



EKF

Master Catalog

Electrical Products For Professionals

Summer - 2020

PRODUCTION CAPACITIES

- The company's production base includes:
- production sites in Moscow, Moscow and Vladimir regions;
 - company's testing laboratory in Moscow which has the latest equipment.

EKF is a member of the import substitution program, which actively develops domestic production of electric boards and accessories, cable-carrying systems, measuring instruments, electric-installations and wiring products, and bus-line systems.

In 2019, the company launched its own production of a metal tray in Moscow and modular automotive equipment in the city of Aleksandrov, Vladimir region.

HIGH QUALITY STANDARDS

EKF products are under the development on the basis of modern technologies with consideration of the latest scientific achievements. All components and ready products pass testing and independent assessment in international and Russian centers. Certification of production sites in accordance with ISO 9001 guarantees a professional approach and consistently high quality of products.

MODERN LOGISTIC COMPLEXES

The company's efficient logistics system allows to maintain the prompt delivery of products to partners anywhere in Russia and around the CIS. The EKF's modern logistics centers are located in Moscow, Novosibirsk, Yekaterinburg, Rostov-on-Don and Almaty. All terminals have an automated WMS warehouse management system and convenient access locations for the Euro Trailers.

EKF PRODUCT LINES - smart solutions for various industries

In accordance with the industry specifics and various budget possibilities of consumers, we have developed three product lines of equipment: AVERES, PROxima, and BASIC



10 YEARS



Premium AVERES is the best solution for industry and complex facilities. The high quality standard is confirmed by the 10-YEARs warranty which EKF provides for the devices of this line.

7 YEAR



Optimal PROxima is the optimal choice for residential construction, commercial real estate, and infrastructure projects. It is convenient and fast to install. Warranty – 7 YEARS.

3 YEAR



Budget BASIC is the best solution for economy-class housing construction. The option of engineering procurement for the facilities on a turn-key basis without extra cost. Warranty - 3 YEARS.

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SPD (Surge protection device) varistor surge arrester of type 1 EKF PROxima

DESCRIPTION





IP20

WARRANTY 7 YEARS

AI/Cu

EAC

SPD (Surge protection device) varistor surge arrester EKF PROxima of type 1 is designed to limit transient overvoltages and divert current pulses in 50 Hz alternating current networks.

ALL-UNION STATE STANDARD R 51992-2011



Maximum continuous 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 protection device).



Ifi: 7 kA. The RMS value of the follow current which can be limited by the device.



Iimp (10-350 microseconds): 25 kA. Pulse current for class I tests.

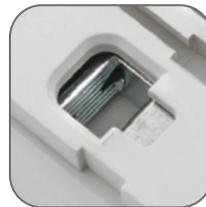
ADVANTAGES



Flame-retardant plastic housing



Notches on the contact elements



Convenient connection of conductors with a cross section from 4 to 35 mm²



Indication of the device wear level



Switching with aluminum and copper wire is possible


APPLICATION


The voltage selector is designed for protection:

- against lightning overvoltages of electrical installations, arising from the direct lightning strike to the external circuit, with indirect lightning strike (within a cloud, between clouds or to nearby objects), lightning to the ground;
- from switching overvoltages of electrical installations that occur as a result of:
 - switching in high-power energy delivery systems;
 - switching of power supply systems near the electrical installations;
 - resonant voltage fluctuations within the electrical circuits;
 - damages in systems, for example, when short-circuit to earth, arc discharges.

Automatic circuit breakers of AV POWER EKF AVERES series

DESCRIPTION



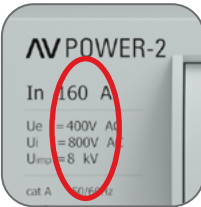


AI/Cu

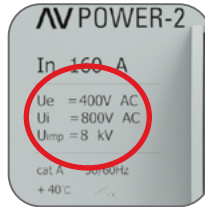
WARRANTY 10 YEARS

EAC

From AV POWER-1 up to AV POWER-4. These are standard devices with the ability to select and replace both thermomagnetic and electronic disconnectors, as well as disconnectors with protection against leakage currents. The unified size of the release module allows to install any release on the base in order to achieve the required type of protection. In accordance with the required type of protection, there is option to select any other release block. The communication module can have working configuration of four remote control units and adapted to different data exchange protocols.



