protection, low voltage automatic transfer switch, etc.) and performs the functions of the main network parameters control:

- absence of phases;
- voltage drops with delayed response time;
- voltage increases with delayed response time;
- voltage asymmetries with delayed response time;
- phase sequences;
- the presence of a neutral conductor;

### ADVANTAGES



Easy control and adjustment of parameters



Phase-by-phase voltage display




Separate contacts NO and NC



Indication of the current failure on the display

## Multifunctional phase monitoring relay RKF-8 EKF



Al  
Cu

5A

WARRANTY  
7  
YEARS

EAC

FOR  
3P  
NET

MICROPROCESSOR  
DEVICE

SERVICE  
>10  
YEARS

IP20

The multi-function phase control relay RKF-8 EKF PROXIMA is a microprocessor-based device used in automation systems and is designed to monitor the quality of the network voltage in electrical installations up to 1000 V AC of a three-phase network. The relay has an informative Led display and adjustment screws on the front panel for the adjustment of the required user ranges. Aluminum and copper wire switching is possible.

### APPLICATION

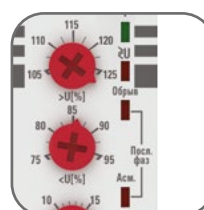
The RKF-8 EKF PROXIMA multi-function phase control relay is designed for use in the relay automation

- systems and performs the function of the main network parameters control:
- absence of phases;
- voltage drops with delayed response time;
- voltage increases with delay of response time;
- voltage asymmetries with delayed response time;
- phase sequence.

### ADVANTAGES



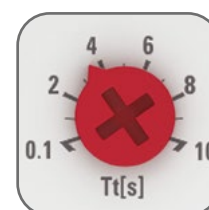
Separate contacts NO+NC



Indication of current failures



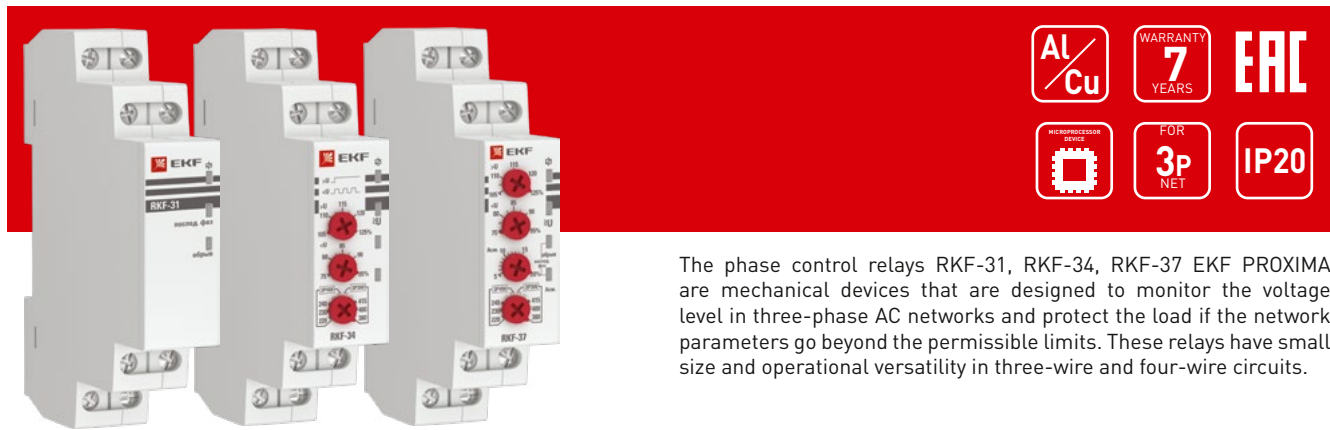
Possibility of asymmetry threshold settings 5-20%



Possibility of actuation delay settings 0.1-10 sec.



## Phase monitoring relays RKF-31, RKF-34, RKF-37 EKF



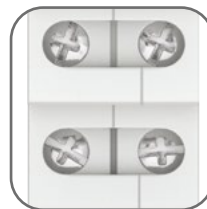
The phase control relays RKF-31, RKF-34, RKF-37 EKF PROXIMA are mechanical devices that are designed to monitor the voltage level in three-phase AC networks and protect the load if the network parameters go beyond the permissible limits. These relays have small size and operational versatility in three-wire and four-wire circuits.

### APPLICATION

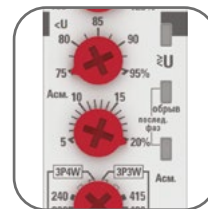
The phase control relay is designed for use in relay automation systems (motor protection, low voltage automatic transfer switch, etc.) and performs the functions of the main network parameters control:

- absence of phases;
- voltage drops with delayed response time;
- voltage increases with delayed response time;
- voltage asymmetries with delay response time.

### ADVANTAGES



Separate NO+NC contacts instead of one C/O

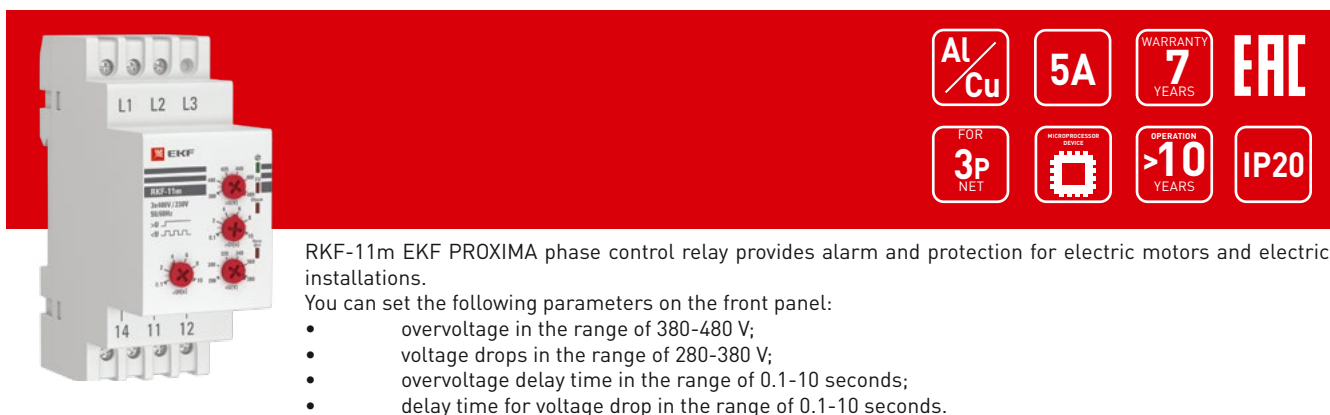


Setting of a minimum and maximum phase sequence



Led indication

## Phase monitoring relay RKF-11m EKF



RKF-11m EKF PROXIMA phase control relay provides alarm and protection for electric motors and electric installations.

You can set the following parameters on the front panel:

- overvoltage in the range of 380-480 V;
- voltage drops in the range of 280-380 V;
- overvoltage delay time in the range of 0.1-10 seconds;
- delay time for voltage drop in the range of 0.1-10 seconds.

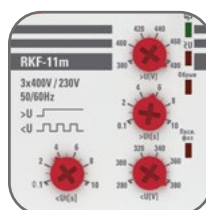
### APPLICATION

RKF-11m EKF PROXIMA phase control relay is designed for the use in relay automation systems (motor protection, low voltage automatic transfer switch, etc.) and performs the function of the main network parameters control:

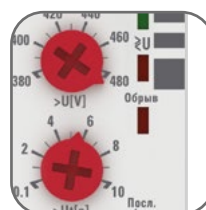
- absence of phases;
- voltage drops with delayed response time;
- voltage increases with delayed response time;
- phase sequence.

### ADVANTAGES

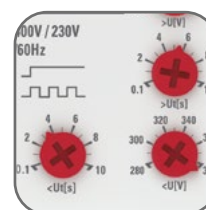
1. Wear resistance: 1 million cycles.
2. Possible adjusting the delay for overvoltage and voltage drop.



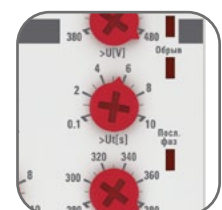
Easy setup, large number of adjustments



Indication of current failures




Possibility of setting over-voltage and drop-voltage delay parameters



Possibility of setting min and max voltage

## Voltage monitoring relay RV-32A EKF



V-32A EKF PROXIMA voltage relay is a microprocessor-based voltage monitoring device for single-phase AC networks designed for protecting electrical installations from voltage surges. A special feature of the relay is its installation principle. The relay is connected directly in the power supply circuit after the input device and protects one outgoing line or a group of lines, working as a controlled contactor.

The relay controls the electrical line voltage within the preset range and, when the voltage goes beyond the range, disconnects the downstream standing protective devices from the power supply network with the set time delay. The relay also allows setting the activation time after an emergency or at the first launch. The voltage range and response time are set with the use of rotary regulators located on the front surface of the relay.

Al/Cu

32A

WARRANTY  
7  
YEARS

EAC

MICROPROCESSOR  
DEVICE

OPERATION  
>10  
YEARS

IP20

### APPLICATION

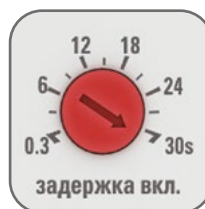
MRV EKF PROXIMA digital voltage relays are used in administrative, industrial, and residential buildings for protection of a single-phase network:

- from undervoltage;
- from overvoltage;
- in case of zero interruption.

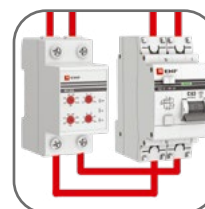
### ADVANTAGES



Overvoltage and undervoltage regulation




Adjustment of the delay of activation and shutdown



Looping connection

## Voltage monitoring relay RV-5A EKF



V-54 EKF PROXIMA voltage relay is a microprocessor-based voltage monitoring device for single-phase AC networks designed for protecting electrical installations from voltage surges.

The relay controls the electrical line voltage within the set range and disconnects the equipment from the power supply with the specified time delay when the voltage exceeds the range. Voltage range and response time are set with rotary regulators located on the cast surface of the relay.

Al/Cu

5A

WARRANTY  
7  
YEARS

EAC

MICROPROCESSOR  
DEVICE

OPERATION  
>10  
YEARS

IP20

### APPLICATION

Voltage relays are used in industrial, administrative, and residential buildings to control commutation equipment (contactors, starters, and relays), where the control of voltage parameters is required. The relays perform the following functions:

- protection of a single-phase network from power surges;
- protection of a single-phase network from undervoltage;
- protection of a single-phase network from overvoltage;
- control of the commutation equipment.

### ADVANTAGES



Possible adjustment of the overvoltage value



Possible adjustment of the undervoltage value



Possible adjustment of the actuation delay time



Easy setup

## Voltage monitoring relay MRV EKF



MRV EKF PROXIMA digital voltage relay is a microprocessor-based voltage monitoring device for single-phase AC networks designed to protect electrical installations from voltage surges. The device analyzes the power supply voltage and displays its current value on a digital display. The electromagnetic relay maintains the load commutation. The permissible limits and the activation delay time are set by the user with the buttons. The values are stored in non-volatile memory.

### APPLICATION

MRV EKF PROXIMA digital voltage relays are used in administrative, industrial, and residential buildings for protection of a single-phase network:

- from power surges;
- from undervoltage;
- from overvoltage;
- in case of zero interruption;
- work in a voltmeter mode.

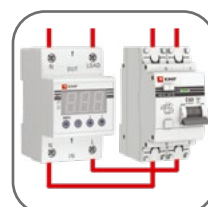
### ADVANTAGES



Possible adjustment of the relay activation delay



Display of the current voltage value on the electronic display



Looping connection without the use of auxiliary relays up to 63 A



Built-in high-current relay

## Voltage & current monitoring relay with display MRVA EKF



MRVA EKF PROXIMA digital voltage relay is a microprocessor-based device for monitoring voltage and current in single-phase AC circuits. The device analyzes the power supply voltage and current, and displays its current value on a digital display. The electromagnetic relay maintains the load commutation. The permissible limits and the activation delay time are set by the user with the buttons. The values are stored in non-volatile memory.

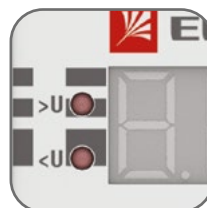
### APPLICATION

- MRVA EKF PROXIMA digital voltage relays are used in administrative, industrial and residential buildings and performs the protection function:
- single-phase network from voltage surges;
- single-phase network from undervoltage/overvoltage;
- from overload currents;
- single-phase network in case of zero interruption;
- work in voltmeter and ammeter modes.

### ADVANTAGES



Possibility of the adjustment of the increased current value



Display of current failures




Display of values of current voltage and current on the electronic display



Built-in relay for high currents

## Three-phase voltage & current monitoring relay with display MRVA-3 EKF



MRVA-3 63A PROXIMA digital voltage and current relay is designed to automatically disconnect the power load connected through it if the value of the voltage or current in the power network exceeds the permissible limits. The device is controlled by a microcontroller that analyzes the voltage and current in the power grid and displays the current operating values on the digital indicators. The electromagnetism relay maintains the load commutation. The maximum limits for the voltage and current disconnection and power-on delay are set by the user with the buttons. The values are stored in non-volatile memory. Available for rated currents up to 63A.

Al/Cu

63A

WARRANTY  
7 YEARS

EAC

LIQU  
DISPLAY

MICROPROCESSOR  
DEVICE

OPERATION  
>10 YEARS

IP20

### APPLICATION

MRVA EKF PROXIMA digital voltage relays are used in administrative, industrial and residential buildings and protect:

- single-phase networks from power surges;
- three-phase networks from undervoltage/overvoltage;
- from overload currents;
- from asymmetry of phases;
- from phase breaks;
- from incorrect phase alternation;
- work in voltmeter and ammeter modes.

### ADVANTAGES



Possible adjustment of the overvoltage and undervoltage values



Possible adjustment of the increased current value




Possible setting of the asymmetry threshold 20-99 V



Built-in high-current relay

## Power limiter OM-14 EKF



OM-14 EKF PROXIMA power limiter is a sensitive device which can measure the electrical power consumed by the power load (up to 14 kVA/kVar/kW) and disconnect the consumer if the permissible consumption level is exceeded. The power limiter is capable of measuring not only full power, but also active and reactive power. The communication is performed directly by the built-in relay without the use of external contactors.

Al/Cu

80A

WARRANTY  
7 YEARS

EAC

LIQU  
DISPLAY

MICROPROCESSOR  
DEVICE

IP20

### APPLICATION

OM-14 EKF PROXIMA power limiter is used in administrative, industrial and residential buildings and performs the following functions:

- overvoltage protection;
- undervoltage protection;
- consumer disconnection when the power consumption threshold is exceeded;
- indication of voltage, current, and power values.

### ADVANTAGES



Led indication of current failures



Power load connection of up to 14 kVA




Built-in relay for currents up to 80 A



Measurement of active, reactive and total power



## Level monitoring relay (multipurpose, level 1 & 2) RL-SA EKF



WIDTH  
2  
MODULE

Al  
Cu

5A

WARRANTY  
7  
YEARS

EAC

MICROPROCESSOR  
DEVICE

OPERATION  
>10  
YEARS

IP20

RL-SA EKF PROXIMA level control relay is implemented on the basis of a microcontroller and is an electronic switching device for the signal indication of the level of electrically conducting liquids and controlling pump motors. The relay works for filling and draining liquids from containers with a time delay after the shutdown. The relay can be controlled by both three or two sensors (see the connection diagrams).

**ATTENTION! It is prohibited to use the relay with flammable or explosive liquids.**  
**ATTENTION! Sensors are not included in the supply kit.**

### APPLICATION

The relay is used in industrial equipment to control the level of various conductive liquids:

- control of the minimum liquid level;
- control of the maximum liquid level;
- control over the commutation equipment.

### ADVANTAGES



Indication on the control panel



Works with various liquids




Possible adjustment of the tripping delay



Easy setup

## Twilight relay with remote sensor DIN-1 (FR) EKF



WIDTH  
2  
MODULE

25A

WARRANTY  
7  
YEARS

EAC

MICROPROCESSOR  
DEVICE

OPERATION  
>10  
YEARS

IP20

DIN-1 EKF PROXIMA series photo relay (FR) performs the activation when the light level decreases (dusk) and the shutdown when the light level increases (dawn). The response threshold can be changed with the front panel control (from 2 to 100 Lux). Aluminum and copper wire commutation is possible.

### APPLICATION

The photo relay is used for outdoor lighting of streets, courtyards, squares, etc. and performs the following functions:

- illumination control;
- lighting control (up to 25 A, inclusively).

### ADVANTAGES



Built-in 25 A relay



Remote sensor with IP65 protection class and a mounting screw in the supply kit




Easy setup of the light threshold



Power and relay status indication

## Temperature monitoring relay RT-820 EKF



IP20

16A

WARRANTY  
7  
YEARS

EAC

AL  
Cu

MICROPROCESSOR  
CONTROL

OPERATION  
>10  
YEARS

FOR  
3P  
NET

RT-820 EKF PROXIMA temperature relay is a sensitive device that controls the operation of the equipment when the temperature changes in the room where it is installed. The kit includes a bimetallic sensor element with a measurement range from -5 to +40°C. Aluminum and copper wire commutation is possible.

### APPLICATION

The relays are used in industrial and household segments for underfloor heating, heated ramps, ventilation, heating, protection of various equipment from overheating. Designed for:

- activation and shutdown of the load when the critical temperature is reached;
- direct single-phase load commutation (up to 16 A);
- contactor and starter controls.

### ADVANTAGES



Cast front panel without joints



Secure mounting of the conductor up to 4 mm²




General-purpose voltage supply



Built-in 16 A relay

## Temperature monitoring relay with display RT-820M EKF



IP20

16A

WARRANTY  
7  
YEARS

EAC

AL  
Cu

LIQU  
DISPLAY

MICROPROCESSOR  
CONTROL

OPERATION  
>10  
YEARS

WIDTH  
2  
MODULE

RT-820M EKF PROXIMA temperature relay is a sensitive device that controls the operation of the equipment when the temperature changes in the room where it is installed. The relay is equipped with LCD display that indicates the main parameters as well as the current temperature. The kit includes a bimetallic sensor element with a measurement range from -30 to +130 °C. The relay is equipped with an additional signalling contact.

### APPLICATION

RT-820 EKF PROXIMA temperature relay is used in industrial and domestic segments for underfloor heating, underfloor ramps, ventilation, control of various heating elements, protection of equipment from overheating. Designed for:

- activation and shutdown of the load when the critical temperature is reached;
- display of the current temperature value;
- emergency (critical) temperature alarm signals;
- direct commutation of a single-phase load (up to 16 A);
- contactor and starter controls;

### ADVANTAGES



Indication of the current temperature



Additional independent relay output for the alarm system




Protective cover



Option of sealing

## Pulse relay RIO EKF



WIDTH  
**1**  
MODULE

Al  
Cu

**10A**

WARRANTY  
**7**  
YEARS

**ERC**

IEC 60947-1-2014

MICROPROCESSOR  
DEVICE


OPERATION  
**>10**  
YEARS

**IP20**

RIO EKF PROXIMA pulse relays are designed to control lighting and other electrical equipment from several locations via a two-wire network with the parallel switches without fixation. The use of such a relay allows simplifying the control circuit, reducing the network losses and the amount of cable laid in comparison to the circuit with pass-through switches. The circuit can work with backlit switches. Aluminum and copper wire switching is possible.

**Attention! RIO-2 compact pulse relay functionally replaces TL-47 ladder-type relay.**

## Pulse relay RIO compact EKF



Al  
Cu

**16A**

WARRANTY  
**7**  
YEARS

**ERC**

MICROPROCESSOR  
DEVICE

OPERATION  
**>10**  
YEARS

**IP20**

RIO Compact EKF PROXIMA pulse relay is designed to control lighting and other electrical equipment from several locations via a two-wire network with push-button switches connected in parallel. The use of such a relay allows simplifying the control circuit, reducing the network losses and the amount of cable laid in comparison to the circuit with pass-through switches.

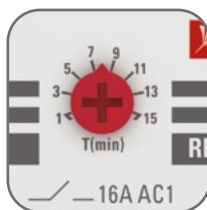
**Attention! RIO-2 compact pulse relay functionally replaces TL-47 ladder-type relay.**

### APPLICATION

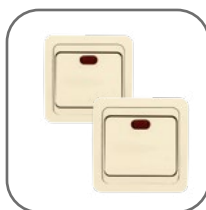
The pulse relays are used in industrial, administrative, and residential buildings:

- to control the lighting of staircases, corridors, foyers, and streets;
- to control domestic exhaust fans;
- for standby lighting systems;
- in areas where a delay in the on/off time

### ADVANTAGES



Time setting option from 1 to 15 minutes



Possible load control from multiple locations is required.




Installation into a mounting box



Built-in relay up to 16 A

## Phase selection relay RVF-3 EKF



IEC 60947-1-2014

Al/Cu

IP20

WARRANTY  
7 YEARS

EAC

MICROPROCESSOR  
DEVICE

OPERATION  
>10 YEARS

FOR  
3P NET

RVF-3 EKF PROXIMA phase selection relay is used to arrange power supply of a single-phase 230V/50(60) Hz load from a three-phase four-wire (five-wire) network. The relay switches the power supply to a single-phase consumer in accordance with the availability and quality of the phase voltage on the L1, L2 and L3 conductors. The highest priority is to supply the load from the phase conductor L1, the lowest priority is from L3. Under normal voltage parameters at all phases, the relay will connect the load from the priority phase (L1). If on the priority phase, the voltage value exceeds the operating thresholds, the device switches the power load to another phase. If the voltage at the standby phases does not meet the set thresholds, the power load is disconnected.

### APPLICATION

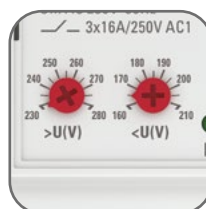
RVF-3 EKF PROXIMA phase selection relay is used in single-phase load power circuits that require increased reliability (switching racks, household appliances, lighting, ventilation, etc. ) and performs the following functions:

- voltage drop monitoring;
- voltage rise monitoring;
- voltage presence control;
- single-phase load switching to the standby phase.

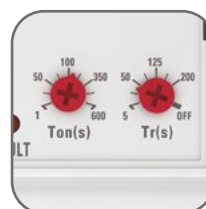
### ADVANTAGES



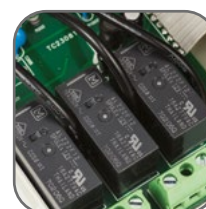
Error indication



Option to set the overvoltage and undervoltage values




Option to configure the tripping time delay



Built-in relays for currents up to 16 A

## Programmable logic controllers PRO-Logic



if the voltage at the main input exceeds the acceptable parameters, the controller supplies a signal to the coil to disconnect the main power contactor after the  $T_{off}$  time. Aluminum and copper wire switching is possible.

Al/Cu

WARRANTY  
7 YEARS

EAC

MICROPROCESSOR  
DEVICE

FOR  
3P NET

IP20

EKF PROXIMA automatic load transfer controllers are designed for contactor-based automatic load transfer control. The automatic reserve controller monitors the voltage on two three-phase inputs of power circuit, without the external phase control relays, which simplifies the circuit. If the voltage does not exceed the set limits, the controller supplies voltage to the coil of the corresponding voltage;

### APPLICATION

EKF PROXIMA automatic load transfer controllers are used in automatic load transfer cabinets in residential construction and industrial sector. They are used in the following backup circuits:

- two inputs without partitioning;
- two inputs with a sectional contactor;

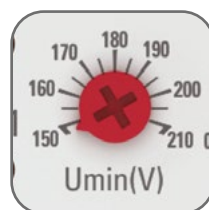
### ADVANTAGES



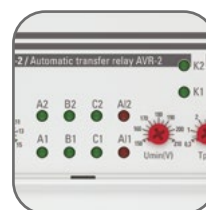
No need in a phase control relay



On/off time adjustment




Minimum voltage adjustment



Indication of the status of inputs and contactors



## DIN rail power supplies DR EKF



IP20

WARRANTY  
**3**  
YEARS

**EAC**

Al  
Cu

POWER  
SUPPLY  
100 -  
240 V

DIN rail power supply DR EKF is a pulse-type converter from input AC voltage of 100-240 V to DC voltage of 12 or 24 V. The power supply unit is small in size and contains overload and short-circuit protection. They are produced with rated power from 15 to 240 W. Copper and aluminum wire connections are supported.

### APPLICATION

DIN rail power supplies DR EKF are used in residential and industrial automation systems (automatic reserve input, process automation, security alarm, video surveillance) and are designed for power supply of:

- controllers;
- video security systems;
- security detectors;
- motor-drives;
- measuring sensors.

### ADVANTAGES



DIN rail mounting



Dual power terminals for easy connection




Option to adjust the output voltage



100-240 V power supply

## Power supplies MPS EKF



IP20

WARRANTY  
**3**  
YEARS

**EAC**

Al  
Cu

POWER  
SUPPLY  
80 -  
264 V

Power supply MPS EKF is a pulse-type converter from input AC voltage of 100-240 V to DC voltage of 12 or 24 V. The power supply units are small in size and are equipped with overload and short-circuit protection. The power supply units are installed on the mounting plate. They are produced for rated power from 35 to 350 W.

### APPLICATION

Power supplies MPS EKF are used in residential and industrial automation systems (automatic reserve input, process automation, security alarm, video surveillance) and are designed for power supply to:

- controllers;
- video security systems;
- security detectors;
- motor-drives;
- measuring sensors.

### ADVANTAGES



Installation on the mounting plate



Dual power terminals for easy connection



Option to adjust the output voltage



Galvanic separation unit

## Programmable logic controllers



Ethernet

RS485

MICROPROCESSOR device

WARRANTY 3 YEARS

EAC

Freely programmable devices for the control systems, designed to perform logical operations under a preset program. The logic controllers are used to improve energy efficiency, ensure safety and promote digitalization of enterprises in all industries. They are applied for automation of electricity distribution, heating, ventilation, air conditioning, metalworking, woodworking, water treatment, water drainage, conveyors, packaging lines, etc.

### APPLICATION

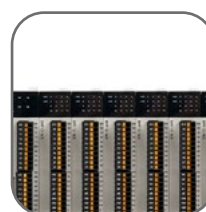
- Initial processing of information from process equipment.
- Direct control of production processes and their variables by sensors (composition and weight, flow rate, pressure, temperature, rotation speed, etc.)
- Control of actuating mechanisms (actuators, motors, gate valves, valves, nozzles, heaters, etc.).
- Data transfer to the upper level for display, analysis and control (HMI, OPC-server, SCADA).



Indication of I/O status



Removable spring terminals



Expansion to max 256 I/Os



Connection of temperature sensors



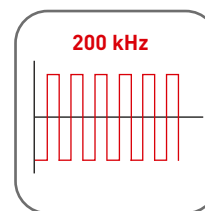
Free programming software



RS-485 & Ethernet interfaces



Small size



High-speed inputs/outputs

Product ID	Digital Inputs	Digital outputs	Analog inputs	Analog outputs	High-speed inputs	High-speed outputs	COM-Port	Max. number of expansion modules
PRO-Logic F100								
F100-10-R	6	4 EM relays	–	–	–	–	1 × Ethernet 1 × RS-485	3
F100-10-N		4 NPN	–	–	–	–		
F100-16-R	8	8 EM relays	–	–	–	–		
F100-16-N		8 NPN	–	–	–	–		
F100-12A-R	4	4 EM relays	2	2	–	–		
F100-12A-N		4 NPN	2	2	–	–		
PRO-Logic F200								
F200-16-R-P20	8	8 EM relays	–	–	2	–	1 × Ethernet 1 × RS-485	15
F200-16-N-P22		8 NPN	–	–	2	2		
F200-12A-R-P10	4	4 EM relays	2	2	1	–		
F200-12A-N-P11		4 NPN	2	2	1	1		

## TECHNICAL DATA

Characteristics	Value
Power	
Voltage	24 V DC [20,4-28,8 V]
Power consumption	<4,8 W (for one module)
Max. operating time with power failure	10 ms
Operation conditions	
Ambient temperature	0-55 °C
Storage temperature	-20 to +70 °C
Humidity	5-95% RH (no condensate)
Degree of protection	IP20
Digital Inputs	
Signal type	Voltage available or PNP / PNP
Filter	6,4 ms (default), ranges from 0,8 to 51,2 ms
Insulation type	Optic coupler for every channel
Indication	LED (for every signal)
Power	24 V DC
Digital Outputs	
Signal type	Electromagnetic relay
Load	Resistive 2 A Inductive 50 VA Lighting 100 W
Voltage	≤ 250 V AC ≤ 30 V DC
Max. load	5 A (250 V AC)
Response time	ON 10 ms OFF 5 ms
Insulation	Electromechanical
Indication	LED (for every signal)
High-speed inputs/outputs	
Max. frequency	200 kHz
Analog inputs	
Signal type	0-10 V
Resolution	2,5 mV
Resistance	6 MOhm

Characteristics	Value
Max. signal value	±13 V
Indication	LED (for every signal)
Response time	5 ms / 4 channels
Signal form	12 bit
Relative error	0,2%
Insulation	Optic coupler for every channel
Analog outputs	
Signal type	0-10 V
Resolution	2,5 mV
Resistance	1 kOhm [10 V]
Max. signal value	±13 V
Indication	LED (for every signal)
Response time	3 ms
Signal form	12 bit
Relative error	0,2%
Insulation	Optic coupler for every channel
Interfaces	
Max. number of concurrent interfaces	Ethernet + RS-485 + 3 RS-232/RS-485 (for 3 connected expansion modules EMF-I-1RS)
RS-232/RS-485 communication protocols	Modbus RTU, Modbus ASCII
Communication speed via RS-485	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bit/s
Ethernet communication protocol	Modbus TCP
Connection of temperature sensors (via temperature module)	
Sensor type	Resistive temperature transducer
Sensor	Pt100, Pt1000, Cu50, Cu100
Resolution	0.1 °C
Signal form	12 bit
Relative error	0,1%
Insulation	Optic coupler for every channel

## HMIs PRO-Screen



The HMIs PRO-Screen are human-machine interface devices used to create process control and monitoring systems. The HMIs PRO-Screen are used in various industries that are operated by programmable logic controllers, automated control systems and industrial automation devices. The PRO-Screen is compatible with devices of any manufacturer. The device can be configured and programmed with the PRO-Screen Master software.

## ADVANTAGES


RS232/RS485/  
RS422


Ethernet



USB ports



SD card slot

## PRODUCT RANGE

Name	Screen diagonal, inch	Ethernet	Product ID
HMI PRO-Screen 7	7	N/A	RSC-7
HMI PRO-Screen 7E	7	Available	RSC-7E
HMI PRO-Screen 10E	10,1	Available	RSC-10E

## Capacitors up to 50kvar



The cosine capacitors KPS EKF are used for static and automatic compensation of the reactive power factor in AC networks. The low-voltage three-phase cosine KPS capacitors are three capacitors connected in a triangle. The capacitor design is implemented on the basis of a metallized self-healing polypropylene film with a low loss coefficient, which provides high operational characteristics. Three film capacitors are installed into a cylindrical aluminum housing

and filled with gas with a high heat dissipation coefficient, thus increasing the lifetime of the capacitor. An overpressure shutdown system is provided to protect the capacitors. For safe operation, three-phase capacitor has discharge resistors. A connector in a plastic housing is provided for the wire connection. Copper and aluminum wire connections are supported.

### APPLICATION



The capacitors are used in light, heavy, food, chemical industry, residential buildings and utilities in order to correct the reactive power.

### ADVANTAGES



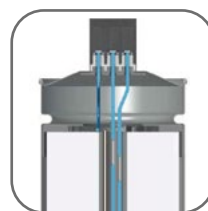
Convenient connection: the connector in a plastic casing



Convenient installation: stud on the bottom of the case



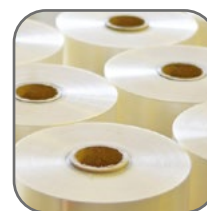
Safe: discharge resistor



Safe: system shutdown by excess pressure in the capacitor



Extended lifetime due to the aluminum housing and gas filling



The extended lifetime due to the use of metallized self-restoring polypropylene film



## Reactive Power Regulators


WARRANTY  
7  
YEARS

Al  
Cu

LIQU  
DISPLAY

EAC

Reactive power regulators NOVAR measure the power factor of the network and control the activation of cosine capacitors to maintain the optimal power factor. At the same time, the operation of the capacitors occurs in such a way that the capacitors with the shortest operating time are connected once again, so the lifetime of the entire reactive power compensation unit increases.

### APPLICATION



The regulators are used in light, heavy, food, chemical industry, residential buildings and utilities in automatic controlled reactive power compensation devices for automatic control and increase of the electric network power factor.

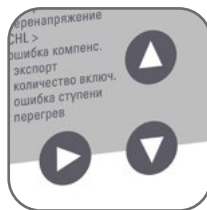
### ADVANTAGES



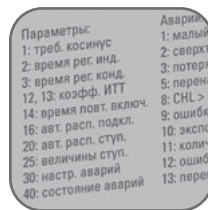
The display shows the instantaneous power factor value



From 3 to 15 control stages



Simple setup with the buttons on the panel



Automated recognition of the connection



Possible manual connection setup



Copper and aluminum wire connections are supported

## Voltage stabilizer TITAN EKF



WARRANTY  
**3**  
YEARS

LIQUID  
DISPLAY

PROTECTION  
OVERVOLTAGE OR  
UNDERVOLTAGE  
PROTECTION

TIME OF  
CONTINUOUS  
OPERATION  
IS NOT LIMITED  
∞

EKF

Voltage stabilizer TITAN EKF is designed for stable supply of household and industrial power loads of 230 V, 50 Hz with deviations of the circuit voltage over a wide range by the value and duration of a single-phase sinusoidal voltage, with filtration of network noise and without distortions in its shape. In case of over- or undervoltage, the device balances it, so that the equipment can be continuously operated without any harm.

### APPLICATION



The stabilizers are widely used in both the industrial and civil sectors for:

- the continuous output voltage maintaining;
- automatic load disconnection in case of short circuit;
- automatic load disconnection in case of over- and undervoltage at the output of the stabilizer, which is dangerous for the connected power load;
- effective smoothing of pulse interference in the network with the use of varistors.

### ADVANTAGES



Indication of the main of operational modes of stabilizer



Great operative range input



Delay time 6/180 sec.



Two types performance and wide capacity range



Load protection varistor



Protection transformer's against overheating

### PRODUCT RANGE

Titan-F-500, -1000, -1500, -2000 EKF PROXIMA	Titan-F-3000, -5000 EKF PROXIMA	Titan-F-8000, -9000, -12000 EKF PROXIMA	Titan-W-500 EKF PROXIMA	Titan-W-3000, -5000 EKF PROXIMA	Titan-W-9000, -10000, -12000 EKF PROXIMA

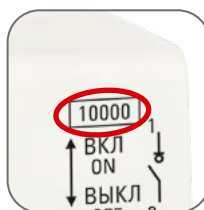
## Modular switch disconnectors AVN EKF AVERES



Modular switch disconnectors AVN EKF AVERES are mechanical switching devices for on/off actions in AC electrical circuits. The switch disconnectors are designed for switching active and inductive loads, including motors already protected by other switching devices.



Rated current of the switch disconnector



Maximum short-term permissible current,  $I_{cu}$ , kA (1s).

### APPLICATION



Operational switching, i.e. the process of switching on and off the rated currents in the outgoing circuit.

Modular switch disconnectors AVN EKF AVERES are used for:

- civil residential construction;
- commercial construction projects;
- industrial sites.

### ADVANTAGES



Convenient display for the electric circuit marking



Contact position indicator with protective cover



Full set of accessories



The electrical protection shutter of the terminal



Copper and aluminum wire connections are supported

## Switch disconnectors VN-99 EKF PROXIMA



Switch disconnector VN-99 EKF PROXIMA is made as a monoblock and consists of a base and a cover with a raised panel, which has a window for the operating handle. **WARNING!** The operating handle has three positions "ON", "OFF" and "TRIPPING". To switch on after tripping, the handle shall be moved from the intermediate position to the "OFF" position and then to the "ON" position. The control mechanism of the switch disconnector bases on the principle of a folding lever and is equipped with a powerful pullback spring. When the handle of the control mechanism is cocked, an insulating rail is set in motion, on which spring movable power contacts with flexible connections are fixed. The rail rotates in the side rails, providing not only the closure of the movable and fixed power contacts, but also the necessary gaps in order to increase and equalize the pressure on the movable contacts. The arc control system is also very effective in VN-99-125/125 A and VN-99-160/160 A versions. It consists of arc chutes with nickel-plated steel arcing inserts. In VN-99-25/250 A version and higher, additional arc diffusers are used in the form of thick steel perforated plates inserted into the cover. In case of the mounting into the switchgear, it is necessary to consider the area of possible release of combustion products up to a distance of 30 mm during the shutdowns under load.

The connection of cables or busbars from the power supply side to the upper or lower terminals of the switches. Aluminum and copper wire switching is possible.

### APPLICATION

As input disconnectors in electrical switchboards in the following facilities:

- civil residential construction;
- commercial construction projects;
- production sites;
- in the reserve power supply and automatic transfer systems;
- with sectioning (on the basis of three switches), and without the sectioning (on the switches); Remote switching of electrical equipment, dispatching and energy saving systems.

### ADVANTAGES



The best electrical conductivity. Connection busbars made of electrical copper with silver coating



Flame-retardant. Housing made of heat-resistant plastic



The best arc control. Uniform in thickness and massive plates



Instantaneous switching. Spring release mechanism



Instantaneous switching. Spring release mechanism of electrical copper



Complete range of accessories



## Modular Switch Disconnector VN-63N EKF PROXIMA



Modular switch disconnectors VN-63N EKF PROXIMA is an upgraded platform of modular switch disconnectors VN-63 EKF PROXIMA which have been proved remarkably effective on the market. Modular switch disconnectors are mechanical switching devices used for close/open operations in AC electrical circuits. Modular switch disconnectors are designed to switch active and inductive loads including motors, which have been already protected with other switching devices. This series features upgraded design. Modular switch disconnectors have screw shields to close an access to screw terminals, thus preventing unauthorised access to the conductors. The housing is reinforced with additional rivets for maximum rigidity. Modular switch disconnectors have a convenient operating handle to ensure reliable operation of the units. Color contact position indicator is marked on the front panel of the modular switch disconnectors. Due to two-position terminal the modular switch disconnector can be easy mounted onto DIN rail.

### ADVANTAGES



Copper and aluminum wire connection options are supported



Possible connection with PIN and FORK-type bars both from the top and the bottom



Contact position indicator sealed with transparent cover



Patented integrated screw shields for terminal sealing



Tightening torque: 3,5 N·m



Molded front panel

### TECHNICAL PERFORMANCES

Parameters	Values
Rated voltage Ue, V	230 / 400
Frequency fn, Hz	50
Number of poles	1, 2, 3, 4
Rated current In, A	16-63
Degree of protection	IP20
Rated short-term withstand current Icw, kA	1
Rated short-circuit making capacity ( short-circuits), Icm, kA	6
Rated impulse withstand voltage Uimp, kV	6
Mechanical endurance, ON-OFF cycles	20000
Switching endurance, ON-OFF cycles	10000
Operating temperature, °C	from -25 to +55
Cross-section of connected wires, mm²	1-25
Tightening torque, max. N·m	3,5

### Mounting and Operation

#### Accessories connection

- Installation of 2 auxiliary contacts AV-OF EKF (left-side);
- Installation of shunt release AV-SNT EKF (right-side).
- Installation of motor mechanisms AV-M1, AV-M6/M6S EKF AVERES (left-side).

Copper and aluminum wire connection options are supported.

## Modular switch disconnectors VN-63, VN-125 EKF PROXIMA



Modular switch disconnectors VN-63, VN-125 EKF PROXIMA are designed for operational control of electrical circuits sections. The switches are produced in one-, two-, three- and four-pole versions. Modular switch disconnectors VN-63, VN-125 EKF PROXIMA are made in a new, unique design of the housing made of flame-retardant plastic and are interchangeable with VN-63 (100).

**VN-63** power load switch is enclosed in the case of an automatic switch, has an arcing channel, as well as an option to connect auxiliary devices.

**VN-125** power load switch is enclosed in a case with a bridge contact.

### APPLICATION

Operational switching, i.e. switching on/off the rated currents in the outgoing circuit.

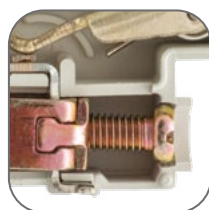
### ADVANTAGES



Housing made of flame-retardant plastic



Automatic adjustment of the operating handle



Rounded and notched terminals made of silver-plated copper and anodized steel



Two-position DIN rail clamp



Oxygen-free copper contacts

## Switch disconnectors UVRE EKF PROXIMA



Switch disconnectors UVRE EKF PROXIMA are designed for manual switching on and off and protection against short circuits and overloads in AC circuits with a rated voltage of up to 690 V and a frequency of 50 Hz (fuse-links are not included in the supply kit). The switch disconnectors are used in input devices and switchgears, distribution and control cabinets, etc.

The switch disconnectors are installed onto the mounting plate. The design of the contact terminals provides bolted connection of bus lines or conductors terminated with cable lugs. The outputs are made of copper with an anti-corrosion coating.

The switch disconnectors can be additionally equipped with NO + NC auxiliary contact. Copper and aluminum wire connections are supported.

### APPLICATION

Switch disconnectors are designed for manual switching on and off of circuits. The scope of application:

- in distribution enclosures 70 (one side service);
- in VRU electrical distribution panels;
- in distribution enclosures;
- in main distribution switchboards.

### ADVANTAGES



Overload protection, circuit break due to electrical fuses



Double visible and short circuit



Availability of auxiliary contacts



The measuring holes for the control parameters

## Accessories for switch disconnectors VRE and UVRE EKF PROXIMA


**EAC**

Switch disconnectors VRE and UVRE EKF PROXIMA can be equipped with auxiliary NO+NC contacts. Switch disconnectors VRE in addition, can be equipped with a remote handle mounted on the enclosure door (except for fuse links). Accessories are not included in the delivery scope and are purchased separately.





Image	Designation
	Auxilliary contact NO + NC for Switch disconnector VRE
	Auxilliary contact NO + NC for Switch disconnector UVRE

Image	Designation
	Remote handle mounted on the enclosure door for switch disconnector VRE
	The remote handle mounted on the enclosure door for switch disconnector VRE 250-630 (except for fuse links)
	Extension handle 300 mm for VRE 160
	Extension handle 300 mm for VRE 250-630

## Switch disconnectors UVRE vertical EKF PROXIMA


**Al/Cu**
**IP30**
**WARRANTY 5 YEARS**
**EAC**

Switch disconnectors UVRE vertical EKF PROXIMA with fuse-links are designed for manual switching on and off and for protection against short circuits and overload of AC circuits with a rated voltage of up to 690 V and a frequency of 50 Hz (fuse-links are not included in the supply kit). They are used in input devices and switch-gears, in low-voltage cabinets at electrical substations. By possible switching operation, switch disconnectors UVRE vertical EKF PROXIMA are divided into devices with phase-by-phase and three-phase disconnection. In the disabled position, switch disconnectors UVRE vertical ensure the presence of a double visible break, which guarantees safety during the maintenance of electrical equipment. IEC 60947-6-2-92.

