

## TECHNICAL MANUAL

Miniature  
circuit breakers

VA 47-100

PROXIMA EKF

## 1 DESCRIPTION

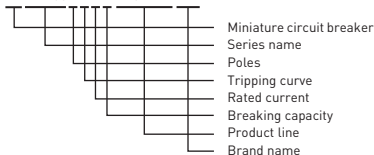
The miniature circuit breakers VA 47-100 PROXIMA EKF are electromechanical switching devices used for close/open operations in AC electrical circuits and for protection against overload and short-circuit currents in residential and commercial buildings. Miniature circuit breakers (MCB) comply with IEC 60898-1.

The MCBs of this series feature 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 is equipped with a convenient operating handle to ensure MCB reliable operation. The MCB front panel features an indicator of contact physical position.

### TYPE CODE

#### **VA 47-100 X X X X PROXIMA EKF**



## 2 TECHNICAL DATA

Table 1

Characteristics	Value			
Rated operating voltage $U_e$ , V	230 / 400			
Frequency, Hz	50 / 60			
Poles	1, 2, 3, 4			
Rated current $I_n$ , A	10; 16; 20; 25; 32; 35; 40; 50; 63; 80; 100; 125			
Rated impulse withstand voltage $U_{imp}$ , kV	4			
Tripping curve	C, D (fig.1)			
Degree of protection	IP20			
Rated short-circuit breaking capacity $I_{cn}$ , A	10 000			
Mechanical endurance, O-C cycles	20 000			
Electrical endurance, O-C cycles	8 000			
Operating temperature, °C	from -25 to +55			
Max. MCB weight, kg (depending on the number of poles)	1	2	3	4
	0,176	0,352	0,528	0,704
Minimum cross-section of connected wires, mm <sup>2</sup>	1			
Maximum cross-section of connected wires, mm <sup>2</sup>	35			
Tightening torque, N·m	2,5			

### 3 TRIPPING CHARACTERISTICS

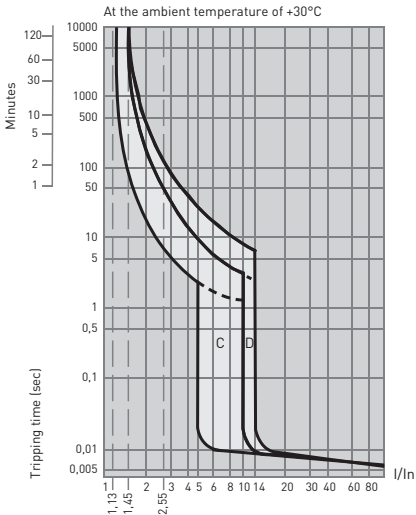


Fig. 1 - Tripping curve

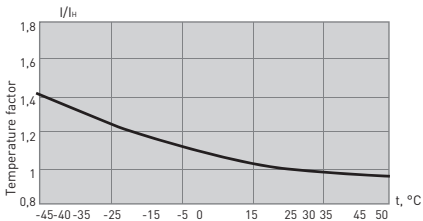


Fig. 2 - MCB derating factor depending on ambient

#### 4 OVERALL DIMENSIONS

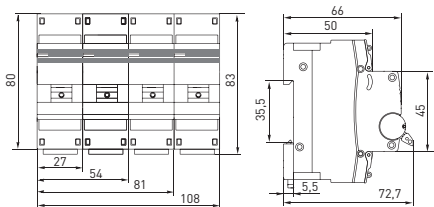


Fig. 3 - Overall dimensions

## 5 INSTALLATION AND CONNECTION

Miniature circuit breakers shall be installed and connected by qualified electrical personnel.

Copper and aluminum wire connections are supported. Do not connect copper and aluminum wires to one terminal concurrently.

MCB power supply can be connected both from terminals 1, 3, 5, 7 and from terminals 2, 4, 6, 8 (Figure 3).

MCB shall be mounted onto 35mm DIN rail.

Tightening torque: max. 2,5 N·m for copper wires; max. 2,2 N·m for aluminum-alloy wires, series 8000.

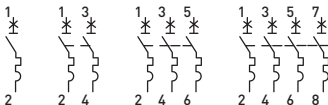


Fig. 4 - Wiring diagram

Position in space: vertical or horizontal on a vertical plane. If vertically installed, the upper position of the operating handle shall correspond to the MCB «ON» status, while the handle lower position shall correspond to the MCB «OFF» status in compliance with IEC 60447. If horizontally installed, the handle right position shall correspond to the MCB «ON» status, while the handle left position shall correspond to the MCB «OFF» status.

## 6 OPERATION CONDITIONS

Operating temperature:  $-25^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$ .

Attitude above sea level: max. 2000 m.

## 7 DELIVERY SCOPE

Miniature circuit breakers VA 47-100 are supplied in one group package. For all available documentation, scan the QR-code on the insert or on the inside of the package.

## **8 SAFETY REQUIREMENTS**

Do not operate miniature circuit breakers with visual mechanical damage. By protection method against electric shock, miniature circuit breakers belong to protection class «0» according to IEC 61140 and shall be installed in distribution enclosures with protection class «1» and higher.

## **9 MAINTENANCE**

For MCB maintenance, follow national safety rules for operation of electrical Installations.

Under normal operating conditions, visually inspect MCBs, check «ON/OFF» operations and tighten screw terminals every 6 months.

Do not operate the MCB, if visual damage to the MCB housing is found.

## **10 STORAGE AND TRANSPORTATION**

The miniature circuit breakers can be transported by any means of enclosed transport that ensures protection of packed products from mechanical and atmospheric impacts.

The MCBs shall be stored indoors in the original package at the ambient temperature from  $-40^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$  and relative humidity of max. 80% at  $+25^{\circ}\text{C}$ .

## **11 DISPOSAL**

Life-expired and failed products shall be disposed of in compliance with the national and local laws and regulations in force.

To dispose of the product, send it to an authorized company for recycling in compliance with the national and local laws and regulations in force.

## 12 MANUFACTURER'S WARRANTY

The manufacturer guarantees the products comply with the declared characteristics, provided that the consumer follows the operation, transportation and storage conditions.

**Warranty period:** 7 years from the date of sale specified in the sales receipt.

**Shelf life:** 7 years from the date of manufacture specified on the product package or housing.

**Service life:** 20 years.

**Manufacturer:** OOO Electroresheniya, Otradnaya st., 2b/9, 127273, Moscow, Russia, tel. +7 (495) 788-88-15.

**MEA regional headquarters:** EKF ELECTRICAL SOLUTION FZCO, Office 249, Techno Hub-2, Dubai Silicon Oasis, P.O. box 341079, Dubai, United Arab Emirates, tel. +9 (714) 547-06-18.

**Importer and EKF trademark service representative on the territory of the Republic of Kazakhstan:** TOO «Energoresheniya Kazakhstan», Kazakhstan, Almaty, Bostandyk district, Turgut Ozal st., 247, apt 4.



### **13 CERTIFICATE OF ACCEPTANCE**

The miniature circuit breaker VA 47-100 PROXIMA EKF has been approved for operation.

Date of manufacture:

For information, refer to the product package.

Technical control stamp





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