Rated current – basic current value
Release category



Standard functions:
 U_i : rated insulation voltage; U_{imp} : rated pulse voltage; U_e : rated operating voltage; I_{cu} : rated limiting breaking capacity; I_{cs} : rated breaking capacity.

ADVANTAGES

As the main switch for industrial applications and complex infrastructure projects:

- civil residential construction;
- commercial construction projects;
- production sites;
- in the reserve power supply schemes of automatic switching on;
- with the partitioning of (on the basis of three switches), and without the sectioning (on the switches);
- remote switching of electrical equipment;
- in dispatching and energy-saving schemes, as well as as part of Automatic systems for commercial accounting of power consumption.

APPLICATION



The self-positioning contact system allows movement in the arc quench chamber area.



Redirection of gas Increase in performance by 5-10%.



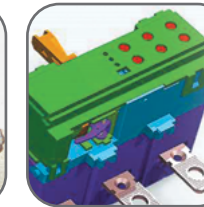
In case of contact wear, Silverized contact pads The option to select the necessary release for the user's needs



The option to select the necessary release for the user's needs



The option to select the necessary release for the user's needs

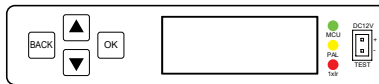
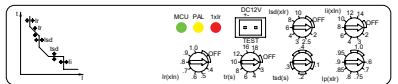


The option to select the necessary release for the user's needs

TM – thermomagnetic protection unit (distribution protection).

ETU2.0 – electronic protection unit (standard).
ETU2.2 – electronic protection unit (standard type of connection).

ETU6.0 – electronic protection unit (liquid crystal display screen).
ETU6.2 – electronic protection unit. (Smart type of connection – liquid crystal display screen).



Auxilliary devices AV POWER EKF AVERES



DESCRIPTION

AV POWER switches can be equipped with auxilliary devices: independent disconnectors, under-voltage release devices, additional and signalling contacts, manual rotary actuator and electric drive, and their various combinations. Additionally, electronic release devices ETU2. 2, ETU6.2 are equipped with a communication module for data transfer to standard bus lines. In case of electronic release devices ETU2. 2, ETU6.2 application it is possible to create intelligent control and protection systems on the basis of controllers, for this purpose there are various communication modules and protocol converters, as well as remote programming and display panels. The additional accessories are not included in the delivery kit of AV POWER circuit breakers, with the exception of AV-TX2 communication module, which is included in the kit with ETU2.2 and ETU6.2 releases. The user independently purchases this equipment and completes the AV POWER switch in accordance with the features of the object under protection.



Display module AV-CM1 EKF AVERES



DESCRIPTION



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 machine disconnection.

Converter AV-DP EKF AVERES

DESCRIPTION





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

DESCRIPTION




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

Main functions

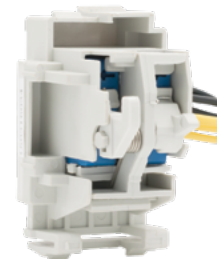
- Convert of RS-485 / RS-422 to USB2. 0
- Port circuit protection against static electricity and lightnings
- The internal smart module identifies and transmits the RS-485 / RS-422 signal stream without delays
- High data transfer rate up to 300 ~ 115.2 Kbps

Minimum voltage release device UVT EKF AVERES



The minimum voltage release device (RM) causes the circuit breaker to turn off 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 minimum release is to disconnect electrical equipment in case of inadmissible voltage reduction.



Signalling contact element + auxilliary contact element (AL+AX) EKF AVERES



It indicates that the machine is disabled by accident. Additional contact element shows the status of the main contacts.

Motor drive CD-EKF 2 AVERES



DESCRIPTION



The motor drive is designed for remote switching on and off of the switch. The product has a manual and remote control mechanism. The manual drive handle locates in the front of the front cover. Aluminum and copper commutation is possible.

Manual rotary drive CS1, CS2 EKF AVERES

DESCRIPTION

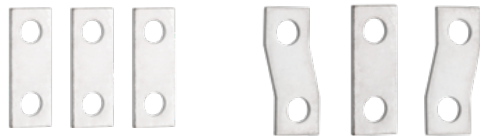


Manual rotary drive CS1 - with a central lift mechanism.
Manual rotary drive CS2 - with an eccentric drive mechanism.
The manual rotary actuator is designed for manual switching on and off the switch through the cabinet's door.