### APPLICATION

Switch disconnectors are used for manual circuit switching on and off. The scope of application:

- in Electrical panel (one side service) 70;
- in VRU lead-in electrical distribution panels;
- in ShRS distribution power cabinets;
- in main distribution switchboards.

### ADVANTAGES



Reduced installation time and convenience due to the use of buses



Copper and aluminum wire connections are supported



Increased safety during operation



Use of smaller size cabinets due to the vertical design

## Modular switch disconnectors MS EKF PROXIMA



MS EKF PROXIMA modular disconnectors are designed for manual switching on and off of 400 V/50 Hz low-voltage AC circuits.

They are designed for the use in input and distribution devices of residential and public buildings, in control points for separate power loads.

The switches can be used for closing/opening of power circuits.

### APPLICATION

Disconnecting switches are designed for manual switching on and off of circuits. The scope of application:

- in Electrical panel 70 (one side service);
- in VRU electrical distribution panels;
- in ShRS distribution power cabinets;
- in main distribution switchboards.

### ADVANTAGES



Modular design



The mechanism of rapid launch and shutdown

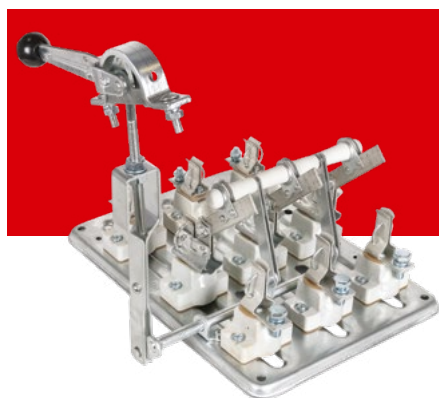


Possibility to install a padlock in the "Off" position



Double break of each phase

## Disconnectors RP (RPS, RPB) EKF PROXIMA



EKF PROXIMA RP series disconnecting switches are designed for passing through rated currents, closing/opening of power circuits without load with a rated voltage of up to 500 V AC and a frequency of 50 Hz in electric power distribution devices.

### APPLICATION

Disconnecting switches are designed for manual switching on and off of circuits. The scope of application:

- in Electrical panel 70 (one side service);
- in VRU electrical distribution panels;
- in ShRS distribution power cabinets;
- in main distribution switchboards.

### ADVANTAGES

1. A model which is often used in projects.
2. The contact outputs provide connection of copper and aluminum conductors by means of threaded connections.
3. Rated current from 100 to 630 A.



Compatibility with PPN, PN2 fuse-links



Visible circuit break



Rigid connection of the shaft to the handle or axis



The sequential connection of the electrical fuse forms a single device



## Switch disconnectors TwinBlock EKF PROXIMA



TwinBlock EKF PROXIMA disconnecting switches are designed for passing through rated currents circuits, closing/opening of electrical circuits with a rated voltage of up to 690 V AC and a frequency of 50 and 60 Hz in electric power distribution devices.

TwinBlock has the following versions:

- with pre-installed control handle (80 A, 100 A);
- without control handle (the handle is purchased separately);
- reverse (flip) disconnectors without a handle (the handle is purchased separately).

For the models without a handle, there are two types of handles:

- remote handle for door control;
  - control handle for direct installation on the circuit breaker.
- TwinBlock EKF PROXIMA series disconnecting switches (models 160-800 A) can be connected to an additional fourth pole. Aluminum and copper wire switching is possible.

### APPLICATION

The disconnecting switches are designed for manual closing/opening of circuits with a visible break. The scope of application:

- in Electrical panel 70 (one side service);
- in VRU lead-in electrical distribution panels;
- in ShRS distribution power cabinets;
- in main distribution switchboards.

### ADVANTAGES



Anti-vandal protection due to opportunities handle block



Visible break due to displays on the front parts of the circuit breakers



Possibility of for the remote equipment handle and lever to the enclosure of circuit breaker



Independent on the speed hand movement operator's speed closing/opening of the mechanism












Reverse design of circuit breaker

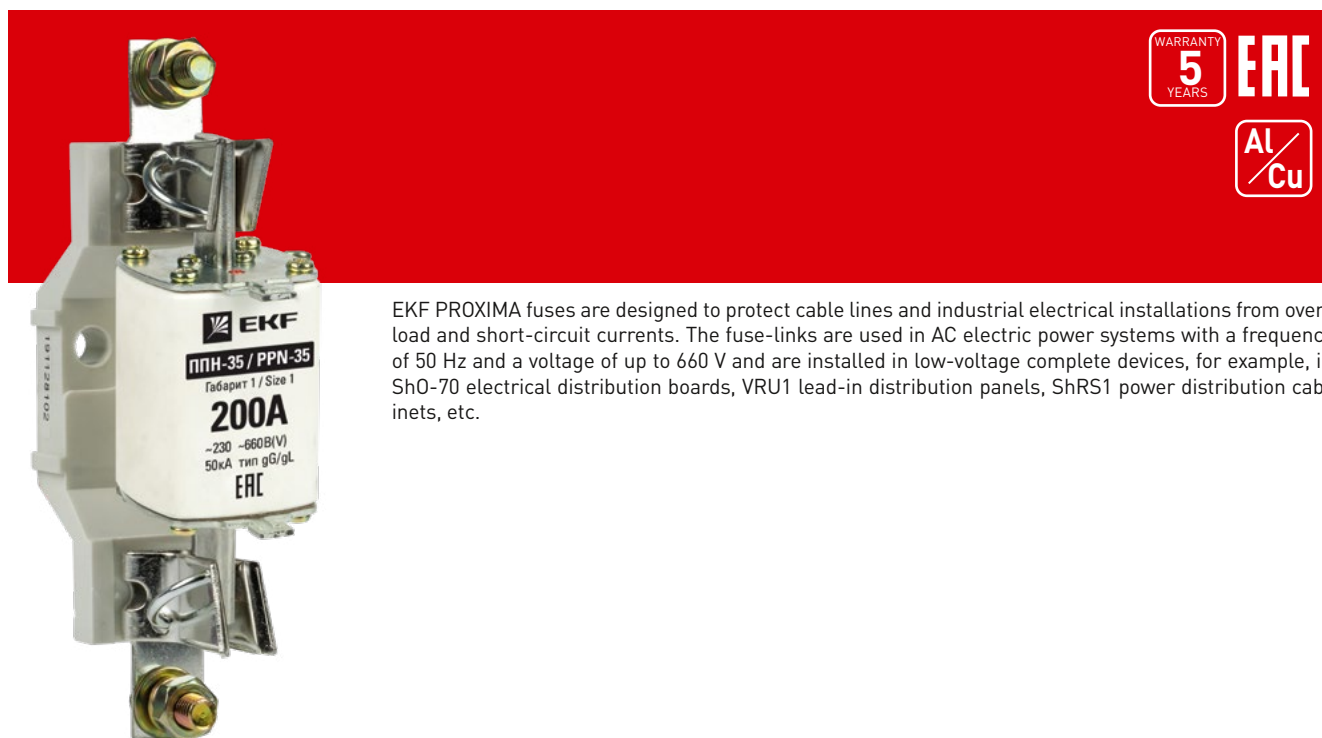


Possibility of to install additional poles

### PRODUCT RANGE

40-100A 3P circuit breaker	40-100A 3P circuit breaker reverse	160-1600A 3P circuit breaker without manual control	160-800A 3P circuit breaker reverse without manual control	160-800A additional pole	Control handle for direct installation on the circuit breaker.	Remote handle for door control;	Control handle for direct installation on the circuit breaker.	280 mm adapter
								

## Fuses PPN EKF PROXIMA



EKF PROXIMA fuses are designed to protect cable lines and industrial electrical installations from overload and short-circuit currents. The fuse-links are used in AC electric power systems with a frequency of 50 Hz and a voltage of up to 660 V and are installed in low-voltage complete devices, for example, in ShO-70 electrical distribution boards, VRU1 lead-in distribution panels, ShRS1 power distribution cabinets, etc.

### APPLICATION

The fuse-links are designed to protect cable lines and industrial electrical installations from overload and short-circuit currents. Field of application:

- in Electrical panel 70 (one side service);
- in VRU lead-in electrical distribution panels;
- in power distribution cabinets, ShRS.

### ADVANTAGES



The enclosure of fuse-links is made of ceramics



The enclosure of fuse-links is filled with fine quartz sand



Overall dimensions of fuse-links ~15% less than PN-2 fuse-links



Wide copper plate-EKF fuse element corresponds to the rated current



Tripping indicator



Fuse-links are mounted and are dismantled with a multi-purpose puller



Increased level heat dissipation due to massive safety knives of fuse-links



Wide knife – large contact area



Flat contact plate the holder of fusible inserts has a large contact area



Copper and aluminum wire connections are supported



Contact of electrical fuse-is rounded on both sides, that allows it to be installed in the holder with either side.



Bilateral application of technical information

## Cylindrical fuse links PVC EKF PROXIMA

### Fuse disconnectors for cylindrical fuse links PVC EKF PROXIMA



IEC 60269-1-2010

The electrical disconnecting fuses are designed for the installation of cylindrical fuse elements (or of similar design) and protection of electrical circuits from short circuits and overloads. The fuse element is a part of a fuse, that contains a fuse element (s) to be replaced after the tripping of the fuse element. If the overload or short-circuit currents exceed the permissible values, the fuse element will burn out and the indicator lamp will light up.

The electrical disconnecting fuses are used to protect cable lines, household and industrial equipment. Aluminum and copper wire switching is possible.

#### APPLICATION

The fuse-links are designed to protect cable lines and industrial electrical installations from overload and short-circuit currents. Application:

- in Electrical panel 70 (one side service);
- in VRU electrical distribution panels;
- in power distribution cabinets, ShRS.

#### ADVANTAGES



Visible circuit break



Indication in cases when the permissible values are exceeded



Option of sealing



Simple replacement of fuse elements when necessary

## Three-Position Switches up to 63A EKF



EKF three-position switches are mechanical switching devices. Aluminum and copper wire switching is possible.

#### APPLICATION

- The switching of load or supply line.
- Current performance in normal mode.
- Infrequent rapid closing of the electrical circuit.

#### ADVANTAGES



Housing made of flame-retardant plastic



Grease for reliable operation



Large silver-containing solders



Contact system of multi-break type

## Pushbuttons, Switches, Pilot Lights EKF PROXIMA



**IP54**

**10A**

WARRANTY  
**7**  
YEARS

**EAC**

(IEC 60947-5-1: 2014)

22 MM

SERVICE LIFE  
**>10**  
YEARS

**IP40**

The control equipment is designed for operational control for the technological equipment and indication of the electrical circuits state. The equipment is used in AC electrical circuits with a frequency of 50/60Hz and a voltage of up to 660V and DC voltage of up to 400 V; is installed, for example, in pushbutton boxes, input switchgears, automatic transfer switches, control stations, electric drives, etc.

### APPLICATION

The control equipment is used for equipment cabinets set, pushbutton boxes and remote controls, it performs:

- manual control (switching) of electrical equipment;
- light alarm equipment.

### ADVANTAGES



The multi-purpose dismountable design allows to quickly mount products



A wide range of pushbuttons, switches, pilot lights in various colors, shapes of filters, light sources, materials and performance



Wide range of buttons and switches of various colors, the number and type of contacts, the nature of switching, materials and performance of control handles



Quick and convenient replacement of the backlight lamp



The products have landing dimensions of 22 mm and 16 mm



Possibility of the use of additional opening and closing contacts

### PRODUCT RANGE

Pushbuttons, Switches, Pilot Lights

Image	Designation	Color	Image	Designation	Color
	LED matrix AD16-22HS EKF PROXIMA	White		Light and sound alarm ED16-22BM EKF PROXIMA	Red
		Yellow			
		Green			
		Red			
		Blue			
	LED matrix AD16-16S EKF PROXIMA	White		Voltage indicator ED16-22VD EKF PROXIMA	yellow
		Red			green
		Yellow			red
		Blue			
		Green			
	Sound alarm ED16-22BM EKF PROXIMA	Black		Signal lamp BV EKF PROXIMA	Yellow
					Green
					Red
					Blue



## Pushbuttons, Switches, Pilot Lights



Image	Designation	Color
	Current and voltage indicator ED16-22AVD 100A EKF PROXIMA	Yellow
		Green
		Red

Image	Designation	Color
	Temperature indicator ED16-22C EKF PROXIMA	White

## Control buttons

Image	Designation	Color
	Return push button SW2C-11s EKF PROXIMA	Black
		Yellow
		Green
		Red
		Blue
	Return push button SW2C-11F EKF PROXIMA	Green
		Red
		Yellow
		Black
	Return push button SW2C-10D EKF PROXIMA	Yellow
		Green
		Red
		Blue
	Push button BA EKF PROXIMA	Red
		Yellow
		Green
		Blue
	Mushroom-head push button SW2C-MD EKF PROXIMA	Black
		Red
		Red
	Mushroom-head push button SW2C-11MZ EKF PROXIMA	Green
		Red
		Red
		Red
		Red
	Push-button with backlight ABLFS-22 230V EKF PROXIMA	White
		Red
		Yellow
		Green
		Blue
	Mushroom-head push button BS542 EKF PROXIMA	Transparent
		Red
		Red
		Red
	Mushroom-head push button BC42 EKF PROXIMA	Red
		Red
		Red
		Red

Image	Designation	Color
	Mushroom-head push button BC42 EKF PROXIMA	White
		Yellow
		Green
		Red
		Blue
	Mushroom-head push button AEAL-22 EKF PROXIMA	Red
		Red
		Red
		Red
	Mushroom-head push button AE-22 EKF PROXIMA	Red
		Red
		Red
		Red
	Mushroom-head push button Ane-22 EKF PROXIMA	Red
		Red
		Red
		Red
	Mushroom-head push button AELA-22 EKF PROXIMA	White
		Yellow
		Green
		Red
		Blue
	Push-button APBB-22N "Start/stop" EKF PROXIMA	Red-green
		Red-green
		Red-green
		Red-green
	Push-button AS-22N "Start/stop" EKF PROXIMA	Red-green
		Red-green
		Red-green
		Red-green
	Push-button LA32HNd "Start/stop" EKF PROXIMA	Red-green
		Red-green
		Red-green
		Red-green
	Push-button LAY5-BW8465 "I-O" EKF PROXIMA	Red-green
		Red-green
		Red-green
		Red-green

## Switches

Image	Designation	Color
	Switch SW2C-11X/2 EKF PROXIMA	Black
	Switch SW2C-20X/3 EKF PROXIMA	
	Switch BJ21 2P EKF PROXIMA	
	Switch BJ33 3P EKF PROXIMA	
	Switch BD21 2P EKF PROXIMA	Black
	Switch BD33 3P EKF PROXIMA	
	Switch BG21 2P EKF PROXIMA	
	Switch BG33 3P EKF PROXIMA	
	Switch BG61 2P EKF PROXIMA	
	Switch BG73 3P EKF PROXIMA	
	Switch ALC-22-2P EKF PROXIMA	Black
	Switch ALC-22-3P EKF PROXIMA	

Image	Designation	Color
	Switch AC-22 2P EKF PROXIMA	Black
	Switch AKS-22 EKF PROXIMA	
	Switch ANC-22 EKF PROXIMA	Green
	Switch ANLC-22 EKF PROXIMA	Red
		Green
		Red
		Green
		Red
		Yellow
		Blue

## Potentiometers

Image	Designation	Color
	Potentiometer EKF PROXIMA	Black

## Accessories for push-buttons and switches EKF PROXIMA

## PRODUCT RANGE

Image	Designation	Color
	Neon spare lamp BA9S EKF PROXIMA	White
	LED spare lamp BA9S EKF PROXIMA	White
	Auxiliary contact XB-2 NC EKF PROXIMA	Red
	Auxiliary contact XB-2 NO EKF PROXIMA	Green
	Auxiliary contact NC EKF PROXIMA	Vinous
	Auxiliary contact NO EKF PROXIMA	Black
	Label holder LN 10 x 25mm EKF PROXIMA	Black
	Label holder LN 20 x 25mm EKF PROXIMA	Black
	Silicone cap for push buttons SW2C EKF PROXIMA	White
	Silicone cap for push buttons APBB EKF PROXIMA	
	Silicone cap for push buttons AS EKF PROXIMA	

Image	Designation	Color
	Hole cap 22 mm EKF PROXIMA	Gray
	DIN-rail adapter EKF PROXIMA	White
	Module for clamping contacts XB2 EKF PROXIMA	Black
	Protective case for push buttons with sealing covers	Yellow
	C-shaped protective case for emergency stops	Yellow
	U-shaped protective case for emergency stops	Yellow

## Assemblable push button module XB4



The Assemblable push button module XB4 consists of three components: a head and auxiliary contacts connected to a special metal base. In this version, you can assemble the device by yourself in accordance with your requirements. A variety of colors and a range of mechanisms meets all needs for the layout of switchboards and control panels. The accessories includes replaceable lamps with a base for the installation of buttons and switches with backlight options.

### APPLICATION



The Pushbuttons, switches, pilot lights, and switches XB4 are designed for switching and displaying the current state of electrical control circuits. These devices are used everywhere in production:

- in pushbutton boxes;
- in input distribution devices;
- in electrical cabinets and other areas.

### ADVANTAGES



The design does not depend on the voltage and type of contacts



Metal mounting base for mounting elements



Installation of up to three add. devices in a row



Flexible assembly with a single screw












Easy mounting/dismantling of auxiliary devices




Possibility of contact extension

## PRODUCT RANGE




### Button

Image	Designation	Color
	Head of push-button XB4 start/stop flat EKF PROXIMA	Red-green
	Head of push-button XB4 start/stop with protruding stop EKF PROXIMA	Red-green
	Head of push-button XB4 protruding return without interlock, no backlit EKF PROXIMA	Yellow
		Green
		Red
		Blue
	Head of push-button XB4 flat return without interlock, no backlit EKF PROXIMA	Black
		Yellow
		Green
		Red
	Head of push-button XB4 flat return without interlock, backlit EKF PROXIMA	Blue
		Yellow
		Green
		Red
	Mushroom head of push-button XB4 return without interlock, no backlit EKF PROXIMA	Blue
		Yellow
		Green
		Red
	Mushroom head of push-button XB4 with interlock no backlit EKF PROXIMA	Red
	Mushroom head of push-button XB4 turnable with interlock no backlit EKF PROXIMA	Red
	Mushroom head of push-button XB4 turnable with interlock with a lock EKF PROXIMA	Red

### Lenses for lamps

Image	Designation	Color
	Lamp lens XB4 EKF PROXIMA	Yellow
		Green
		Red
		Blue
		White

### Switches

Image	Designation	Color
	Head of switch XB4 with short handle EKF PROXIMA	Black
	Head of switch XB4 with long handle EKF PROXIMA	
	Head of switch XB4 with a lock EKF PROXIMA	

### Switch

Image	Designation	Color
	Head of switch XB4 yellow, 2 positions, return without interlock, backlit with short handle EKF PROXIMA	Yellow
	Head of switch XB4 green, 2 positions, return without interlock, backlit with short handle EKF PROXIMA	Green
	Head of switch XB4 red, 2 positions, return without interlock, backlit with short handle EKF PROXIMA	Red
	Head of switch XB4 blue, 2 positions, return without interlock, backlit with short handle EKF PROXIMA	Blue

### Accessories

Image	Designation	Color
	Base for controls XB4 metal EKF PROXIMA	-
	Spare lamp with a base XB4 EKF PROXIMA	White
		Yellow
		Green
		Red
		Blue
	Auxiliary contact NO (green) EKF PROXIMA	Black/green
	Auxiliary contact NC (red) EKF PROXIMA	Black/red



## Pilot lights and push buttons s-pro67 EKF



S-PRO67 series display and control equipment is made of AISI 304 stainless steel. The control equipment is designed for operational control for the technological equipment and indication of the electrical circuits state. It is used in AC networks with a frequency of 50/60 Hz and a voltage of up to 400 V, and a constant voltage of up to 400 V. It is installed in a 19 mm mounting hole and has an IP67 protection rating.

### APPLICATION

The control equipment of stainless steel AISI 304 is used for complete set of cabinets, information and signal stands, pushbutton boxes:

- industrial and manufacturing premises;
- food industry;
- public places;
- street systems.

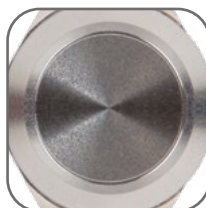
### ADVANTAGES



The adapter allows connecting buttons to the network quickly and safely



IP67 protection class



AISI 304 stainless steel housing



Silver-plated contacts





LED illumination

### PRODUCT RANGE

Pushbuttons, Switches, Pilot Lights

Image	Designation	Color
	Indicator lamp S-Pro67 19 mm 230V AC/24V DC EKF PROXIMA	Red
		Green
		Orange
		Blue
		White
	Push-button S-Pro67 19 mm 230V AC / 24V DC EKF PROXIMA	Red
		Green
		Orange
		Blue
		White

Image	Designation	Color
	Push-button S-Pro67 19 mm without interlock no backlit EKF PROXIMA	None
	Bottom adapter S-Pro67 3 contacts EKF PROXIMA	-

## Cam switches PK EKF PROXIMA


**WARRANTY**  
**7**  
 YEARS

**ERC**
**63A**
**OPERATION**  
**>20**  
 YEARS

**IP54**
**Al**  
**Cu**

EKF PROXIMA PK cam-type switches are mechanical switching devices designed for the application in AC circuits with a rated voltage of up to 400 V and a frequency of 50/60Hz. There are several versions of Cam-type switches for currents up to 100 A:

- PK-1 - a standard cam-type switch with various switching circuits and various number of poles;
- PK-2 - a three-phase cam-type switch with advanced contact group (load-break switch);
- PK-3 - a three-phase cam-type switch in IP 54 protective box (load-break switch).

PK-1 and PK-2 switches are available with a front mounting. They are installed on the front panel of switchboard equipment, control panels, etc. PK-3 switches with rear mounting are installed on the mounting panel.

### APPLICATION

EKF PROXIMA PK cam-type switches are designed for closing power and control circuits under load and switching between circuits:

- in control panel equipment;
- in control, distribution of electricity, in test stands;
- in control panels;
- in welding equipment, etc.

### ADVANTAGES



Protection against unintentional touching current-carrying parts



Silver-plated power contacts with high mechanical wear resistance



Fast switching mechanism



Small dimensions

## Pendant control stations PKT IP54 EKF PROXIMA


**WARRANTY**  
**7**  
 YEARS

**ERC**
**OPERATION**  
**>10**  
 YEARS

**IP54**

PKT IP54 EKF PROXIMA push-button control panels are switching devices with return buttons and a sealed housing made of heat-resistant ABS plastic. For sealing the cable entry, a protective seal is provided, and a sealing strip is installed between the housing and the panel.

### APPLICATION

IP54 EKF PROXIMA push-button control panels perform the function of a portable communication device and are designed to control various lift mechanisms and drives:

- telfers;
- support cranes;
- bridge cranes.

### ADVANTAGES



High protection class



Plastic, Flame-retardant



Design options with 2, 4 or 6 buttons



Double insulation

## Control stations EKF PROXIMA



EKF PROXIMA plastic push button controllers are made of high-quality and flame-retardant plastic. Available with the number of seats from 1 to 6.

### APPLICATION

EKF PROXIMA push-button plastic controllers are used for the arrangement of control panels and signaling machines, cranes, winches, automatic gates, etc. The controllers are provided with 22 mm holes for the operation of the following equipment:

- control buttons;
- Pushbuttons, Switches, Pilot Lights;
- switches with a landing diameter of 22 mm.

### ADVANTAGES



Plastic,  
Flame-retardant



Simple and reliable  
design



Up to 6 installation  
places



Recessed mounting  
screw position



IP54 protection class

## Push button switches with interlock IP40 EKF PROXIMA



IEC 60947-5-1-2014

IP40 EKF PROXIMA locking push-button switches are switching devices with two fixed buttons and a metal housing. A protective oil seal is provided to seal the cable entry.

### APPLICATION

IP40 EKF PROXIMA locking push-button switches are designed for infrequent switching of one-and three-phase loads of inductive and active nature:

- electromotors;
- lighting;
- heating devices;
- concrete mixers;
- pumps;
- compressors.

### ADVANTAGES



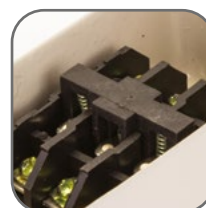
Metal housing



Contact  
for the visible  
grounding



Input gasket



Direct switching of  
loads up to 16 A

## Packet switches and rotary switches EKF PROXIMA



IEC 60947-5-1-2014



The batch switches and circuit breakers are designed for operation in electrical circuits with a voltage of up to 400 V AC with a frequency of 50, 60 Hz and 400 Hz and up to 220 V DC. The switches (circuit breakers) provide operation in the following modes: continuous, intermittent-continuous and repeated-short - term. The switching frequency is no more than 120 times per hour.

### APPLICATION

The batch switches are designed for switching power and control circuits under load and switching between circuits. They are used as:

- input switches and circuit breaker in the control circuits of electrical power distribution installations;
- switching devices with manual drive for infrequent circuit closing/opening;
- for manual control of asynchronous electric motors in AC electric circuits.

### ADVANTAGES



IP 56 protection class



Various climate versions



For currents up to 100 A



The mounting bracket is of high hardness



Switching with aluminum and copper wire is possible

## Limit switches TZ-8 EKF PROXIMA

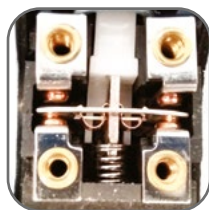


TZ-8 EKF PROXIMA track contact breakers are designed for switching AC control circuits with a voltage of up to 660 V and a frequency of 50 Hz under the effect of control stops at certain points in the path of the controlled object. The compact and precise limit switch with high dust-and moisture-proof design, which allows to use it in difficult conditions in various industries.

### APPLICATION

- in stationary installations (machines, conveyors, escalators);
- on transport and lifting vehicles, where they are actuated by means of control stops;
- for the alarm systems equipment of electric drives or other electrical devices.

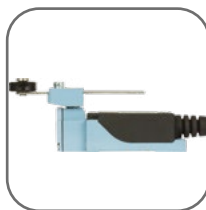
### ADVANTAGES



Instant switching



Two contact groups (NO, NC)



Small size



Dust- and water-proof design



Possibility to rotate the lever for 90/180/270 degrees



Base of aluminium alloys



## Limit switches VK EKF PROXIMA



16A

WARRANTY  
7  
YEARS

EAC

OPERATION  
10  
YEARS

The limit switches are designed for switching electrical circuits under the effect of mobile mechanisms interaction with the switch drive.

### APPLICATION

- elevating equipment;
- crane equipment;
- telfers.

### ADVANTAGES



Metal housing base and cover



Wide range of limit switches



Contact wear resistance



High protection class

## Limit switches KU-7 EKF PROXIMA



500 V

WARRANTY  
5  
YEARS

EAC

10A

OPERATION  
10  
YEARS

IP44/54

EKF PROXIMA limit switches have two independent electrical circuits that can operate on alternating current, with a voltage of up to 500 V at a nominal frequency of 50 Hz, and on direct current with a voltage of up to 440 V in short-term operation. The permissible switching frequency is no more than 600 cycles per hour.

### APPLICATION

The limit switches are designed for switching electrical circuits under the effect of mobile mechanisms interaction with the switch drive. Application:

- elevating equipment;
- crane equipment;
- telfers;

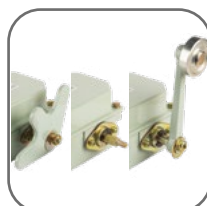
### ADVANTAGES



Silumin housing base and cover



Input gasket



Three mechanisms movement schemes at option



Contact for the visible grounding




Contact wear resistance




High protection class

## Position switches EKF PROXIMA



EKF PROXIMA track contact breakers are designed for switching electrical control circuits with an AC voltage of up to 660 V and a frequency of 50 Hz under the effect of control stops at certain points in the path of the controlled object.

EASY TO OPERATE  


WARRANTY  
**7**  
YEARS

**EAC**

**10A**


OPERATION  
**10**  
YEARS

HIGH QUALITY  
AND  
STRUCTURAL  
RELIABILITY


### APPLICATION

- in stationary installations (machines, conveyors, escalators);
- on transport and lifting vehicles, where they are actuated by means of control stops;
- for the alarm systems equipment of electric drives or other electrical devices.

### ADVANTAGES




Large selection of construction



Simplicity and reliability

## Position switches EKF PROXIMA




VP15 EKF PROXIMA track breakers are designed for use in electrical control circuits with an AC voltage of up to 660 V and a frequency of 50 Hz, and a DC voltage of up to 440 V under the effect of control stops at certain points of the controlled object path.

**10A**

WARRANTY  
**5**  
YEARS

**EAC**

EASY TO OPERATE  


HIGH QUALITY  
AND  
STRUCTURAL  
RELIABILITY

OPERATION  
**10**  
YEARS

**IP54**

### APPLICATION


The track contact breakers are designed for the electrical circuits switching in automatic drive control systems. This device is activated by the moving mechanism, which at certain points in its path causes the corresponding closing or opening of the switch contacts. Application:

- in stationary installations (machines, conveyors, escalators);
- on transport and lifting vehicles, where they are actuated by means of control stops;
- for the alarm systems equipment of electric drives or other electrical devices.


### ADVANTAGES



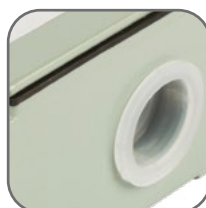
Reliable metal housing



Large selection for all types of drives



Contact wear resistance



High protection class

92

The most up-to-date information is always available by request: [sales@ekfgroup.com](mailto:sales@ekfgroup.com)

ENERGY. KNOWLEDGE. FUTURE.

## Wall/flush-mounted distribution enclosures



The distribution enclosures are designed for electricity distribution, protection against overload and short-circuit currents and can enclose various modular devices. Wide range of applications: from residential construction to various industries. The enclosures are assembled by welding to ensure their high rigidity and integrity. Distribution enclosures are equipped with a removable door. The enclosures are protected against corrosion and environmental impacts by Parkerizing AND THE WEATHERPROOF POWDER PAINT.

### APPLICATION



The distribution enclosures are applied in production, various industries and civil construction: in administrative buildings, office and retail premises, private residential buildings, and garage cooperatives.

Designed for:

- assembly of power distribution boards;
- network protection against overload and short-circuit currents;
- installation of various modular modular.

### ADVANTAGES



Weather-resistant powder paint



High-quality welded case



Large selection of standard sizes and complete sets



Copper-plated studs. Fixed braided grounding wire

ONLY FOR  
**IP54**



Hermetic gasket on the door and dust-waterproof lock



The bevelled chute prevents ingress of moisture inside



Reinforced hinges



Plates for wall mounting

## Wall/flush-mounted plastic distribution enclosure Slimbox IP41



The plastic distribution enclosures SlimBox are designed for installation of modular equipment: MCB, RCCB, timers, electric meters, etc. These enclosures are used for electrical installation in residential, administrative and commercial premises. The distribution enclosures are made of durable ABS plastic in a glossy white color. With a darkened door, the enclosures fit aesthetically into the interior of residential and commercial buildings. The base of the wall-mounted enclosures is low, facilitating the enclosure assembly and wiring due to more free space for the assembly worker.

### APPLICATION



The scope of application include infrastructure and civil construction: office and retail premises, private residential buildings, apartments.

### ADVANTAGES



Busbars N and PE in the kit



Integrated level for accurate mounting



Layout for cable connection



Left- and right-side door installation options


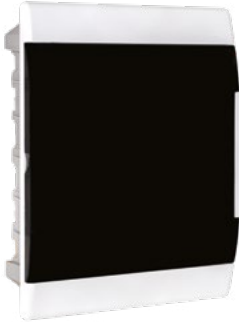


Low base for easier assembly



Attractive retail pack

### PRODUCT RANGE

Image	Designation	Image	Designation
	Wall-mounted plastic distribution enclosure 6 Slimbox IP41		Flush-mounted plastic distribution enclosure 12 Slimbox IP41
	Wall-mounted plastic distribution enclosure 8 Slimbox IP41		Flush-mounted plastic distribution enclosure 18 Slimbox IP41
	Wall-mounted plastic distribution enclosure 10		
	Wall-mounted plastic distribution enclosure 12 Slimbox IP41		Flush-mounted plastic distribution enclosure 24 Slimbox IP41
	Wall-mounted plastic distribution enclosure 15 Slimbox IP41		
	Wall-mounted plastic distribution enclosure 18 Slimbox IP41		
	Wall-mounted plastic distribution enclosure 24 Slimbox IP41		



## Wall/flush-mounted plastic distribution enclosure IP41


WARRANTY  
5  
YEARS

IP41



The wall/flush-mounted plastic distribution enclosures are designed for installation of modular equipment (MCB, RCBO, RCCB, timers, control devices, etc). and are used in residential and commercial buildings. They are used for electrical installation in residential, administrative, and commercial premises. With the door opened upwards, the enclosure can be installed anywhere regardless of the adjacent walls. The enclosures are made of durable ABS plastic.

### APPLICATION



Designed for:

- assembly of power distribution boards;
- network protection against overload and short-circuit currents;
- installation of various modular devices.

### ADVANTAGES



Door opened upwards - installation regardless of the adjacent walls



Busbars N and PE in the kit



Die-fixed cable inputs

### PRODUCT RANGE



Image	Designation	Max. number of modules
	Wall-mounted plastic distribution enclosure 3 IP41	3
	Wall-mounted plastic distribution enclosure 4 IP41	4
	Wall-mounted plastic distribution enclosure 6 IP41	6
	Wall-mounted plastic distribution enclosure 8 IP41	8
	Wall-mounted plastic distribution enclosure 10 IP41	10
	Wall-mounted plastic distribution enclosure 12 IP41	12
	Wall-mounted plastic distribution enclosure 15 IP41	15
	Wall-mounted plastic distribution enclosure 18 IP41	18
	Wall-mounted plastic distribution enclosure 24 IP41	24
	Wall-mounted plastic distribution enclosure 36 IP41	36
	Wall-mounted plastic distribution enclosure 45 IP41	45

Image	Designation	Max. number of modules
	Flush-mounted plastic distribution enclosure 3 IP41	3
	Flush-mounted plastic distribution enclosure 4 IP41	4
	Flush-mounted plastic distribution enclosure 6 IP41	6
	Flush-mounted plastic distribution enclosure 8 IP41	8
	Flush-mounted plastic distribution enclosure 10 IP41	10
	Flush-mounted plastic distribution enclosure 12 IP41	12
	Flush-mounted plastic distribution enclosure 15 IP41	15
	Flush-mounted plastic distribution enclosure 18 IP41	18
	Flush-mounted plastic distribution enclosure 24 IP41	24
	Flush-mounted plastic distribution enclosure 36 IP41	36
	Flush-mounted plastic distribution enclosure 45 IP41	45

Wall-mounted sealed plastic distribution enclosures IP65

IP65

WARRANTY 5 YEARS

The plastic distribution enclosures are designed for electricity distribution, protection against overload and short-circuit currents, and can enclose various DIN-rail modular devices. With the high degree of ingress protection (IP65), they can be used in highly dusted and humid rooms, in garages, industrial premises, basements, car washes, warehouses, etc. The enclosures are made of durable ABS plastic.

APPLICATION

These models are used in production and industry, as well as in civil construction.  
Designed for:

- assembly of power distribution boards;
- network protection against overload and short-circuit currents;
- installation of various modular.

ADVANTAGES

Busbar N and PE in the kit

Option of sealing

Die-fixed cable inputs

The distance adjustment between DIN rails\*

Dismountable frame with DIN rails\*

Gland plates\*

\*For dimensions of 36 and 54 modules.

PRODUCT RANGE

Wall-mounted plastic distribution enclosure, 5 modules 8 modules 12 modules	Wall-mounted plastic distribution enclosure, 24 modules	Wall-mounted plastic distribution enclosure, 36 modules 54 modules

## Enclosures Granite IP66


**IP66**
**WARRANTY**  
**5**  
YEARS


The enclosures with mounting plate Granite have a robust case for the assembly of control and automation switchboards designed to work in adverse conditions. With the high degree of tightness and fully welded joints, the enclosures can be used outdoors, in industrial and dusty premises. They can enclose both modular and power equipment.

### APPLICATION



The enclosures Granite serve as the base for any type of low-voltage switchgears and can be used in industrial or adverse conditions.

Designed for:

- Assembly of power distribution boards;
- Installation of equipment for network protection against overload and short-circuit currents;
- Installation of various modular and power equipment.

### ADVANTAGES



Dust- and moisture-proof lock



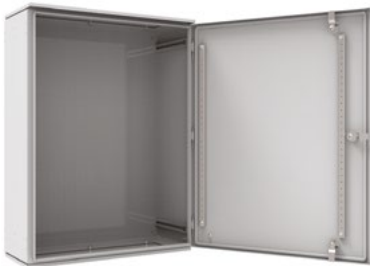
Protection rating IP66





The smooth depth adjustment option for the installed equipment

- mounting kit optional: a mounting plate or a frame with DIN rails;
- protective visor;
- removable cable inputs at the top and bottom of the enclosure.

## First, choose the size of the enclosure

Description	Designation	Dimensions
 <p>Choose by the size of the equipment to be installed in the enclosure. Leave at least 30% of the free space inside the enclosure to avoid the equipment overheating.</p>	Enclosure with mounting plate Granite IP66, 40.31.22	400x310x220
	Enclosure with mounting plate Granite IP66, 50.40.22	500x400x220
	Enclosure with mounting plate Granite IP66, 65.50.22	650x500x220
	Enclosure with mounting plate Granite IP66, 80.60.25	800x600x250
	Enclosure with mounting plate Granite IP66, 100.65.27	1000x650x270
	Enclosure with mounting plate Granite IP66, 120.65.27	1200x650x270
	Enclosure with mounting plate Granite IP66, 140.65.27	1400x650x270


## Then, based on the equipment size, choose a mounting plat or a DIN-rail kit

Description	Designation	Description	Designation
 <p>It is a universal element for any equipment installation, mainly power equipment, and control, automation and monitoring equipment.</p>	Mounting plate for 40.31.22 "Granite"	 <p>Designed for installation of modular devices and, if necessary, for removal of equipment under a trim panel in order to provide the protection against touches.</p>	Frame with a set of DIN rails for 40.31.22 "Granite"
	Mounting plate for 50.40.22 "Granite"		Frame with a set of DIN rails for 50.40.22 "Granite"
	Mounting plate for 65.50.22 "Granite"		Frame with a set of DIN rails for 65.50.22 "Granite"
	Mounting plate for 80.60.25 "Granite"		Frame with a set of DIN rails for 80.60.25 "Granite"
	Mounting plate 100.65.27 "Granite"		Frame with a set of DIN rails for 100.65.27 "Granite"
	Mounting plate for 120.65.27 "Granite"		Frame with a set of DIN rails for 120.65.27 "Granite"
	Mounting plate for 140.65.27 "Granite"		Frame with a set of DIN rails for 140.65.27 "Granite"

The universal mounting plate allows to install any equipment, mainly power, control equipment, automation, meters.

The frame with DIN rails are designed for installation of modular devices. It is possible to install false panels.

## In order to provide the additional protection from touch, we recommend to install the front plates\*

Descriptio	Designation
 <p>It is used to provide additional protection against touches, besides the door. Most often, it is used in a set with a depth-adjustable kit of DIN rails. It can also be used with a mounting plate. For unused port plugs in the false panel, it is possible to use a plug for 12 modules ID ak-0-1.</p>	Front plate for 24 modules of 40.31.22 "Granite"
	Front plate for 36 modules of 50.40.22 "Granite"
	Front plate for 48 modules of 65.50.22 "Granite"
	Front plate for 96 modules of 80.60.25 "Granite"
	Front plate for 144 modules of 100.65.27 "Granite"
	Front plate for 168 modules of 120.65.27 "Granite"
	Front plate for 192 modules of 140.65.27 "Granite"

\* For the front plate installation, it is necessary to order the installation kit, ID mb-65k.



## Stainless steel enclosures Inox IP66



Inox IP66 EKF PROXIMA stainless steel enclosures are designed for the assembly of electrical automation boards, electrical power distribution hubs and control boards. They are used in the food industry, the agricultural sector, and pharmaceuticals. Resistance to aggressive environments and corrosion allows to install the "Inox" enclosures in the gas, oil refining, and chemical industries. The enclosures have all-welded construction, without holes and any visible gaps, which helps to achieve their high hermiticity. For WM installation, a separate mounting kit is used.

### APPLICATION

Main application areas:

- food industry;
- agricultural sector;
- pharmaceuticals;
- alcohol plants;
- dairy plants.

### ADVANTAGES



IP66



Resistance to corrosion



Resistance TO THE AGGRESSIVE AGENTS



Overall sizes of cabinets (HxWxD):  
250x300x150  
1200x800x300

## Plastic enclosures with mounting plate IP65



The plastic enclosures with mounting plate IP65 EKF PROXIMA are designed for installation of modular and power electrical equipment for the assembly of automation, distribution and control boards. The enclosures are made of shock-resistant ABS plastic and provide reliable protection of the installed equipment. The IP65 rating protects from the outside dust and moisture, ensuring safe operation of the enclosure components. They are supplied with two types of doors: dead and transparent.

### APPLICATION

The enclosures can be used in various market segments: from civil construction to industrial and infrastructure projects.

### ADVANTAGES



Dimensions (HxWxD):  
300x200x130 -  
800x600x260



Shock-resistant ABS plastic



Door hinge pin of stainless steel



Wide range of operating temperatures:  
-45... +80°C

## Flush-mounted plastic distribution enclosures Nova IP40

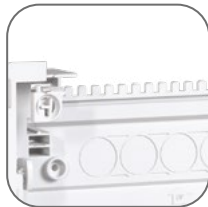


The plastic enclosures Nova are designed for assembling power, low-voltage and combination switchboards. These enclosures serve to contain DIN-rail modular devices; and antenna splitters, Wi-Fi routers, patch panels and other low-voltage devices installed onto mounting-plate. The enclosures can be flushed in concrete and brick walls, and plasterboard. The doors to the enclosures are to be ordered separately by the required size and optional materials – plastic, metal or perforated sheet metal.

