



TECHNICAL MANUAL

Miniature circuit
breakers VA 47-100M
with electromagnetic release
EKF PROXIMA

1 DESCRIPTION

Miniature circuit breakers VA 47-100M EKF PROXIMA are used in 50Hz 230V/400V AC electrical circuits.

These miniature circuit breakers (MCB) feature electromagnetic release for short circuit protection, with no thermomagnetic release.

Miniature circuit breakers with electromagnetic release are electromechanical switching device for short circuit protection of ventilation, exhaust and other systems that do not require thermal protection to be used in residential, commercial and industrial facilities. Miniature circuit breakers VA 47-100M EKF PROXIMA comply with the requirements of IEC 60898-1.

2 TECHNICAL DATA

The main technical data are listed in Table 1.

Table 1

Characteristics	Value			
Number of poles	1; 2; 3; 4			
Rated voltage U_n , V	230/400			
Frequency, Hz	50			
Rated load current I_n , A	10 - 125			
Rated impulse withstand voltage U_{imp} , kV	4			
Tripping curve	C, D			
Max. breaking capacity I_{cn} , kA	10			
Degree of protection	IP20			
Mechanical endurance, O-C cycles	20 000			
Electrical endurance, O-C cycles	10 000			
Cross-section of connected wires, mm ²	1-35			
Max. MCB weight, g (depending on the number of poles)	1	2	3	4
	150	300	450	600
Utilization category	A			

3 TRIPPING CHARACTERISTICS

At the ambient temperature of +30°C

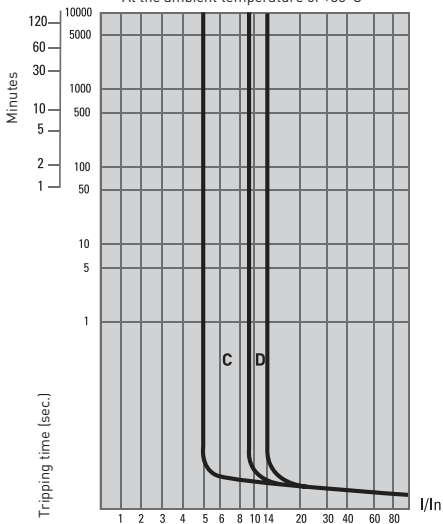
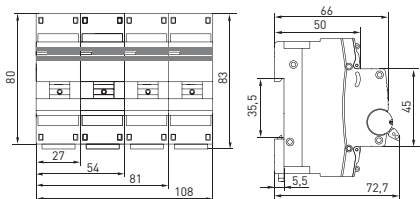


Figure 1. Tripping curves

4 OVERALL DIMENSIONS



5 INSTALLATION AND OPERATION

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.

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

The MCB operating position shall be vertical (with the operating handle «ON» upwards), with max. deviation of 5° to either side of the specified plane.

Before installation, make sure that:

- The device characteristics (MCB marking) meet the required values.
- The device has no visible damage.
- The mechanism properly operates by turning the handle.

Operating temperature: from -10 to +50°C

Altitude above sea level: max. 2000m

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 DELIVERY SCOPE

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

7 SAFETY REQUIREMENTS

Do not operate miniature circuit breakers with visual mechanical damage. By protection method against electric shock, MCBs VA 47-100M belong to protection class «0» according to IEC 61140.

8 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.

9 TRANSPORTATION AND STORAGE

Miniature circuit breakers can be transported by any means of enclosed transport that ensures protection of packed products from mechanical impacts and weather exposure.

Miniature circuit breakers shall be stored indoors in the original package at the ambient temperature from -40° C to +50°C and relative humidity of max. 85% at +25°C.

10 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.

11 MANUFACTURER'S WARRANTY

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: for information, refer to the product package.

Importer and EKF trademark service representative: EKF ELECTRICAL SOLUTION – FZCO, Dubai Silicon Oasis, DDP, Building A2, Dubai, United Arab Emirates.

Importer and EKF trademark service representative on the territory of the Russian Federation: OOO «Electroresheniya», Otradnaya st., 2b bld. 9, 5th floor, 127273, Moscow, Russia. Tel.: +7 (495) 788-88-15.

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.

12 CERTIFICATE OF ACCEPTANCE

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

Date of manufacture: for information, refer to the product package.

Quality control stamp



ERL

v3



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