The accessories for connection of AV POWER EKF AVERES conductors

They serve for the necessary option of the conductors connection to the switch. Rear connection, type F. The circuit breaker is installed on the mounting panel and can be connected via the mounting panel by expanders of outputs for the rear connection. The bus lines can be attached from different directions – horizontal or vertical.

Output extenders K2, K3 EKF AVERES



The automatic circuit breakers VA-99 EKF PROxima (BA-99 EKF PROxima)

DESCRIPTION





IP30

WARRANTY 7 YEARS

AI/Cu

EAC

The VA-99 switch is designed in the form of a mono-block and consists of a base and a cover with a false panel, which has a frame for the control handle and a push button "Test" for the mechanism check of the switch disconnection. ATTENTION! The switch lever has three positions: "ON", "OFF" and "ACTUATION". For the launch after actuation, you must move the lever from the intermediate position to the "OFF" position, and then to "ON".


ALL-UNION STATE STANDARD R 50030.2-2010 (IEC 60947-2-2006) TU TD.

APPLICATION

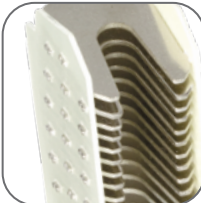
As input circuit breakers in the electrical panel for the provision of civil residential construction, commercial construction projects, production sites:

- protection of electric motor circuits;
- protection of outgoing lines, as well as the main switchboard, power distribution panel, distribution board;
- in automatic backup power switching circuits with sectioning (with three switches) and without sectioning (with switches);
- VA-99 (BA-99) with sizes of 400, 800, 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;
- it is allowed to use circuit breakers in conjunction with electric drives for switching and automatic control of electrical equipment: remote commutation of electrical equipment;
- it is allowed to use circuit breakers for infrequent starts of asynchronous motors;
- in dispatching and power saving schemes.


ADVANTAGES




The best electrical conductivity
Flexible connection of electrical copper




The best arc control
Homogeneous in thickness and massive plates




Stability of parameters
Uniform bimetallic plate




The best electrical conductivity in time
Connecting busbars release of electrical copper with silver coating



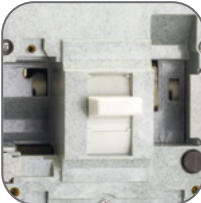
Adjustable electro-magnetic
Control set current value $I_r = (0.8-1 I_n)$ for regulated TM




Flame-retardant
Heat-resistant housing plastics




Instantaneous switching. Spring release mechanism




Full assortment of auxilliary devices
Attachment inputs of auxilliary devices



Maximum settings options for the microprocessor release
Control set current value $I_r = (0.4-1 I_n)$
Selectivity settings by sizes of 250, 400, 800, 1600 instantaneous current and short-circuit protection settings



Low contact resistance and high resistance to destruction of the contacts
In case of commutation Silverized composite soldering with tungsten



Auxilliary devices for VA-99 EKF PROxima (BA-99 EKF PROxima)

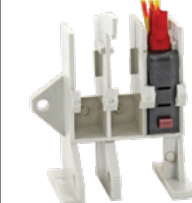
VA-99 EKF PROxima (BA-99) switches can be equipped with auxilliary devices: shunt release devices, under -voltage release devices, additional and signalling contacts, manual rotary and electric drives, etc. Additional accessories are not included into the delivery of the VA-99 EKF PROxima circuit breakers (BA-99). The user independently purchases this equipment and completes the VA - 99 EKF PROxima (BA- 99) switch in accordance with the features of the object under protection. Having unscrewed the screws fixing the false panel, the necessary releases and auxilliary contacts are installed into the input sockets of the switch case. The conductors from them are carefully placed into the lateral slots of the housing, after pushing up the false pads. Assembly is performed in reverse order.



EKF PROxima signalling contacts

All-Union State Standard R50030. 2-2010 (IEC 60947-2-98)




Designed for the operation alarm signal of a switch from overcurrent (overload or short circuit), an shunt release devices, a minimum voltage release devises, a button «TEST». When the switch returns to its original state, the alarm is turned off.

125-160 A	250-400 A	800-1600 A
		

Auxilliary + signalling contacts EKF PROxima

All-Union State Standard R50030. 2-2010 (IEC 60947-2-98)

Designed for the operation alarm signal of a switch from overcurrent (overload or short circuit), an shunt release devices, a minimum voltage release devises, a button «TEST». When the switch returns to its original state, the alarm is turned off.