### ADVANTAGES



Pre-assembled frame with DIN rails



Comb strip for securing incoming cables



Socket kit included in combination version



Cable gland plates



Adjustable depth of the door mounting

## Plastic distribution enclosures Unix65



The plastic distribution enclosures Unix65 are designed for electricity distribution, protection against overload and short-circuit currents, and can enclose various DIN-rail modular devices. With the high degree of ingress protection (IP65), Unix65 can be used in highly dusted and humid rooms, in garages, industrial premises, basements, car washes, warehouses, and even outdoors. The enclosures are made of heavy-duty and tamperproof plastic.

### ADVANTAGES



Left- and right-side door installation options



Mounting dimensions marked on the housing



Layout for cable entries marked on the housing



Housing sealing available

## PRODUCT RANGE

Appearance	Name	Dimensions, mm						Product ID
		A	B	C	D	E	F	
	Wall-mounted plastic distribution enclosure Unix65, 4 modules (664x319x144) IP65	201	128	120	-	-	140	ux65-4-n
	Wall-mounted plastic distribution enclosure Unix65, 8 modules (210x202x120) IP65	201	202	120	-	100	140	ux65-8-n
	Wall-mounted plastic distribution enclosure Unix65, 12 modules (259x319x144) IP65	259	319	144	-	210	130	ux65-12-n
	Wall-mounted plastic distribution enclosure Unix65, 18 modules (259x428x144) IP65	259	428	144	-	259	130	ux65-18-n
	Wall-mounted plastic distribution enclosure Unix65, 24 modules (384x319x144) IP65	384	319	144	125	210	255	ux65-24-n
	Wall-mounted plastic distribution enclosure Unix65, 36 modules (535x319x144) IP65	535	319	144	125	210	380	ux65-36-n
	Wall-mounted plastic distribution enclosure Unix65, 48 modules (664x319x144) IP65	664	319	144	125	210	505	ux65-48-n
	Lock with key for Unix65	-						ux65-lock

## Accessories for distribution enclosures EKF PROXIMA



Accessories are an integral part of the distribution enclosures and are used in their manufacture to ensure structural integrity and to make it possible to install the equipment.

### PRODUCT RANGE

#### EKF PROXIMA DIN-rails

Designed for modular DIN-rail product mounting in distribution enclosures. Made of galvanized perforated steel.

Image	Designation
	75 EKF PROXIMA DIN-rail
	100 EKF PROXIMA DIN-rail
	110 EKF PROXIMA DIN-rail
	125 EKF PROXIMA DIN-rail
	130 EKF PROXIMA DIN-rail
	200 EKF PROXIMA DIN-rail
	225 EKF PROXIMA DIN-rail
	300 EKF PROXIMA DIN-rail
	500 EKF PROXIMA DIN-rail
	800 EKF PROXIMA DIN-rail
	1000 EKF PROXIMA DIN-rail
	1400 EKF PROXIMA DIN-rail

#### Clamps for EKF PROXIMA DIN-rail


Clamps are used to fix modular DIN-rail products and terminal clamps.







Image	Designation
	Clamp for DIN-rail HDW-201 EKF PROXIMA
	Clamp for EKF PROXIMA DIN-rail HDW-211
	Plastic clamp for EKF PROXIMA DIN-rail EW

\* The maximum number of modules is based on a single module width of 18 mm.



## Branching clamp StreamLine



Branching clamp EKF PROXIMA is designed for branching from trunk lines of copper and aluminum wires with voltage up to 660 V, with preliminary insulation stripping at the installation site, without cutting the conductor.

### APPLICATION

- In industrial electrical installations
- At power supply facilities
- In boards, assemblies

### ADVANTAGES



Quick connection of the conductor without breaking its integrity



Contact part is made of anodized steel: spacers profiled for the cable size are tightened with bolts/screws











Two identical parts of the enclosure



Switching with aluminum and copper wire is possible

## Branch terminal blocks RBP



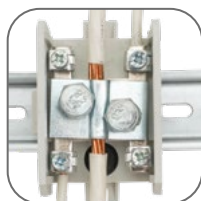








Trunk line branch terminal block is designed for branching copper and aluminum wires from trunk lines with voltage up to 660 V, with preliminary stripping at the installation site, without cutting the conductor. Allows to connect up to four outgoing lines.

### APPLICATION

- In industrial electrical installations
- At power supply facilities
- In boards, assemblies

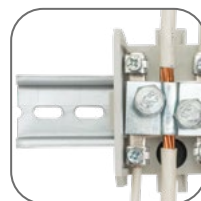
### ADVANTAGES



Four taps from the trunk cable



Base – copper plate, electro-tinned coating



Mounting on a mounting plate and on a DIN-rail



Connection of pass-through distribution units to each other

## Power supply input terminals KSV



KSV EKF PROXIMA terminals are designed for connecting lead-in copper and aluminum conductors. Solid and stranded conductors as well as flexible stranded conductors with a lug can be connected. Cross-section of the connected wires: from 2.5 to 240 mm<sup>2</sup> (depending on the terminals dimension).

The terminal is fixed on a DIN-rail using a special latchlock, after applying a slight force when installing the terminal.

The process of connecting the conductor to the terminal is carried out in a classic manner – loosen the slotted screw designed for the hex key, then insert the conductor into the hole and tighten the screw. KSV terminals provide for a safe connection between copper and aluminum conductors.

### APPLICATION



- As input and distribution terminals when assembling electrical switchboards
- As an adapter for connecting aluminum and copper cables
- As additional elements for connecting and installing industrial equipment

### ADVANTAGES



The power section is made of aluminum with a special coating: for connecting aluminum and copper conductors

The partition in the central part of the terminal prevents the conductor from "falling" inside the terminal

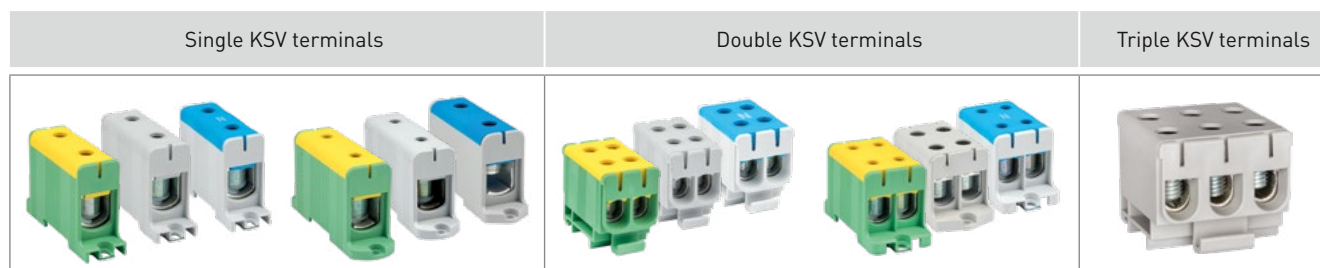
Cover made of polyamid with secure locking part

Secure conductor fixation with a steel screw

Ribbed surface on the inside of the unit prevents the conductor from falling out when tightening the terminal

Installation versatility: on 35 mm DIN-rail or mounting plate

### PRODUCT RANGE



## Terminal blocks



IP20

WARRANTY 7 YEARS

EAC

800V

FIREPROOF

-30°C  
+100°C

Terminals TV, TS, TK, BZD EKF PROXIMA are intended for connection and branching of copper and aluminum conductors in AC electric circuits with voltage up to 660 V and 50 Hz and are used as accessories in stationary installations.

### APPLICATION



For connecting and branching solid and stranded conductors of various cross-sections (depending on the size) in AC circuits up to 660 V.

### ADVANTAGES



The terminal kit includes a marking strip with a matt rough surface for easy marking



Mounting plate and DIN rail mounted TV, TS – mounting plate/DIN-rail, BZD – DIN-rail



Transparent cover for the products enclosure for monitoring the condition and integrity of contacts



Housing is made of ultra-resistant ABS plastic, which is not subject to drying out or cracking. Contact part material – brass for TV, TS, TK series



Wavy notches for secure conductor fixation



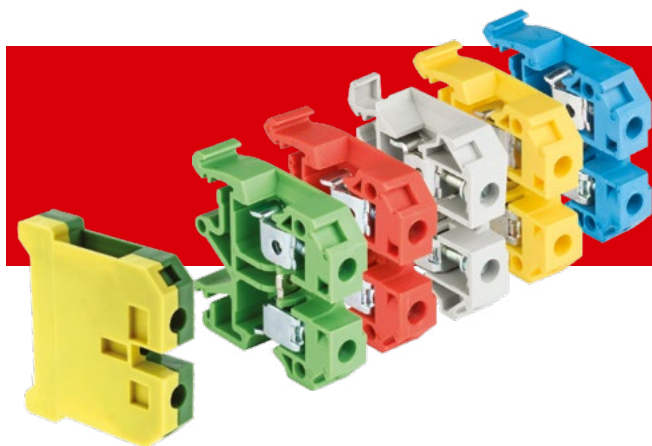
Housing is made of polyamide 6.6, the material of the contact plate – anodized steel for BZD series

### PRODUCT RANGE

TB terminal	TS terminal	TK terminal	BZD terminal
			



## Terminal blocks JXB



IP20

WARRANTY  
7  
YEARS

EAC

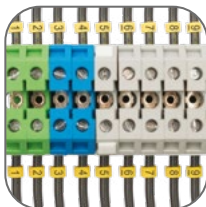
800V  
⚡

FIREPROOF

-40°C  
+80°C

Terminal block JXB and EK-JXB (ground) EKF PROXIMA are installed on a DIN-rail in distribution boards for reliable and convenient connection of conductors of various cross-sections and for different purposes. The conductor is clamped with a screw. Designed for use in AC circuits with a frequency of 50 Hz. Made of fire-resistant colored polyamide.

### APPLICATION



To allow for a convenient load distribution system, precise installation and further easy use of electrical circuits.

Scope:

Application:

- Cabinets, boards, assemblies.
- In various process equipment (pumping units, diesel and generator equipment, etc.).

### ADVANTAGES



The enclosure is made of high-quality polyamide, which is not subject to drying out or cracking



Automatic clamping of the terminal to the DIN-rail for quick installation



Contact group clamping plate for conductor secure fixation



Tightening the center screw secures the terminal on the DIN-rail















The conductive plate is made of anodized steel



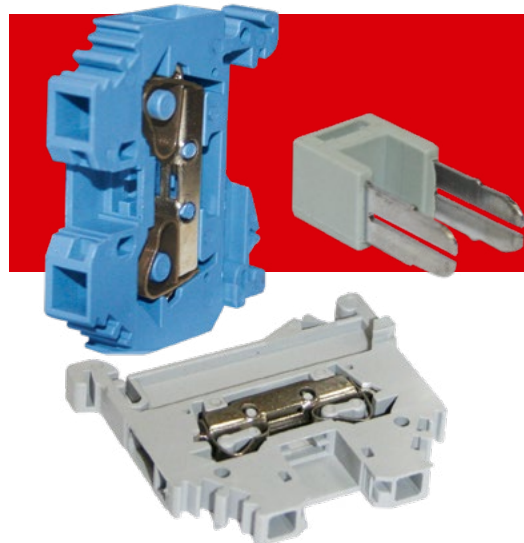
A wide range of cross-sections [1–95 mm²], colors and types (JXB/EK-JXB)

### PRODUCT RANGE

JXB terminal board					EK terminal board
					
Special terminal board					
Double terminal board	Double terminal board of L-type	Terminal board for fuse-links	Measuring terminal board	Measuring double terminal board	Measuring terminal board
					



## Terminal blocks JXB-S (spring clamp)



IP20

WARRANTY  
7  
YEARS

EAC

800V  
⚡

FIREPROOF

-40°C  
+80°C

JXB-S EKF PROXIMA self-clamping terminal strips are installed on a 35 mm DIN-rail and intended for use in distribution boards – for connecting and branching phase, neutral and grounding conductors of various cross-sections. A special advantage of these terminals is in the screw-less fastening of the conductors: spring-loaded self-clamping contacts are used. The conductor is laid from the side of the terminal. To disconnect the conductor, press the spring with a screwdriver through the hole located on top of the terminal. Designed for use in AC circuits with a voltage up to 800 V and a frequency of 50 Hz. The terminals are made of fire-resistant polyamide in the following colors: gray, blue, yellow-green (ground). In addition to the terminals, side plugs to close the contacts of the end terminal, jumpers for branching conductors, etc. are produced.

### APPLICATION



To allow for a convenient load distribution system, precise installation and further easy use of electrical circuits.

Scope:

- Cabinets, boards, assemblies.
- In various process equipment (pumping units, diesel and generator equipment, etc.).

### ADVANTAGES



Housing is made of high-quality polyamide, which is not subject to drying out or cracking.



Automatic clamping of the terminal to the DIN-rail for quick installation



Spring-loaded contact provides secure conductor fixation



The possibility of using a special jumper saves installation time



The current-carrying plate is made of high-quality stainless steel with a galvanic coating



A wide range of cross-sections (1–10 mm<sup>2</sup>)

### PRODUCT RANGE

JXB-S terminal board



## Terminal strips JXB-ST EKF PROXIMA















JXB-ST JXB-S EKF PROXIMA self-clamping terminal strips are installed on a 35 mm DIN-rail and intended for use in distribution boards – for connecting and branching phase, neutral and grounding conductors of various cross-sections. A special advantage of these terminals is in the screw-less fastening of the conductors: spring-loaded self-clamping contacts are used. The conductor is laid over top of the terminal. To disconnect the conductor, press the spring with a screwdriver through the hole located on top of the terminal. Designed for use in AC circuits with a voltage up to 800 V and a frequency of 50 Hz. The terminals are made of fire-resistant polyamide in the following colors: gray, yellow-green (earth). In addition to the terminals, side plugs to close the contacts of the end terminal, jumpers for branching conductors, markers, etc. are produced.

### APPLICATION

To allow for a convenient load distribution system, precise installation and further easy use of electrical circuits.

Scope:

- Cabinets, boards, assemblies.
- In various process equipment (pumping units, diesel and generator equipment, etc.).

### ADVANTAGES

The enclosure is made of high-quality polyamide, which is not subject to drying out or cracking.

Automatic clamping of the terminal to the DIN-rail for quick installation

Spring-loaded contact provides secure conductor fixation

The possibility of using a special jumper saves installation time

The current-carrying plate is made of copper

### PRODUCT RANGE

Terminal strips JXB-ST

108

The most up-to-date information is always available by request: [sales@ekfgroup.com](mailto:sales@ekfgroup.com)

**ENERGY. KNOWLEDGE. FUTURE.**

## EKF PROXIMA cable marker

### DESCRIPTION


-40°C  
+85°C

FIREPROOF

WARRANTY  
7  
YEARS

EAC

here is an indelible designation of numbers or letters on the surface of EKF PROXIMA plastic elastic cable marker. It is put on cables and wires to assign a designation to the conductor. For example, you mark a wire according to the assembled circuit so that further you can always identify the section of the assembled circuit and the purpose of the conductor. Using combinations of letters and numbers on cable marker you can assign to conductors any required designation.

### APPLICATION

Designed for marking conductors in electrical switchboards, assemblies and compartments of protection and automation relays. It is necessary for identifying conductors during the wiring installation or wiring unstringing.

### ADVANTAGES



Plastic material allows you to separate the tag from the general "braid" effortlessly

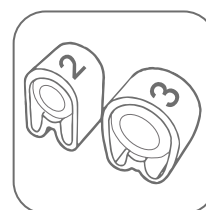


Made of flame retardant flexible polyvinyl chloride



The print on the marker is not erased even after many years of use. Marking range:

- from "0" to "9"
- N, A, B, C, L



The same cable marker can be installed on wires of different cross-sections due to its flexibility

## EKF PROXIMA cable marking tag


-40°C  
+90°C

WARRANTY  
7  
YEARS

EAC

EKF PROXIMA marking tags are used to mark cable lines, assemblies and wires; they add descriptiveness to the cable line, allowing you to quickly identify the cable without using test equipment. U-134 (large square) and U-153 (small square) tags – for power cables up to 1,000 V. U-135 tag (circle) – for power cables over 1,000 V. U-136 tag (triangle) – for control cables. The tags are made from polypropylene and have a matte surface. The white color and matt surface allow you to mark in any convenient way, for example, with a marker or pencil.

### APPLICATION



U-134, U-153 tag – designed for marking cables up to 1,000 V. U-135 tag – designed for marking cables over 1,000 V. U-136 tag – designed for marking control cables and wires



### ADVANTAGES



Tags are made from polypropylene and have a matte surface.

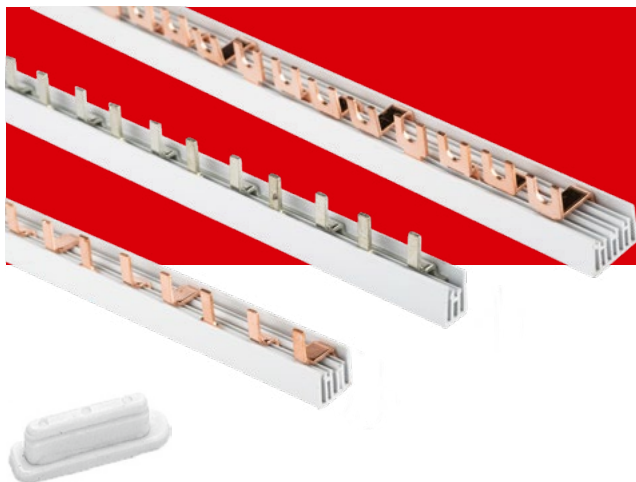


Matte surface allow for applying a marking in any convenient way



The shapes and sizes of tags fully comply with IEC 18160-72

## Plugs for connecting bars PIN and FORK type



WARRANTY  
**7**  
YEARS

**EAC**

**-40°C**  
**+90°C**

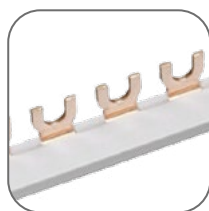
Connecting busbars are produced in two versions: FORK ("plug") and PIN ("comb") for rated currents of 63 and 100 A, for one-, two-, three- and four-phase loads. Connecting busbars are plates made of copper (100 A busbars are made of tinned copper) and fixed in an enclosure made of a dielectric material that does not support combustion, and produced with a standard length of 1 meter.

### APPLICATION



- Connecting bars with a pitch of 18 mm are used to connect most modular equipment with a width that is multiple of 1 module
- Connecting bars with a pitch of 27 mm are used with modular equipment with a width multiple of 1.5 modules (circuit breakers VA 47-100, VA 47-125)
- Connecting bars of 12 modules are widely used in apartment switchboards due to their compact size
- Connecting bars for RCB0s are easy to use due to the special arrangement of the busbar taps

### ADVANTAGES



100 A busbars are tinned for simultaneous connection with aluminum conductors



All the necessary information is printed on the product enclosure using thermal printing

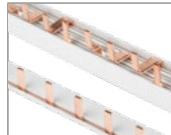
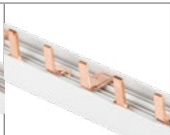
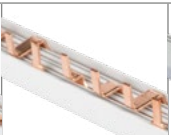
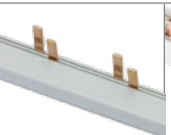
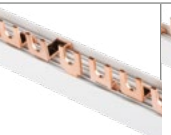
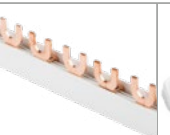




Clamp for circuit breaker and busbar connection, PIN type



Busbars are supplied complete with plugs

### PRODUCT RANGE

Connecting bar, PIN type				Connecting bar, FORK type		Plug for connecting bar	Clamp
							



## Power distribution blocks KBR



Power distribution block KBR is designed to provide convenient power distribution in enclosures and is used as an adapter terminal unit for connecting a cable core of a larger cross-section to several conductors of a smaller cross-section, as well as for arranging the main ground busbar (GZSh).

### APPLICATION



- In electrical switchboards
- In industrial installations
- At power supply facilities

### ADVANTAGES



Special "rails" on the side of the enclosure make it possible to connect the units into a single multi-pole structure



Structure is a stepped monolithic block in an insulated enclosure



Transparent nameplate prevents touching live parts



Universal fastening: for a mounting panel, for a 35 mm DIN-rail

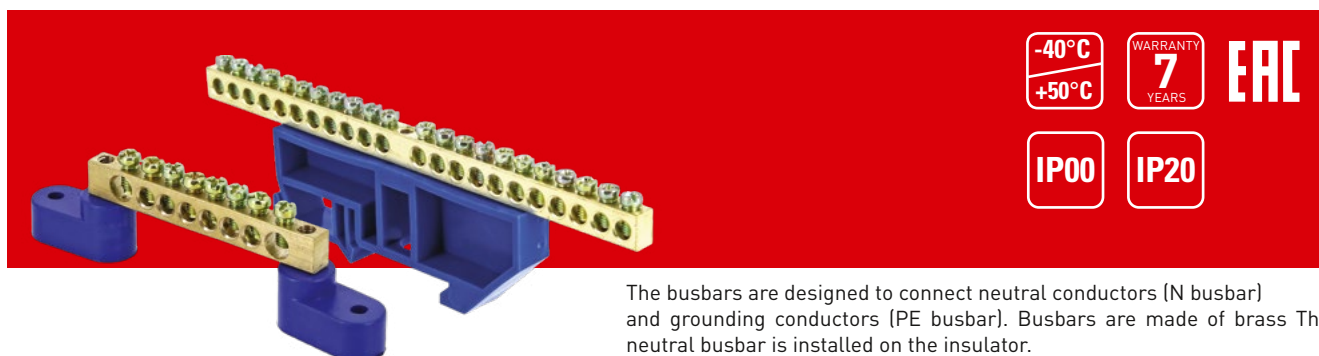


Housing is made of flame retardant PA66 polyamide

### PRODUCT RANGE

KBR-80	KBR-125	KBR-160	KBR-250	KBR-400	KBR-500
					

## Brass busbars (N and PE)



### APPLICATION

- In cabinets, boards, assemblies
- As accessories for production equipment

### ADVANTAGES



Contact part material: high quality brass



Insulators are made of flame retardant plastic








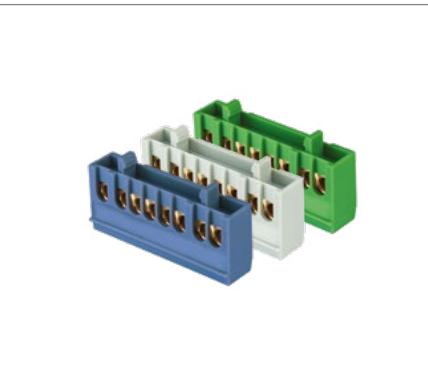


Clamping screws are made of nickel-plated steel

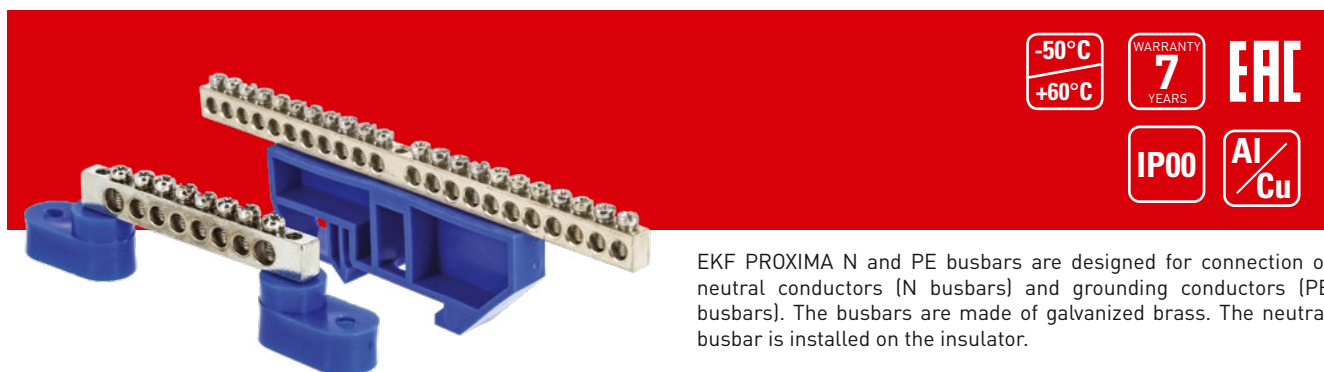


Rounding-off of the contact part of the screw prevents shearing of the conductor when tightened

### PRODUCT RANGE

EKF PROXIMA PEN busbar "neutral-ground"		EKF PROXIMA "0" N busbar		
Fastening on center	Fastening on edges	2 corner insulators	1 corner insulator	2 corner insulators with contact plate
				
EKF PROXIMA "0" N busbar				
For DIN-rail/"Rack" type	Nylon enclosure		Insulated enclosure	
				

## Galvanized neutral busbars



### APPLICATION



- In cabinets, boards, assemblies
- As accessories for production equipment

### ADVANTAGES



Galvanized coating makes it possible to connect copper and aluminum conductors simultaneously



Wide range of busbars makes it possible to select a busbar fitting for your device size



Clamping screws are made of galvanized steel



Busbars contact group is made of galvanized brass








Round screw base prevents the conductor from being cut



Insulators are made of flame retardant plastic

### PRODUCT RANGE

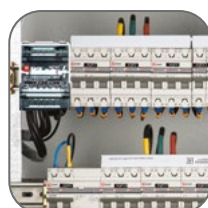
EKF PROXIMA PEN busbar "neutral-ground"		EKF PROXIMA "0" N busbar		
Fastening on center	Fastening on edges	on DIN-rail	1 angled insulator	2 angled insulators
				

## Screw distribution block



EKF PROXIMA neutral busbars in enclosure (cross-modules) are used in switchboard equipment to connect neutral operating (N) and neutral protective (PE) conductors. Cross-modules can be used as phase conductors.

### APPLICATION



- In cabinets, boards, assemblies
- s accessories for production equipment

### ADVANTAGES



Universal fastening:  
on a mounting plate,  
on 35 mm DIN-rail



Front protective  
shield provides  
touch protection



Housing is made  
of flame retardant  
plastic



Reliable fastening of  
busbar in the product  
enclosure



Increased thickness  
of housing



The contact part  
is made of  
electrotechnical  
brass









Reliable touch  
isolation of the  
enclosure



Simple and robust  
design

### PRODUCT RANGE

Neutral busbar in housing (2x7)	Neutral busbar in housing (2x11)	Neutral busbar in housing (2x15)	Neutral busbar in housing (4x7)	Neutral busbar in housing (4x11)	Neutral busbar in housing (4x15)
					



## Multi-stage distribution blocks



EKF PROXIMA busbar distribution units ShRB are used as reliable terminal clamps when creating structured systems in distribution cabinets. The units are mounted on a DIN-rail or mounting plate. Contact material: brass or copper, depending on the standard version; enclosure material: non-flammable PA66 polyamide; screw material: galvanized steel.

### APPLICATION

- In low-voltage complete devices
- In industrial installations
- On power supply facilities

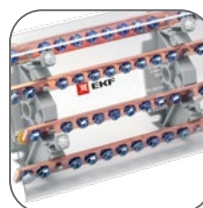
### ADVANTAGES



Easily removable transparent screen to protect against accidental touch



Galvanized steel screws included





Up to 52 connection points for conductors of various diameters

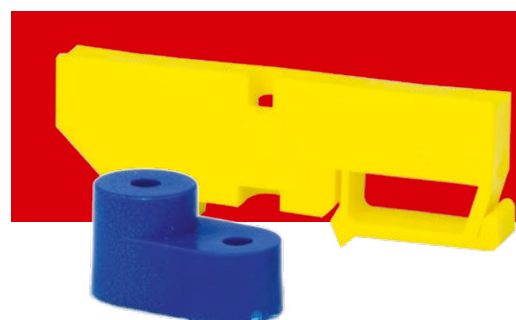


Insulator for DIN-rail in 160, 200, 250 A units

### PRODUCT RANGE





ShRB-160	ShRB-200	ShRB-250	ShRB-400
			

## EKF PROXIMA busbar insulator

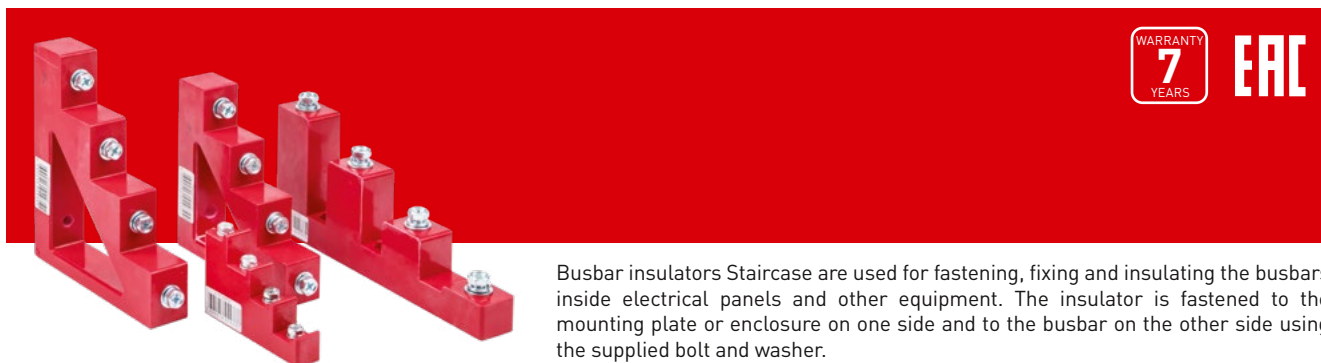


EKF PROXIMA busbar insulator is used for installation in electrical switchboard enclosures. Angled insulator for the neutral busbar: for installing a neutral operating busbar on a mounting plate. DIN-rail insulator for the neutral busbar: for mounting a neutral working busbar on standard 35 mm DIN-rail.

### PRODUCT RANGE

Image	Designation	Image	Designation
	EKF PROXIMA angled insulator "Stoyka" (Rack), blue		EKF PROXIMA angled insulator "Stoyka" (Rack), yellow
	EKF PROXIMA insulator for a DIN-rail, blue		EKF PROXIMA insulator for a DIN-rail, yellow

## Busbar insulators Staircase



Busbar insulators Staircase are used for fastening, fixing and insulating the busbars inside electrical panels and other equipment. The insulator is fastened to the mounting plate or enclosure on one side and to the busbar on the other side using the supplied bolt and washer.

### APPLICATION

Busbar systems are designed for switching, connecting and isolating. They are widely used:

- in electrical panel 70 (one side service);
- in lead-in Distribution electrical panel (VRU);
- in distribution electrical panels.

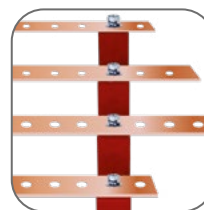
### ADVANTAGES



Material: dielectric plastic with the addition of reinforced fiberglass, not subject to aging and combustion



The insulator material is resistant to mechanical stress

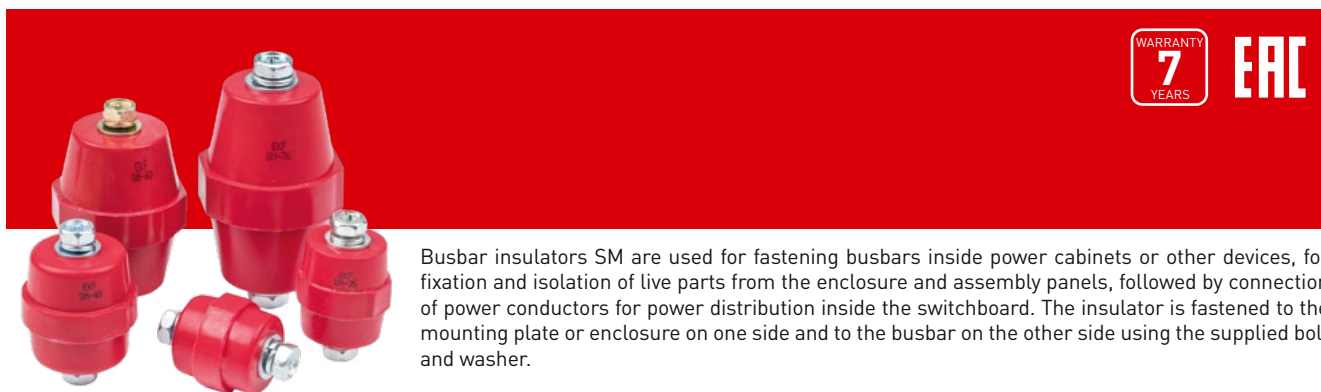


Possibility of installing busbars of different lengths with the same interphase distance



The insulators have brass threaded bushings for installation to the busbar and to the electrical switchboard metal structure

## Busbar insulators SM



Busbar insulators SM are used for fastening busbars inside power cabinets or other devices, for fixation and isolation of live parts from the enclosure and assembly panels, followed by connection of power conductors for power distribution inside the switchboard. The insulator is fastened to the mounting plate or enclosure on one side and to the busbar on the other side using the supplied bolt and washer.

### APPLICATION

Busbar systems are designed for switching, connecting and isolating. They are widely used:

- in electrical panel 70 (one side service);
- in lead-in Distribution electrical panel (VRU);
- in distribution electrical panels

### ADVANTAGES



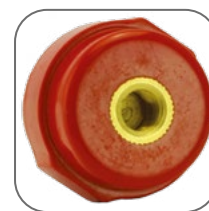
Material: dielectric plastic with the addition of reinforced fiberglass, not subject to aging and combustion



The insulator material is resistant to mechanical stress



Insulators have brass nuts for mounting to the busbar



Closed-bottom threaded sleeve provides secure screw hold

## EKF PROXIMA busbar support system

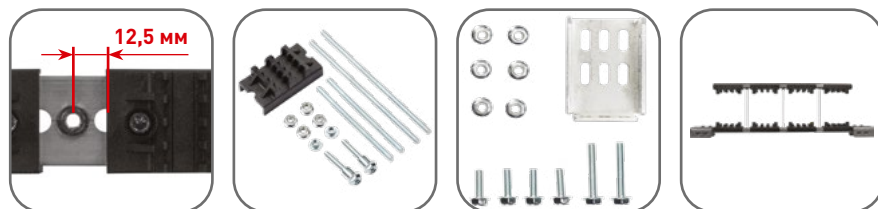


The busbar support system enables creating the required bus holder configuration in accordance with the project requirements. The base is a strong aluminum perforated profile, on which insulators are mounted to install power busbars in an edgewise manner. The insulators have different performances to ensure possible installation from 2 to 4 busbars with 5 and 10 mm thickness on one phase. All necessary fasteners are included nuts, studs, screws.

**APPLICATION** The system of busbar supports is widely used in low-voltage switchgear for organizing horizontal and vertical busbar systems:

- lead-in distributors;
- main distribution switchboards;
- distribution panels, ShchR etc.

### ADVANTAGES



Adjustable phase-to-phase spacing at a pitch of 12.5 mm

Choice of different mounting options for busbars

Busbar support elements fully equipped with fasteners

Simple and comprehensible installation

## Water-proof cable glands Pyramid



EKF PROXIMA cable glands are used to insert wires and cables into distribution enclosures, junction boxes, boxes and to protect the assembly itself from dust and moisture penetration.

### APPLICATION

- For installation in enclosures, junction boxes and electrical installations
- Cable entry into switchboard equipment
- Protection of conductors against dust and moisture

### ADVANTAGES



- Reliable protection of enclosure (IP54 protection class)
- Made of elastic polymer
- Thickness does not change on all layers

## Water-proof cable glands PG



WARRANTY  
**7**  
YEARS

**IP54**

**-40°C**  
**+80°C**

PG EKF PROXIMA glands are installed in the places where the wires are inserted into the switchboards. They consist of a lock nut, body, toothed coupling, cap nut, gland and gasket (made of neoprene). They are used in complex enclosures (assemblies, cabinets, junction boxes, etc.) to achieve an IP54 protection class.

### APPLICATION



For installation in switchboard equipment, junction boxes and electrical installations.

Designed for:

- cable entry into switchboard equipment;
- protecting wires against mechanical damage;
- protecting the assembly from dust and moisture.

### ADVANTAGES



Reliable protection of enclosure (IP54 protection class)



Extended lifetime

## Water-proof cable glands MG



WARRANTY  
**7**  
YEARS

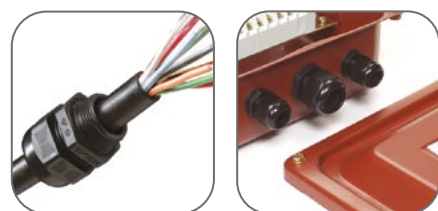
**IP68**

**-40°C**  
**+80°C**

EKF PROXIMA MG glands are installed in the places where the wires are inserted into the distribution boards. They consist of a lock nut, body, toothed coupling, cap nut, gland and gasket (made of neoprene).

They are used in complex enclosures (assemblies, cabinets, junction boxes, etc.) to achieve IP68 protection class.

### APPLICATION



For installation in switchboard equipment, junction boxes and electrical installations.

Designed for:

- cable entry into switchboard equipment;
- protecting wires against mechanical damage;
- protecting the assembly from dust and moisture.

### ADVANTAGES



Reliable protection of the enclosure (IP68 protection class)



Extended lifetime



## Water-proof metal cable glands MGM (IP68)


WARRANTY  
**7**  
YEARS

**IP68**

-40°C  
+100°C

EKF PROXIMA MGM metal glands consist of a lock nut, a body, a sealing nut (made of nickel-plated brass), a toothed coupling (nylon), a seal (neoprene) and an O-ring. They are used in complex enclosures to achieve IP68 protection class. Recommended for use when organizing cable glands in stainless steel or painted metal cabinets.

### APPLICATION



Designed for installation in electrical switchboard equipment enclosures, junction boxes and electrical installations, the use of which is designed for exposure to aggressive environments. In particular, for:

- entry of cables and wires,
- wires protection against mechanical damage,
- protection of the assembly from dust and moisture ingress at the entry points;

### ADVANTAGES



Reliable protection of the enclosure (IP68 protection class)



Extended lifetime

- High resistance to aggressive media, such as water-salt solutions, carbon dioxide, organic acids
- Resistance to synthetic oils and all fuels

## EKF PROXIMA membrane flange for enclosure IP54


WARRANTY  
**7**  
YEARS

**IP54**

-40°C  
+80

The membrane flange consists of a plastic body, a rubber membrane and mounting brackets with O-rings.

They are used in electrical cabinets to easily arrange a hermetically sealed conductor entry and achieve IP54 protection class.

### APPLICATION



Designed for installation in electrical switchboard equipment enclosures. In particular, for:

- entry of cables and wires;
- wires protection against mechanical damage;
- protection of the assembly from dust and moisture ingress at the entry points.

### ADVANTAGES



Reliable protection of enclosure (IP54 protection class)



Possibility of arranging the entry of conductors of different diameters



Resistance to synthetic oils and all fuels

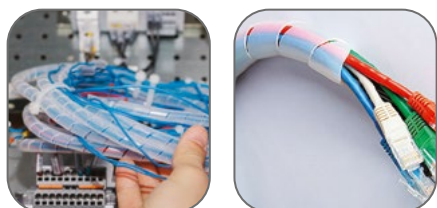
- Extended lifetime
- Anti-vandal shear screws protect against removal by unauthorized persons

## EKF PROXIMA SWB spiral wrapping band



EKF PROXIMA SWB spiral wrapping band is used for joining cables into routes, bundling and routing wires, protecting cables from friction and mechanical damage. The tape is made of high pressure polyethylene with the addition of combustion prevention components. Supplied in 10 m rolls.

### APPLICATION



The spiral allows you to quickly and reliably combine wiring inside cable ducts, metal trays and distribution cabinets.

### ADVANTAGES



Material: high pressure polyethylene with the addition of components preventing the spread of combustion

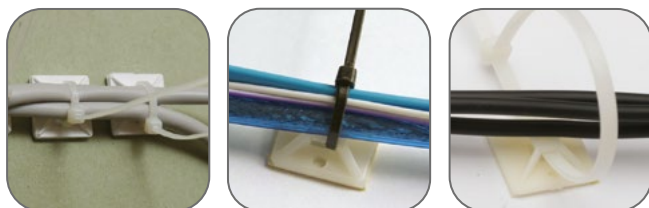
Conveniently create wire harnesses for arranging and achieving aesthetics in assemblies and cabinets

## EKF PROXIMA self-adhesive field for cable tie



EKF PROXIMA self-adhesive field for cable tie is intended for fastening mounting straps on flat surfaces. With self-adhesive layer. Made of Nylon 6.6 resistant to aging, salts, ultraviolet radiation, acids, alkalis, alcohol, gasoline and oils.

### APPLICATION



For fastening to any flat surface due to the adhesive layer and further fastening of the conductors and cables to the platform using cable ties.

### ADVANTAGES



Made of UV and aging resistant Nylon 6.6. Holes are provided on the enclosure for fastening to the surface with screws

Increased adhesive layer guarantees secure attachment to the mounting surface

Enclosure design provides through holes on four sides for flexible cable tie mounting

## EKF PROXIMA US universal busbar support



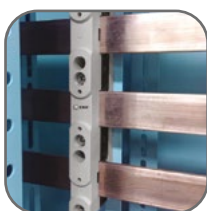
EKF PROXIMA US universal busbar support 12 x 5–10 x 30 is designed for fastening and fixing electrical busbars flat-wise, is used inside switchgear and lead-in distributors.

### APPLICATION

Busbar systems are designed for switching, connecting and isolating. They are widely used:

- in electrical panel 70 (one side service);
- in lead-in Distribution electrical panel (VRU);
- in distribution electrical panels.

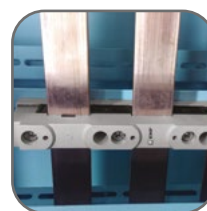
### ADVANTAGES



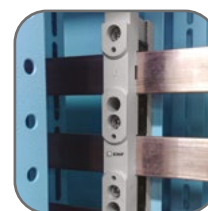
Possibility to create busbar systems without busbars drilling and punching



Possibility to install into bus bar support the busbars with a thickness of 5–10 mm and a height of 12–30 mm



Possibility to install horizontally



Possibility to install vertically

## Heater on DIN-rail IP20 EKF PROXIMA



Heater on DIN-rail IP20 EKF PROXIMA is intended for heating electrical equipment in electrical cabinets. Prevents condensation, corrosion and temperature drops below the minimum value. Protects electronic components against freezing. Designed for continuous operation. The aluminum profile design ensures natural air convection, resulting in an even temperature distribution. Connection via terminals speeds up the installation process (for terminal heater).

### APPLICATION

IP20 heater on DIN-rail is used at industrial, infrastructural and civil construction facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.