125-160 A	250-400 A	800-1600 A
		

CD-99 EKF PROxima electric drive

All-Union State Standard R50030. 2-99 (IEC 60947-2-98)



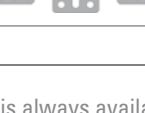

Designed to enable/disable automatic switches. The cocking mechanism automatically prepares the spring system. In the process of automation switching off, the stored energy is then used for switching on.

125-160 A	250-1600 A
	

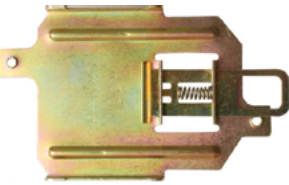
EKF PROxima output extenders

All-Union State Standard R 50030.2-99 (IEC 60947-2-98)

The output extenders are designed for switching power automation with bus lines. 125 and 160 sizes - adapter with clamp connection to the bus line. 800 and 1600 sizes - switch to aluminum bus line.

Image	Designation
	Output extenders for 125 A bus line EKF PROxima (6 PCs.)
	Output extenders for 160 A bus line EKF PROxima (6 PCs.)
	Output extenders for 800 A, 100 mm EKF PROxima (6 PCs.)
	Output extenders for 1600 A, 150 mm EKF PROxima (6 PCs.)
	Set of straight output extenders (3 PCs.) for VA-99/1600 1000 A 80 mm EKF PROxima
	Set of straight output extenders (3 PCs.) for VA-99/800 800A 50 mm EKF PROxima

The latchlock on the mounting rail for VA - 99/125 A, VA-99/160 A EKF PROxima



Designed for mounting circuit breakers on a 35 mm DIN rail.

Расцепитель независимый EKF PROxima

All-Union State Standard R50030. 2-2010 (IEC 60947-2-98)

Designed for remote deactivation of the automatic switch. It is an electro-magnet which impacts on the reset mechanism and by this action causes the switch to turn off when the voltage is applied from an external source. After the switch remote disconnection, there is the option of manual or remote launch by an electric drive.

125-160 A	250-400 A	800-1600 A
		

Manual rotary drive EKF PROxima



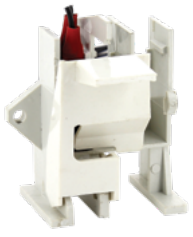


The manual rotary drive is designed to convert rotational motion into progressive motion in case of the automatic switch control. The drive is attached directly to the switch, and the rotary handle on the switchgear door is used to operate the switch through the door.

Auxilliary contact elements EKF PROxima

All-Union State Standard R50030. 2-2010 (IEC 60947-2-98)




Auxilliary contacts are designed for the position signal alarm of the switch power contacts.

125-160 A	250-400 A	800-1600 A
		

Расцепитель минимального напряжения EKF PROxima


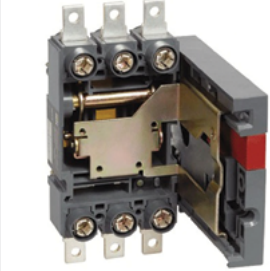
All-Union State Standard R50030. 2-2010 (IEC 60947-2-98)

The under-voltage release device (RM) causes the breaker deactivation if the voltage drops at the input to 70% of nominal, and also prevents its launch if the circuit voltage is at least 85% of nominal. The main purpose of the under -voltage release device is to turn off the electrical equipment when the voltage drop is inadmissible for it. The under-voltage release device can also be used as a shunt release device if a normally closed switch is connected in series to the control circuit. If the contact of the push-button switch is opened for a short time, the under-voltage release device disables the automatic switch.

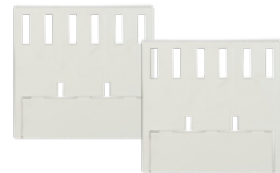
125-160 A	250-400 A	800-1600 A
		

The plug-in panels RM-99/1 and roll-out RM-99/2 EKF PROxima

The PM-99/1 EKF PROxima plug-in panels and the PM - 99/2 EKF PROxima roll-out panels are designed to complete the automatic switch of the BA-99 EKF PROxima series and are used for conversion of a stationary version into a plug-in/roll-out version. The plug-in panels PM-99/1 EKF PROxima and roll-out panels PM-99/2 EKF PROxima are used for completing circuit breakers VA-99 EKF PROxima: in the main feeder switchboards, electrical distribution panels, metering switchboards, case of electrical panel-70 (one side service), distribution power cabinets.

125-400 A	250-1600 A
	

EKF PROxima insulation cover set



Insulation covers for VA-99 EKF PROxima are designed to prevent accidental contacts with the current-carrying parts and protect against direct touches.

The automatic circuit breakers VA-99M EKF PROxima

DESCRIPTION




The VA-99M switch is designed in the form of a mono-block and consists of a base and a cover with a false panel, which has a frame for the control handle and a push button "Test" for the mechanism check of the switch disconnection. ATTENTION! The switch lever has three positions: "ON", "OFF" and "ACTUATION". In order to switch on after actuation, the lever must be moved from the intermediate position to the "OFF" position, and then to the "ON" position.

All-Union State Standard R50030. 2-2010 (IEC 60947-2:2006) TU 3422-004-70039908-2007


APPLICATION

As the input circuit breakers in the electrical panel for the provision of 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 schemes of automatic switching on;
• with the partitioning of (on the basis of three switches), and without the sectioning (on the switches);
• 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;
• It is allowed to use circuit breakers together with electric drives for switching and automatic control of electrical equipment operation:
• remote switching of electrical equipment;
• it is allowed to use circuit breakers for infrequent starts of asynchronous motors;
• in dispatching and power saving schemes.


ADVANTAGES




Internal current-carrying parts of electrical copper



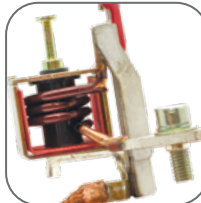
Homogeneous by thickness, and massive plates - bimetallic the best conditions arc control



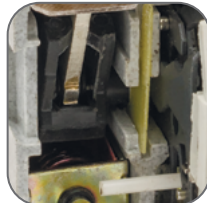
Uniform the plate provides stability of electric drive parameters over time




VA-99M with rate at 1250 and 1600 A have installed




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




Instantaneous switching mechanism




Simple, reliable design




Full assortment of auxilliary devices




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



Switching with aluminum and copper wire is possible



Auxilliary devices for VA-99M EKF PROxima (BA-99M EKF PROxima)

VA-99M EKF PROxima (BAM-99) switches can be equipped with auxilliary devices: shunt release devices, under-voltage release devices, additional and signalling contacts, manual rotary and electric drives, etc. Ad-ditional accessories are not included into the delivery of the VA-99M EKF PROxima circuit breakers (BAM-99). The user independently purchases this equipment and completes the VA - 99M EKF PROxima (BAM- 99) switch in accordance with the features of the object under protection. Their conductors are carefully placed into the side slots of the case, fix the pads in the side slots of the case, having previously extended the false pads. The conductors from them are neatly placed in the side slots of the case, the pads are fixed in the side slots of the case, having previously pulled out the false pads. Assembly of the automation is performed in reverse order.



Shunt release devices EKF PROxima

ALL-UNION STATE STANDARD R 50030.2-2010 (ГОСТ Р) (IEC 60947-2-98)

Designed for remote deactivation of the automatic switch. It is an electromagnet which impacts on the reset mechanism and by this action causes the switch to turn off when the voltage is applied from an external source. After its remote deactivation, the switch is switched on manu-ally or remotely by means of an electric drive.



Under-voltage release device EKF PROxima

ALL-UNION STATE STANDARD R50030. 2-2010 (IEC 60947-2-98)

The under-voltage release device (RM) causes the breaker deactivation if the volt-age drops at the input to 70% of nominal, and also prevents its launch if the circuit voltage is at least 85% of nominal. The main purpose of the minimum release is disconnection of electrical equipment when the voltage drop is inad-missible for it. The under-voltage release device can also be used as a shunt release device if a normally closed switch is connected in series to the control circuit. If the contact of the push-button switch is briefly opened, the minimum release device will disable the circuit breaker.



Manual rotary drive EKF PROxima

ALL-UNION STATE STANDARD R50030. 2-2010 (IEC 60947-2-98)

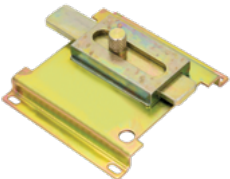
Manual rotary drive is designed to convert rotational motion into progressive motion in case of the automatic switch control. The drive is attached directly to the switch, and the rotary handle on the door of the distri-bution unit is used for the switch operating through the door.



Mechanical reciprocal interlocking of two VA-99M EKF PROxima

ALL-UNION STATE STANDARD R 50030.2-2010 (IEC 60947-2-98)

Mechanical reciprocal interlocking of two circuit breakers is designed to exclude the simultaneous activation of automatic power switches VA-99M EKF PROxima in automatic reserve input circuits.