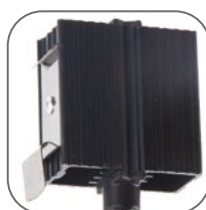
### ADVANTAGES



Lightweight anodized aluminum casing



Wide power range



DIN rail mounted



Fast connection with terminals

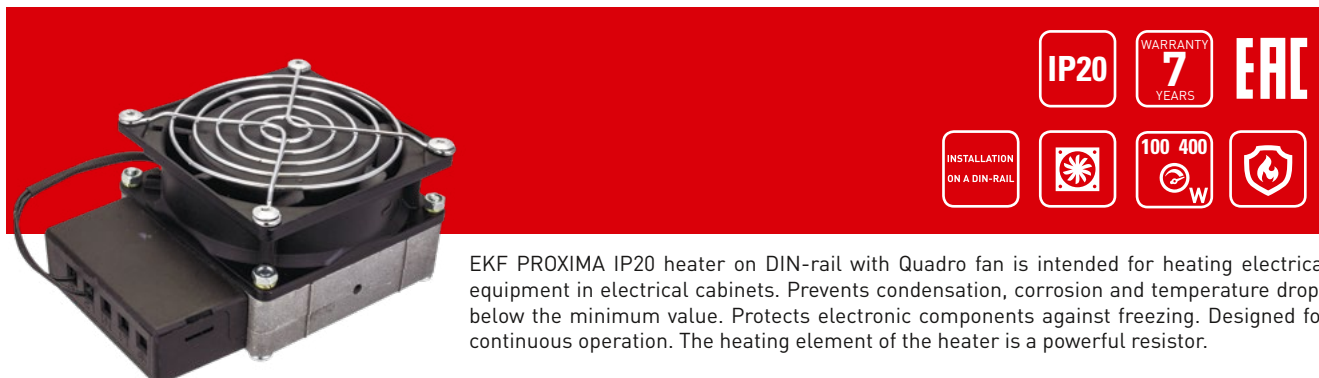


Lightweight anodized aluminum casing



DIN rail mounted

## Heater on DIN-rail with Quadro fan IP20 EKF PROXIMA



EKF PROXIMA IP20 heater on DIN-rail with Quadro fan is intended for heating electrical equipment in electrical cabinets. Prevents condensation, corrosion and temperature drops below the minimum value. Protects electronic components against freezing. Designed for continuous operation. The heating element of the heater is a powerful resistor.

### APPLICATION

The heater on DIN-rail is used at industrial, infrastructure and civil construction facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.

### APPLICATION



Fast heating of the cabinet space due to the built-in fan



Re-hangable mount for easy installation



Fast connection with terminals



DIN-rail mounted

## Heater with fan, protective housing EKF PROXIMA



Heater with fan in protective housing is used to heat the interior of a low-voltage complete device. It can be used both in combination with a thermostat (for temperature control) and with a hygrostat if humidity control is required. The heater has a built-in fan, which increases the heating speed of the cabinet interior. The protective enclosure of the device makes its maintenance safe during operation, preventing touching the heating element and live parts. The heater is connected with screw terminals located on the front panel. The heater shall be mounted onto DIN-rail.

### APPLICATION



- The heater is mainly used as part of solutions for heating low-voltage complete devices.

### ADVANTAGES



Fast heating due to a built-in fan



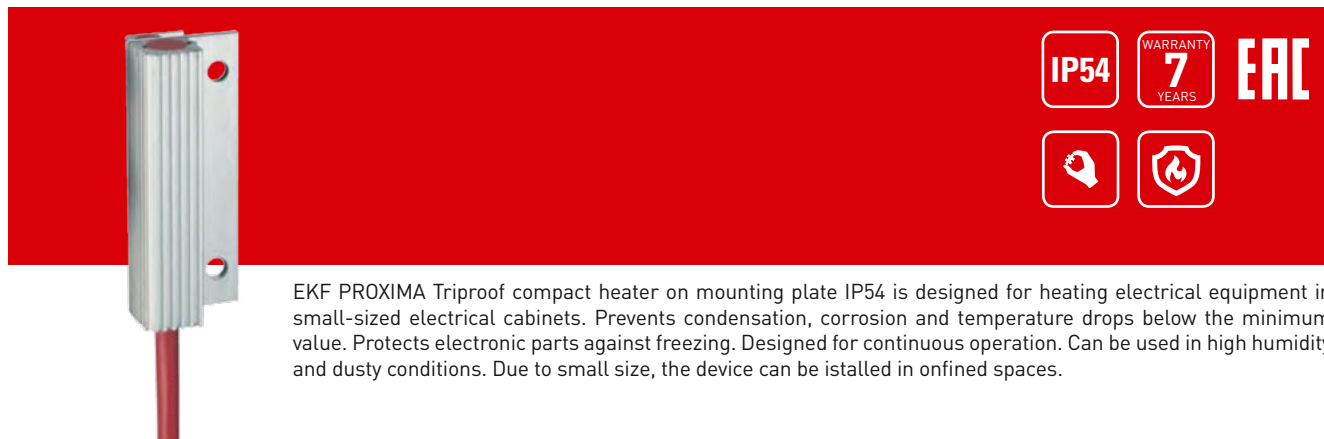
Compact solution up to 500 W



Fast and convenient installation



## Triproof compact heater on mounting plate IP54 EKF PROXIMA



EKF PROXIMA Triproof compact heater on mounting plate IP54 is designed for heating electrical equipment in small-sized electrical cabinets. Prevents condensation, corrosion and temperature drops below the minimum value. Protects electronic parts against freezing. Designed for continuous operation. Can be used in high humidity and dusty conditions. Due to small size, the device can be installed in confined spaces.

### APPLICATION

Triproof compact heater on mounting plate IP54 is used at industrial, infrastructure and civil construction facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.

### ADVANTAGES



Installation in any position

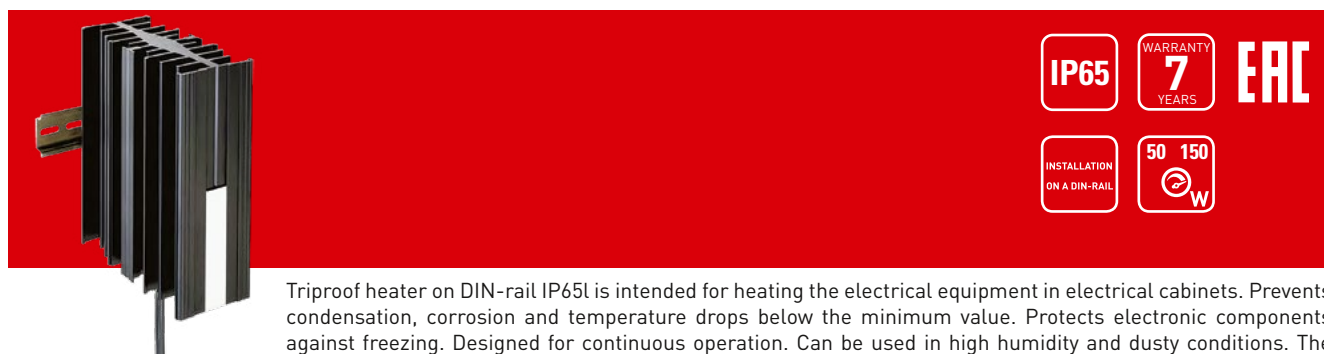


Protection against overheating



Lightweight anodized aluminum casing

## Triproof heater on DIN-rail IP65 EKF PROXIMA



Triproof heater on DIN-rail IP65L is intended for heating the electrical equipment in electrical cabinets. Prevents condensation, corrosion and temperature drops below the minimum value. Protects electronic components against freezing. Designed for continuous operation. Can be used in high humidity and dusty conditions. The heating element of the heater is a powerful resistor.

### APPLICATION

Triproof heater on DIN-rail IP65 is used at industrial, infrastructure and civil construction facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.

### ADVANTAGES



Lightweight anodized aluminum casing



Uniform heating due to convection

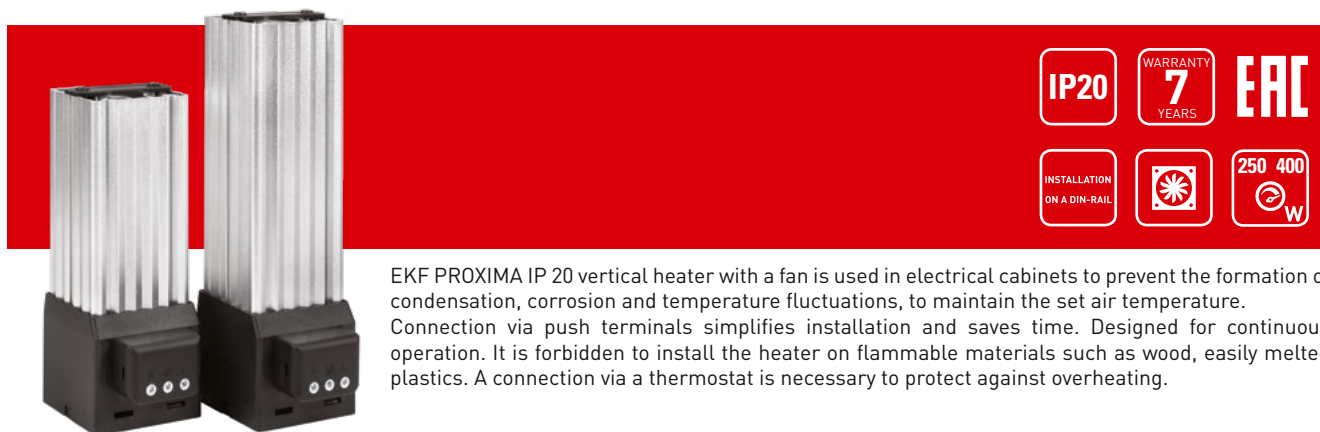


Re-hangable mount for easy installation



DIN-rail mounted

## Vertical heater with fan IP20 EKF PROXIMA



EKF PROXIMA IP 20 vertical heater with a fan is used in electrical cabinets to prevent the formation of condensation, corrosion and temperature fluctuations, to maintain the set air temperature.

Connection via push terminals simplifies installation and saves time. Designed for continuous operation. It is forbidden to install the heater on flammable materials such as wood, easily melted plastics. A connection via a thermostat is necessary to protect against overheating.

### APPLICATION

EKF PROXIMA IP 20 vertical heater with a fan is used at industrial, infrastructural and civil construction facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.

### ADVANTAGES



Fast heating of the cabinet space due to the fan availability



Even heat distribution



Compact dimensions



DIN-rail mounted

## Insulated heater with fan and thermostat EKF PROXIMA



Insulated heaters with fan and thermostat are used in electrical cabinets to prevent the formation of condensation, corrosion and temperature fluctuations, to maintain the set air temperature. The plastic enclosure provides additional electrical insulation and protection against touching the heating element. Wall-mounted heater installation.

### APPLICATION

The heater is used at industrial, infrastructural and civil construction facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.

### ADVANTAGES



DIN-rail mounted



Wide power range



Insulated housing



Built-in thermostat and fan

## Thermostat NC (heating) and thermostat NO (cooling) on DIN-rail EKF PROXIMA



EKF PROXIMA NC thermostat (heating) and NO thermostat (cooling) on a DIN-rail are designed to maintain a fixed temperature inside a room or in electrical switchboards enclosures. Designed to control actuators: heaters and fans, as well as to alert about exceeding the maximum temperature. Normally closed contact (NC) is used to regulate heaters. Normally open contact (NO) – for fan control or for switching on alarm sensors when the temperature is exceeded.

### APPLICATION

Thermostats on DIN-rail are used at industrial, infrastructure and civil construction facilities:

- used in solutions for microclimate control inside low-voltage complete devices for power distribution and industrial automation of processes;
- used as part of room heating control solutions.

### ADVANTAGES



Wide setting range



Small size



Fast connection with terminals



Simple DIN-rail mounting

## Thermostat NO + NC (heating and cooling) on DIN-rail EKF PROXIMA



EKF PROXIMA NO + NC thermostat (heating and cooling) on DIN-rail is designed to maintain a fixed temperature inside a room or in electrical switchboards enclosures. Designed to control actuators: heaters and fans, as well as to alert about exceeding the maximum temperature.

Normally closed contact (NC) is used to regulate heaters. Normally open contact (NO) – for fan control or for switching on alarm sensors when the temperature is exceeded.

### APPLICATION

The NO + NC (heating and cooling) thermostat on DIN-rail is used at industrial, infrastructural and civil construction facilities:

- used in solutions for microclimate control inside low-voltage complete devices for power distribution and industrial automation of processes;
- used as part of room heating control solutions.

### ADVANTAGES



Combined heater and fan control



Wide setting range



Simple DIN-rail mounting



Easy access to terminals

## Thermostat NO/NC (cooling/ heating) surface-mounted EKF PROXIMA


**NC+NO  
CONTACTS**
**WARRANTY  
7  
YEARS**
**EAC**

EKF PROXIMA Thermostat NO/NC (cooling/ heating) surface-mounted is designed to maintain a fixed temperature inside a room or in electrical switchboards enclosures. Designed to control actuators: air heaters, warm floors, membrane heaters and fans, as well as to alert about exceeding the maximum temperature.

### APPLICATION

EKF PROXIMA Thermostat NO/NC (cooling/ heating) surface-mounted is used at industrial, infrastructural and civil construction facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.
- used as part of room heating control solutions

### ADVANTAGES



Simple connection  
and operation



Small size



Wide adjustment  
range

## Thermostat NO+NC (cooling/ heating) on DIN-rail EKF PROXIMA


**NC+NO  
CONTACTS**
**WARRANTY  
7  
YEARS**
**EAC**

EKF PROXIMA Thermostat NO+NC (cooling/ heating) on DIN-rail is designed to maintain a fixed temperature inside a room or in electrical switchboards enclosures. Designed to control actuators: air heaters, and fans, as well as to alert about exceeding the maximum temperature.

### APPLICATION

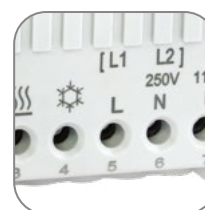
EKF PROXIMA Thermostat NO+NC (cooling/ heating) on DIN-rail is used at industrial, infrastructural and civil construction facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.
- used as part of room heating control solutions.

### ADVANTAGES



Combined heater  
and fan control



High control  
accuracy due to  
electronic  
components



Simple DIN-rail  
mounting



## EKF PROXIMA electronic thermostat and hygrostat


WARRANTY  
7  
YEARS

EAC

EKF PROXIMA electronic thermostat and hygrostat are designed for maintaining temperature and humidity in electrical cabinets by controlling actuators such as air heaters, cooling devices, fans with filters, heat exchangers, as well as for signaling temperature and humidity limit values.

### APPLICATION

Electronic thermostat and hygrostat are used at industrial, infrastructural and civil engineering facilities:

- used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.
- used as part of room heating control solutions.

### ADVANTAGES



Thermostat and hygrostat in one device



C/O contact



Load operation LEDs



DIN-rail mounted

## EKF PROXIMA hygrostat on DIN-rail


WARRANTY  
7  
YEARS

EAC

EKF PROXIMA hygrostat on DIN-rail is designed to maintain the specified relative humidity in electrical cabinets, preventing the formation of condensation. Designed for simultaneous control of actuators: heaters and fans.

### APPLICATION

EKF PROXIMA hygrostat on DIN-rail is used at industrial, infrastructural and civil construction facilities:

- used in solutions for microclimate control inside low-voltage complete devices for power distribution and industrial automation of processes;
- used as part of room heating control solutions.

### ADVANTAGES



Adjustable relative humidity



Small size

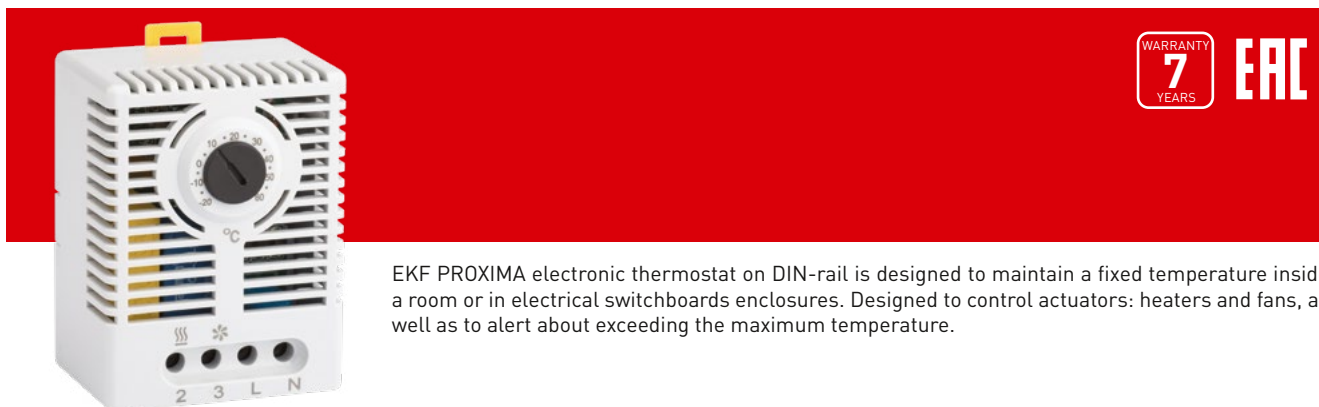


Fast connection with terminals



Simple DIN-rail mounting

## EKF PROXIMA electronic thermostat



EKF PROXIMA electronic thermostat on DIN-rail is designed to maintain a fixed temperature inside a room or in electrical switchboards enclosures. Designed to control actuators: heaters and fans, as well as to alert about exceeding the maximum temperature.

### APPLICATION

EKF PROXIMA electronic thermostat on DIN-rail is used at industrial, infrastructural and civil engineering facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process automation.
- used as part of room heating control solutions.

### ADVANTAGES



Wide adjustment range  
From -20 to +60

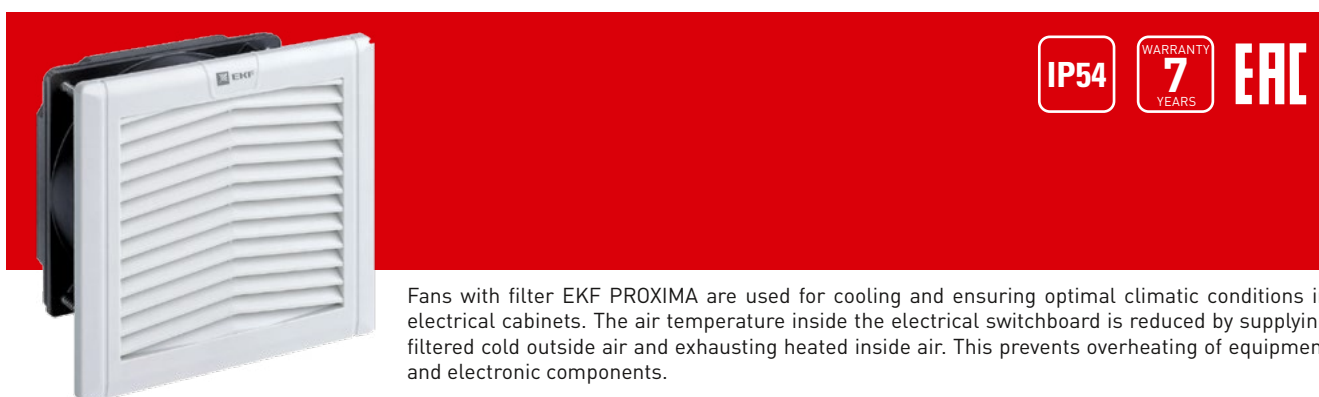


Fast connection  
via terminals



Simple DIN-rail  
mounting

## Fan with filter EKF PROXIMA, exhaust filter EKF PROXIMA



Fans with filter EKF PROXIMA are used for cooling and ensuring optimal climatic conditions in electrical cabinets. The air temperature inside the electrical switchboard is reduced by supplying filtered cold outside air and exhausting heated inside air. This prevents overheating of equipment and electronic components.

### APPLICATION

Fan with filter EKF PROXIMA is used at industrial, infrastructural and civil construction facilities:

- it is used as part of solutions for climate control inside low-voltage complete devices for power distribution and industrial process

### ADVANTAGES



Filter availability



UV and weather  
resistant material



Fast and convenient  
access to the filter



Latches  
for secure  
fastening

## LED linear luminaire for enclosure EKF PROXIMA



IP54

WARRANTY  
7  
YEARS

EAC

LED linear luminaire EKF PROXIMA are used for installation in low-voltage complete devices for various purposes, providing a high level of illumination inside the enclosure. The luminaire is powered directly from a single-phase 220 V source. For connection it is necessary to use special power connectors (included in the delivery set). The luminaires are supplied in two versions: with built-in magnets and for screw mounting. A switch is provided on the device housing.

### APPLICATION



- Lamps are mainly intended for installation in low-voltage complete devices of floor-standing and hook-up design.

### ADVANTAGES



Two types of in-cabinet mounting – screw and magnetic



Possible serial connection up to 10 lamps



Quick and convenient connection

## EKF PROXIMA universal terminals for conductors


WARRANTY  
7  
YEARS

EAC

EKF PROXIMA universal terminals for conductors are designed to connect conductors of various cross-sections (from 1 to 185 mm<sup>2</sup>) to flat copper and aluminum busbars. The terminals are made of galvanized steel resistant to temperature changes and moisture.

### APPLICATION

Busbar systems are designed for switching, connecting and isolating. They are widely used:

- in electrical panel 70 (one side service);
- in distribution electrical panel (VRU);
- in distribution electrical panels.

### ADVANTAGES



Quick connection of conductors to busbars



Installation without drilling the busbars



No need for insulation and termination of conductors



Wide cross-section range from 1 to 185 mm<sup>2</sup>



Mounting on busbars with 3-10 mm thickness

## Tinned copper cable lugs JG (TML) EKF standard



Tinned copper cable lugs JG (TML) EKF standard are used for termination of wires and cables with copper conductors by crimping for subsequent bolting of the conductor to the equipment or a busbar. Cable lugs are made of (M2 grade) copper and aluminum tubes of various diameters.

### APPLICATION



- Tinned copper cable lugs JG are used with copper conductors for crimping
- To terminate the conductors, use a special crimping tool

### ADVANTAGES



EKF standard lug sizes are close to those from European manufacturers



Stamped size marking on each cable lug



Mandatory chamfering makes it easier to insert the cable core into the lug

## Tinned copper cable lugs TML EKF PROXIMA



Tinned copper lugs TML EKF PROXIMA are used to terminate wires and cables with copper conductors by crimping for subsequent bolting of the conductor to the equipment or a busbar.

### APPLICATION



- Designed for crimping copper cables and wires
- Tinned copper lugs made of M2 grade copper are used with copper conductors for crimping
- To terminate the conductors, use a special crimping tool

### ADVANTAGES



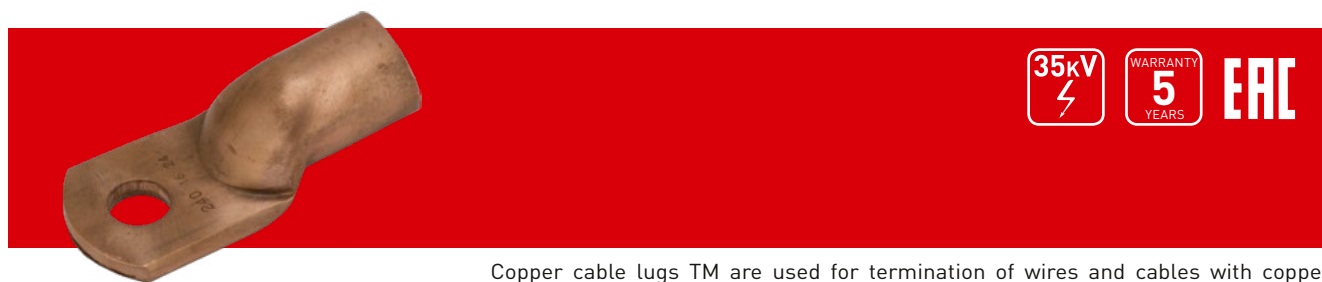
Stamped size marking on each lug



Mandatory chamfering makes it easier to insert the cable core into the lug



## Copper cable lugs TM



Copper cable lugs TM are used for termination of wires and cables with copper conductors by means of crimping for subsequent bolting of the conductor with the equipment or a busbar. Material: M2 grade electrical copper.

### APPLICATION



- Designed for crimping the copper cables and wires
- Copper cable lugs TM are used for crimping the copper conductors
- To terminate the conductors, one should use a special crimping tool (press)

### ADVANTAGES



Stamped size marking on each lug

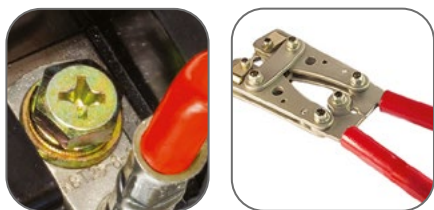
Mandatory chamfering makes it easier to insert the cable core into the lug

## Tinned copper cable lugs TML angled (90g.) EKF PROXIMA



EKF PROXIMA tinned copper lugs are used for terminating wires and cables with copper conductors by means of crimping for subsequent bolting of the conductor with the equipment or a busbar.

### APPLICATION



- Designed for crimping the copper cables and wires
- TML angular tinned copper lugs are used with copper conductors for crimping
- To terminate the conductors, one should use a special crimping tool (press)
- Allow for the connection of conductors in special equipment or assemblies with limited internal space

### ADVANTAGES



Material: M2 grade electrical copper.  
Coating: electroplated tinning

Stamped size and manufacturer logo on each lug

Mandatory chamfering makes it easier to insert the cable core into the lug

## Tinned copper sleeves GTY (GML) EKF standard



Tinned copper sleeves GTY (GML) EKF standard are tin-plated, their surface is covered with a special tin and bismuth layer. This layer protects the sleeve from corrosion and oxidation. Copper tends to oxidize, and tinning prevents this negative process. Thus, during crimping, the copper wires and the tinned sleeve do not react with each other (do not oxidize). Material: M2 grade electrical copper.

### APPLICATION



Designed for crimping the copper cables and wires.

### ADVANTAGES



The dimensions of the EKF standard sleeves are close to those from European manufacturers



Matt tin-plating and bismuth additives provide increased corrosion resistance of the protective coating



Marking on each sleeve

## Copper sleeves GT (GM) EKF standard



EKF PROXIMA GT (GM) copper sleeves are made of M2 seamless copper pipe and have a through structure. The sleeves are produced without coating (climatic version UKhLZ).

### APPLICATION



Designed for crimping the copper cables and wires.

### ADVANTAGES



Material: M2 grade electrical copper



Marking on each sleeve



Mandatory chamfering makes it easier to insert the cable core into the lug

## EKF PROXIMA Terminal lugs aluminum TA



EKF PROXIMA TA aluminum lugs are used for termination of wires and cables with aluminum conductors by means of crimping for subsequent bolted connection of the conductor with the equipment or a busbar.

### APPLICATION



- TA aluminum lugs designed for crimp connection of aluminum cables and wires
- When connecting to copper busbars, it is recommended to use ShAM aluminum and copper washers (p. 738)

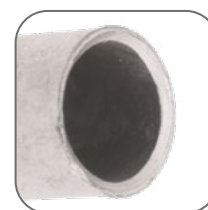
### ADVANTAGES



Material: AD1 grade aluminum



Stamped size and manufacturer logo on each lug



Mandatory chamfering makes it easier to insert the cable core into the lug

## EKF PROXIMA aluminum sleeves



EKF PROXIMA aluminum sleeves are made of seamless aluminum pipe of AD1 grade and have a through design. When connecting by means of sleeves, the sector conductors must be pre-rounded before crimping.

### APPLICATION



The sleeve is designed for crimping aluminum cables and wires without axial load.

### ADVANTAGES

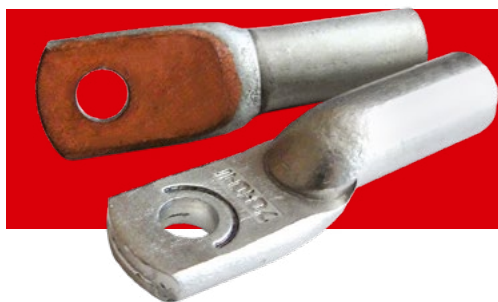


Material: AD1 grade aluminum



Marking on each sleeve

## EKF PROXIMA TAM aluminum and copper cable lugs (metal spayed)



-55°C  
+135°C

35kV  
⚡

WARRANTY  
5  
YEARS

EAC

EKF PROXIMA TAM aluminum and copper cable lugs (metal spayed) have a copper coating of the contact part made by gas dynamic spraying. Instead of copper-aluminum lugs, aluminum lugs with a protective nickel or zinc metal coating can be used.

### APPLICATION

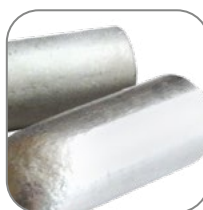


Lugs are designed for crimping the aluminum cables and wires and further connecting them to copper busbars and terminals of electrical devices.

### ADVANTAGES



Contact part material: copper coating by gas dynamic spraying



Tail-piece material: AD1M grade electrical aluminum



The boundary between copper-sprayed area and aluminum parts eliminates the formation of electric couple



Stamped size marking on each lug

## Tinned Pin cable lugs EKF PROXIMA



NShML

NShAL

NShA

35kV  
⚡

WARRANTY  
5  
YEARS

EAC

-55°C  
+135°C

Tinned Pin cable lugs – tinned copper ones, tinned aluminum ones and the ones made of aluminum without tinning – have completed the wide array of EKF PROXIMA equipment for electrical installation. It is important to note that tinned lugs are not subject to oxidation during long-term storage or use.

### APPLICATION



Lugs are designed for connection to outputs of circuit breakers and to other electric devices notches ensuring with limited width of contact terminals with limited width of contact terminals.

### ADVANTAGES



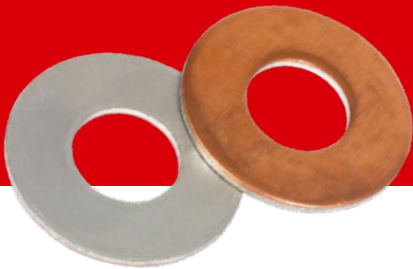
The lug has embossed secure fixation in the clamping terminal






The coating – a mixture of tin and bismuth – reliably protects the product against corrosion



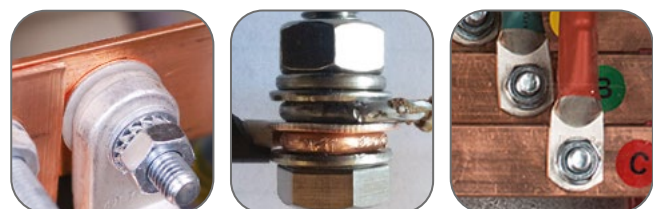
## Aluminum-copper washer ShAM EKF PROXIMA



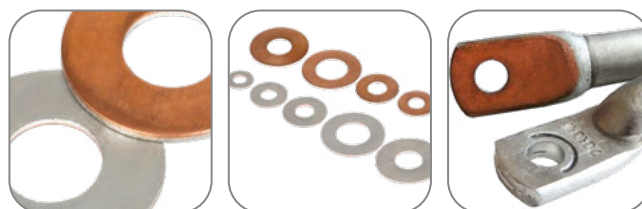

Aluminum-copper washer ShAM EKF PROXIMA is used as a bi-metal spacer between a copper busbar and the contact blade of the aluminum lug. Contact part material: AD1 grade electrical aluminum, M1 grade copper.

### APPLICATION



Washers are designed for connecting aluminum lugs to copper busbars and terminals of electrical devices.

### ADVANTAGES








The connection of copper and aluminum layers at the molecular level eliminates the formation of an electric couple

Suitable for multiple sizes of aluminum lugs with the same contact screw hole

Cost-effective alternative to copper and aluminum lugs

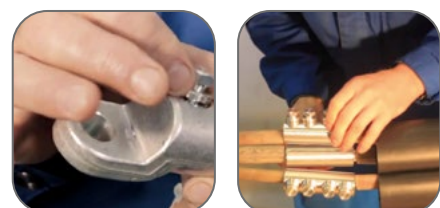
## Aluminum cable lugs and sleeves with shear off head bolt



Aluminum cable lugs and sleeves with shear off head bolt. The products provide reliable termination of the cores of cables and wires with voltage up to 10 kV. The use of bolted lugs and sleeves facilitates the installer's work and ensures a reliable conductor connection.

### APPLICATION



Aluminum cable lugs with shear off head bolt are designed for termination of solid and stranded aluminum conductors, wires and cables.

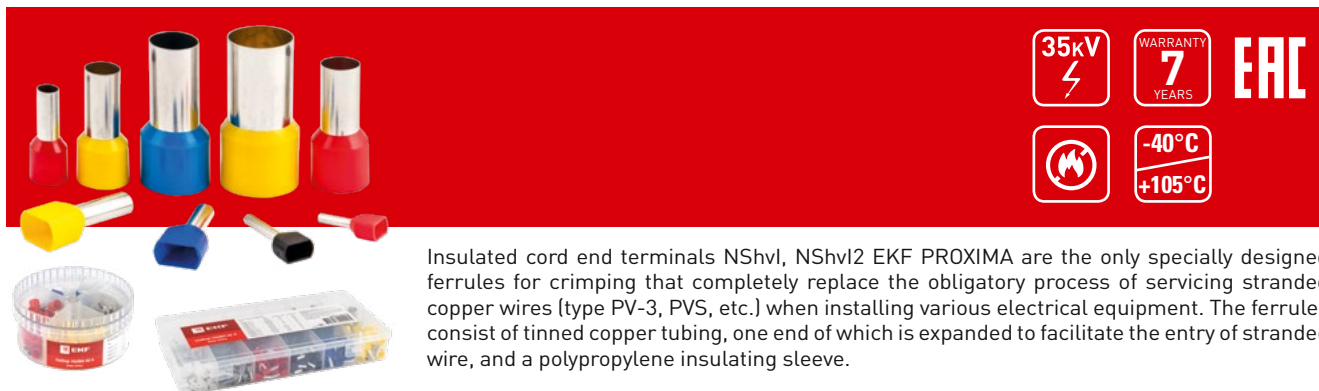
### ADVANTAGES



Body and bolts are made of corrosion-resistant aluminum alloy

Shear head bolts provide optimum tightening torque

## Insulated cord end terminals NShvI, NShvI2 EKF PROXIMA



### APPLICATION



Designed for crimping flexible stranded copper conductors. Transform the ends of stranded wires into one-piece pins.

### ADVANTAGES



Lug material: M1 grade copper.  
Coating: electrolytic tinning



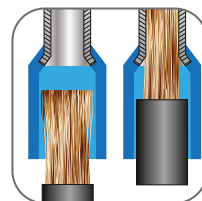
Insulation material: non-flammable polypropylene



EKF ferrules are produced in different colors according to DIN standard





The insulating sleeve is made in the form of a socket to facilitate the installation of stranded copper conductors



Easy Entry

### PRODUCT RANGE

NShvI	NShvI, double
	

### NShvI, sets

NShvI set No. 1 (0.5–2.5 mm <sup>2</sup> )	NShvI(2) set No. 2 (2x0.5–2x2.5 mm <sup>2</sup> )	NShvI set No. 3 (0.25–1 mm <sup>2</sup> )	NShvI set No. 4 (4–16 mm <sup>2</sup> )	NShvI set No. 5 (0.5–6 mm <sup>2</sup> ; 2x0.5–2.5 mm <sup>2</sup> )
				

## Insulated ring terminals NKI, NVI EKF PROXIMA




660V  
⚡

WARRANTY  
**7**  
YEARS

EAC

🔥

-40°C  
+80°C

Insulated ring lug      Insulated spade lug

EKF PROXIMA NKI insulated ring terminals and EKF PROXIMA NVI insulated spade terminals are designed for termination of stranded (flexible) copper wires and are used for the installation of electrical assemblies where a corresponding contact connection based on screw fixation is provided. Ring lugs are used for fixed connections to electrical equipment. If quick recrossings are required, it is recommended to use spade lugs since in this case, a complete dismantling of the fastening connection is not required, it is enough just to loosen the screw fixation.

### APPLICATION



Terminals are designed for crimping stranded flexible copper wires and subsequent fastening of the lugs to the terminals of electrical equipment on the basis of screw fixing.

### ADVANTAGES



Tip material: M1  
grade copper  
Coating:  
electrolytic tinning



Insulation material:  
self-extinguishing  
PVC.  
Class V-0 as per UL94



Conductor crimping  
over the insulating  
sleeve



Easy Entry insulating  
sleeve is designed as  
a socket to facilitate  
the installation of  
stranded copper  
conductors

### PRODUCT RANGE


Insulated ring terminals	Insulated spade terminals
  	  






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## Insulated blade terminals NShPI EKF PROXIMA



Insulated blade terminals NShPI EKF PROXIMA is designed for crimping copper wires and subsequent fastening of tips to electrical equipment with pin-type contact sockets (circuit breakers, RCDs, terminal strips, etc.). The crimping of flat insulated pin lugs is performed over the PVC sleeve, not the metal sleeve as for ferrules.

### APPLICATION

- Designed for the crimping of copper stranded conductors and a subsequent fastening of lugs to the terminals of electrical equipment.
- It is allowed to use the lugs for transition from a larger conductor cross-section to a terminal of a smaller size.

### ADVANTAGES



Un welded butt seam on the tubular contact part of the lugs (simplifies the installation process – less efforts)



Tip material: M1 grade copper Coating: electrolytic tinning









Insulation material: self-extinguishing PVC. Class V-0 as per UL94



Transversal notches on the blade of the contact part increase the mechanical strength of the joint

## Insulated Pin terminals NShKI EKF PROXIMA



Insulated pin terminals NShKI EKF PROXIMA is designed for crimping copper wires and subsequent fastening of tips to electrical equipment with pin-type contact sockets (circuit breakers, RCDs, terminal strips, etc.). The crimping of flat insulated pin lugs is performed over the PVC sleeve, not the metal sleeve as for ferrules.

### APPLICATION

- Designed for the crimping of copper stranded conductors and a subsequent fastening of lugs to the terminals of electrical equipment.
- It is allowed to use the lugs for transition from a larger conductor cross-section to a terminal of a smaller size.

### ADVANTAGES



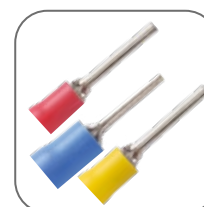
Un welded butt seam on the tubular contact part of the lugs (simplifies the installation process – less efforts)



Tip material: M1 grade copper Coating: electrolytic tinning



Insulation material: self-extinguishing PVC. Class V-0 as per UL94



Transversal notches on the blade of the contact part increase the mechanical strength of the joint



## Insulated connectors EKF PROXIMA



The main function of EKF PROXIMA insulated connectors is to create the necessary universal connector at the ends of electrical wires, due to which the quality of contact at the junction is improved, as well as the integrity of the wire itself is preserved when it is connected with screw clamps, which indicates a reliable connection in the future.

Designed for mounting quick-disconnect connections of stranded flexible copper wires by crimping.

### APPLICATION



Designed for the formation of quick-disconnect joints of stranded copper wires with an additional branch.

### ADVANTAGES



Constructive lock-type latchlocks in the terminal part of the connector for a secure mechanical connection of the male-female connectors



Connector material: L63 grade brass  
Coating: electrolytic tinning



Insulation material: self-extinguishing PVC. Class V-0 as per UL94



Conductor crimping over the insulating sleeve

### PRODUCT RANGE

Rplp	Rplm	Rshlp	Rshlm	Rplo
				

## Insulated butt connectors GSI EKF PROXIMA



Insulated butt connectors GSI EKF PROXIMA consist of a seamless, solid-drawn copper tube; on top there is an insulating shell made of polyvinyl chloride (PVC), serving as a reliable protection of the sleeve from external impact and mechanical damage. The stop notch located in the center of the sleeve determines the depth of wire entry into the connector. Designed for end-to-end connection of copper wires by crimping. Mounting method – crimping over the insulating enclosure, while the electrical contact is tightly sealed.

### APPLICATION

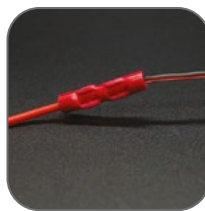


Designed for connecting cables with copper or aluminum conductors with a cross section of 0.5 to 25 mm<sup>2</sup> in AC and DC electrical circuits with voltage up to 660 V by crimping.

### ADVANTAGES



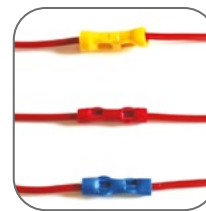
Crimping in a matter of seconds with special crimpers allows you to significantly save installation time



Within the specified range, it is possible to connect wires of different cross-sections in one line or install a branch



Insulation material: self-extinguishing PVC. Class V-0 as per UL94



Crimping over the insulating enclosure

## Non-insulated cord end terminals NShv EKF PROXIMA



Non-insulated cord end terminals NShv are the only specially designed crimping lugs that allow for a complete replacement of the mandatory maintenance process for stranded copper wires (of PV-3, PVS, etc. types) during installation of various electric equipment. The ferrules are tinned copper tubing, one end of which is flared to facilitate the entry of a stranded wire.

### APPLICATION

- Designed for crimping flexible stranded copper conductors
- Transform the ends of stranded wires into one-piece pins

### ADVANTAGES



Tip material: M1 grade copper  
Coating: electrolytic tinning



Ideal solution for crimping the cables with increased insulation thickness



Wide range of products: 0.5 to 70 mm<sup>2</sup>

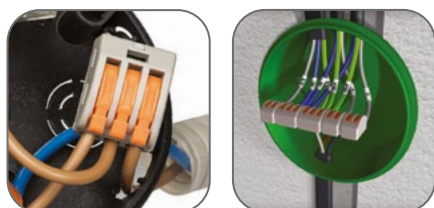


Crimping in seconds saves installation time

## Splicing quick wire terminal connectors SMK-222, 224 reusable EKF PROXIMA



### APPLICATION



- For connecting and branching solid and stranded conductors up to 4 mm<sup>2</sup> in AC circuits up to 400 V.
- The terminals are used in junction boxes, in conjunction with luminaries, etc.

### ADVANTAGES



The contact part is made of stainless medical steel with copper plates



Allows simultaneous connection of copper and aluminum conductors (224 series)



The enclosure is made of flame retardant plastic



Attractive retail packaging







Fast and convenient installation



Test window for checking the presence of voltage without disassembling the circuit

### PRODUCT RANGE

Image	Designation	Number of wires to be connected (number of holes)	Conductors
	EKF PROXIMA Splicing quick wire terminal connector 222-412, 2 holes	2	Copper rigid and stranded wires of 0.08–2.5 mm <sup>2</sup> /0.08–4.0 mm <sup>2</sup>
	EKF PROXIMA Splicing quick wire terminal connector 222-413, 3 holes	3	
	EKF PROXIMA Splicing quick wire terminal connector 222-415, 5 holes	5	
	EKF PROXIMA Splicing quick wire terminal connector, 224-111, for 1 conductor	2	Copper and aluminum wires, solid wires from the round hole side (1.0–2.5 mm <sup>2</sup> ) and solid rigid ones /stranded rigid ones from the square hole side (0.5–2.5 mm <sup>2</sup> )

## Splicing quick wire terminal connector SMK-222 with a through-passage, reusable EKF PROXIMA



IP20

WARRANTY  
7  
YEARS

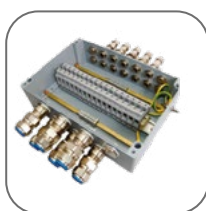
EAC

400V  
⚡

-40°C  
+105°C

Splicing quick wire terminal connectors SMK-222 with a through-passage EKF PROXIMA are designed for reusable connection of solid and stranded copper conductors in alternating current electrical circuits with a frequency of 50 Hz and voltage up to 400 V.

### APPLICATION



- For connecting solid and stranded conductors up to 4 mm<sup>2</sup> in AC circuits up to 400 V.
- Terminals are used in sealed connectors and junction boxes

### ADVANTAGES



Housing is made of flame retardant plastic



Reusable terminals



Test window for checking the presence of voltage without disassembling the circuit







Contact plate is made of copper



Unique design with no analogues on the Russian market

### PRODUCT RANGE

Image	Designation	Number of wires (holes) to be connected	Max. current, A	Conductors
	Splicing quick wire terminal connector SMK 222-421 with a through-passage on DIN-rail, 1 hole, 0.08–4 mm <sup>2</sup> (25 pcs.) EKF PROXIMA	2	32	Copper rigid – 0.08–2.5 mm <sup>2</sup> stranded – 0.08–4 mm <sup>2</sup>
	Splicing quick wire terminal connector SMK 222-421 with a through-passage, 1 hole, 0.08–4 mm <sup>2</sup> (25 pcs.) EKF PROXIMA	2		
	Splicing quick wire terminal connector SMK 222-422 with a through-passage, 2 holes, 0.08–4 mm <sup>2</sup> (25 pcs.) EKF PROXIMA	4		
	Splicing quick wire terminal connector SMK 222-423 with a through-passage, 3 holes, 0.08–4 mm <sup>2</sup> (25 pcs.) EKF PROXIMA	6		



## Splicing quick wire terminal connectors SMK-221 EKF PROXIMA



IP20

WARRANTY  
7  
YEARS

EAC

400V

-40°C  
+105°C

Splicing quick wire terminal connectors SMK-221 EKF PROXIMA are the result of the development of a classic SMK-222 series and stand out in the Russian market for their unique design. The products are designed for connection and branching of solid and stranded wires with a cross-section up to 4 mm<sup>2</sup> in AC circuits up to 400 V.

Moreover, it is almost impossible to break the SMK-221 terminals, they feature increased durability and are designed for repeated use. Besides, the new terminals can be used in temperatures ranging from -40 to +105 °C.

New reliable SMK-221 terminals, which greatly facilitate the wiring process, are intended for electricians and builders.

### APPLICATION

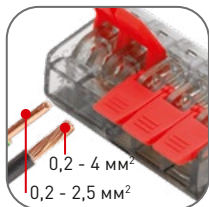


- For connecting and branching solid and stranded conductors up to 4 mm<sup>2</sup> in AC circuits up to 400 V.
- The terminals are used in junction boxes, in conjunction with luminaries, etc.

### ADVANTAGES



Specifications and installation diagram are shown on the enclosure



The thickness of the conductors used is from 0.2 to 4 mm<sup>2</sup>



Test window for checking the presence of voltage without disassembling the circuit



Transparent enclosure allows controlling a lead-in length






Enclosure size reduced by 30% comparing to the 222 series



Unique design with no analogues on the Russian market

### PRODUCT RANGE

Image	Designation	Number of wires (holes) to be connected	Conductors
	Splicing quick wire terminal connector SMK-221-412, 2 holes, 0.2-4.0 mm <sup>2</sup> (100 pcs.) EKF PROXIMA	2	Stranded ones with cross-section 0.2 to 4 mm <sup>2</sup> , Solid ones with cross-section 0.2 to 2.5 mm <sup>2</sup>
	Splicing quick wire terminal connector SMK-221-413, 3 holes, 0.2-4.0 mm <sup>2</sup> (100 pcs.) EKF PROXIMA	3	
	Splicing quick wire terminal connector SMK-221-415, 5 holes, 0.2-4.0 mm <sup>2</sup> (50 pcs.) EKF PROXIMA	5	

## Splicing quick wire terminal connector SMK with paste EKF PROXIMA



Splicing quick wire terminal connectors SMK with paste EKF PROXIMA are designed for connecting and branching solid conductors made of copper and aluminum or stranded copper wires with lugs in alternating current electrical circuits with a frequency of 50 Hz and voltage of up to 400 V. The terminals are used in junction boxes.

These terminals are convenient due to their screwless fastening of the conductors (a spring-loaded steel plate with an anti-corrosion coating is used). The connection quality does not depend on the qualifications of the electrician. Each conductor has a separate terminal position. Contact paste automatically removes the oxide film from aluminum wires and protects them from re-oxidation.

### APPLICATION

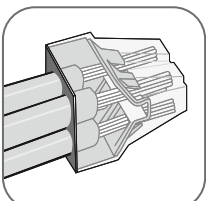


For connecting and branching solid and stranded conductors up to 2.5 mm<sup>2</sup> in AC circuits up to 400 V.

### ADVANTAGES



The contact paste ensures reduction of losses of electric power in contact connections and protects conductors against oxidation



Screwless mount ensures a simple and quick installation



Used for copper and aluminum conductors









The enclosure is made of plastic not supporting to combustion



Extended range of SMK terminals make it possible to connect conductors with a cross-section 1 to 6 mm<sup>2</sup>

### PRODUCT RANGE

Image	Designation	Number of wires (holes) to be connected	Image	Designation	Number of wires (holes) to be connected
	Splicing quick wire terminal connector SMK 773-102, 2 holes, 1.0-2.5 mm <sup>2</sup> EKF PROXIMA	2		Splicing quick wire terminal connector SMK 773-108, 8 holes, 1.0-2.5 mm <sup>2</sup> EKF PROXIMA	2
	Splicing quick wire terminal connector SMK 773-104, 4 holes, 1.0-2.5 mm <sup>2</sup> EKF PROXIMA	4		Splicing quick wire terminal connector SMK 773-173 (with paste), 3 holes, 2.5-6.0 mm <sup>2</sup> EKF PROXIMA	4
	Splicing quick wire terminal connector SMK 773-106, 6 holes, 1.0-2.5 mm <sup>2</sup> EKF PROXIMA	6		Splicing quick wire terminal connector SMK 773-174 (with paste), 4 holes, 2.5-6.0 mm <sup>2</sup> EKF PROXIMA	6

## Splicing quick wire terminal connector SMK-2273 compact (with paste) EKF PROXIMA



Splicing quick wire terminal connector SMK-2273 compact (with paste) EKF PROXIMA are used in junction boxes and intended for connection and branching of solid conductors made of copper and aluminum or stranded copper wires with lugs in alternating current electrical circuits with a frequency of 50 Hz and voltage up to 400 V.

SMK compact terminals of series 2273 with paste provide for the presence of a special contact paste, which automatically removes the oxide film from the aluminum wires and protects them from reoxidation.

### APPLICATION



For connecting and branching solid and stranded conductors up to 2.5 mm<sup>2</sup> in AC circuits up to 400 V.

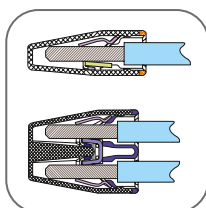
### ADVANTAGES



The contact paste ensures reduction of losses of electric power in contact connections and protects conductors against oxidation



Terminals of different colors ensure intuitive selection of the terminal for different number of conductors



Simple and quick installation due to screwless mounting



More compact dimensions vs standard splicing quick wire terminal connectors SMK



Housing is made of plastic not supporting combustion



Used for copper and aluminum conductors

### PRODUCT RANGE







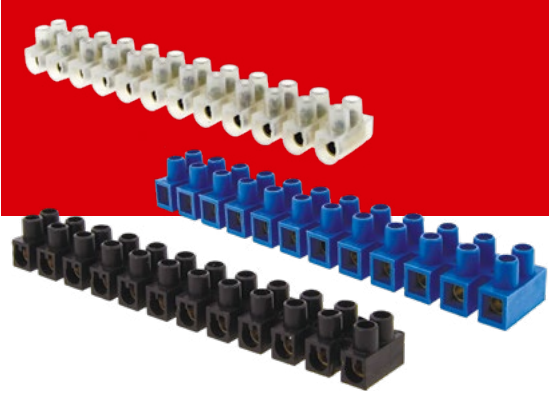
Image	Designation	Number of wires (holes) to be connected
	Splicing quick wire terminal connector SMK 2273-242 (with paste), 2 holes, 0.5–2.5 mm <sup>2</sup> EKF PROXIMA	2
	Splicing quick wire terminal connector SMK 2273-243 (with paste), 3 holes, 0.5–2.5 mm <sup>2</sup> EKF PROXIMA	3
	Splicing quick wire terminal connector SMK 2273-244 (with paste), 4 holes, 0.5–2.5 mm <sup>2</sup> EKF PROXIMA	4

Image	Designation	Number of wires (holes) to be connected
	Splicing quick wire terminal connector SMK 2273-245 (with paste), 5 holes, 0.5–2.5 mm <sup>2</sup> EKF PROXIMA	5
	Splicing quick wire terminal connector SMK 2273-246 (with paste), 6 holes, 0.5–2.5 mm <sup>2</sup> EKF PROXIMA	6
	Splicing quick wire terminal connector SMK 2273-248 (with paste), 8 holes, 0.5–2.5 mm <sup>2</sup> EKF PROXIMA	8

## Terminal strips (Clamp terminal 12 chambers) EKF PROXIMA



-40°C  
+110°C

IP20

WARRANTY  
7  
YEARS

EAC

-25°C  
+80°C

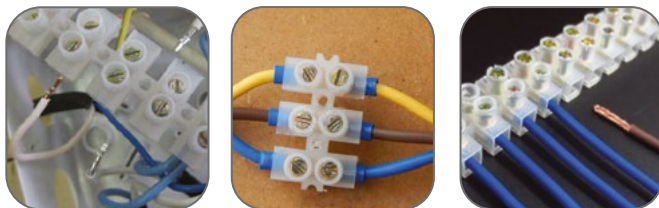
400V  
⚡

🔥

Terminal strips (Clamp terminal 12 chambers) EKF PROXIMA are made of white polyethylene and flame retardant polystyrene. They are used in electrical circuits with a rated voltage up to 400 V and a frequency of 50 Hz. Designed for screw connection of conductors, exclude the possibility of fault to the enclosure of the electrical installation.

The board is easily cut into blocks with the required number of terminal pairs. They are used in AC electric circuits with a rated voltage up to 400 V and a frequency of 50 Hz. Available in white, black, blue and yellow.

### APPLICATION

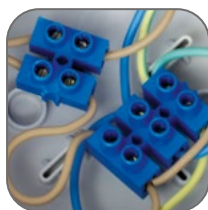


For connecting and branching solid and stranded conductors of various cross-sections (depending on the size) in AC circuits up to 400 V.

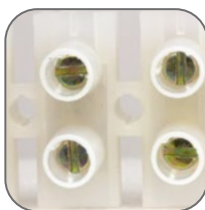
### ADVANTAGES



Insulated enclosure eliminates the possibility of the fault of conductors to the enclosure and to each other



The board is easily divided into blocks, which creates additional ease of installation



Ease of operation in junction boxes



Enclosure material:

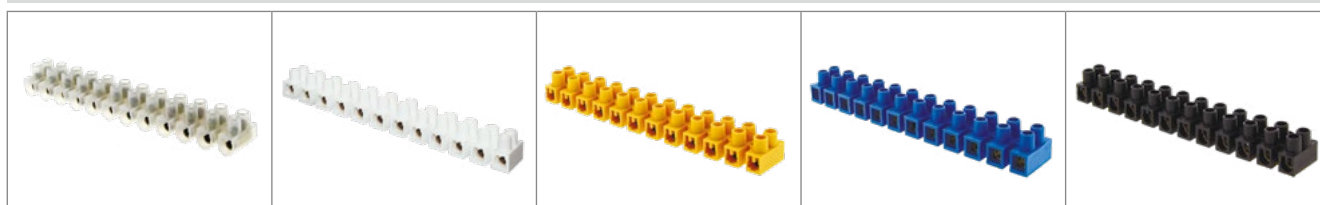
- polyethylene
- polystyrene



Material of contact part – brass

### PRODUCT RANGE

Terminal strips (Clamp terminal 12 chambers)





## Screw-on wire connectors (SIZ) EKF PROXIMA



Screw-on wire connectors (SIZ) are designed for connection of wires and cables into a single bundle, insulation of copper and aluminum wires. The clamp is screwed onto the bare parts of the wires in several turns until the complete fixation of the bundle of wires, while the outer enclosure functions as insulation. The enclosure of the insulating clamp is made of extruded fireproof PVC; an anodized conical spring is mounted inside the plastic enclosure. SIZ clamps are used for electrical work both in domestic and industrial premises. These products provide a speedy installation, reliable connection and insulation of wires, as well as the possibility of reusing the unit without breaking the integrity of the wires. An additional convenience of SIZ-L is the presence of special lugs.

### APPLICATION



Designed for connection and fixation in twisted copper wires.

### ADVANTAGES



Twist bits in each package



Durable thermoplastic enclosure, resistant to aggressive environmental impacts



The enclosure completely insulates the twisted wires



Contact part – galvanized steel spring



On the enclosure of the SIZ-L clamp there are lugs that allow to increase the lever and force of the torque, which facilitates the installation of conductors of large cross-sections

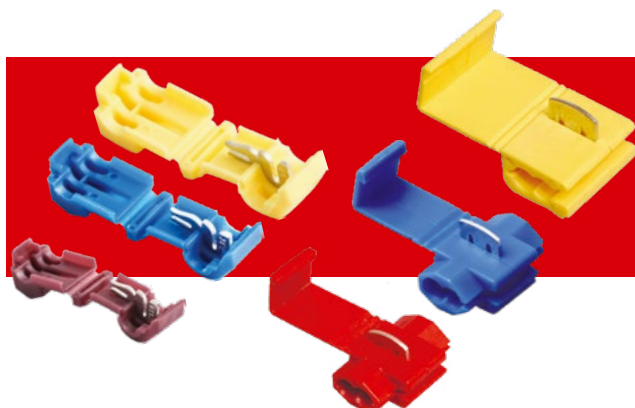


Tapered spring provides a secure grip and retention of twisted wires throughout the lifetime

### PRODUCT RANGE

SIZ connecting insulating clamps (3 mm)					SIZ-L connecting insulating clamps with lugs		
							

## Piercing taps EKF PROXIMA



Piercing taps EKF PROXIMA make it possible to perform high-quality electrical connection in a minimum time without soldering and other labor-intensive processes. There is no need to strip the wire and insulate the connection, the branchers combine all the advantages of fast wiring and do not require any special skills or tools (combination pliers is all you need to install the branchers). Designed for branching conductors from a conductive wire, as well as for detachable connection of two or more conductors using a device for piercing insulation in AC and DC electrical circuits.

### APPLICATION

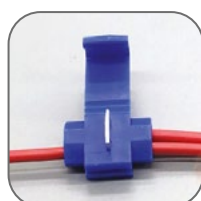


- Designed for parallel branching from stranded copper wires
- Designed for making quick-release T-shaped branches from stranded and solid copper wires

### ADVANTAGES



Housing is made from polypropylene. Halogen free



Fast installation. Prior stripping of wire insulation not required



No special tool required



Housing fully isolates and provide mechanical protection of branch point



The contact part is made of tinned L63 brass, ensuring reliable contact of the finished unit



Color coding makes it easy to identify dimensions during installation

### PRODUCT RANGE

#### Piercing taps



## Insulation tape professional PVC SafeFlex EKF PROXIMA



Insulation tape professional PVC SafeFlex EKF PROXIMA is made of high quality non-flammable PVC. SafeFlex electrical tape has a high quality adhesive layer. Improved adhesion is achieved due to two parameters of the sticky layer – its composition and thickness. The electrical tape features a rubber-based layer, in which the adhesive bond of maximum force occurs almost instantly. An important advantage of SafeFlex electrical tape is its high elasticity. It is expressed in two parameters: tensile strength is 15 MPa, and elongation at break is 200% (10% more than according to All-Union State Standard). This means that the electrical tape allows you to easily fix with the desired tension and uniform winding of conductors or other objects.

### APPLICATION

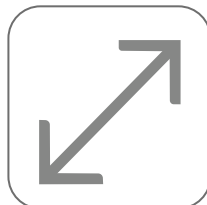


- Electrical insulation of conductors and cables
- Splicing and bundling
- Protection against mechanical damage
- Color coding

### ADVANTAGES



Resistant to moisture, metal corrosion, abrasion, aging, UV rays



High stretch percentage. Elongation at break not less than 200%



9 color options






Window in the hanging the rollers on the hook



Convenient storage packaging for the PRO series

### PRODUCT RANGE

Image	Designation	Color
	Insulation tape professional PVC SafeFlex Auto EKF PROXIMA	Blue
		Black
	Insulation tape professional PVC SafeFlex EKF PROXIMA	White
		Yellow
		Yellow-green
		Green
		Brown
		Red
		Iron grey
		Blue
	Insulation tape professional PVC SafeFlex Pro 33+ series EKF PROXIMA	Black
		Black

## Insulation tape PVC EKF





**GOST**  
16214-86

**WARRANTY**  
**12**  
MONTHS

**EAC**

**6000V**  
⚡



**-50°C**  
**+80°C**



Insulation tape PVC EKF is made of high quality non-flammable PVC. It is a consumable for household and construction electrical work. It is used for electrical insulation, for marking purposes, as well as for protection against mechanical damage, exposure to moisture, etc. Resistant to UV rays, moisture, abrasion, metal corrosion, aging. Rubber-based adhesive layer. Electrical tape is produced in rolls of 20 m of two types: professional (class A) and general use (class B). Seven color options: white, red, blue, yellow, green, black, yellow-green.

### APPLICATION

- Electrical insulation of conductors and cables
- Splicing and bundling
- Protection against mechanical damage

### ADVANTAGES

Each roller of electrical tape is packed in a foil, which prolongs the shelf life, protecting from external influences

High stretch ratio. 190% breaking extension

Resistant to moisture, metal corrosion, abrasion, aging, UV rays

Seven color options

## Insulation tape Cotton EKF PROXIMA



**1000V**  
⚡

**-30°C**  
**+30°C**

**GOST**  
2162-97

**WARRANTY**  
**12**  
MONTHS

**EAC**

Insulation tape Cotton EKF PROXIMA is intended for use in non-aggressive environments. 1POL – for industrial use, one-sided with normal stickiness.

### APPLICATION

- Sealing of connections
- Creation of an outer sheath to prevent mechanical damage to cables and wires
- Mounting means for fastening conductors to various structures
- Use as binding

### ADVANTAGES

Hermetically sealed packaging extends lifetime at additional storage

Bright retail packaging with all product specifications

150

The most up-to-date information is always available by request: [sales@ekfgroup.com](mailto:sales@ekfgroup.com)

**ENERGY. KNOWLEDGE. FUTURE.**



## Insulation restoration tape EKF PROXIMA



072 insulation restoration (self-baking) tape is required for restoration of plastic and rubber insulation of cables and conductors up to 1 kV. Due to its properties it does not need additional heat and mechanical exposure. It is used when dismantling branch clamps at the insulation puncture point.

## Heat-shrink tubes TUT EKF PROXIMA

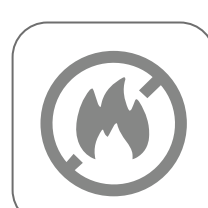
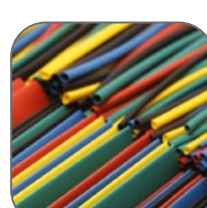


Heat-shrink tubes TUT (polyethylene) EKF PROXIMA can be used as an electrical insulating, marking and decorative material. Designed for sealing couplings, terminating cable ends with caps, insulating cables, insulating conductors, wire junctions, binding wire harnesses, for mechanical protection of products, protection against dirt, color marking of products, etc. The main property of a heat-shrinkable tube is the ability to shrink under the influence of high temperature (from 90 to 125 °C). The shrinkage process occurs very quickly, the TUT tube completely follows the contours of the object. A heat gun (hair dryer) can be used, which makes the heat-shrinkable tube easy to use in household applications, for example as an alternative to insulating tape.

### APPLICATION



### ADVANTAGES







- For insulation and corrosion protection of electrical conductors and contact connections
- Binding of cables and wires

Wide selection of various options of packages: in rolls, in lengths of 1 meter, in retail packaging of 10 cm

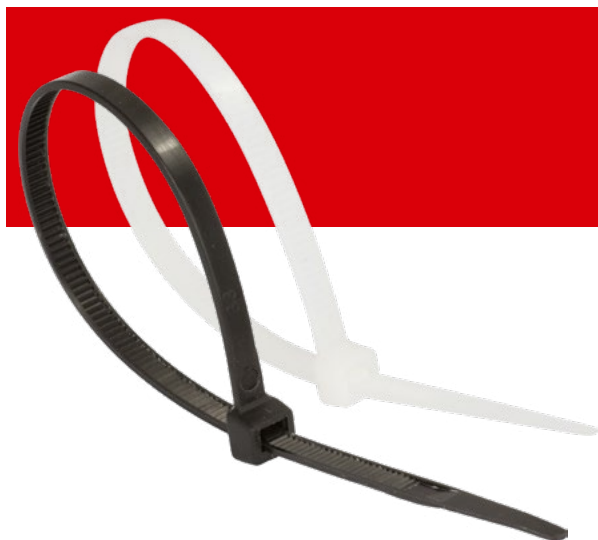
Wide selection of product dimensions. Diameter: 2 to 50 mm (before tube shrinking)

Self-extinguishing, includes flame retardants suppressing the combustion process

### PRODUCT RANGE

In coils	In retail package	In 1 m cuts	Sets of various diameters
			

## Cable ties FlexLock EKF PROXIMA



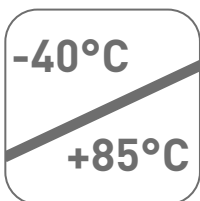
Cable ties FlexLock EKF PROXIMA are designed for bundling cables and wires for mounting cable lines and conductors. Made from polyamide 6.6, which has good resistance to oils, greases, oil derivatives, chloride solvents, weak acids and UV rays. FlexLock cable ties have a self-locking strap with a locking mechanism. In the production of black cable ties, carbon powder is added, which is one of the most effective stabilizers. It improves the physical properties of the product, that is its resistance to weather conditions and UV radiation (direct sunlight). The sets of Cable ties in jars are cable ties of the most common sizes and different colors, assembled in one plastic package. Due to the transparent plastic packaging, these sets are easy to transport, and it is easy to identify the color and size of the clamp in the package. Different colors are very convenient to use in everyday life and for marking.

### APPLICATION



Cable ties are designed for tying cables and wires into a bundle and for installing cable lines and conductors both inside and outside the premises.

### ADVANTAGES



High range of operating temperatures



Flammability class of raw materials: UL 94-V2



Material: Nylon 6.6, self-extinguishing, halogen-free



Wide range of dimensions – 2.5 to 12.4 mm wide and 8 cm to 1 m long

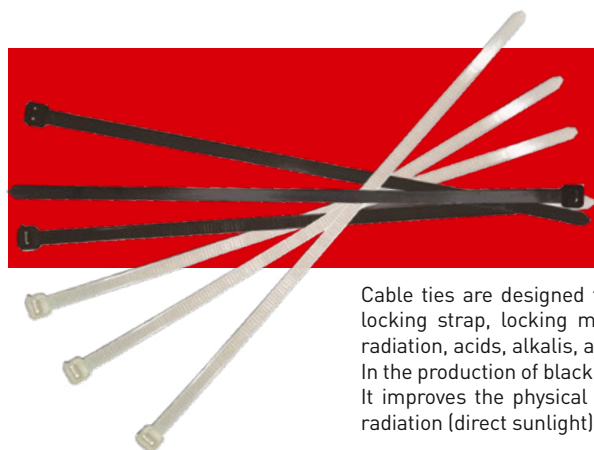


Bright and convenient retail package of 50 pcs.

### PRODUCT RANGE

Set "Leto" (Summer) (450 pcs.)	Set "Osen" (Autumn) (300 pcs.)	Set "Vesna" (Spring) (650 pcs.)	Set "Zima" (Winter) (600 pcs.)	Package with white/black ones (50 pcs.)	Package with white/black ones (100 pcs.)
					

## Cable ties EKF BASIC (white, black)



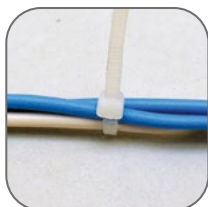
Cable ties are designed for bundling cables and wires, for mounting cable lines and conductors. Self-locking strap, locking mechanism. Made of Nylon 6.6 resistant to aging, corrosion, salts, ultraviolet radiation, acids, alkalis, alcohol, gasoline and oils.

In the production of black cable ties, carbon powder is added, which is one of the most effective stabilizers. It improves the physical properties of the product, that is its resistance to weather conditions and UV radiation (direct sunlight).

### APPLICATION



Designed for binding and bundling wires and cables in closed rooms and in the open air.



### ADVANTAGES



Increased width of the operating part



Reliable self-locking lock

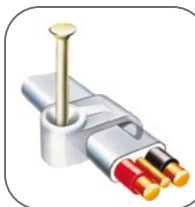


Material: Nylon 6.6, self-extinguishing, halogen-free

## C-clamp plastic brackets EKF PROXIMA for wire fastening



### APPLICATION



- For quick installation of wires or cables in residential or industrial buildings.
- Designed for quick and secure fastening of round and flat cables.

### ADVANTAGES



Material: PP, self-extinguishing, halogen free



Nail: hardened galvanized steel, non-corrosive



Supplied complete with already installed nail



Standard size is indicated on each brace. Convenient storage in bulk



Reliable fastening

## Cable ties FlexLock of stainless steel EKF PROXIMA



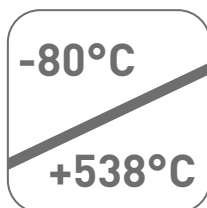
Cable ties FlexLock EKF PROXIMA made of 304 and 316 stainless steel are designed for bundling cables and wires, mounting cable lines and conductors in corrosive environments, places of high vibration, humidity, radiation and extreme temperature differences. Cable ties FlexLock of stainless steel are used for fastening various types of pipes; they provide a strong and durable connection method. The self-locking head design speeds up installation and guarantees a secure fit along the entire clamping body of the clamp.

### APPLICATION



Metal or steel cable ties have a rigid structure, so they can be a source of fastening for copper, cast iron, metal and plastic pipes. The clamps made of stainless steel 316 are used in shipbuilding and transport, oil and oil refining industries, mining industry, in the production of tanks and reservoirs for storing corrosive liquids, in the production of specialized equipment for the chemical, pulp and paper and pharmaceutical industries.

### ADVANTAGES



High range of operating temperatures



Material: 304 stainless steel for general purpose applications and 316 stainless steel for most corrosive environments



Smooth surfaces and rounded edges provide cable protection and installer safety



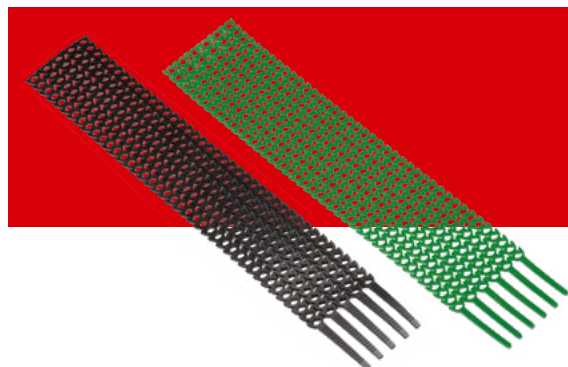
High chemical resistance



Wide range of dimensions – from 4.6 to 12 mm wide, 12.5 to 84 cm long



## Cable ties FlexSTRAP EKF PROXIMA



Cable ties FlexSTRAP EKF PROXIMA are designed for fixing cables and wires in a bundle, as well as for mounting cable lines and wires. Due to the easy disassembly system, these reusable clamps are practical and easy to use. Strong yet flexible, FlexSTRAP clamps are UV resistant and feature a wide operating temperature range.

### APPLICATION



FlexSTRAP series is used for tying and fastening cables and wires in bundles, for reeling cable coils. They can be used both in electronics and in everyday life (office, home, summer cottage).

### ADVANTAGES



Reusability



Cost-effectiveness



Elasticity

## Anchor cable ties with a hole, pad EKF PROXIMA



Anchor cable ties with a hole, pad EKF PROXIMA are designed to tie cables and wires in a bundle and for mounting these conductors and cable support systems.

### APPLICATION



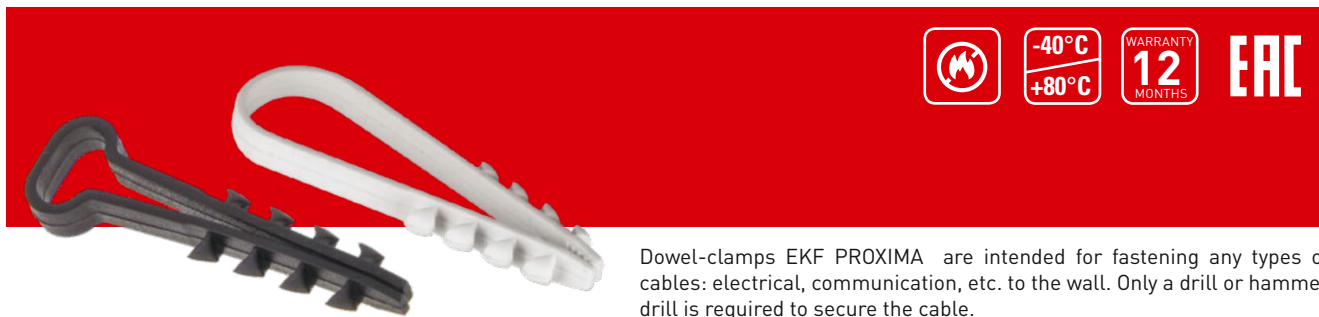
- **Cable ties with a hole** for fixing wires, cables and cable support systems to the surface. Allows quick assembly using nails or self-tapping screws
- **Cable ties with pad** are designed for marking conductors or cable support systems
- **Anchor cable ties** are used to fix cable lines inside electrical switchboards using a special clamp.

### ADVANTAGES



- Material: Nylon 6.6, self-extinguishing, halogen-free
- Reliable self-locking lock
- Provide a strong and secure bond

## Flexible cable ties FlexSTRAP



Dowel-clamps EKF PROXIMA are intended for fastening any types of cables: electrical, communication, etc. to the wall. Only a drill or hammer drill is required to secure the cable.

### APPLICATION



- Designed for fixing cables and wires, rigid and flexible pipes to brick and concrete walls, as well as to walls made of foam blocks and natural stone.
- The installation is performed as follows: first mark the cable laying line, drill holes in the wall along this line with a 6 mm drill and a depth of 4 cm with an interval of 40–50 cm, insert the cable into the eye of the dowel-clamp, and then install the dowel-clamp with the cable into the hole in the wall.

### ADVANTAGES



Material: Nylon 6.6, self-extinguishing, halogen-free

Sealed packaging allows to increase the shelf life of products

Ease of installation and operation

Secure conductor attachment in the wall thanks to oversized teeth

### PRODUCT RANGE

Image	Designation
	Dowel-tie for round cable 5x10
	Dowel-tie for round cable 11x18
	Dowel-tie for round cable 19x25
	Dowel-tie for round cable 5x10
	Dowel-tie for round cable 11x18
	Dowel-tie for round cable 19x25
	Dowel-tie for flat cable 5x8
	Dowel-tie for flat cable 5x10
	Dowel-tie for flat cable 6x12
	Dowel-tie for flat cable 6x14
	Dowel-tie for flat cable 5x8
	Dowel-tie for flat cable 5x10
	Dowel-tie for flat cable 6x12
	Dowel-tie for flat cable 6x14

Image	Designation
	Dowel for binding 6x35 EKF PROXIMA
	Dowel for binding 8x45 EKF PROXIMA
	Dowel for binding 6x35 EKF PROXIMA
	Dowel for binding 8x45 EKF PROXIMA
	Dowel clamp 7 x 150 EKF PROXIMA
	Dowel clamp 7 x 150 EKF PROXIMA

## Voltage detectors EKF



Voltage detectors EKF PROXIMA are a common device for the safe determination of the presence of electric current in electrical networks with a voltage of 220 V by contact and non-contact methods, as well as continuity of electrical circuits (light bulbs, fuses, wires, plugs, etc.)

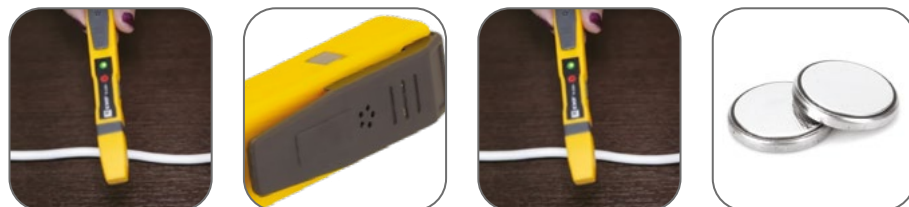
The operating principle of the voltage detector is very simple. To check the presence of voltage in the network, it is necessary to touch the bare conductor with the tip of the indicator screwdriver; if there is an electric current in the network, the LED will light on.

### APPLICATION



- Checking the presence of voltage in the network
- Circuit continuity check
- Battery polarity check

### ADVANTAGES





Improved sensitivity of non-contact testing method

Sound indication in addition to light indication (OI-2e)

Checking electronic parts available (OI-2e)

Increased battery capacity

### PRODUCT RANGE

Image	Designation	Type of measurement	Value
	Voltage detector OI-1 EKF	Checking the presence of AC voltage, contact method, V	0÷250
		Checking the presence of AC voltage, non-contact method, V	70÷600
		Checking the presence of DC voltage, V	250
		Determination of circuit integrity and polarity of a direct current source using voltage, V	1,5÷6
		Continuity check of de-energized resistance circuit, M	0÷50
		Indication of high-frequency electromagnetic fields, more than mW/cm <sup>2</sup>	5
		Frequency, Hz	5÷500
	Voltage detector OI-2e EKF	Checking the presence of AC voltage, contact method, V	70÷250
		Checking the presence of AC voltage, non-contact method, V	70÷10000
		Checking the presence of DC voltage, V	250
		Determination of circuit integrity and polarity of a direct current source using voltage, V	1,2÷36
		Continuity check of de-energized resistance circuit, Mφ	0=0-5 L=0-50 H=0-100
		Indication of high-frequency electromagnetic fields, more than mW/cm <sup>2</sup>	L= 5 H =2
		Frequency, Hz	5÷500
		Battery	LR44

## Screwdrivers EKF


**HRC**  
50-55

**MASTER**
**Cr-V**  
steel

**EAC**

The screwdriver is the most commonly used tool in electrical installation, mechanical engineering, repair, decoration and in everyday life. That is why active work is underway to improve the quality and expand the range of screwdrivers in such a way as to satisfy the needs of not only amateurs, but also professionals.

### APPLICATION



Designed for unscrewing and screwing fasteners with a slotted head both in everyday life and during work related to assembly free-voltage electrical work.

### ADVANTAGES



The working part of the screwdriver is made of chrome and vanadium steel heat-treated to a hardness of 50-55 HRC



The bit is blackened, magnetic, allows installation in devices located vertically



Ergonomic handle shape for a secure grip. Thickening in the working part of the screwdriver increases the torque, making it possible to work with sticky screws and bolt screws



Elastic inserts prevent hand slippage, reduce grip force, prevent calluses







The handle shape prevents the screwdriver from rolling off an inclined surface



The package is equipped with a hanger for a euro hook

### PRODUCT RANGE

Image	Designation	Series	Type of bit	Figure
	Screwdriver Master SL3.5x75 mm EKF	<b>MASTER</b>	Slotted (SL)	
	Screwdriver Master SL4x100 mm EKF			
	Screwdriver Master SL5.5x125 mm EKF			
	Screwdriver Master SL6.5x150 mm EKF			
	Screwdriver Master SL6.5x38 mm EKF			
	Screwdriver Master SL8x150 mm EKF			
	Screwdriver Master PH0x75 mm EKF		Phillips (PH)	
	Screwdriver Master PH1x100 mm EKF			
	Screwdriver Master PH2x100 mm EKF			
	Screwdriver Master PH3x150 mm EKF			
	Screwdriver Master PH2x38 mm EKF		Pozidriv (PZ)	
	Screwdriver Master PZ0x75 mm EKF			
	Screwdriver Master PZ1x100 mm EKF			
	Screwdriver Master PZ2x100 mm EKF			
	Screwdriver Master PZ3x150 mm EKF			



## Dielectric screwdrivers EKF



**MASTER**  
HRC  
50-55

**EXPERT**  
HRC  
52-58

**MASTER**  
1000V

**EXPERT**  
1000V

**Cr-V**  
steel



**EAC**

Screwdrivers with insulated working part are intended for all types of electrical work, including those under operating voltage up to 1,000 V. The assortment of sizes and types of the working part of screwdrivers covers the range of standard sizes of screw slots most often used in electrical installations and in everyday life. The Master series and the Expert series screwdrivers are manufactured in strict accordance with the requirements of EN 60900/IEC 60900:2004, and each screwdriver is individually tested to a voltage of 10,000 V.

### APPLICATION



The dielectric screwdriver is designed for work with fasteners used in live electrical devices. Due to the special insulating coating, the risk of electric shock to the user is eliminated even when the voltage reaches 1,000 V.

### ADVANTAGES



The working part of the screwdriver is made of chrome and vanadium steel heat-treated to a hardness of 50-55 HRC (Master), 52-58 HRC (Expert)



The bit is blackened, magnetic, allows installation in devices located vertically



Flats on the sides of the handle prevent the screwdriver from rolling off an inclined surface



Thermoplastic elastomer inserts resist slippage, reduce gripping force and prevent calluses











Thickening in the working part of the screwdriver increases the torque, making it possible to work with sticky bolt screws and screws



The package is equipped with a hanger for a euro hook

### PRODUCT RANGE

Image	Designation	Series	Type of bit	Figure
	Screwdriver Master SL2.5x80 mm 1000V EKF	<b>MASTER</b>	Slotted (SL)	
	Screwdriver Master SL4.0x100 mm 1000V EKF		Slotted (SL)	
	Screwdriver Master SL5.5x125 mm 1000V EKF		Slotted (SL)	
	Screwdriver Master SL6.5x150 mm 1000V EKF		Slotted (SL)	
	Screwdriver Master PH0x75 mm 1000V EKF		Phillips (PH)	
	Screwdriver Master PH1x80 mm 1000V EKF		Phillips (PH)	
	Screwdriver Master PH2x100 mm 1000V EKF		Phillips (PH)	
	Screwdriver Master PH3x150 mm 1000V EKF		Phillips (PH)	
	Screwdriver Master PZ1x80 mm 1000V EKF		Pozidriv (PZ)	
	Screwdriver Master PZ2x100 mm 1000V EKF		Pozidriv (PZ)	
	Screwdriver Expert SL3x75 mm 1000V EKF	<b>EXPERT</b>	Slotted (SL)	
	Screwdriver Expert SL4.0x100 mm 1000V EKF		Slotted (SL)	
	Screwdriver Expert SL5.5x125 mm 1000V EKF		Slotted (SL)	
	Screwdriver Expert SL6.5x150 mm 1000V EKF		Slotted (SL)	
	Screwdriver Expert PH0x60 mm 1000V EKF		Phillips (PH)	
	Screwdriver Expert PH1x80 mm 1000V EKF		Phillips (PH)	
	Screwdriver Expert PH2x100 mm 1000V EKF		Phillips (PH)	
	Screwdriver Expert PH3x150 mm 1000V EKF		Phillips (PH)	
	Screwdriver Expert PZ1x80 mm 1000V EKF		Pozidriv (PZ)	
	Screwdriver Expert PZ2x100 mm 1000V EKF		Pozidriv (PZ)	

## Pliers tool EKF Master/Expert



Pliers tool are a large group of products that are necessary for locksmithing, repair and installation, electrical and other types of construction work. All products fitting into the category of pliers consist of three parts: a working part, a movable articulated joint and handles. Tools differ in their functions and ease of use.

### APPLICATION



- Combination pliers are used to grip and hold flat and cylindrical parts, wires and fasteners. The cutting edge allows biting off wire and stripping the conductors.
- Diagonal cutting pliers are designed for cutting wire, conductors, nails, rods. They differ in shape and size of the working part.
- Cable cutters are used to cut copper or aluminum wires/cables.
- Long nose pliers/bent long nose pliers are used for gripping and holding small items, wires, rings, screws and for performing various tasks in hard-to-reach places.
- Round nose pliers are used to twist or straighten wire and thin metal products.
- Adjustable pliers are intended for gripping and crimping parts, bending pipes, dismantling screw connections, etc.

### ADVANTAGES



Working part material: chrome and vanadium tool steel  
Surface: Master series – matt nickel plating/Expert series – black, polished


Cutting edges additionally hardened with high frequency currents: Master series – 55 to 62 HRC/ Expert series – 57 to 65 HRC

High-quality material and excellent ergonomics of the handles. Anti-slip stops for a comfortable grip and leverage to cut

Expert – a series of tools with improved performance characteristics, which undergo additional processing and inspection during production

## PRODUCT RANGE

MASTER	
Image	Designation
	Master 160 mm EKF Combination pliers
	Master 180 mm EKF Combination pliers
	Master 200 mm EKF Combination pliers
	Master 160 mm EKF Diagonal pliers
	Master 180 mm EKF Diagonal pliers, power
	Master 160 mm EKF Long nose pliers
	Master 200 mm EKF Long nose pliers
	Master 160 mm EKF Bent Long nose pliers
	Master 200 mm EKF Bent Long nose pliers
	Round nose pliers Master 160 mm EKF
	Cable cutters NK-12 Master EKF
	Cable cutters NK-16 Master EKF
	Master 250 mm EKF Adjustable pliers

EXPERT	
Image	Designation
	Expert 160 mm EKF Combination pliers
	Expert 180 mm EKF Combination pliers
	Expert 200 mm EKF Combination pliers
	Expert 160 mm EKF Diagonal pliers
	Expert 180 mm EKF Diagonal pliers, power
	Expert 160 mm EKF Long nose pliers
	Expert 200 mm EKF Long nose pliers
	Expert 160 mm EKF Long nose pliers, bent
	Expert 200 mm EKF Long nose pliers, bent
	Round nose pliers Expert 160 mm EKF
	Cable cutters NK-12u Expert EKF
	Cable cutters NK-16u Expert EKF
	Expert 250 mm EKF Adjustable pliers

## Dielectric pliers (double layer resin plastisol insulation) EKF Master



HRC 62

MASTER

Cr-V steel

EAC

Dielectric pliers are a large group of products required for work under voltage up to 1,000 V. The Master series tools have a dielectric coating (insulation) applied by immersion. The Expert series tools have a dielectric plug-on insulation with anti-slip features.