Дополнительный контакт EKF PROxima

ALL-UNION STATE STANDARD R50030. 2-2010 (IEC 60947-2-98)

Auxilliary contacts are designed for the position signal alarm of the switch power contacts .



Signalling contact element EKF PROxima

ALL-UNION STATE STANDARD R50030

Designed for the operation alarm signal of a switch from overcurrent (overload or short circuit), an shunt release device, a minimum voltage release device, a button «TEST». When the switch returns to its original position, the alarm is turned off.



Auxilliary + Signalling contact element EKF PROxima

ALL-UNION STATE STANDARD R50030. 2-2010 (IEC 60947-2-98)

Motor drive to VA-99M EKF PROxima

ALL-UNION STATE STANDARD R50030. 2-2010 (IEC 60947-2-98)

Designed to enable/disable-automatic switches. The cocking mechanism automatically prepares the spring system. The energy saved in the process of the automation.



The output extenders for VA-99M EKF PROxima

The output extenders for VA-99M are designed for the commutation of power machines with bus lines.



Circuit breakers Series VA-99C EKF PROxima

DESCRIPTION



The VA-99C switch is designed in the form of a mono-block and consists of a base and a cover with a false panel, which has a frame for the control handle and a push button "Test" for the mechanism check of the switch disconnection. **ATTENTION! The switch lever has three positions: "ON", " OFF " and "ACTUATION". For the launch after actuation, you must move the lever from the intermediate position to the "OFF" position, and then to "ON".** The movable contacts rotate in the guides, providing the necessary gaps to increase and equalize the pressure on the movable contacts. The action of the return spring is blocked by the elements of the breaking lever, which are at this moment on the same straight line, supported by one track on the protrusion of the rotary element "Reset" and the control mechanism. The connection of wires or busbars from the power supply side is performed on top of the switch clips by the bolts or clips included in the delivery package. The wires or bus lines are connected to the consumer on the lower clips.

ALL-UNION STATE STANDARD R 50030.2-2010 (IEC 60947-2-2006) TU 3422-004-70039908-2007

APPLICATION

В качестве вводных автоматических выключателей в электрощите для обеспечения объектов гражданского жилого строительства, ком-мерческих строительных объектов, производственных площадок:

- защита цепей электродвигателей;
- защита отходящих линий, в том числе в ГРЩ, ЩС;
- в схемах автоматического включения резервного питания;
- с секционированием (на трех выключателях) и без секционирования (на выключателях);
- защита отходящих линий на низкой стороне трансформаторных п/ст 10/0,4 кВ.

Допускается применение автоматических выключателей совместно с электроприводами для осуществления коммутаций и автомати-ческого управления работой электрооборудования:

- дистанционные коммутации электрооборудования;
- в схемах диспетчеризации и энергосбережения.

ADVANTAGES

Microprocessor release
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 de-struction of the contacts when commutations

Silver-containing composite soldering, with tungsten
Connecting bus lines of electrical copper with silver coating

Adjustable electromag-netic release
Adjustable set point by heat current $I_r = [0.8-1 I_n]$ and current overloads $I_r = [5 - 10 I_n]$ with silver

Instantaneous switch-ing Spring release mechanism

Flame-retardant Heat-resistant plastic housing

Professional automation with wide trigger set-tings by thermal current and short-circuit current

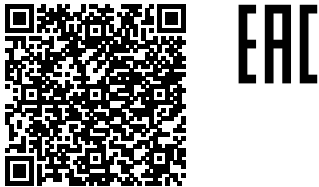
Full assortment of auxilliary devices

Switching with alumi-num and copper wire is possible

Auxilliary devices for VA-99C EKF PROxima

- Switches of the VA-99C EKF PROxima series can be equipped with auxilliary devices:
- connecting plates (external conductors);
 - shunt release device MX;
 - minimum voltage release MN;
 - auxiliary contacts (OF, SD, SDE functions);
 - CD/2 electromagnetic drive.

Additional accessories are not included into the delivery of the VA-99C EKF PROxima circuit breakers (BA-99C). -and must be purchased separately. Additional releases and contacts are installed into the sockets in the switch housing located under the false panel of the switch. The conductors from them are placed into the lateral slots of the housing, after pushing up the false panels. Secondary circuit wires with a cross section of up to 1.5 mm2 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 series. Aluminum and copper commutation is possible.