## APPLICATION



The insulated pliers are recommended for live maintenance and installation work. Special handles are made of two-layer resin plastisol by immersion.

## ADVANTAGES



The tool is made of chrome and vanadium steel. Plating type – matt nickel plating for a longer lifetime and protection against corrosion



Cutting edges are additionally hardened by high frequency currents to 62 HRC



Insulation of handles is made of two-layer resin plastisol (outer – red, inner – yellow) Designed for work under live voltage up to 1,000 V












Special stops on the handles prevent the spark from jumping onto the hand and prevent the hand from slipping into the working area



The package is equipped with a hanger for a euro hook

## PRODUCT RANGE

Image	Designation	Image	Designation
	Master 160 mm 1000V EKF Combinaiton pliers		Master 160 mm 1000V EKF Long nose pliers, bent
	Master 180 mm 1000V EKF Combinaiton pliers		Master 200 mm 1000V EKF Long nose pliers, bent
	Master 200 mm 1000V EKF Combinaiton pliers		
	Master 160 mm 1000V EKF Diagonal pliers		Round nose pliers Master 160 mm 1000V EKF
	Master 160 mm 1000V EKF Diagonal pliers, power		Stripper Master 160 mm 1000V EKF
	Long nose pliers Master 160 mm 1000V EKF		Cable cutters NKi-12 Master 1000V EKF
	Long nose pliers Master 200 mm 1000V EKF		Cable cutters NKi-16 Master 1000V EKF
			Master 250 mm 1000V EKF Adjustable pliers



## Dielectric pliers tool EKF Expert 1000V



Dielectric pliers are a large group of products required for work under voltage up to 1,000 V. The Expert series tool has a dielectric plug-on insulation with anti-slip features.

### APPLICATION



The pliers are recommended for routine maintenance and installation work, including those on live parts.

### ADVANTAGES



The tool is made of chrome and vanadium steel.

Cutting edges are additionally hardened by high frequency currents up to 62 HRC

The handle insulation is made of two-layer resin plastisol.

Special stops on the handles prevent the spark from jumping onto the hand and prevent the hand from slipping into the working area

The tool meets the requirements of IEC 60900:2004. The package is equipped with a hanger for a euro hook

### PRODUCT RANGE










Image	Designation
	Expert 160 mm 1000V EKF Combination pliers
	Expert 180 mm 1000V EKF Combination pliers
	Expert 200 mm 1000V EKF Combination pliers
	Expert 160 mm 1000V EKF Diagonal pliers
	Expert 180 mm 1000V EKF Diagonal pliers, power
	Long nose pliers Expert 160 mm 1000B EKF
	Long nose pliers Expert 160 mm 1000V EKF
	Long nose pliers Expert 200 mm 1000V EKF
	Expert 160 mm 1000V EKF Long nose pliers, bent

Image	Designation
	Round nose pliers Expert 160 mm 1000V EKF
	Stripper Expert 160 mm 1000V EKF
	Cable cutters NKi-12u Expert 1000V EKF
	Cable cutters NKi-16u Expert 1000V EKF
	Expert 250 mm 1000V EKF Adjustable pliers

## Digital multimeters EKF


**MASTER**  
CAT I  
CAT II

**EXPERT**  
CAT III  
CAT IV

**PROFESSIONAL**  
CAT III  
CAT IV

**EAC**

EKF digital multimeters comply with the requirements of IEC 61010-1:2001 in terms of instrument safety and IEC 61326-2-1:2005, IEC 61326-2-2:2005 regarding electromagnetic compatibility. The Master series is a balanced range of products that are simple and reliable to use.

The Expert series are high-quality measuring instruments with a wide range of functions for daily use.

The Professional Series are multimeters with an expanded set of features and capabilities for professionals.

### APPLICATION



They are widely used in electrical engineering and electronics to determine the key characteristics of the AC and DC circuit. Depending on their functional equipment, the devices can measure basic parameters: current, voltage, circuit resistance, and also determine the polarity.

### ADVANTAGES



Wide range.  
Retail package



Several ranges  
of multimeters  
differing in the level  
of quality and safety



Wide set of functions



High measurement  
accuracy



Made of high quality  
and safe material

### PRODUCT RANGE

Image	Designation	Series	Safety level
	Digital multimeter M182 EKF Master	<b>MASTER</b>	CAT II 600V

Image	Designation	Series	Safety level
	Digital multimeter M300 EKF Expert	<b>EXPERT</b>	600V CATIII







Image	Designation	Series	Safety level
	Digital multimeter MS8232 EKF Expert	<b>EXPERT</b>	600V CATIII
	Digital multimeter MS8233E EKF Expert		600V CATIII
	Digital multimeter MS8211 EKF Expert		600V CATIII
	Digital multimeter M830B EKF Master	<b>MASTER</b>	CAT I 1000V CAT II 600V
	Digital multimeter MAS830B EKF Expert	<b>EXPERT</b>	600V CATIII
	Digital multimeter MAS830L EKF Expert		600V CATIII

Image	Designation	Series	Safety level
	Digital multimeter M832 EKF Master	<b>MASTER</b>	CAT I 1000V CAT II 600V
	Digital multimeter M838 EKF Master		CAT I 1000V CAT II 600V
	Digital multimeter MAS838 EKF Expert	<b>EXPERT</b>	600V CATIII
	Digital multimeter MY61 EKF Expert		600V CATIII
	Digital multimeter MY64 EKF Expert		600V CATIII
	Digital multimeter MS18C EKF Expert		1000V CATIII 600V CATIV
	Digital Multimeter MS8236 EKF Professional		1000V CATIII 600V CATIV

Clamp meter EKF



MASTER  
CAT I  
CAT II

EXPERT  
CAT III  
CAT IV

EAC

The Master series is a balanced range of products that are simple and reliable to use.

The Expert series are high-quality measuring instruments with a wide range of functions for daily use.

APPLICATION



Designed to measure current without breaking the circuit. Some models are equipped with additional functions for measuring voltage, frequency and temperature.

ADVANTAGES



Wide range.  
Retail package



Several ranges of current clamps differing in quality and safety



Wide set of functions



High measurement accuracy




Made of high quality and safe material

PRODUCT RANGE

266 EKF Master		266F EKF Master		M266C EKF Expert		MS2016S EKF Expert		MS2019B EKF Expert	
Image	Safety level	Image	Safety level	Image	Safety level	Image	Safety level	Image	Safety level
	CAT I 1000V CAT II 600V		CAT I 1000V CAT II 600V		1000V CATII 600V CATIII		600V CATIII		600V CATII



## Digital laser non-contact thermometer (pyrometer) EKF



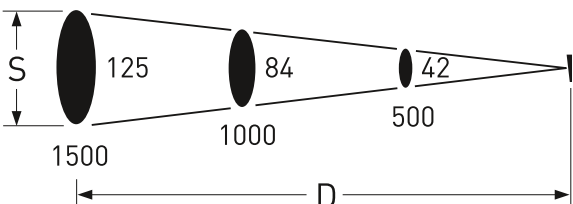
- 50 °C  
+ 550 °C

EXPERT  
CAT III  
CAT IV

EAC

MS6519B  
INFRARED THERMOMETER D:S = 12:1  
6in@72in 3in@36in 1in@12in  
0.25in@3in 0.08in@1in 0.04in@0.5in

MS6519B Digital laser non-contact thermometer (pyrometer) EKF of the Expert series meets the following standards: EN61326-1, EN61010-1, EN60825-1. The ratio between the distance to the object and its size (D:S) is 12:1 (unit: mm D:S = 12:1).



When measuring, the thermometer will emit light in the form of an indicator ring. The measured temperature is the surface temperature of an object within the ring. The smaller the object, the closer the thermometer should be placed thereto.

### APPLICATION



MS6519B EKF Infrared thermometer (pyrometer) of Expert series is a portable infrared thermometer for non-contact measurement of object temperature.

### ADVANTAGES



High measurement accuracy




Color liquid crystal display



Made of high quality and safe materials

- Temperature measurement of solids and liquids at a distance and in hard-to-reach places
- Wide temperature measurement range [-50 to +550 °C]

### PRODUCT RANGE

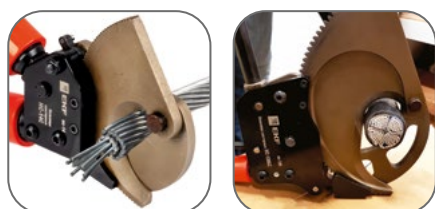
Image	Designation	Series	Safety level
	MS6519B EKF Expert infrared thermometer (pyrometer)	<b>EXPERT</b>	Laser hazard class 2

## Ratchet cutter EKF EXPERT



EKF EXPERT series cable cutters are designed for cutting lightly armored and armored aluminum and copper cables, self-supporting insulated wire, type A and AC wires, cables, fittings and chains. Due to its compactness and independence from external energy sources, this tool is used both at sites associated with the laying of self-supporting insulated wires, overhead lines, cable routes, and when terminating cable glands or splicing high-voltage lines, connecting panel equipment etc.

### APPLICATION



- A special feature is that when much less force is applied than when using lever shears, the effect is greater. That is why segment shears are used to cut cables, chains, reinforcement, steel angles and, in fact, armored and non-armored cables up to 130 mm in diameter.

### ADVANTAGES



The working part of the shears is made of a special high-alloy alloy featuring an increased hardness and wear resistance



The working part of the shears is hardened on a special automatic line. Hardness spread for 10,000 workpieces is  $\pm 1$  HRC



The working part of the shears has a special coating that reduces friction and increases the corrosion resistance of the tool

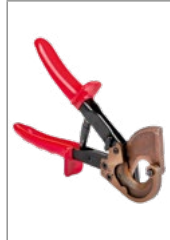









A special arrangement of telescopic handles allows you to quickly select a convenient length of the lever for work and securely fix without the use of auxiliary tools



For your convenience, the cable cutters are supplied in a special bag made of fabric that is resistant to mechanical damage and having dirt and water-repellent properties

### PRODUCT RANGE

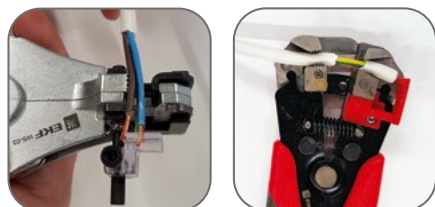
Cable cutters							
NS-32M	NS-14S	NS-30S	NS-50BAS	NS-70BS	NS-80BS	NS-100BSR	NS-130BS
							

## Wire strippers EKF MASTER/PROFESSIONAL



Wire strippers Master /Professional are designed for fast and high-quality stripping of solid and stranded wires and cables for various purposes without damaging the current-carrying conductor. Various design solutions allow you to remove insulation from PVC, polyethylene, vinyl, plastic compounds.

### APPLICATION



Correct cutting of the cable and stripping of the wire insulation without damaging the conducting core are the basis for high-quality wiring

### ADVANTAGES



Metal working part of PROFESSIONAL series strippers is made of the famous Solingen steel, which has a high ability to keep sharpening for a long time



Professional series tool bodies are molded from high strength glass fiber reinforced polyamide



The possibility to install replaceable blades



The package includes also a hanger for a euro hook

### PRODUCT RANGE

MASTER			PROFESSIONAL				
Stripper WS-01	Stripper WS-03	Stripper WS-04	Stripper WS-11	Cable cutter WS-12	Stripper WS-13	Stripper WS-14	Cable cutter WS-15
							

## Crimping pliers EKF MASTER/EXPERT



Crimping pliers EKF MASTER/EXPERT allows to connect all the links of the electric circuit reliably and with good electrical conductivity, without overheating of the elements, which reduces the risk of short circuits and burns of contacts in accordance with existing standards.

### APPLICATION



Designed for crimping insulated lugs and sleeves (oval crimping), non-insulated lugs and sleeves (dot crimping), ferrules (trapezoid crimping) and auto terminals (double-circuit spade crimping)

### ADVANTAGES



Automatic control of crimping; ratchet mechanism with automatic unlocking at the end of the crimping cycle; crimping in one movement



Special surface treatment (unique on the market) for better corrosion protection



Two-component handles made of improved TPR plastic



The crimper jaws are marked with the size of the lug or connector used



The package is equipped with a hanger for a euro hook

### PRODUCT RANGE

MASTER				EXPERT					
PK-01	PK-02	PK-16	PK-35	PK-01	PK-02	PK-03	PK-04	PK-05	PK-06
									

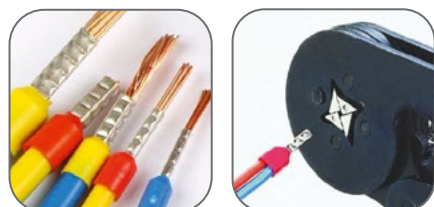


## Crimping pliers for cord end terminals EKF



EKF manual crimping pliers MASTER and EXPERT provide the fastest, cheapest and most technologically advanced way to obtain a quality contact.

### APPLICATION



Designed for crimping insulated and non-insulated cord end terminals, as well as double sleeve ends of types NShv, NShvl, NShvl2.

### ADVANTAGES



The four segment /six segment die features automatic adjustment to the required sleeve size for reliable and fast crimping



Diaphragm-type rotary crimping mechanism



Ratchet mechanism ensures a full cycle of quality crimping



Two-component handles: longer work without fatigue, confident grip; the shoulders on the tool handles are made in accordance with standards and prevent the hand from slipping into the working area







Crimping force adjustment



The package is equipped with a hanger for a euro hook

### PRODUCT RANGE

EXPERT				
PKV-6-4	PKV-6-6	PKV-16-4	PKV-70	NShVI set No. 6
				

## Mechanical crimping tool PK-50 EKF Expert



EKF mechanical crimping tool of Expert series with revolving dies allows you to quickly and with minimal effort crimp copper and aluminum cable lugs and sleeves, while spending minimal time on changing the tool for different sections.

### APPLICATION



Designed for termination of copper and aluminum lugs and sleeves made according to standards and DIN standards. The cross-sectional profile at the point of crimping is a hexagon.

### ADVANTAGES



Easy to use and reliable



The design of the dies ensures high-quality crimping and quick readjustment to the desired size

- One-step crimping
- Fast and high-quality crimping

## Hydraulic crimping tool EKF



Hydraulic crimping tools EKF MASTER and EXPERT are designed for fast and high-quality crimping of copper and aluminum cable lugs and sleeves made in accordance with to standards and DIN standards using a hydraulic multiplier

### APPLICATION

EKF hydraulic presses use a hexagonal crimping method (according to the DIN standard the profile has a hexagon shape on the cut), which ensures a high-quality crimping of lugs and sleeves. Dies are selected according to the diameter of the tube part of the lug (sleeve) and the cross-section of the cable. The quality of the crimping depends on how the dies correspond to the lug.

### ADVANTAGES



360 degree rotating working head



Locking pin conveniently locks in when changing dies



Open working area for easy insertion of lugs



Multigrade hydraulic oil and used seals



The roughness of the hydraulic cylinder is not less than 0.32 microns, which corresponds to the ninth class of cleanliness

## PRODUCT RANGE

MASTER			EXPERT		
PGR-70	PGR-120	PGR-300	PGRs-70	PGRs-120	PGRs-300
					

## Bags EKF



EKF bags, backpacks and mounting belts are distinguished by modern design and original constructive solutions to facilitate the work of an electrician. In their production, the most modern materials and technologies were used, which ensures a long lifetime and ease of use.

## APPLICATION



Designed for compact storage and convenient transportation of tools and consumables used 1680D Oxford brand in electrical work



## ADVANTAGES



Made of polyester of with increased water and dirt-repellant properties



Reflective elements on external front pocket of the backpack






Extra stitching at the handle attachment points to increase durability



The bottom is made of shock-resistant polymer material protecting against external influences

## PRODUCT RANGE

Universal fitter's bag S-03 EKF Master	Universal fitter's backpack S-07 EKF Master	Universal fitter's bag S-12 EKF Master
		

## Current transformers TTE and TTE-A accuracy class 0,5 and 0,5S







Current transformers TTE and TTE-A EKF PROXIMA are designed to transmit the signal of measuring information to measuring instruments, protection and control devices and are used in alternating current networks with a rated frequency of 50 Hz with a rated voltage of up to 660 V. Current transformers are installed, for example, in switchgears for energy metering. The company's range of products includes current transformers with a built-in busbar – TTE-A series, and with a universal window (without a built-in bus) – TTE-30, TTE-40, TTE-60, TTE-85, TTE-100, TTE-125 series.

### APPLICATION



Residential buildings



Various construction and infrastructure facilities



Industrial enterprises

Current transformers are used for energy metering, control of automation and protection equipment.

Field of application:

- for use in electricity metering schemes for settlements with consumers;
- for use in commercial electricity metering schemes;
- for transmitting a signal of measuring information to measuring instruments or protection and control devices.

### ADVANTAGES



The enclosure is non-separable and sealed with a sticker, which prevents access to the secondary winding



Integrated tinned copper busbar in TTE-A allows copper and aluminum busbars to be connected



The transformers window allows their use on busbars and cables of various cross-sections and configurations



The transparent cover ensures safety



Verification interval of 12 years



Supplied with a holder and bolt for mounting on a busbar, as well as with holders for mounting on a mounting panel

### PRODUCT RANGE

Current transformers TTE								Current transformers TTE-A	
									



## Current transformers TTE-R (split-type)


VERIFICATION IN  
**12**  
YEARS

**EAC**
**AI**  
**Cu**

TTE-P current transformers EKF PROXIMA are designed to control and transmit the signal of measuring information to measuring instruments for commercial accounting, protection, automation, signaling and control in alternating current networks with a rated voltage of 0.66 kV and a frequency of 50 Hz. Transformers of accuracy class 0.5 are used for measurements in metering schemes for settlement with consumers. The transformer has a modular design, which allows installation without disassembling the electrical circuit.

### APPLICATION

Current transformers are used for energy metering, control of automation and protection equipment.

Field of application:

- For use in electricity metering schemes in settlements with consumers
- For use in commercial electricity metering schemes
- For transmitting a signal of measuring information to measuring instruments or protection and control devices.

### ADVANTAGES



Assembly/disassembly without disassembling the busbar, which reduces the operating time by 5–7 times



Rated primary current of the transformer from 150 to 3,000 A



The current transformer enclosure is made of self-extinguishing polymer material

## Single-phase electricity meters SKAT


LIFETIME  
**25**  
YEARS

**AI**  
**Cu**

WARRANTY  
**7**  
YEARS

**-40**  
**+55**

MODULAR  
DESIGN

**EAC**

EKF PROXIMA SKAT direct-connected modular electricity meters are designed for metering of consumed active electricity in single-phase AC circuits of industrial frequency with a voltage of 230 V.

### APPLICATION

The meters are installed in premises or closed cabinets with additional protection against the influence of adverse environmental factors. They are used to meter the consumed active electricity.

- Metering of active electricity in one direction.
- Single-rate metering in single-phase two-wire AC circuits.
- Modular design (module width 18 mm) with the possibility to mount on a 35 mm DIN-rail.

### ADVANTAGES



Compact enclosure for just 1 module

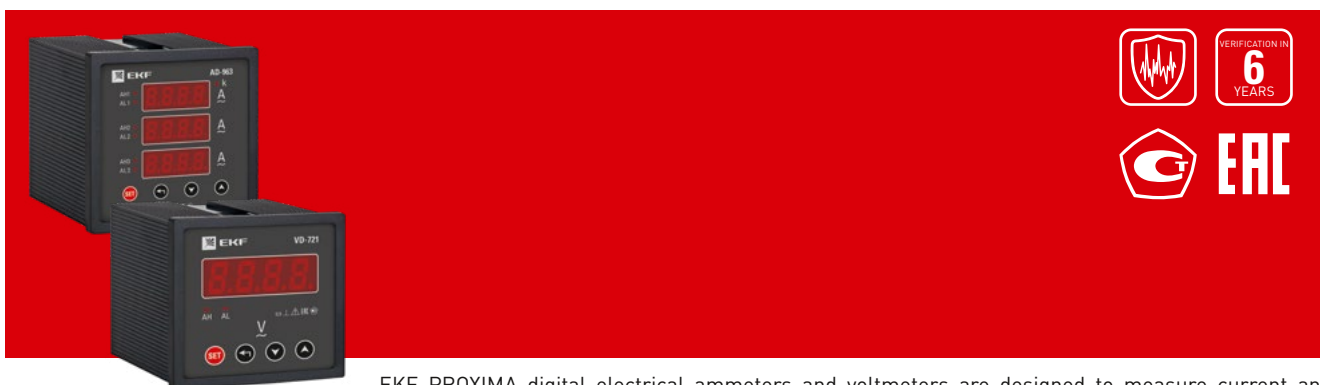


Option of sealing



Accuracy class 1

## Digital Ammeters and Voltmeters



EKF PROXIMA digital electrical ammeters and voltmeters are designed to measure current and voltage in single-phase and three-phase

alternating current electrical circuits. The instruments are used to work in closed rooms, in electrical switchboard equipment, in electrical installations of industrial enterprises, residential and public buildings and structures. Ammeters and voltmeters can be either of direct or transformer connection. The microprocessor device of the instruments allows obtaining an accuracy class of 0.5, which is many times higher than the accuracy class of analog ammeters and voltmeters. Verification interval is 6 years.

### APPLICATION

Ammeters and voltmeters are used in low-voltage complete devices and electrical installations of industrial enterprises.

Designed to measure:

- current;
- voltage.

### ADVANTAGES



The enclosure is made of non-flammable plastic



Easy installation



Customizable for any current transformer



Continuous operation without calibration

## Digital ammeters and voltmeters DIN-rail-mounted EKF PROXIMA



EKF PROXIMA digital electrical ammeters and voltmeters are designed to measure current and voltage in single-phase and three-phase alternating current electrical circuits.

The instruments are used to work in closed rooms, in electrical switchboard equipment, in electrical installations of industrial enterprises, residential and public buildings and structures.

Ammeters and voltmeters can be either of direct or transformer connection. The measuring range of transformer connection devices depends only on the rating of the connected measuring current transformer.

### APPLICATION

Ammeters and voltmeters are used in low-voltage complete devices and electrical installations of industrial enterprises.

Designed to measure:

- current;
- voltage.

### ADVANTAGES



Easy installation due to DIN-rail mount



Possibility of customization for any current transformer



The enclosure is made of non-flammable plastic

- Continuous operation without calibration
- Accuracy class of 0.5

## Multifunctional Meters


Modbus  
RTU

HARMONIC  
51

IP64  
IP20

WARRANTY  
7  
YEARS

EAC

They are digital programmable devices designed to measure the parameters of three-phase three- or four-wire networks with balanced and unbalanced loads with simultaneous display of measured values and digital data transmission. The instruments provide for control, analysing and optimization of the operation of power equipment, systems and industrial networks.

### APPLICATION



Electric power systems



Various construction and infrastructure facilities



Industrial enterprises

EKF PROXIMA multifunction instruments can measure various parameters of the electrical network: current, voltage, power, frequency, power factor, harmonic distortion and electricity in two directions, and also provide digital communication via RS485 interface. The instruments are widely used in a variety of control systems, energy management systems, substation automation systems, power transmission automation systems, and marshalling cabinets.

### ADVANTAGES



Easy installation and maintenance



Customizable for any current transformers



User-friendly menu

- Possibility of remote data collection, programming and recording of parameters, continuous operation without calibration.
- Measuring of up to 51 harmonic components

### PRODUCT RANGE

SMH series with a liquid crystal display	SME series with a LED display	G33H series with a LCD for a DIN-rail
		

## Switches and Socket outlets Valencia



A modern collection that embodies functionality and aesthetics. "Valencia" is the obvious choice within the cost-effective segment due to the excellent combination of low price and high quality of the presented products. In addition to the reliability and easy installation, "Valencia" series products offer all the necessary mechanisms combined with a strict and versatile design. The "Valencia" series is available in six colors - classic white and cream, as well as pearl, graphite, cashmere, and steel for the most daring design ideas.



### APPLICATION



Accommodation buildings



Commercial real estate



Infrastructure facilities

- Management and arrangement of the premises lighting network.
- Connection of various domestic consumers to the electrical network.
- Connection of communication devices to various information networks

### ADVANTAGES



Base made of flame-resistant plastic



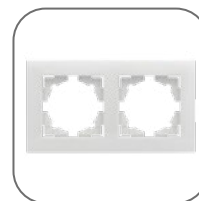
Housing made of UV-RESISTANT POLYCARBONATE



Adaptation to 8xxx series aluminum alloy



Low height of products



Multi-purpose symmetrical frames up to 5 gangs



## Socket outlets Murmansk



IEC 60884-1-2013

10A

16A

EAC

IP54

The "Murmansk" EKF PROXIMA series of wiring products is a solution for surface installation that allows for arranging power supply in high humidity conditions, dusty premises, utility rooms, garages and outdoor, if installed under a shed. "Murmansk" has a number of design solutions providing convenience, safety of use, and quick installation. The housing of sockets and switches will not darken or lose its strength when installed outdoors.

### APPLICATION



- Connection of various consumers to the electrical network
- Production and storage facilities
- Welfare facilities with high humidity and dustiness

### ADVANTAGES



Base made of flame-resistant plastic



Stepped sealed terminals on both sides of the product



Housing made of UV-resistant polycarbonate



Deep-groove multi-purpose screws

## Socket outlets Murmansk



IEC 60884-1-2013

10A

16A

EAC

IP54

The "Murmansk" EKF PROXIMA series of wiring products is a solution for surface installation that allows for arranging power supply in high humidity conditions, dusty premises, utility rooms, garages and outdoor, if installed under a shed. "Murmansk" has a number of design solutions providing convenience, safety of use, and quick installation. The housing of sockets and switches will not darken or lose its strength when installed outdoors.

### APPLICATION



- Connection of various consumers to the electrical network
- Production and storage facilities
- Welfare facilities with high humidity and dustiness

### ADVANTAGES



Base made of flame-resistant plastic



Stepped sealed terminals on both sides of the product



Housing made of UV-resistant polycarbonate



Deep-groove multi-purpose screws

## Socket outlets Prague



A series of wiring accessories with increased tightness (IP 44 protection class) for surface installation. Suitable for the use in premises with high humidity and pollution (basements, garages, workshops). The technical excellence of the products of this series makes the process of electricity management as simple, convenient and safe as possible.

### APPLICATION



Residential facilities



Commercial buildings

- Lighting system control and arrangement.
- Connection of various domestic consumers to the electrical network.

### ADVANTAGES



Sealed terminals on both sides of the product



Increased interior space for easy installation



Brass contact block



Simple and convenient installation on any surface

## Switches Rome



A series of wiring accessories for surface installation. Designed in such a way so that all products of this series can be easily mounted on almost any surface. Special technical solutions and developments make the installation process as simple as possible.

### APPLICATION



Residential facilities



Infrastructure facilities

- Lighting system control and arrangement.
- Connection of various domestic consumers to the electrical network.
- Connection of communication devices to various information networks.

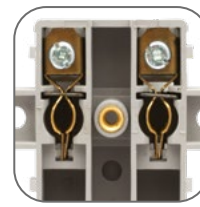
### ADVANTAGES



Sockets with plastic or ceramic base



Punched holes on four sides for cable entry



Leaf springs IN THE CONTACT BLOCK



Convenient connection of conductors

## Socket outlets Minsk



Wiring accessories of the "Minsk" EKF BASIC series are a novelty in the line of EKF sockets and switches. The series is specially designed for the complex installation of wiring accessories in various facilities, while maintaining the same quality and safety and significantly saving the budget. The design and materials are specially optimized for a reliable and durable product service, as well as quick and convenient installation.

### APPLICATION



Residential facilities



Commercial buildings



Infrastructure facilities

- Management and arrangement of the premises lighting network.
- Connection of various domestic consumers to the electrical network.
- Connection of communication devices to various information networks.

### ADVANTAGES



Wiring accessories for concealed and surface-mounted installation are offered in one series



Compact housing



High quality ABS plastic



Low installation height of flush-mounted products



Fixing the product frame by latching



Grooves for quick and easy removal of products



Spacer feet made of 1.5 mm metal, fixed for easy installation



Fully non-flammable plastic base



All flush-mounted sockets are equipped with shutters



Special grooves for in-line installation on the support



Surface-mounted products in dark and light wood colors



Tempered glass frames for flush-mounted products

## Extension leads



IP20	10A	16A	EAC
		2,2 kW	3,2 kW

IEC 60669-1-2000

EKF PROXIMA series surge protectors are designed to protect expensive electrical equipment from high and low frequency interferences, overloads of various types, and short circuits. The range of equipment, recommended to be only connected through a surge protector, includes office equipment, audio and video equipment, computers, and most of the household appliances. The use of surge protectors can significantly increase the electrical and fire safety of both the workplace and the premises as a whole, and a wide range of standard versions makes the use of surge protectors convenient and comfortable.

## APPLICATION



Residential facilities



Commercial



Infrastructure facilities

- Protection of electricity consumers from power line surges, interferences, overloads, and short circuits.
- Prompt connection and disconnection of a large number of household electricity consumers.
- Arrangement of a workplace in an office with a lot of office equipment.

## ADVANTAGES



Flame-retardant housing made of ABS plastic



Surface-mounted



Electrical protection shutters for all products



Flexible sleeve prevents cord chafing at the point of wire connection with the block



On/Off button with LED illumination and built-in fuse



The sockets are located at an angle of 45°, which allows the connection of many electricity consumers as possible



## Extension cable reel "Atlant" 2.0 (plastic)



Extension cable reel (plastic) "Atlant" 2.0 are intended for household use, i.e. for connecting low-power electrical appliances, such as, for example, hand-held electric trimmers, electric saws, household pumps. The extension cord reel wire is designed for a power of up to 2.2 kW (depending on the type of the product and wire cross-section), which will allow solving most of the tasks without overpaying for excess power.

### APPLICATION



Accommodation buildings



Auxiliary rooms



Commercial real estate

Designed to supply power to electricity consumers remote from the fixed socket-outlets or requiring mobile power connections.

- Operation of portable electric power tools in various premises.
- Connection of various electrical equipment.
- Indoor construction and installation works.

### ADVANTAGES



Metal tube frame with rubber handle



High-impact plastic



Flexible and reliable PVS conductor. Length: 30, 40, 50 m



Molded undismountable plug





Multi-plug socket for 4 sockets



Reinforced reel spool

### PRODUCT RANGE

Image	Designation
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets EKF PROXIMA 30 m length PVS cable 2x0.75 6A/1.3kW with no grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets EKF PROXIMA 30 m length PVS cable 3x1.0 10A/2.2kW with grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets EKF PROXIMA 40 m length PVS cable 2x0.75 6A/1.3kW with no grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets EKF PROXIMA 40 m length PVS cable 3x1.0 10A/2.2kW with grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets EKF PROXIMA 50 m length PVS cable 2x0.75 6A/1.3kW with no grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets EKF PROXIMA 50 m length PVS cable 3x1.0 10A/2.2kW with grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets IP44 EKF PROXIMA 30 m length KG cable 3x1.5 16A/3.5kW with grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets IP44 EKF PROXIMA 30 m length PVS cable 3x1.5 16A/3.5kW with grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets IP44 EKF PROXIMA 40 m length KG cable 3x1.5 16A/3.5kW with grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets IP44 EKF PROXIMA 40 m length PVS cable 3x1.5 16A/3.5kW with grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets IP44 EKF PROXIMA 50 m length KG cable 3x1.5 16A/3.5kW with grounding connection
	Extension cable reel (plastic) "Atlant" 2.0, 4 sockets IP44 EKF PROXIMA 50 m length PVS cable 3x1.5 16A/3.5kW with grounding connection

## Extension cable reel "Hephaestus" 2.0 (metal)



Extension cable reel "Hephaestus" 2.0 (metal) can be used at construction sites, for connecting power-intensive consumers in garages and home gardens, including welding equipment, perforators, and electric saws. The reliable KG cable in rubber insulation withstands both mechanical loads and the total power of connected consumers up to 3.5 kW.

### APPLICATION



Construction site



Auxiliary rooms



Household plots

Designed to supply power to electricity consumers remote from fixed socket-outlets or requiring mobile power connections.

- Operating portable electric power tools at construction sites
- Connection of electricity consumers at household plots
- Connection of portable electric power tools in garages, sheds or workshops

### ADVANTAGES



Metal tube frame with a rubber handle



Rubber dismantable plug



Rubber sheathed cable (KG).  
Length: 30, 40, 50 m



Fuse provided




Reinforced reel  
spool

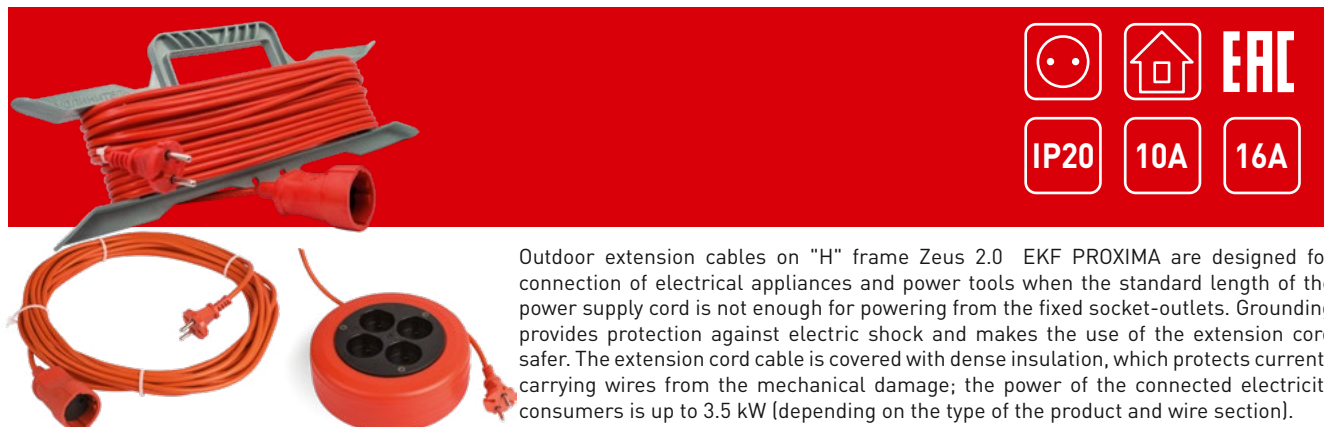


0.8–0.9 mm thick  
metal reel

### PRODUCT RANGE

Image	Designation
	"Gefest 2.0" EKF PROXIMA series 4-socket extension cord reel, 30 m length KG cable 3x1.5 16A/3.5kW with grounding connection
	"Gefest 2.0" EKF PROXIMA series 4-socket extension cord reel, 30 m length KG cable 3x2.5 16A/3.5kW with grounding connection
	"Gefest 2.0" EKF PROXIMA series 4-socket extension cord reel, 40 m length KG cable 3x1.5 16A/3.5kW with grounding connection
	"Gefest 2.0" EKF PROXIMA series 4-socket extension cord reel, 40 m length KG cable 3x2.5 16A/3.5kW with grounding connection
	"Gefest 2.0" EKF PROXIMA series 4-socket extension cord reel, 50 m length KG cable 3x1.5 16A/3.5kW with grounding connection
	"Gefest 2.0" EKF PROXIMA series 4-socket extension cord reel, 50 m length KG cable 3x2.5 16A/3.5kW with grounding connection

## Outdoor extension cable on "H" frame Zeus 2.0 EKF PROXIMA



### APPLICATION



Accommodation buildings



Auxiliary rooms



Commercial real estate

### ADVANTAGES



Molded undismountable plug



Wear-resistant PVC cable sheath



Durable frame made of high-quality plastic

## Lamp holders EKF PROXIMA



### APPLICATION



Accommodation buildings



Commercial real estate



Brass or copper in the contact block



Various designs



The most popular lamp bases and frame sizes



Wide assortment of various adapters

- Use in various lighting fixtures.
- Arrangement of lighting in industrial premises and warehouses.
- Connecting lamps with a base different from the installed lamp holder.

## Accessories EKF PROXIMA



IEC 60884-1-2013

16A



EAC

IP20

6A

10A

The wide range of EKF accessories allows the user to arrange electrical network exactly according to the needs. Connection of the lighting fixtures, household appliances, assembling an electrical extension cord of non-standard length, connecting several electrical consumers to one outlet - there is a solution for all these operations in a wide range of EKF models. Each accessory meets the safety requirements of IEC, is made of non-combustible materials, and has a thought out design for quick and convenient installation of the product.

### APPLICATION



- Coupling and connection of various consumer devices to the electrical network.
- Production of power network extension cords of non-standard length, repair of household electrical networks.

### ADVANTAGES



The range of accessories with both direct and side entry



Products with and without grounding contact



Multiple sockets for connection of several consumers to one outlet



Wide model range of various products



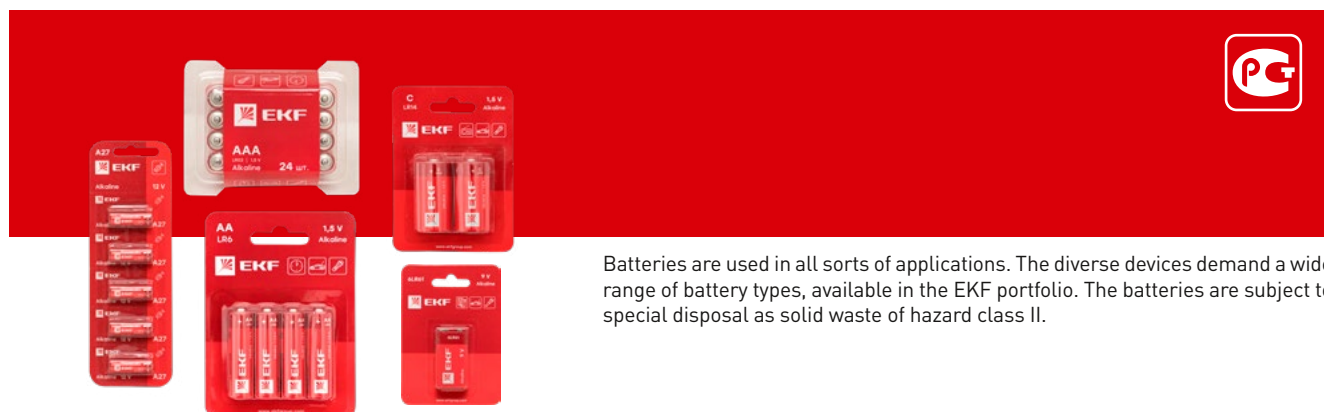
Reliable contact block design



Availability of a switch in some models

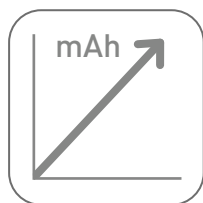


## Batteries EKF



Batteries are used in all sorts of applications. The diverse devices demand a wide range of battery types, available in the EKF portfolio. The batteries are subject to special disposal as solid waste of hazard class II.

### ADVANTAGES



Higher capacity at high consumption compared to competition



Warehouse stock of the most demanded SKU on the market



Bright retail packaging

### PRODUCT RANGE

Picture	Name	Item code
	Alkaline battery 9V(LR61) blister 1 pc. EKF	9V-BL1
	Alkaline battery C(LR14) blister 2 pcs. EKF	LR14-BL2
	Alkaline battery D(LR20) blister 2 pcs. EKF	LR20-BL2
	Alkaline battery A23 for alarm systems blister 5 pcs. EKF	A23-BL5
	Alkaline battery A27 for alarm systems blister 5 pcs. EKF	A27-BL5
	Alkaline battery AA(LRR6) blister 4 pcs. EKF	LR6-BL4

Picture	Name	Item code
	Alkaline battery AA(LR6) plastic box 24 pcs. EKF	LR6-BOX24
	Alkaline battery AA(LR6) shrink 4 pcs. EKF	LR6-SR4
	Alkaline battery AAA(LR06) blister 4 pcs. EKF	LR03-BL4
	Alkaline battery AAA(LR03) plastic box 24 pcs. EKF	LR03-BOX24
	Alkaline battery AAA(LR03) shrink 4 pcs. EKF	LR03-SR4

## Accessories for socket outlets EKF PROXIMA



The assortment of EKF retail products has been replenished with various additional accessories that make your life more convenient, more comfortable, and can help automate various processes and not to forget about important matters. Compact socket timers allow to control various household appliances on a schedule, without human involvement - one just needs to program the desired sequence.

The SB-01 type multi-plug socket is an indispensable appliance, that can be installed on your desktop or in a regular socket and provides two additional USB connectors without loading the socket. EKF will continue expanding this range of small all-purpose helpers for everyday use.

### APPLICATION



- Automatic control of household appliances (washing machines, water heaters, heaters).
- Automatic lighting fixtures control in the absence of a human (human presence simulation).
- Control of aquarium accessories (lighting, air blowers, etc.).
- Control of TV, radio, lighting in residential apartments.
- Splitting of a fixed socket for simultaneous charging of several devices (SB-01).

### ADVANTAGES






Shuttered


ON/OFF Button  
USB-portsSwiveling housing  
(180 degrees)Button for ON/OFF  
timerConvenient  
programming  
for a long time

Easy configuration

### PRODUCT RANGE

Image	Designation	Description
	SB-01 EKF PROXIMA series multi-plug socket with USB ports	The product is a small multi-plug socket that can be used with any fixed socket or extension cord socket. The user gets two USB ports for charging mobile devices, connecting various gadgets, as well as a standard socket with grounding - a multi-purpose table tap, which is so convenient to use on the desktop. The unit housing rotates by 180 degrees, which allows to position it as conveniently as possible.
	SMT-48p EKF PROXIMA series mechanical socket timer	The socket timer is a simple solution for the operational control of household appliances. By rotating the plates that indicate the response time, the user can control any household appliances, programming the time to turn off/on the appliance within one day (24 hours); afterwards, the process will be repeated cyclically. The device is powered from the mains. Only two positions: turn on or off.
	SAT-20p EKF PROXIMA series socket electronic timer	This model is a more convenient and functional solution. The timer has 20 on/off programs that can be set for any day and time within a week. For example, it can be programmed to turn on a water heater on weekdays from 2 a.m. to 5 a.m. (the reduced tariff hours), and on weekends the program might be set at another convenient time. The device can be powered from the mains and from a built-in battery with a design life of 100 minutes in case of a power outage.