Under-voltage release device MN EKF PROxima

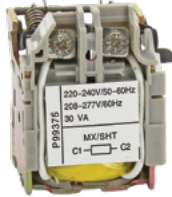
ALL-UNION STATE STANDARD R 50030.2-2010 (IEC 60947-2-98)



The under release is designed for the disconnection of electrical equipment when the voltage drop is inadmissible for it.

Shunt release device MX EKF PROxima

ALL-UNION STATE STANDARD R 50030.2-2010 (IEC 60947-2-98)



It is designed for remote switching off of the automatic switch. The command to disable the independent release can be pulsed (20 ms) or continuous. Wear resistance is 50% of the switch mechanical wear resistance.

Auxiliary contact EKF PROxima

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The switching contacts with a common point allow to transmit the signals about the operation of the switch, are used for signaling, electrical blocking, relay protection, etc. Functions: "OF" (enabled/disabled): alarm signal of the device power contacts position; "SD" (emergency shutdown): notification of disconnection due to: - short circuit; - triggering of the voltage release device;

- click on the "push to trip" button for testing the device. "SDE" (electrical damage): alarm about device shutdown 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 apparatus, and are attached by snapping under the name-plate of the switch. The "SDE" function in a device with a magnetothermal release requires the installation of the "SDE" actuator.

CD/2 EKF PROxima electromagnetic drive

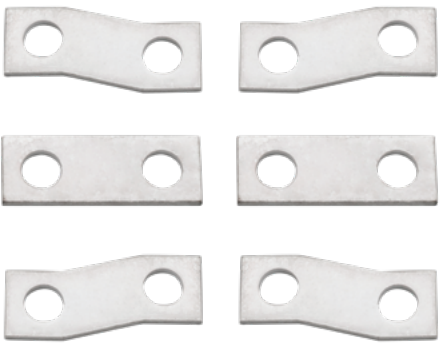
ALL-UNION STATE STANDARD R 50030.2-2010 (IEC 60947-2-98)



CD/2 EKF PROxima electromagnetic drive is designed for remote control of circuit breakers Series VA-99C EKF PROxima with nominal currents up to 630 A, facilitating their switching on/off, and also for launch after its automatic operation. The switches equipped

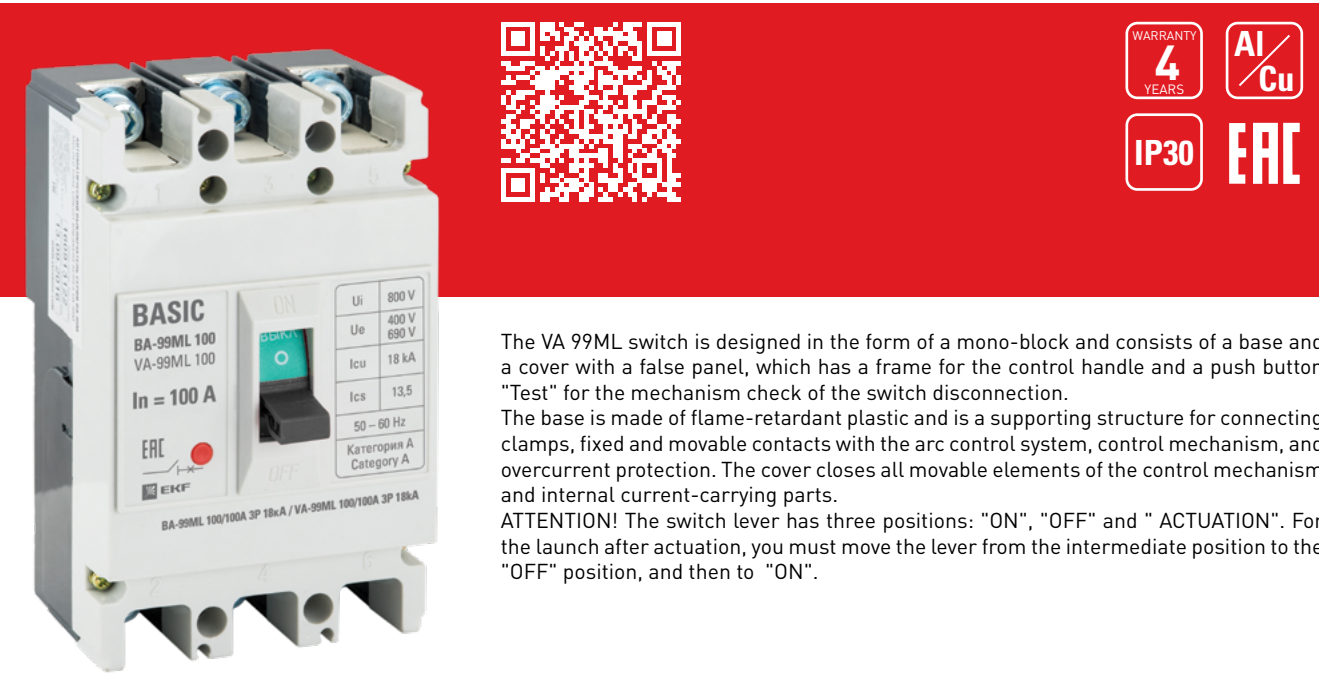
with a drive have characteristics of high reliability and practical operation. They are used for local and remote control, automation of distribution networks, Automatic Switch Over and simultaneous disconnection.