**Power connectors EKF PROXIMA**



IP67	IP44	IP20	<b>EAC</b>
16A	32A	63A	125A

Power connectors are designed to connect mobile or fixed electrical equipment to an alternating current network with a frequency of 50 Hz and a voltage of 220 or 380 V. The plug connectors are used to supply power to industrial and construction electrical equipment and power tools, including mobile stores and fast food outlets, etc.

**APPLICATION**


- Power supply for industrial and construction equipment.
- Connecting mobile shops, fast food outlets, mobile infrastructure facilities, etc. to the electrical networks, etc.
- Power supply to various electrical consumers in conditions of high humidity and dustiness.

**ADVANTAGES**


The housing of products is shock-resistant, resistant to frost, deformation or destruction



Protective covers protect the products from moisture and dust



Ribbed surface prevents the product from slipping out of hands



Special cable gland for different wire cross-sections



Male and female connectors of plugs and socket outlets are nickel-plated to resist corrosion



Wire fixation inside the multi-plug socket with an additional bracket

**PRODUCT RANGE**


Image	Designation
<b>Power wander sockets</b>	
	Power wander sockets 213 EKF PROXIMA
	Power wander sockets 214 EKF PROXIMA
	Power wander sockets 215 EKF PROXIMA
	Power wander sockets 223 EKF PROXIMA
	Power wander sockets 224 EKF PROXIMA
	Power wander sockets 225 EKF PROXIMA
	Power wander sockets 233 EKF PROXIMA
	Power wander sockets 234 EKF PROXIMA
	Power wander sockets 235 EKF PROXIMA



Image	Designation
<b>Power wall-mounted sockets</b>	
	Power wall-mounted sockets 113 EKF PROXIMA
	Power wall-mounted sockets 114 EKF PROXIMA
	Power wall-mounted sockets 115 EKF PROXIMA
	Power wall-mounted sockets 123 EKF PROXIMA
	Power wall-mounted sockets 124 EKF PROXIMA
	Power wall-mounted sockets 125 EKF PROXIMA
	Power wall-mounted sockets 133 EKF PROXIMA
	Power wall-mounted sockets 134 EKF PROXIMA
	Power wall-mounted sockets 135 EKF PROXIMA
	Power wall-mounted sockets 145 EKF PROXIMA

Image	Designation
	Power penal-mounted sockets 112 EKF PROXIMA
	Power penal-mounted sockets 413 EKF PROXIMA
	Power penal-mounted sockets 414 EKF PROXIMA
	Power penal-mounted sockets 415 EKF PROXIMA
	Power penal-mounted sockets 423 EKF PROXIMA
	Power penal-mounted sockets 424 EKF PROXIMA
	Power penal-mounted sockets 425 EKF PROXIMA

**Two and three-beam sockets**



	Two-beam sockets 1012-4h EKF PROXIMA
	Two-beam sockets 1012 EKF PROXIMA
	Two-beam sockets 1012-214 EKF PROXIMA
	Three-beam sockets 1013-4n EKF PROXIMA
	Three-beam sockets 1013 EKF PROXIMA
	Three-beam sockets 1013-214 EKF PROXIMA

Image	Designation
	Power connectors 013 EKF PROXIMA
	Power connectors 014 EKF PROXIMA
	Power connectors 015 EKF PROXIMA
	Power connectors 023 EKF PROXIMA
	Power connectors 024 EKF PROXIMA
	Power connectors 025 EKF PROXIMA
	Power connectors 033 EKF PROXIMA
	Power connectors 034 EKF PROXIMA
	Power connectors 035 EKF PROXIMA
	Power connectors 045 EKF PROXIMA

**Power fix plugs**

	Power connectors 513 EKF PROXIMA
	Power connectors 514 EKF PROXIMA
	Power connectors 515 EKF PROXIMA
	Power connectors 523 EKF PROXIMA
	Power connectors 524 EKF PROXIMA
	Power connectors 525 EKF PROXIMA

**Rubber power strips IP44 EKF PROXIMA**



IP44

16A











IEC 60884-1:2006  
IEC 60884-2-2:89

Rubber power strips IP44 PROXIMA are designed to connect powerful electrical devices with a current of up to 16 A to the 230 V / 50 Hz power networks. They have IP44 protection class, which makes them suitable for outdoor use. The connectors have a reinforced contact block made of

brass, the housing is made of high-strength frost-resistant thermoplastic elastomer (-40°C ... +55°C). Due to convenient and reliable design, the connectors can be used at critical sites and in particularly harsh conditions.

**APPLICATION**

Production facilities



Construction sites



Garden plots

- Connecting consumers to industrial power networks.
- Arrangement of power supply to mobile facilities.
- Connection of electricity consumers at construction sites.
- Connection of domestic power tools in gardens and household plots.

**ADVANTAGES**

Protective covers provide IP44 protection



Cable gland provides protection against dust and moisture



Reinforced brass contact block with additional non-combustible insulation



Additional bracket for fixing the wire



Convenient smart design



Image	Designation
	Rubber schuko connector straight EKF PROXIMA
	Rubber schuko connector straight orange EKF PROXIMA
	Rubber schuko connector straight red EKF PROXIMA
	Rubber schuko connector angled EKF PROXIMA
	Power wander socket, protective cap EKF PROXIMA

Image	Designation
	Power wander socket, protective cap orange EKF PROXIMA
	Power wall-mounted socket, protective cap EKF PROXIMA
	Rubber power strip, 2 sockets, protective cap EKF PROXIMA
	Rubber power strip, 3 sockets, protective cap EKF PROXIMA
	Rubber power strip, 4 sockets, protective cap EKF PROXIMA

## Rubber connectors shuko IP44 EKF



EKF BASIC series rubber power connectors have high electrical insulating properties, wear resistance, impact resistance, as well as resistance to temperature fluctuations.

The housings of the connectors are made of thermoplastic elastomer, which significantly increases the performance and wear resistance, as well as resistance to chemical effects.

The main areas of power connectors application are construction and production sites, mechanical engineering, power supply for accommodation spaces and cabins, as well as for use in country houses or at household plots.

### APPLICATION



Production facilities



Construction sites



Garden plots

- Connecting consumers to industrial power networks.
- Arrangement of power supply to mobile facilities.
- Connection of electricity consumers at construction sites.
- Connection of domestic power tools in gardens and household plots.

### ADVANTAGES



The housing is resistant to shock, frost, deformation, and destruction



Protection caps protect the products from moisture ingress



Ribbed surface prevents the product from slipping out of hands



Special cable gland for different wire cross-sections



Reliable brass contact block



Wire fixation inside the multi-plug socket with an additional bracket

Power plug connectors EKF PROXIMA



32A

IP20

EAC

Power plug connectors are designed for the connection of electrical devices with a current consumption of no more than 32 A to a three-phase and single-phase AC network with a voltage of 400/230 V and a frequency of 50 Hz.

APPLICATION



Residential facilities



Commercial facilities



Infrastructure facilities

- Connection of electric stoves, cooktops, as well as other high power household appliances to the electrical network.

ADVANTAGES



Products for two methods of installation - flush-mounting and exposed installation



Riffling housing allows securely fixing the product when disconnected



Copper contact block



Lock washer under the contact screw to prevent loosening of the contacts



Additional hold-down bracket for firm cable fixation inside the product housing

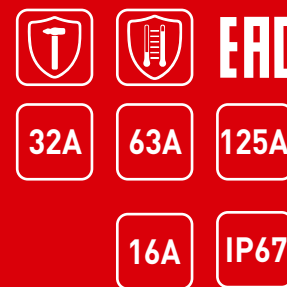


Punched holes on both sides of the product for cable entry

PRODUCT RANGE

Power plug connectors 32 A 250 V 2R + RE (OU) plastic white	Power plug connectors, 32 A 250 V 2R + RE (SU) plastic white	Power plug connectors, 32 A 250 V 2R + RE (OU) carbolite black	Power plug connectors, 32 A 380 V 2R + RE (OU) carbolite black

## Industrial power connectors EKF PROXIMA



Industrial power connectors IP67 are highly resistant to mechanical impact, wear, ultraviolet radiation, and aggressive chemicals. Industrial power connectors are used for power supply to industrial and construction equipment in particularly harsh operating conditions or at facilities where high-quality, reliable and uninterrupted power supply is of a critical importance.

### APPLICATION



- Power supply for industrial and construction equipment.
- Connecting mobile shops, fast food outlets, mobile infrastructure facilities, etc. to electrical networks.
- Power supply to various electrical consumers in conditions of high humidity and dustiness

### ADVANTAGES



Polyamide PA6.6 housing provides reliable protection and durability of the products



Screwless housing for faster assembly and installation



Special sealed cable gland for various cable diameters



The conductor is secured with a double screw clamp for secure fixation



The product protection cap is spring-loaded, equipped with O-rings



The pivoting mechanism of the protection cap ensures its fixation and protection from accidental failure of the wire connection

### PRODUCT RANGE

Power wall-mounted sockets	Power panel-mounted sockets	Power panel-mounted sockets angled	Power wand sockets	Industrial power cord caps
				

## Heating mat "Comfort" EKF PROXIMA


**LIFETIME**  
**25**  
 YEARS

**WARRANTY**  
**15**  
 YEARS

**EAC**

**ATTENTION!** Heating mats must be connected via a residual current device (rcd). The rated operating current of the rcd does not exceed 30 ma.

Heating mat "Comfort" EKF PROXIMA mat is designed for arrangement of a heat-insulated flooring system. The heating mat consists of heating sections made of a shielded two-core cable, fixed on a special mesh for the ease and convenience of installation. There is no need to calculate the number of turns and the pitch of wire – everything is ready for immediate installation. The heating mats are designed to operate from a household power network with a voltage of 230 V and a frequency of 50 Hz. All heating mats have a standard width of 0.5 m, but the length can be selected according to the needs.

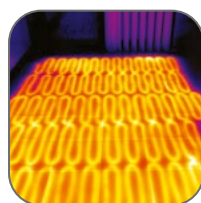
### APPLICATION

- Welfare facilities
- Accommodation buildings
- Infrastructure facilities

### ADVANTAGES



Quick and easy installation



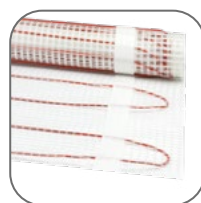
Uniform heating of the floor surface



Full shielding of live conductors

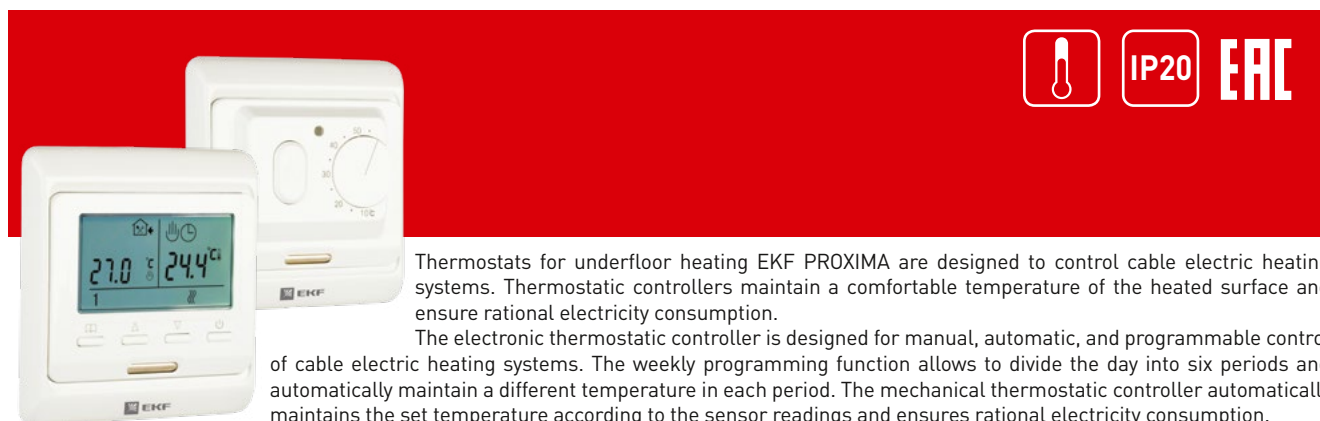


The set includes 2 m long installation cable



40°C heating directly to the network

## Thermostats for underfloor heating EKF PROXIMA


**IP20**
**EAC**

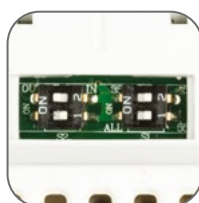
Thermostats for underfloor heating EKF PROXIMA are designed to control cable electric heating systems. Thermostatic controllers maintain a comfortable temperature of the heated surface and ensure rational electricity consumption.

The electronic thermostatic controller is designed for manual, automatic, and programmable control of cable electric heating systems. The weekly programming function allows to divide the day into six periods and automatically maintain a different temperature in each period. The mechanical thermostatic controller automatically maintains the set temperature according to the sensor readings and ensures rational electricity consumption.

### APPLICATION

- Accommodation buildings.
- Infrastructure facilities, commercial real estate, offices.
- Countryside real estate

### ADVANTAGES



Three temperature measurement modes



UV-resistant polycarbonate housing



The connection diagram is indicated on the product housing



The set includes a floor sensor with a 3 m long wire



## Floor systems C-Line EKF PROXIMA



Floor systems C-Line represent a complete range of products for the arrangement of work places with electrical installation in concrete, double or raised floors. The floor hatches are made of non-flammable plastic, the hatch cover is reinforced with a steel plate, which ensures high mechanical strength, while maintaining a planting depth of a maximum of 7 mm for the finishing floor covering (carpet, linoleum, tiles). The cover contains two hinged passages that make easy to guide cable out of the box and protect cables from kinking. Possibility of installation of classic (only for C-Line 24 model) and modular devices. The floor-mounted hatches are designed to withstand loads of up to 153 kg.

### APPLICATION

- Commercial real estate.
- Social facilities.
- Office facilities.
- Administration premises.

### ADVANTAGES



Made of non-flammable plastic



Protection of wires and cables from kinking








Fasteners come in set



Up to 24 modules

### PRODUCT RANGE

Image	Designation
	EKF PROXIMA series C-Line 24 type rounded blind hatch plug
	EKF PROXIMA series C-Line 24 type aligning set (4 pcs.)
	EKF PROXIMA series C-Line 24 type floor hatch box
	EKF PROXIMA series C-Line 12 type floor hatch box
	EKF PROXIMA series C-Line 24 type floor instrument hatch box
	EKF PROXIMA series C-Line 12 type floor-mounted hatch (with instrument frame)
	EKF PROXIMA series C-Line 24 type floor-mounted hatch (with instrument frame)
	EKF PROXIMA series C-Line type blind floor-mounted hatch (without instrument frame)

Image	Designation
	EKF PROXIMA series C-Line 24 type hatch partition
	Classic instrument frame for 3 modules for EKF PROXIMA series C-Line 24 type hatch
	Instrument frame for 12 modules for EKF PROXIMA series C-Line 24 type hatch
	Instrument frame for 4 modules for EKF PROXIMA series C-Line 24 type hatch
	Solid instrument frame for EKF PROXIMA series C-Line 24 type hatch

## Parapet cable duct C-Line EKF



Designed for the arrangement and laying power and communication networks in office, industrial and laboratory premises, and medical institutions. It is possible to install special supports into parapet-type cable ducts, where wiring accessories of 45 x 45 mm and (or) 22.5 x 45 mm modular format are subsequently mounted.

Parapet cable ducts are usually installed at the window sill or workplace level.

### APPLICATION



- Offices.
- Industrial premises.
- Health care institution.
- Social and educational institutions.



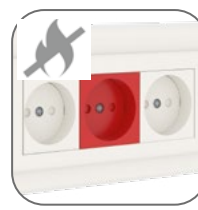
### ADVANTAGES



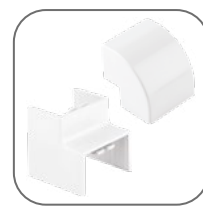
Easy installation of wiring accessories by snap-in method



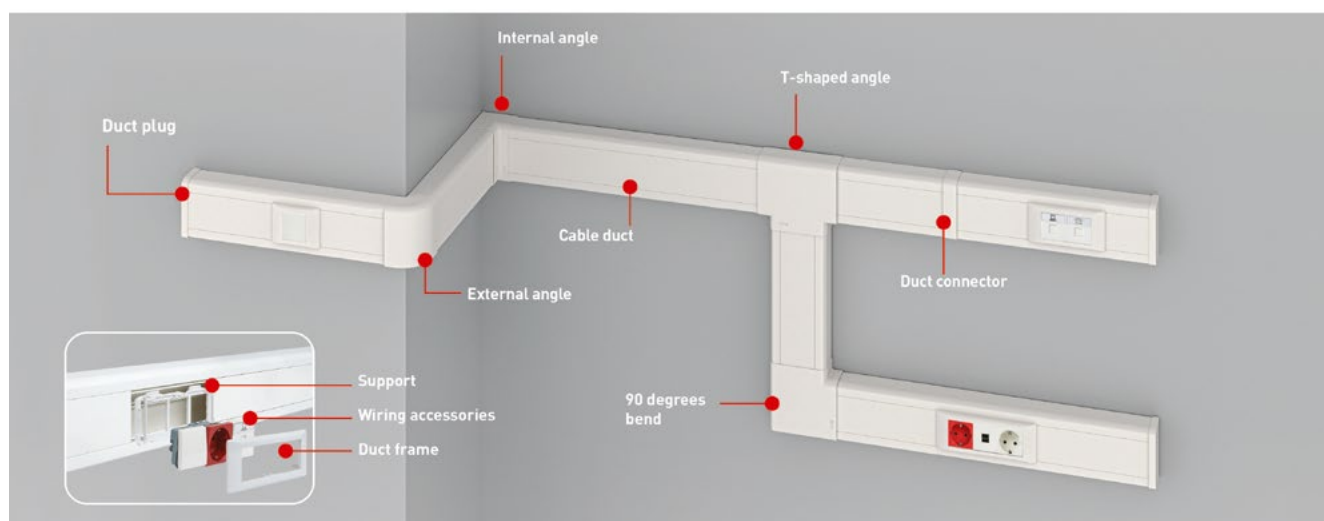
Variety of functions: switches, sockets, USB, internet, telephone, antenna ports



Aesthetic appearance Self-extinguishing PVC composite



Wide range of accessories



### Designation

Parapet cable duct 105*50 EKF C-Line	Socket 45 x 45 (2 modules), grounded, white, 45 degrees, PRO
Parapet cable duct plug (105 x 50) (2 pcs.) EKF C-Line	Socket 45 x 45 (2 modules), grounded, red, 45 degrees, PRO
Parapet cable duct connector (105 x 50) (2 pcs.) EKF C-Line	10 A switch, 1 push-button without indication
Parapet cable duct T-shaped angle (105 x 50) (2 pcs.) EKF C-Line	10 A switch, 1 push-button without indication
Parapet cable duct external angle (105 x 50) (2 pcs.) EKF C-Line	Socket 45 x 45 (2 modules), grounded, white, straight
Parapet cable duct internal angle (105 x 50) (2 pcs.) EKF C-Line	Socket 45 x 45 (2 modules), grounded, red, straight
Parapet cable duct 90 degrees bend (105 x 50) (2 pcs.) EKF C-Line	RJ11 socket (2 modules width)
Parapet cable duct frame and support for 2 modules EKF C-Line	RJ45 socket, category 5e (2 modules width)
Parapet cable duct frame and support for 4 modules EKF C-Line	USB port, 2.1 A (2 slots) without indication
Parapet cable duct frame and support for 6 modules EKF C-Line	TV socket (2 modules width)
Single-module blanking plug EKF C-Line	

## Modular socket outlets and switches C-Line EKF PROXIMA



Modular socket outlets and switches 45x45 mm. Designed for installation in floor-mounted hatches and parapet-type cable duct. All the wiring accessories are made of self-extinguishing plastic and are suitable for using with copper (Cu) and aluminum (Al) wiring. The lateral connection allows easy connecting to the electrical network. The snap-in installation onto the support frames ensures simple and quick installation. The support frames are securely fixed in the hatches and cable duct, and the sockets do not sag during further operation. The product range provides all the variety of functions: light switches, power sockets, USB, internet, telephone, antenna ports.

### APPLICATION

- Commercial real estate.
- Social facilities.
- Office facilities.
- Administration premises.

### ADVANTAGES



Made of non-flammable plastic



Do not sag in the cable duct







International standard 45x45



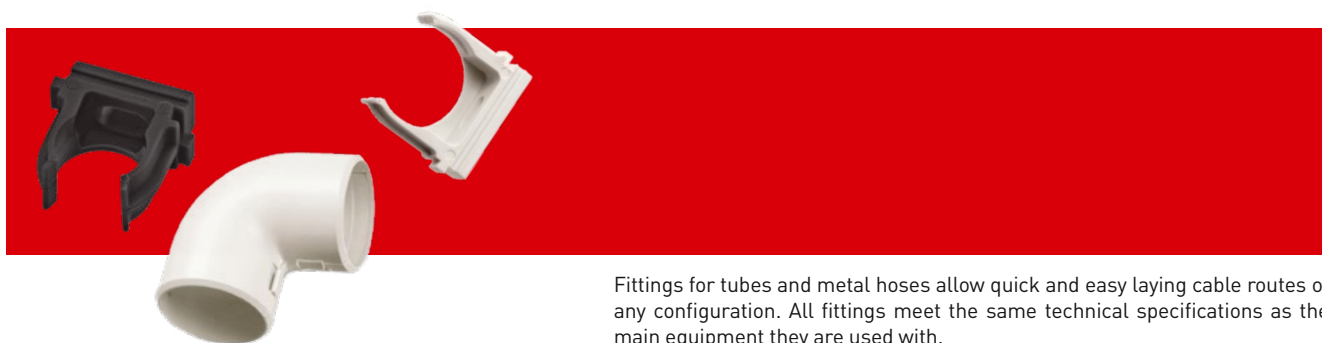
Easy installation: snap-in mounting

### PRODUCT RANGE

Image	Designation
	Single-module blanking plug
	10 A switch, 1 push-button without indication
	10 A alternate switch, 1 push-button without indication
	45x45 PRO 45 degree socket outlet, grounded, white color
	45x45 PRO 45 degree socket outlet, grounded, red color
	45x45 socket (2 modules) grounded, white color, straight
	45x45 socket (2 modules) grounded, red color, straight

Image	Designation
	RJ11 socket (2 modules width)
	RJ45 socket, category 5e (2 modules width)
	USB port, 2.1 A (2 slots) without indication
	TV socket (2 modules width)

## Fittings for tubes and hoses EKF PROXIMA



Fittings for tubes and metal hoses allow quick and easy laying cable routes of any configuration. All fittings meet the same technical specifications as the main equipment they are used with.

### APPLICATION



Fittings for tubes and metal hoses are used in civil construction and industrial areas.

Applicable for:

- fastening and connecting pipes and metal hoses;
- facilitating the installation process and make it more reliable, while ensuring strong sealing;
- performing complex tasks for the design and laying of electrical wiring systems;
- ensuring integrity during the installation works and bending of cable trunks.

### ADVANTAGES



Easy and reliable installation, strong sealing (up to IP 67)



The variety of adapters allow to complete any wiring design and installation task



Unique design of connecting elements allow maintaining the integrity during the installation and bending of cable lines








Quick-fit accessories improve the quality and speed of installation

### PRODUCT RANGE

Image	Designation	Image	Designation
<b>Fittings for corrugated and smooth tubes</b>		<b>Fittings for smooth tubes</b>	
	Clamp feet		Flexible sleeve, pipe-to-installation box
	Pipe suspension		Flexible connector, tube-to-tube
			Tee connecting for tube
			90° Joint bend for tube



Image	Designation
<b>Accessories for corrugated tubes</b>	
	Pipe sleeve
	Corrugated pipe connector
<b>Metal hose accessories for fixing the metal hose to the electrical equipment housing</b>	
	Threaded fastening element with external thread
	Plastic lead-in sleeve
<b>Metal hose accessories for connecting two pieces of metal hose</b>	
	Metal hose coupling sleeve

Image	Designation
<b>Metal hose accessories for protection of sleeve edges</b>	
	Metal hose cap
<b>Metal clamps</b>	
	One-hole metal clamps
	Two-hole metal clamps
<b>Fittings for dual-wall pipes</b>	
	Spacer for dual-wall pipes
	Quick detachable coupling for dual-wall pipes

## Junction boxes EKF PROXIMA



The most important function of junction boxes is to protect cable core connections from external effects such as dust, moisture, and mechanical damages. Junction boxes are designed to ensure the long-term, safe and controlled installation of wiring, telephone joints, sockets, switches, dimmers, and communication devices. Also, electric junction boxes are used to enhance the aesthetic appearance of interiors and facades, since they cover unattractive ends of conductors and terminal blocks or wire nuts.

## Junction boxes for hollow walls

The installation boxes for hollow walls are used in combination with corrugated, smooth or reinforced pipes to build power or low-current networks. The installation boxes are made of polypropylene and have a cost-effective design. All installation boxes of this type are used for installation of wiring accessories according to various standards (sockets, switches, etc.) in hollow walls. They have a modern design and meet the requirements of safety standards.

### APPLICATION



Mounting and junction boxes of this series are designed for the installation in hollow walls or partitions, for the installation of various wiring accessories, such as sockets, switches or dimmers. With the cover, the product can be used as a terminal box (distribution box) for distributing cables and wires.

## ADVANTAGES



The product range includes terminal (distribution) and mounting electric junction boxes for hollow walls



Possible use the installation box as a terminal box for distributing cables and wires when using a cover



The product range includes electric junction boxes with metal and plastic clamps, terminal blocks and covers



All boxes have breakout openings that make it possible for cable grooming in smooth and corrugated pipes














Possible under-plaster installation to give an aesthetic appearance to the interior



All the distribution boxes have pre-marked connections for connecting corrugated, smooth or reinforced pipes

## PRODUCT RANGE

Image	Designation	Dimensions	Image	Designation	Dimensions
	KMP-020-007 EKF terminal box PROXIMA	Ø 108 x 50		KMP-020-023 EKF terminal box PROXIMA	Ø 108 x 50
	Terminal box KMP-020-008 EKF PROXIMA	115 x 115 x 45		KMP-020-024 EKF terminal box PROXIMA	116 x 116 x 45
	KMP-020-009 EKF mounting box PROXIMA	Ø 80 x 45		Multi-purpose mounting box, recessed KMP-020-028 EKF PROXIMA	Ø 80 x 70
	Multi-purpose mounting box, recessed KMP-020-010 EKF PROXIMA	Ø 80 x 70		KMP-020-029 multi-purpose box, recessed EKF PROXIMA	Ø 80 x 70
	KMP-020-011 EKF mounting box PROXIMA	Ø 71 x 45		KMP-020-026 multi-purpose mounting box EKF PROXIMA	Ø 80 x 45
				KMP-020-027 EKF multi-purpose box PROXIMA	Ø 80 x 45

## Multiple-socket junction boxes for solid walls EKF PROXIMA



The concept behind the new series of EKF PROXIMA multiple-socket junction boxes is a new standard in the design of multi-socket products.

In recent times, the number of electrical appliances used by consumers has grown significantly. A whole class of mobile devices has appeared that require recharging, and accordingly, points where it can be done. As the number of outlets increases, more space is required to accommodate wires in multiple socket electric junction boxes.

Junction boxes of two types are produced: terminal type and pull-box type. A multiple-socket section is arranged by connecting the required number of boxes of both types to each other.

### APPLICATION

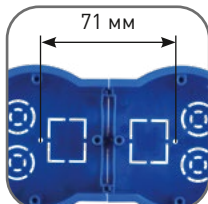


Mounting and junction boxes of this series are designed for the installation in hollow walls or partitions, for the installation of various wiring accessories, such as sockets, switches or dimmers. With the cover, the product can be used as a terminal box (distribution box) for distributing cables and wires.

### ADVANTAGES



Unique modular design makes it possible to create any multiple socket products as per customer's needs



Allows accurately maintaining a center-to-center distance of 71 mm



Plastic parts withstand test hot 650°C wire



Each junction box is presented in two versions - with an individual sticker and without

### PRODUCT RANGE



Image	Designation	Dimensions
	EKF PROXIMA series KMT-010-4005 prefabricated terminal mounting box for solid walls	71x45
	EKF PROXIMA series KMT-010-4005 prefabricated terminal mounting box for solid walls with retail sticker	

Image	Designation	Dimensions
	EKF PROXIMA series KMT-010-4007 prefabricated alternate mounting box for solid walls	71x45
	EKF PROXIMA series KMT-010-4007 prefabricated alternate mounting box for solid walls with retail sticker	

## Junction boxes for solid walls EKF PROXIMA

Junction boxes for solid and hollow walls are designed for the installation in solid brick and concrete walls of various wiring accessories such as sockets and switches. All the junction boxes have pre-marked connections for connecting corrugated, smooth or reinforced pipes and ensuring the required protection class in accordance with the standards.

### APPLICATION



Junction boxes for solid and hollow walls are designed for the installation in solid brick and concrete walls of various wiring accessories such as sockets and switches.

### ADVANTAGES



The product range includes terminal boxes (distribution boxes) and electric junction boxes for solid walls



With the cover, the product can be used as a terminal box for distributing cables



The product range includes electric junction boxes with docking units, self-tapping screws, terminal blocks, and covers



Possible under-plaster installation to give an aesthetic appearance to the interior



Possibility of tandem connection

### PRODUCT RANGE









Image	Designation	Dimensions	Image	Designation	Dimensions
	KMT-010-001 instrument mounting box EKF PROXIMA	Ø 68 x 42		Terminal box KMT-010-004 EKF PROXIMA	Ø 75 x 42
	KMT-010-002 EKF PROXIMA mounting box	Ø 68 x 42		KMT-010-044 EKF PROXIMA instrument mounting box	Ø 71 x 42
	KMT-010-003 reinforced mounting box EKF PROXIMA	68 x 68 x 42		Terminal box KMT-010-005 EKF PROXIMA	Ø 103 x 50
	KMT-010-033 EKF PROXIMA mounting box	Ø 71 x 45		Terminal box KMT-010-006 EKF PROXIMA	107 x 107 x 50



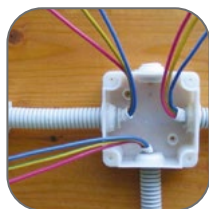
Image	Designation	Dimensions
	KMT-191EKF PROXIMA distribution box	Ø 96 x 15
	KMT-192 EKF PROXIMA distribution box	Ø 96 x 30
	KMT-194 EKF PROXIMA distribution box	Ø 72 x 15
	KMT-195 EKF PROXIMA distribution box	Ø 72 x 30

Image	Designation	Dimensions
	Terminal box KMT-010-019 EKF PROXIMA	Ø 96 x 15
	Terminal box KMT-010-021 EKF PROXIMA	Ø 103 x 50
	Terminal box KMT-010-022 EKF PROXIMA	107 x 107 x 50

## Junction boxes for outdoor installation EKF PROXIMA

JBR and JBS type distribution boxes for outdoor installation are used in combination with corrugated, smooth or reinforced tubes to build power or low-current networks. Distribution boxes are made of ABS plastic, and have a cost-effective design. All junction boxes in this series are equipped with glands for connecting corrugated, smooth or reinforced pipes and ensuring the required protection class in accordance with the standards. Outlet boxes are designed for mounting on walls, ceilings or trays. They have a modern design and meet the requirements of safety standards.

### APPLICATION



Junction boxes for outdoor installation are designed for the installation in environments characterized by high humidity, dustiness, chemical and corrosive aggressiveness or an increased risk of mechanical impact. The protection class of the distribution boxes for outdoor installation varies to a large extent, depending on the sealing glands used both in the box cover and in inlet and outlet channels.

### ADVANTAGES



The product range includes pre-drilled electric junction boxes for corrugated and smooth pipes



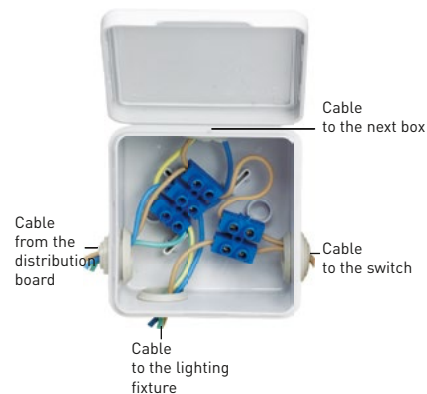
For the arrangement of wiring inside distribution boxes, screwless and screw terminal blocks are used



The design of the distribution box includes a housing and a cover, which is mounted with self-tapping screws or latches











The junction boxes are suitable for installation in aggressive environments or in environments with an increased risk of mechanical impact



## PRODUCT RANGE

Image	Designation	Dimensions	Image	Designation	Dimensions
	EKF PROXIMA series KMP-030-031 terminal box, black	83 x 83 x 54		Terminal box with ingress protection EKF PROXIMA series KMP-050-042	196 x 142 x 80
	EKF PROXIMA series KMP-030-014 terminal box, black	103 x 103 x 55		Terminal box with ingress protection EKF PROXIMA series KMP-050-043	244 x 190 x 95
	EKF PROXIMA series KMP-040-038 terminal box, black	65 x 40		Terminal box with ingress protection EKF PROXIMA series KMP-050-048	128 x 84 x 59
	EKF PROXIMA series KMP-030-036 terminal box black	73 x 73x 49		Three-outlet terminal box, white EKF PROXIMA series KMP-040-040	Ø 80 x 35
	EKF PROXIMA series KMP-040-039 terminal box black	93 x 43		Three-outlet terminal box, black EKF PROXIMA series KMP-040-040	Ø 80 x 35
	EKF series KMP-030-036 terminal box PROXIMA	73 x 73 x 49		EKF PROXIMA series KMP-030-037 terminal box with ingress protection	73 x 73 x 49
	Terminal box EKF PROXIMA series KMP-030-031	83 x 83 x 54		Terminal box with ingress protection EKF PROXIMA series KMP-030-034	109 x 109 x 55
	Terminal box EKF PROXIMA series KMP-030-014	103 x 103 x 55		KMP-030-035 terminal box with ingress protection EKF PROXIMA	88 x 88 x 54
	Terminal box EKF PROXIMA series KMP-040-038	Ø 65 x 40		KMP-050-045 terminal box with ingress protection EKF PROXIMA	156 x 113 x 77
	Terminal box EKF PROXIMA series KMP-040-039	Ø 93 x 43		KMP-050-046 terminal box with ingress protection EKF PROXIMA	196 x 143 x 80
	KMP-050-041 terminal box with ingress protection EKF PROXIMA	156 x 113 x 77		KMP-050-047 terminal box with ingress protection	244 x 190 x 95

Image	Designation	Dimensions	Image	Designation	Dimensions
	KMP-050-049 terminal box with ingress protection EKF PROXIMA	128 x 84 x 59		KMP-030-030 splitter box EKF PROXIMA	78 x 78 x 26
	KMP-050-041pk terminal box with ingress protection EKF PROXIMA	156 x 113 x 77		KMP-030-032 splitter box EKF PROXIMA	104 x 104 x 28
	KMP-050-042pk terminal box with ingress protection	196 x 142 x 80		KMP-030-030 KG splitter box EKF PROXIMA	78 x 78 x 26
	KMP-050-043pk terminal box with ingress protection	244 x 190 x 95		KMP-030-032 KG splitter box EKF PROXIMA	104 x 104 x 28

## Junction boxes for outdoor installation in wood EKF PROXIMA

Electric junction boxes are designed for the long-term, safe and controlled installation of wiring, telephone joints, sockets, switches, dimmers, and communication devices. In addition to the fact that the most important function of electric junction boxes is to protect cable core connections from external influences, mounting boxes are used to create an aesthetic appearance of interiors and facades, that is why EKF has released a special series of mounting boxes with light and dark woodgrain texture. Terminal boxes of this series perfectly fit interiors where wooden elements or its imitation are used.

### APPLICATION



Used in the fields of infrastructure and civil construction

- Accommodation buildings
- Commercial real estate
- Infrastructure facilities

### ADVANTAGES















The electric junction boxes are of IP42 and IP54 dust and moisture protection class

Creation of an aesthetic appearance of interiors and facades with wooden elements used

The product range includes pre-drilled electric junction boxes for corrugated and smooth pipes with elastic membranes, as well as of closed type

Use with wiring components, cable ducts and corrugated pipes with light and dark woodgrain texture

## PRODUCT RANGE

Image	Designation	Dimensions	Image	Designation	Dimensions
	EKF series KMP-030-036 terminal box PROXIMA	73 x 73 x 49		EKF PROXIMA series KMP-030-032 splitter box	104 x 104 x 28
	KMP-030-031 EKF terminal box PROXIMA	83 x 83 x 54		KMP-030-030 KG splitter box EKF PROXIMA	78 x 78 x 26
	KMP-030-014 EKF terminal box PROXIMA	103 x 103 x 55		KMP-030-032 KG splitter box EKF PROXIMA	104 x 104 x 28
	KMP-040-038 EKF terminal box PROXIMA	Ø 73 x 43		Terminal box with ingress protection KMP-030-037 EKF PROXIMA	73 x 73 x 49
	KMP-040-039 EKF terminal box PROXIMA	Ø 93 x 43		Terminal box with ingress protection KMP-030-035 EKF PROXIMA	88 x 88 x 54
	Splitter box KMP-030-030 EKF PROXIMA	78 x 78 x 26		Terminal box with ingress protection EKF PROXIMA series KMP-030-034	109 x 109 x 55

## EKF PROXIMA accessories

**Multi-purpose protection cap  
KMT-100-015 D68, white  
EKF PROXIMA**

**EKF PROXIMA terminal block**

An excellent method for quickly and easily connecting wires in the electrical distribution box. Compact, inexpensive clamps make it possible to connect both uniform and dissimilar conductors. For mounting, it is enough to strip 5 mm of insulation from the wire ends, insert the wires into the clamp and tighten the bolt.


**EKF PROXIMA connecting channel**

Mounting boxes can be combined into blocks of several pieces with a connector, which allows side by side mounting mechanisms of several wiring devices, integrated into a common frame. When using a connector for these purposes, the center distance of the interconnected socket boxes is 71 mm, which fully coincides with the standard dimensions of the center distance of wiring devices mounted on the same frame. For connecting PLC-KMP-020-011 and PLC-KMT-010-033 boxes.





## Fire-resistant boxes EKF PROXIMA



Fire-resistant boxes are used for open installation of electrical wiring in fire-resistant cable line (OKL) systems for branching and connecting a fire-resistant cable while maintaining the functionality in case of fire, as well as for protecting the wiring connections from moisture and dust.

### APPLICATION



They are used in all projects for laying fire-resistant cable routes in civil, industrial and commercial construction for the arrangement of fire-protected connection of fire safety systems, smoke removal and signaling equipment.

### ADVANTAGES



The product is made of halogen-free material



Ceramic terminal blocks are supplied with the box set



Membrane cable glands increase the installation speed by more than 30%



IP66 protection class

### PRODUCT RANGE




Image	Designation
	Fire-resistant terminal box (101 x 101 x 62) 3/1.5-10/8 IP66 EKF PROXIMA
	Fire-resistant terminal box (101 x 101 x 62) 5/1.5-6/8 IP66 EKF PROXIMA

Image	Designation
	EKF PROXIMA series fire-resistant terminal box (126x126x74) 5 dc/1.5-6/12 IP66
	EKF PROXIMA series fire-resistant terminal box (126x126x74) 5/1.5-10/12 IP66
	EKF PROXIMA series fire-resistant terminal box (126x126x74) 5/1.5-6/12 IP66
	EKF PROXIMA series fire-resistant terminal box (126x126x74) 8/0,5-4/12 IP66
	EKF PROXIMA series fire-resistant terminal box (176x126x74) 14/0,5-4/12 IP66
	EKF PROXIMA series fire-resistant terminal box (176x126x74) 5 dc/1.5-10/12 IP66
	EKF PROXIMA series fire-resistant terminal box (176x126x74) 5/1,5-10/12 IP66

## Sealed cable connectors FreeTools ELF PROXIMA



CB3, CB5, CB3T, CB5T cable connectors are designed for connections requiring the maximum tightness, cable protection and reliability of the electrical circuit. The robust nylon connectors with IP68 protection class can be used underwater and underground at any depth within the temperature range from -40°C to +85°C without a deterioration in the connection quality. Compact dimensions of the connectors simplify their installation in small-sized systems. The connectors ensure the stable operation of electrical circuits in outdoor lighting and ventilation systems, as well as the reliable connection of electrical installations in the industry and transport sectors.

### APPLICATION



- For ensuring the sealed connection of electrical and optical cables into a cable line and their connection to electrical installations
- For isolating and protecting contact connections
- Industrial and street lighting
- Waterproof design
- Connection to industrial equipment

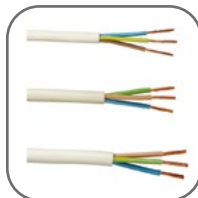
### ADVANTAGES



IP68 protection ensures full submersion under water



Each product comes with a special terminal block



Large choice of cable widths due to two seals



Re-usable product



Quick tight connection of conductors without the use of special tools

## Sealed cable connectors FreeTools IP67 EKF PROXIMA



EKF PROXIMA series CB1 cable connectors are designed for connection of electrical and optical cables into a cable line and cable connection to electrical installations. The connector is a set of parts and materials that ensures the cable integrity and IP67 protection class (sealed cable glands are fixed on both sides of the connector, thus guaranteeing the conformity to IP67 protection class).

### APPLICATION



- For sealed connection of electrical and optical cables into a cable line and cable connection to electrical installations
- For isolation and protection of contact connections

### ADVANTAGES

**FreeTools** is a system that allows to connect cables without the use of special tools. This system greatly speeds up and simplifies the process of connecting electrical wires.



1



2



3



Quick connection of cable conductors without using special tools



Re-usable product



Cable glands with silicone gaskets ensure tightness in the most severe operating conditions

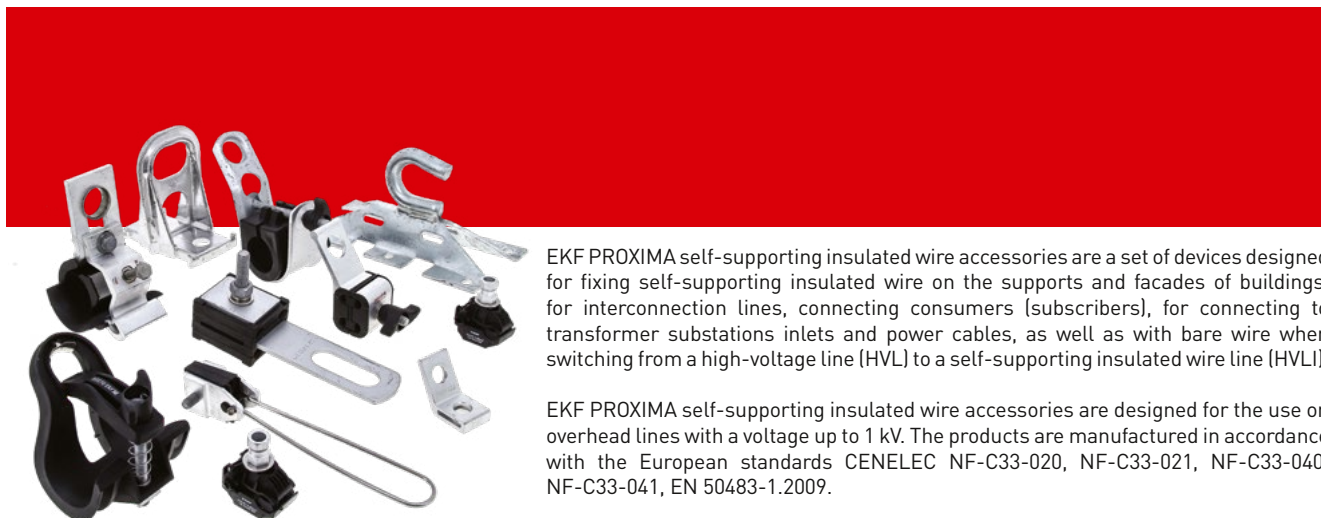


Durable polycarbonate housing



Possible use of various types of connectors (purchased separately)

## Accessories for self-supporting insulated wire EKF PROXIMA



EKF PROXIMA self-supporting insulated wire accessories are a set of devices designed for fixing self-supporting insulated wire on the supports and facades of buildings, for interconnection lines, connecting consumers (subscribers), for connecting to transformer substations inlets and power cables, as well as with bare wire when switching from a high-voltage line (HVL) to a self-supporting insulated wire line (HVLII).

EKF PROXIMA self-supporting insulated wire accessories are designed for the use on overhead lines with a voltage up to 1 kV. The products are manufactured in accordance with the European standards CENELEC NF-C33-020, NF-C33-021, NF-C33-040, NF-C33-041, EN 50483-1.2009.

### APPLICATION



Self-supporting insulated wire accessories are used for arranging the power supply to cottage settlements, gardeners' non-commercial partnerships, office and commercial buildings, temporary power supply of construction sites and industrial buildings, as well as when replacing and re-equipping overhead lines for:

- fixing self-supporting insulated wires to the supports and facades of buildings;
- inlet to transformer substations;
- connection with power cables and bare wires when switching from a high-voltage line (HVL) to a self-supporting insulated wire (HVLII) line.

### ADVANTAGES



Reduced operating costs due to corrosion resistance of metal elements



Product reliability due to compliance with high quality standards



Suitable for use in areas with both moderately cold and tropical, and marine climate



The product range allows to mount a standard power line

## BRACKETS AND FASTENERS

### Anchor pole brackets of CA1500, CA2000, SO253, CA25 series



CA1500, CA2000, SO253 series anchor fixing brackets are used for fastening of one or two anchor clamps to secure main self-supporting insulated wire line on the support or wall of the building. Fastening is carried out with the use of two M14 or M16 bolts or two strips of 20 mm metal tape. The restraints prevent the tape from slipping. Separating matchmarks prevent the tape from overlapping. The bracket is an aluminum alloy monoblock with high mechanical strength and high corrosion resistance, suitable for use in industrial environments, humid climates and low temperatures.

The CA25 anchor fixing bracket is designed for fastening anchor and suspension clamps on supports or building walls. Mounting is performed with the use of 20 mm steel tape or M12 and M14 bolts. The tape runs in a special groove, which completely eliminates the risk of incorrect installation. Bracket made of aluminum alloy with high resistance to mechanical and climatic impacts.

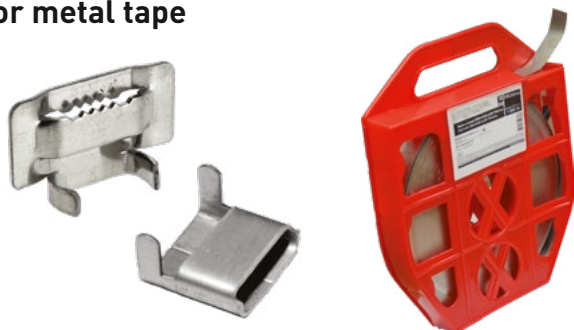


## CS16, CF16 multi-purpose hooks and B16, B20 mounting hooks



CS16, CF16 series multi-purpose hooks are used for fastening anchor or supporting clamps on reinforced concrete, metal or wooden supports. Fastening is performed with two strips of metal tape. The hook is made of highly corrosion-resistant galvanized steel. B16, B20 series nickel-plated mounting hooks are used for timber and reinforced concrete supports. The hooks are mounted in temporary openings of concrete racks.

## F2007.50 steel tape. C20, NC20 series clamp for metal tape



F2007.50 series steel tape is intended for fastening of anchor brackets on supports. The stainless steel tape has high mechanical strength and high corrosion resistance, that makes it suitable for the use in industrial environments, humid climates and at low temperatures. C20 and NC20 tape clamps are designed to fix the tape on anchor supports.

## Tension bands



The tension bands for fixing self-supporting insulated wire are used for tying up and binding self-supporting insulated wire bundles and fastening them to self-supporting insulated wire accessories.

## Helical ties



S0115 helical ties are used for intermediate wire fastening to pin porcelain and polymer insulators. The ties are made of galvanized spring wire covered with a super-resistant polymer coating.

## Facade fasteners



SF60 facade fasteners are intended for fixing wires on the walls of buildings. The distance between a wire and a wall of 60 mm (SF60) and 30 mm (SF10) is prescribed by the EIC. The polyamide casing has a high mechanical strength and high corrosion resistance, that makes it suitable for the use in industrial environments, in humid climates and at low temperatures.

## LVA-280B-CL surge arrester



LVA-280B-CL surge arrester is used to protect the network and connected equipment when exposed to all types of overvoltages (lightning and impulse). Protection is provided by metal oxide varistors.

## RMSS adapter for short circuits and grounding



RMSS EKF adapter for short circuits and grounding is designed for temporary protective grounding when performing installation works under a voltage on overhead lines of up to 1 kV. The adapter is installed from the branch side in clamps with insulation piercing connection. The adapter enclosure is made of UV-resistant polymer.

## CE4-50, CE25-150 protective insulating caps



CE4-50, CE25-150 protective insulating caps are intended for termination of bare wires. The caps ensure the perfect tightness and withstand a voltage of 6 kV under water at a depth of 1 m for 1 minute. Made of polymer resistant to weather and climatic factors and ultraviolet radiation.

## C200 insulated cable clamps for protective grounding application



200 insulated cable clamps are used for voltage sensing, shorting and protective grounding application during the installation works.

## CLAMPS

### Piercing branch clamps



The piercing branch clamps are designed for tight connection and branching of insulated consumer wires and lighting wires. When tightening a shear-head bolt, the teeth of the contact plates cut through the insulation and engage with the conductor.

The branching groove clamps are designed for connecting non-insulated A and AC types wire,

as well as for re-grounding the zero core when installing self-supporting insulated wires.

### HEL-5506, HEL-5507, PA-4120, SO234S anchor wedge clamps



HEL-5506, HEL-5507, PA-4120, SO234S anchor wedge clamps are intended for fixing the consumer line consisting of 2 or 4 wires. The clamps are suitable for the use with conductors with a

cross section of 25 to 120 mm<sup>2</sup>. Due to the spring in the clamping mechanisms, installation of the conductor becomes faster and more convenient. The clamps are made of hot-dip galvanized steel, resistant to corrosion. The polymer inserts are made of PA66 glass-filled polyimide.

### PA1000, PA1500, PA2000 anchor wedge clamp



PA1000, PA1500, PA2000 anchor wedge clamps are designed for fixing self-supporting insulated wires on the trunk and branch cable lines. The clamps ensure the required tension of the wire in the anchor span of the

cable line. The housing is made of an aluminum alloy with high resistance to mechanical and climatic impacts. The special textured surface of the wedges reliably fixes the conductor with no damage to the insulation.

### PS1500, PS95 suspension clamps



PS1500, PS95 suspension clamps are intended for fastening the bearing neutral on the intermediate supports. The wire is fixed with a self-clamping latch. The appliance is made of glass-filled, weather and UV-resistant polyamide with a movable hinge to provide longitudinal movement of the fixed wire.

### PA25 x 100 anchor wedge clamps, PAS216 / 435 series anchor support clamps, and SO-157, SO-158 SERIES ANCHOR CLAMPS



PA25x100 series anchor wedge clamps are designed for fixing a consumer line consisting of 2 or 4 wires. The breaking load increased to 350 kgf allows mounting spans with a length of up to 40 m.

PAS216/435 series anchor

support clamps are designed for fixing a consumer line consisting of 2 or 4 wires. Polymer inserts are made of glass-filled polyamide.

SO-157 anchor clamps are designed for fixing and fastening two-core self-supporting insulated wires on the walls of buildings or on power transmission line supports with the use of hooks and brackets. The SO-157 enclosure is made of aluminum alloy, while the clamping wedges are made of stainless steel, which perfectly protects the clamp from corrosion. SO-158 anchor clamps are designed for fixing and fastening 4-core self-supporting insulated wires.

### SO130, SO270, SO239, PS450, PS470, SO140 suspension clamps



PS425, PS435, PS450, PS470 suspension clamps are used to fasten 2 or 4 wires and provide suspension on intermediate supports with a rotation angle of up to 30°. The clamps are equipped with a wing nut.

SO130, SO140 series suspension clamps are used for fixing the conductor and suspension on intermediate and corner supports with a rotation angle of 30-60°.

SO270 Suspension clamps are designed for the installation and connection of three-core wires with a cross section from 2 (25-35) to 4 (16-120) mm<sup>2</sup> on intermediate and corner

supports with a rotation angle of 15-30°.

SO239 suspension clamps are used for fastening 2 or 4 wires and suspension on intermediate supports with a rotation angle of up to 30°. The clamp is equipped with a wing nut.

### ES1500/ES1500 ECO intermediate suspension set



ES1500 / ES1500 ECO intermediate suspension set is designed for fixing the bearing neutral on intermediate and corner supports at rotation angles of up to 50° when suspended from the outside of the line and at rotation angles of up to 30° when suspended within the cable line. For larger angles, two anchor wedge clamps are used. The structure consists of a bracket and an installed PS1500 LM clamp. The movable connection allows the clamp to move in the longitudinal and transverse directions. The protrusion prevents the clamp from swinging upwards. The attachment to the support is carried out with two turns of tape or an anchor screw.

## INSTALLATION TOOLS FOR SELF-SUPPORTED INSULATED WIRE

### RM50 hook sheave



RM50 EKF hook sheave is used for the installation of self-supporting insulated wires on straight sections of the cable line and at small angles of rotation up to 30° and is installed on intermediate supports by hanging on a hook. The spool is made of glass-filled polyamide, while the sheave frame is made of galvanized steel. The hook sheave is used for cables of up to 50 mm in diameter.

### Steel tape tensioning and cutting tool



The tool is used for tensioning and cutting F2007.50 steel tape when mounting load-bearing accessories on overhead line supports..

### ST31 separating wedges



ST31 separating wedges are used to separate the phase conductor from the self-supporting insulated wire beam for the time of the installation of clamps.

### Tool for tightening and cutting TTC210 clamps



TTC210 EKF tool is used to tighten and cut the cable clamps. The tool is suitable for use for cable clamps with a width of 2.3–9.5 mm.

### CT105.20 mount holder (wire grip) (3–22mm)



CT105.20 mount holder (wire grip) (3–22 mm) is used for fixing the wire when adjusting the dip of the self-supporting insulated wire; the mount holder does not damage the wire insulation and can be used with a fiber-optic cable.

### Hand winch with a blocking device (1500 kg)



ST-116 hand winch with a blocking device (1500 kg) is used for tensioning the self-supporting insulated wire and fiber-optic cables. The winch is designed to transfer the wire from the hook sheave to the anchor ones and supporting clamps.

### CT-47 steel tape cutter



CT-47 steel tape cutter is used for cutting F2007.50 steel binding tape.

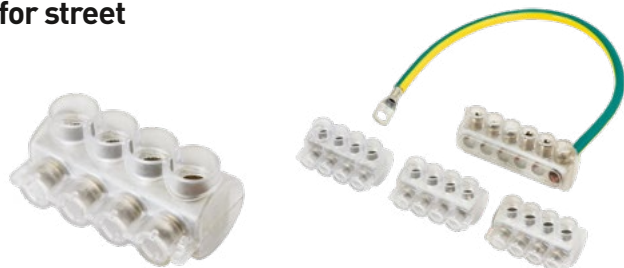
### CT134 EKF swivel



CT134 EKF swivel is used to prevent the self-supporting insulated wire bundle from unwinding when it is rolled out. The swivel is mounted between the pulling grip and the cable rope.

## CONSUMABLES FOR INSTALLATION OF SELF-SUPPORTING INSULATED WIRE

### EKF PROXIMA series terminal blocks for street



KE terminal blocks for street lighting are used for aluminum and copper conductors. The tightening torque is 10 N\*m. Terminal blocks are used to connect and protect luminaires on street lighting poles, inside the metal poles or on separate panels.

### CPTAU EKF PROXIMA sealed insulated aluminum-copper lugs



CPTAU sealed insulated aluminum-copper lugs are used for sealed termination of multi-core aluminum and copper wires. The inner aluminum part is filled with a contact grease that protects aluminum from oxidation and reduces contact resistance, and also ensures reliable electrical contact in the copper-aluminum system.

### JPT insulated phase wire sleeves, MJPTN zero wire sleeves, and MJPB EKF PROXIMA consumer wire sleeves



MJPT phase wire sleeves are used for the mechanical and electrical connection of phase conductors in self-supporting insulated wire systems with a bearing neutral wire. MJPTN zero wire sleeves are used for the mechanical and electrical connection of the neutral wire in self-supporting insulated wire systems with a bearing neutral wire. MJPB consumer wire sleeves are used for mechanical and electrical connection of self-supporting wires.



## Air-termination system "Coupol"



Air-termination system "Coupol" (lightning arrester, lightning protection) is a system of technical solutions and special devices designed to ensure the safety of buildings and structures, as well as property and people inside.

### APPLICATION

A complex solution for external lightning protection from EKF company allows to avoid such negative consequences of a direct lightning strike as:

- damage to the building (structure) and its parts;
- failure of the electrical and electronic appliances inside;
- death and injury of people and animals located directly in the building (structure) or nearby.



Protection of industrial facilities



Protection of residential sector



Protection of high-rise buildings and hotel complexes



Protection of infrastructure facilities



Protection of private houses and structures



Protection of commercial real estate

### ADVANTAGES



Reliability



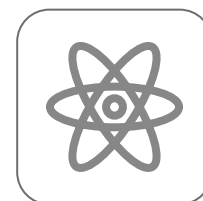
Safety



Convenience and ease of installation



Project design



Modern solutions



Over 30 years service life

### ESE AIR-TERMINATION RODS

OMA-30 and OMA-60 ESE air-termination rods create an arc between the ground and clouds. By creating a high-voltage pulse under the effect of static electricity fields arising during a thunderstorm, they contribute to the ionization of the ambient air, which makes it possible to create an advanced streamer, thereby attracting to itself the leader of the atmospheric static discharge. The protection ranges (Rp) of the OMA-60 ESE lightning rod, depending on the installation height above the protected object, according to the NFC and UNE standards, are presented in the table below.





Image	Designation
	"OMA-30" ESE air-termination rod EKF PROXIMA
	"OMA-60" ESE air-termination rod EKF PROXIMA

Image	Designation
	ESE air-termination rod tester EKF PROXIMA
	Lightning discharges counter EKF PROXIMA

### PASSIVE AIR-TERMINATION RODS

#### Air-termination rods and masts

Designed to launch a streamer heading towards the leader of a lightning storm atmospheric discharge. When receiving an atmospheric static discharge, it transfers the potential through the down conductor to the ground electrode. Installed on concrete bases or holders or on concrete bases and supports, with additional fastening to steel braces.





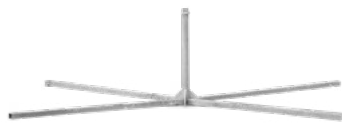
Image	Designation
	Air-termination rods, 1-4 meters long EKF PROXIMA
	Independent air-termination rods, 5-7 meters long EKF PROXIMA

Image	Designation
	Independent air-termination rods, 8-10 meters long EKF PROXIMA

#### Tripod and four-legged support for the air-termination rods

designed for installation of lightning masts with a height of 5 to 7 meters (tripod support) or 8 to 10 meters (four-legged support). Fastening is performed directly to the horizontal surface using anchors or together with concrete bases 20 kg (lp-l0345) or 40 kg (lp-l0500).

Image	Designation
	Tripod support for air-termination rod EKF PROXIMA
	Four-legged support for air-termination rod EKF PROXIMA

#### Independent air-termination rods wall holders

Designed for mounting the lightning masts on the vertical surface.

Image	Designation
	Air-termination rod wall holders EKF PROXIMA


Designed for mounting lightning masts with a diameter of 16–20 mm to the vertical structure of the building.

## Lightning mast wall fastener

Image	Designation
	Lightning mast wall fastener all EKF PROXIMA

## Concrete base

Designed for the installation of air-termination rods or lightning masts on horizontal flat roofs using the lp-l0700 and lp-l0900 supports.

Image	Designation
	Concrete base EKF PROXIMA

## Air-termination roof ridge fastener

Designed for mounting air-termination rods with a height of 1–2 meters or for mounting lightning masts on the round roof ridge.

Image	Designation
	Air-termination rod roof ridge fastener EKF PROXIMA
	Air-termination rod holder with a height of 1–2 meters for mounting on the round roof ridge EKF PROXIMA

## ROOF HOLDERS


### Roof holders

Designed to fix the down conductor on the roof. The lp-d2104 holder is designed for soft roofs. L100 multi-purpose roof holder has an additional fastener for the heating cable.

Image	Designation
	EKF PROXIMA roofing rod holder with two clamps
	EKF PROXIMA plastic holder for soft roofs
	EKF PROXIMA roof holder with a support

## Adjustable roof ridge holders

Used for mounting the down conductor on the tiled roof ridge.

Image	Designation
	Adjustable roof ridge holder EKF PROXIMA
	Adjustable metal roof ridge holder EKF PROXIMA

## Holders for tiled roofs (corrugated steel sheet)

Allows fastening the Ø 6–10 mm down conductor to a tiled roof.

Image	Designation
	Twisted holder with a hook for tiled roofs EKF PROXIMA
	Holder with a plastic retainer for tiled roofs EKF PROXIMA
	Holder with a hook and plastic retainer for tiled roofs EKF PROXIMA
	Metal holder for tiled roofs EKF PROXIMA

## Down conductor-to-pipe holders

Used for mounting the Ø 6–10 mm down conductor to the downpipe.

Image	Designation
	Rod pipe holder EKF PROXIMA

## Holders for round and flat type down conductors

Designed for mounting down conductors or fixing the strips.

Image	Designation
	Down conductor plastic holder EKF PROXIMA Used for mounting the Ø 8–10 mm down conductor to the building facade or roof


### Holders for downpipes

Used for mounting the Ø 6-10 mm down conductor to the downpipe.

Image	Designation
	Multi-purpose pipe holders EKF PROXIMA
	Twisted downpipe holder EKF PROXIMA
	Metal down conductor holder EKF PROXIMA Used for mounting the Ø 8 mm down conductor to the building facade
	Down conductor holder EKF PROXIMA on horizontal and vertical surfaces is used for mounting the Ø 6-10 mm down conductor on the surfaces of sandwich panels and roofs
	Steel tape holder EKF PROXIMA is designed for fixing the strips 4x25; 4x30; 4x40; 5x40mm on the building walls
	Grounding conductors holder EKF PROXIMA designed for fixing the strips with a width of up to 40 mm and mounting a rod of 8-10 mm on the building walls
	Grounding conductors holder EKF PROXIMA designed for fixing the strips with a width of up to 40 mm and mounting a rod of 8-10 mm on the building walls

### Facade holders

Designed for mounting Ø 6-10 mm down conductor on the building facade or walls. Facade strip holders are designed for fastening the strips up to 50 mm to the building walls. Facade plastic holders are used for mounting the Ø 8-10 mm down conductor on the building facade

Image	Designation
	Facade holder with a hook EKF PROXIMA
	Facade holder with a hook EKF PROXIMA
	Plastic facade holder with a dowel EKF PROXIMA

### Folded holders

Designed for mounting the Ø 6-10 mm down conductor to the seam roofing or steel sheet. Twisted folded holders are designed for mounting the Ø 6-10 mm down conductor to the seam roofing or steel sheet up to 12 mm thickness.

Image	Designation
	Folded holder EKF PROXIMA
	Twisted folded holder EKF PROXIMA
	Multi-purpose folded holder EKF PROXIMA

### Grounding elements

Image	Designation
	Grounding pin EKF PROXIMA Used for vertical grounding
	Pointed grounding pin EKF PROXIMA Used as primary grounding pin for vertical grounding
	Connecting coupling EKF PROXIMA Used for connection of grounding pins or rods with impact impact bolt. The main function is to ensure a reliable connection between the pins or rods
	Impact head EKF PROXIMA Designed for the use with the SDS-Max rock drill for deep installation of grounding pins. Weight: 0.362 kg
	Control and measuring subsurface well EKF PROXIMA Used for performing test joints and mounting the down conductor. Placed in the subsurface wells.

### Clamps

Designed for mounting and connecting down conductors, rods, strips.




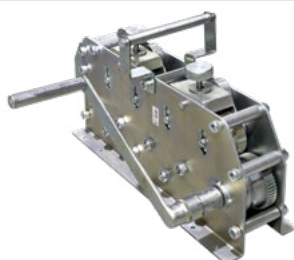
Image	Designation
	Multi-purpose rod clamp EKF PROXIMA Designed for parallel or perpendicular connection of Ø 6-10 mm down conductors
	Cross-shaped clamp (rod-to-rod) EKF PROXIMA Designed for parallel or perpendicular connection of the Ø 6-10 mm down conductors




Image	Designation
	EKF PROXIMA clamp (strip-to-strip) Designed for parallel or perpendicular connection of strips up to 40 mm
	EKF PROXIMA test terminal Designed for test connection of the Ø 6-10 mm rod with a strip
	EKF PROXIMA clamp (pin - strip - rod) is designed for connecting the grounding pin Ø 12-20 mm with a strip up to 40 mm wide or with a rod of 8-10 mm
	EKF PROXIMA angle clamp (groundwire-rod-strip) designed for connecting the grounding pin Ø 12-20 mm and / or a strip of 40 mm
	EKF PROXIMA universal rod clamp with anchor (m8 x 30 mm). Designed for fixing the Ø 6-10 mm down conductor on the building facade
	EKF PROXIMA rod clamp on the pin Designed for fixing the down conductor (rod 6-10 mm or strip up to 30 mm) to the grounding pin and lightning rod
	EKF PROXIMA longitudinal clamp Designed for longitudinal connection of the down conductor

### Additional elements

Image	Designation
	EKF PROXIMA zinc spray  Used for coating all types of metals with zinc spraying to provide protection against corrosion for a long period of time
	EKF PROXIMA RMA-40-6-8 manual machine (tool) for strip and rod alignment  Hand-operated device for straightening the Ø 6-10 mm wires and strips up to 40 mm wide

### Flat and round conductors

Designed to drain the potential from a lightning rod and main grounding bus to create a ground loop.

Image	Designation
	EKF PROXIMA hot galvanized rod d 8 mm (25 m bundle)
	EKF PROXIMA hot galvanized rod d 8 mm (127 m bundle)
	EKF PROXIMA hot galvanized rod d 10 mm (81 m bundle)
	EKF PROXIMA hot galvanized strip 4x25 mm (64 m bundle)
	EKF PROXIMA hot galvanized strip 4x40 mm (20 m bundle)
	EKF PROXIMA hot galvanized strip 4x40 mm (40 m bundle)
	EKF PROXIMA hot galvanized strip 5x40 mm (32 m bundle)
	EKF PROXIMA hot galvanized strip 4x50 mm (32 m bundle)

### Grounding set

The product is intended for the arrangement of a protective grounding of electrical installations and equipment, as well as grounding of lightning protection.



### EKF PROXIMA PROFI, HZ grounding set with a pointed pin 3x3 m

The product is intended for the arrangement of a protective grounding of electrical installations and equipment, as well as grounding of lightning protection.



## Smart lamps EKF Connect







With the smart lamps EKF Connect, you can change the color temperature, color, and brightness to create the ambience you want at that moment. You can control the smart lamps remotely via Wi-Fi with the EKF Connect mobile app, available on iOS and Android. You can schedule the app to turn the lamps on/off and set a timer. You can set up scenarios to control multiple devices with a single voice command or button.

### ADVANTAGES



Warm and cool light options



Brightness control



Color illumination






Available on IOS and Android








Supports Wi-Fi and Bluetooth Low Energy

### PRODUCT RANGE

Appearance	Name	Base type	Luminous flux**, lm	Color temperature, K	Power consumption, W	RGB	Product ID
	Smart bulb 8W WIFI RGBW E27 EKF Connect	E27	806	2700-6500	8	Available	slwf-e27-rgbw
	Smart lamp RGBW E14 EKF Connect	E14	400	3000-6500	5	Available	slwf-e14-rgbw
	Smart lamp GU10 RGBW EKF Connect	GU10	500	2700-6500	5	Available	slwf-gu10-rgbw
	Smart filament bulb E27 EKF Connect	E27	725	2300-5700	6,5	N/A	slwf-e27-fil
	Smart filament bulb RGB E27 ST64 EKF Connect	E27	300	2700	4,9	Available	slwf-e27-st64-fil-rgbw
	Smart lamp GX53 Wi-Fi EKF Connect	GX53	427	2700-4000	4,5	N/A	slwf-gx53-cct

## Smart plugs EKF Connect

The smart plugs EKF Connect make conventional appliances smart. With the Android or iOS app, you can control lights, fans, heaters, humidifiers and other appliances that start operating immediately when power is applied. With the Pro model, you can measure voltage, current, and power and collect power consumption statistics by days and months.




### ADVANTAGES




Available on iOS and Android

On/Off button on the housing

## Smart power strips EKF Connect



Smart power strips EKF Connect make conventional appliances smart. With the Android or iOS app, you can control lights, fans, heaters, humidifiers and other appliances that start operating immediately when power is applied. Along with four socket outlets, the power strips feature three USB ports to charge mobile devices. For the basic model, all four outlets are switched on/off at the same time.

### ADVANTAGES



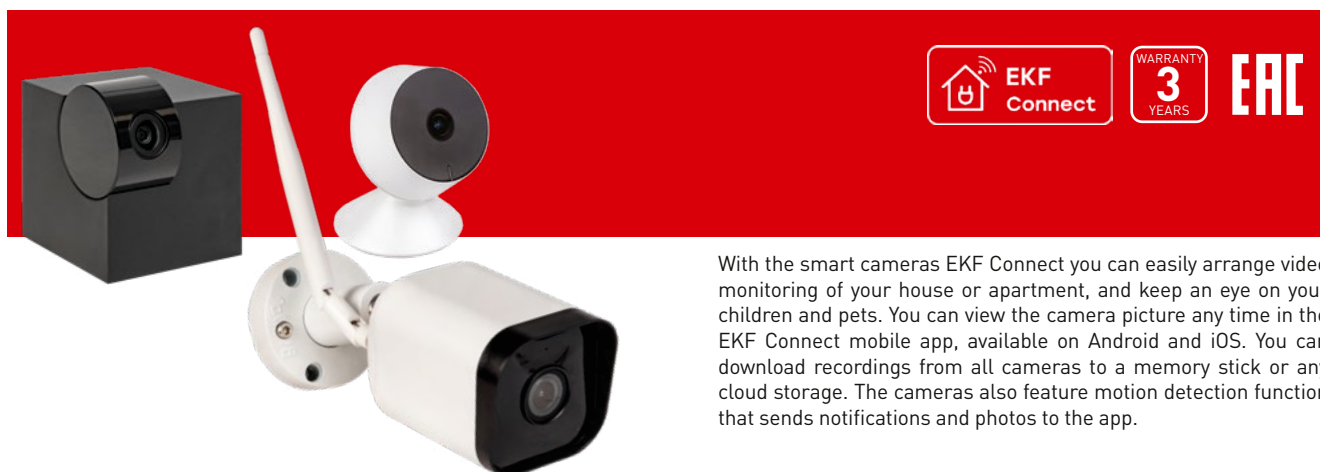
Three USB ports

Remote control

Scheduled switch on/off

Available on iOS and Android

## Smart cameras EKF Connect



With the smart cameras EKF Connect you can easily arrange video monitoring of your house or apartment, and keep an eye on your children and pets. You can view the camera picture any time in the EKF Connect mobile app, available on Android and iOS. You can download recordings from all cameras to a memory stick or any cloud storage. The cameras also feature motion detection function that sends notifications and photos to the app.

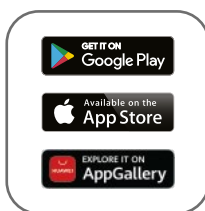
### ADVANTAGES



Night mode with IR light up to 10 meters



Two-way voice communication (baby monitor mode)



Available on iOS and Android

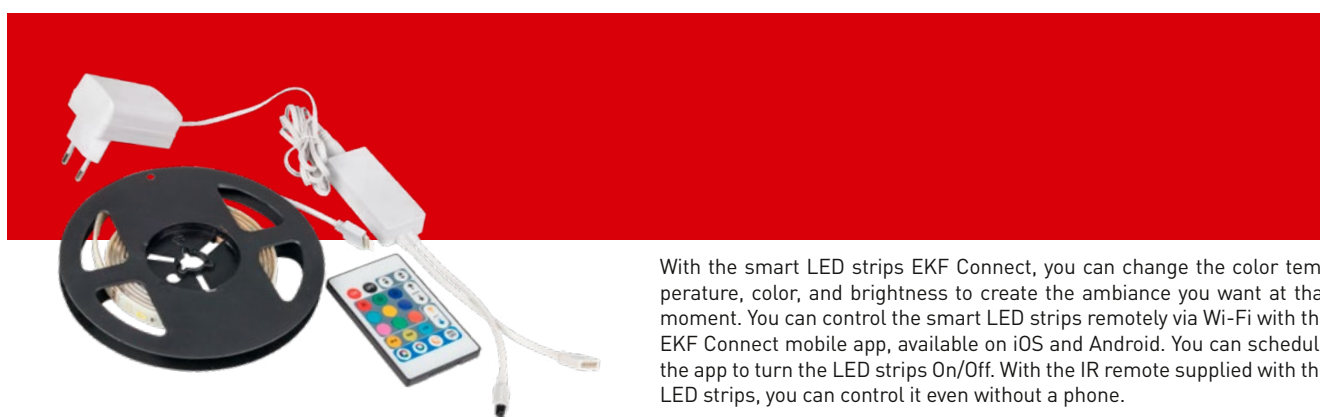


Supports ONVIF



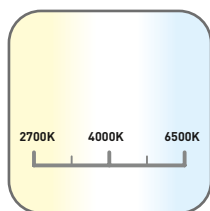
Motion and sound detection and further notification and photos of the incident sent to the app

## Smart LED strips EKF Connect



With the smart LED strips EKF Connect, you can change the color temperature, color, and brightness to create the ambiance you want at that moment. You can control the smart LED strips remotely via Wi-Fi with the EKF Connect mobile app, available on iOS and Android. You can schedule the app to turn the LED strips On/Off. With the IR remote supplied with the LED strips, you can control it even without a phone.

### ADVANTAGES



Warm and cool light options



Brightness control



Color illumination



Available on iOS and Android



Supports Wi-Fi and Bluetooth Low Energy

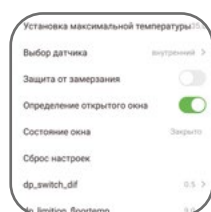


## Smart thermostats EKF Connect

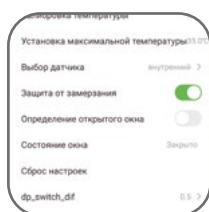


The smart thermostats EKF Connect are designed to control underfloor heating system based on electric heating cable or infrared film. You can configure all functions of the smart thermostat remotely once installed and connected to the Wi-Fi network using the EKF Connect mobile app.

### ADVANTAGES



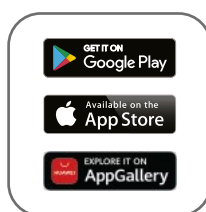
Open window detection



Antifrost function



Remote control via the EKF Connect mobile app



available on iOS and Android

## Smart remote with temperature and humidity sensors EKF Connect



With the smart remote EKF Connect, you can control any device that has its own IR remote, e.g. air conditioners, TV-sets, stereo systems, etc. - via the mobile app or voice assistant. With the built-in temperature and humidity sensors, you can not only monitor these parameters in the EKF Connect mobile app, but also create scenarios, e.g. to make the air conditioner start when the temperature exceeds the set value, or the smart plug with a humidifier start when the humidity gets too low.

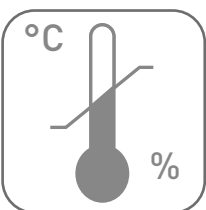
### ADVANTAGES



Controls any devices that have own IR remote



Switches any devices On/Off on schedule or timer



Temperature and humidity sensors



Available on iOS and Android



Supports Wi-Fi and Bluetooth Low Energy

## LED Triproof Luminaires DSP EKF PROXIMA



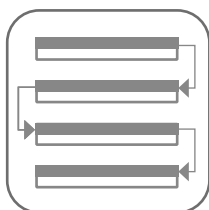
Industrial luminaires are a professional solution for lighting in industrial and public premises with a high concentration of dust and moisture.

LED luminaires DSP are specially designed for work in harsh operating conditions (railways, industrial halls, warehouses, underground railways), maintaining lighting quality and a long lifetime. Luminaire housing is made of polycarbonate. Climatic version and placement category.

### ADVANTAGES



UV- stabilized polycarbonate



Transit/tandem connection up to 10 pieces (only for luminaires DSP-1005, DSP-1006)



Housing resistance to external mechanical impacts IK08



Resistance to voltage fluctuations



Low ripple factor



Reliable driver with a high power factor of over 0.9

## LED Triproof Luminaires DSP Iceberg-E EKF PROXIMA



Industrial luminaires are the professional solution for lighting in industrial and public premises with a high concentration of dust and humidity (car washes, parking areas, utility rooms).

The high IP65 degree of protection against dust and moisture and the impact resistant polycarbonate housing make the luminaires suitable for use in harsh environments.

### ADVANTAGES



UV- stabilized polycarbonate



Easy installation – connection compartment without screws



Housing resistance to external mechanical impacts – IK09 as per IEC 62262:2002



Resistance to voltage fluctuations



Low ripple factor



Reliable driver with high power factor of over 0,9

## High bay luminaires DSP EKF PROXIMA

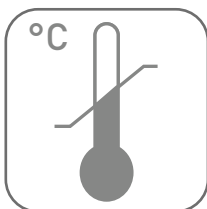

**IP65**  
**NF3**
**230V**
**LED**
**6500K**
  
**30 000 h**
**CRI**  
**>80**

Industrial luminaires are designed for indoor lighting in production halls, warehouses and utility rooms, closed park areas, sports halls, rooms with high concentration of dust and moisture. The high IP65 degree of protection against dust and moisture and the hard glass diffuser make the luminaires suitable for harsh environments with increased dust and humidity.

### ADVANTAGES



Housing made of  
molded anodized  
aluminium



Operating tempera-  
tures: -45 to +50°C



Light weight



Reliable driver with  
high power factor of  
over 0,9

## LED luminaires for municipal services EKF PROXIMA


**IP65**
**230V**
**LED**
**4000K**  
**6500K**
  
**30 000 h**
**CRI**  
**>80**

Luminaires are used for indoor lighting in domestic, public and industrial premises with a high concentration of dust and moisture. Can be used both indoors and outdoors (under a protective canopy or weather shelter).

### ADVANTAGES



Housing and diffuser  
made of impact-  
resistant  
polycarbonate



High luminous effi-  
ciency



Simple and easy  
installation on metal  
plate


## LED luminaire with motion sensor for municipal services EKF PROXIMA



IP65	230V	LED
30 000 h	6500K	4000K
		CRI >80

Industrial luminaires are the professional solution for lighting in industrial and public premises with a high concentration of dust and humidity (car washes, parking areas, utility rooms). The high IP65 degree of protection against dust and moisture and the impact resistant polycarbonate housing make the luminaires suitable for use in harsh environments.


### ADVANTAGES




Housing and diffuser made of impact-resistant polycarbonate

100  
lm/W

High luminous efficiency



Simple and easy  
Installation on the  
mounting plate



Motion sensor

## LED Linear Luminaire DB0 EKF Basic



IP20	230V	LED
NF3	30 000 h	4000K 6500K

Linear luminaires are designed for indoor lighting in residential, utility and public premises (shops, hospitality facilities, offices). Luminaires DB0 are a popular lighting solution due to their simple and robust design, modern appearance and affordability.

### ADVANTAGES



Low ripple factor



Robust steel housing



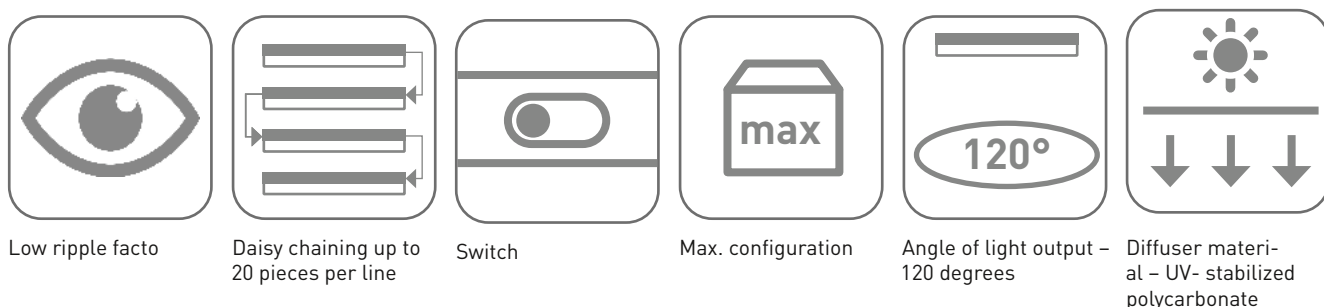
Fastening kit  
included



## LED Linear Luminaire DBOV with Switch EKF Basic



### ADVANTAGES



## Infrared motion sensors MS EKF PROXIMA



MS infrared motion sensors are designed to save energy through automatic control of lighting and other engineering systems. The motion sensors react to the movement of people and other objects in the sensor operating area. The principle of the sensor operation is based on tracking the level of IR radiation in the field of view. The EKF series product range includes motion sensors with various mounting methods: wall, ceiling, surface-mounted, embedded and lighting fixture mounted. In addition, some motion sensors have a rotatable sensor, which allows selecting a solution for any area of the installation. The MS motion sensors are recommended for use in corridors, entrances, and various passage areas. Motion sensors with IP44 increased protection class can be installed outdoors under a shed. Operation algorithm: in the case of movement in the field of view of the sensor, the built-in electromechanical relay switches the connected load. After that, the load is energized for a preset time (adjustable) and is turned off. Additionally, the sensors have an illumination control function. If the illumination in the detection area is higher than the preset level (adjustable in the range from 10 to 2,000 lx), the load will not be switched on, which provides additional energy saving in the daytime

### APPLICATION



- Energy saving based on the presence of people and the level of illumination.
- Automatic control of lighting fixtures and household appliances.

### ADVANTAGES



## Microwave motion sensors MW EKF PROXIMA



MW microwave motion sensors are designed to save energy through automatic control of lighting fixtures and other engineering systems. The sensor reacts to the movement of people and other objects in the area of the sensor operation. The sensor's principle of operation is based on the generation of high-frequency electromagnetic waves and detection of the received echo. Due to this, microwave sensors have increased sensitivity and can detect movement through thin obstacles (drywall, glass, suspended ceiling). The EKF product range includes motion sensors for various installation methods: wall-mounted, ceiling-mounted, surface-mounted, embedded and lighting fixture mounted. In addition, some sensors have a rotatable sensor, which allows selecting a solution for any area of the installation. The use of MW sensors in corridors, entrances, dressing rooms and other passage areas is recommended. Sensors with IP44 increased protection class can be installed outdoors under a shed. The operation algorithm is based on switching the connected load by an electromechanical relay, if movement is detected in the sensor's field of view. After that, the load is energized for a preset time (adjustable) and is turned off. Additionally, the sensors have an illumination control function. If the illumination in the detection area is higher than the preset level (adjustable in the range from 10 to 2000 lx), the load will not be switched on, which provides additional energy saving in the daytime.

### APPLICATION



Municipal and private lighting networks



Various construction and infrastructure facilities



Residential sector

### ADVANTAGES



Sealed cable glands for cable entry



Screwless terminals for connecting wires



Convenient adjustment of product parameters

### PRODUCT RANGE

Image	Designation
	MW-700 EKF PROXIMA
	MW-706 EKF PROXIMA
	MW-702 EKF PROXIMA
	MW-704 EKF PROXIMA

Image	Designation
	MW-703 EKF PROXIMA
	MW-705 EKF PROXIMA
	MW-701 EKF PROXIMA
	EKF PROXIMA series MW-707 for installation at a height

## Twilight relay PS EKF PROXIMA



IEC 60669-1:2007  
IEC 60669-2-1:2009

WARRANTY  
**7**  
YEARS



**EAC**

**IP20**

**IP44**

**IP66**

Twilight relay PS are used to control lighting or other loads, depending on the level of illumination. Usually photorelays are used in street lighting control systems to turn on/off advertising signs and shop windows. The photorelay turns on/off the load at the moment of sunset/sunrise. The exact moment of actuation is adjustable in the range of 5–50 lux (except for the PS-1 relay). Direct connection of a load with a current of up to 20 A to the Twilight relay PS is allowed, while larger current loads are connected through contactors. The Twilight relay PS is installed using the mounting plate that comes with the set.

### APPLICATION



Municipal and private lighting networks



Various construction and infrastructure facilities



Residential sector



Road illumination

- Energy saving depending on lighting level.
- Automatic control of lighting level and household appliances.

### ADVANTAGES



Bracket for fastening products included



Tripping adjustment depending on the illumination level



The connection wires are led outside the product housing



The connection diagram is indicated on the product housing



High degree of protection against dust and moisture (IP66/IP44) on the product housing

### PRODUCT RANGE




Image	Designation
	PS-1 EKF PROXIMA
	PS-3 EKF PROXIMA
	PS-2 EKF PROXIMA

Image	Designation
	PS-4 EKF PROXIMA
	PS-5 EKF PROXIMA



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