Connecting plates (external conductors) EKF PROxima



Circuit breakers Series VA 99ML EKF BASIC

DESCRIPTION



The VA 99ML switch is designed in the form of a mono-block and consists of a base and a cover with a false panel, which has a frame for the control handle and a push button "Test" for the mechanism check of the switch disconnection. The base is made of flame-retardant plastic and is a supporting structure for connecting clamps, fixed and movable contacts with the arc control system, control mechanism, and overcurrent protection. The cover closes all movable elements of the control mechanism and internal current-carrying parts. ATTENTION! The switch lever has three positions: "ON", "OFF" and "ACTUATION". For the launch after actuation, you must move the lever from the intermediate position to the "OFF" position, and then to "ON".




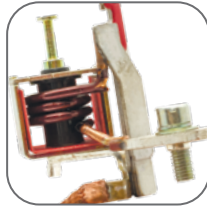

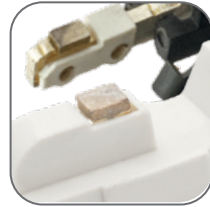
The control mechanism of the switch bases on the principle of a folding lever and is equipped with a powerful pullback spring. When the handle of the control mechanism is cocked, an insulating rail is set in motion, on which spring movable power contacts with flexible connections are fixed. The rail rotates in the side rails, providing not only the closure of the movable and stationary power contacts, but also the necessary gaps in order to increase and equalize the pressure on the movable contacts. The action of the return spring is blocked by the elements of the breaking lever, which are at this moment on the same straight line, supported by one track on the protrusion of the rotary element "Reset" and the control mechanism. The reset of the control mechanism is operated by a flat rail, which is affected through adjusting screws by pushers of bimetallic plates of heat releases

and short-circuit protection from the electromagnets. The switch arc control system is very effective in the VA-99ML 125/125A and VA-99ML 160/160A versions and consists of arc control grilles with Nickel - plated steel arcing inserts. In the VA-99ML 25/250A and higher versions, additional arc diffusers are used in the form of thick steel perforated plates inserted into the cover. However, in case of the switches installation in a closed volume of switchgears, it is necessary to take into account the possibility of arc combustion products being thrown up to a distance of 30 mm in the event of an overcurrent protection operation. The connection of wires or busbars from the power supply side is performed on top of the switch clips by the bolts or clips included in the delivery package. The wires or bus lines are connected to the consumer on the lower clips.

APPLICATION

- As input circuit breakers in the electric board for the provision of 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 schemes of automatic switching on;
 - with the partitioning of (on the basis of three switches), and without the sectioning (on the switches);
 - It is allowed to use circuit breakers together with electric drives for switching and automatic control of electrical equipment operation:
 - remote switching of electrical equipment;
 - it is allowed to use circuit breakers for infrequent starts of asynchronous motors;
 - in dispatching and power saving schemes.

ADVANTAGES

 <p>Internal current-carrying parts of electrical copper</p>	 <p>Homogeneous by thickness, and massive plates - bimetallic the best conditions arc control</p>	 <p>Uniform the plate provides stability of electric drive parameters over time</p>	 <p>Magnetic release in the form of coils provides more stable work on the short-circuit</p>	 <p>Connecting bus lines from electrical - copper silverized.</p>	 <p>Silver-containing composite soldering provides a low transition resistance and high resistance power</p>
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