



TECHNICAL MANUAL

Miniature circuit breakers

VA 47-63N DC

PROXIMA EKF

1 DESCRIPTION

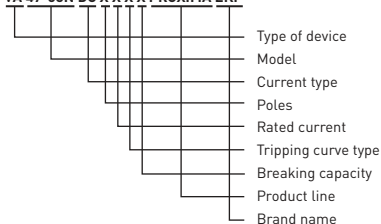
Miniature circuit breakers VA 47-63N DC PROXIMA EKF are electromechanical switching devices used for close/open operations in DC electrical circuits and for protection against overload and short-circuit currents in residential and commercial buildings. Miniature circuit breakers (MCB) comply with IEC 60947-2.

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 47-63N DC X X X X PROXIMA EKF



2 TECHNICAL DATA

Table 1

Characteristics	Values
Input voltage type	DC
Rated operating voltage U_e , V DC	1P: 250 2P: 500
Minimum operating voltage, V	24
Poles	1, 2
Rated current I_n , A	1, 2, 3, 4, 5, 6, 10, 13, 16, 20, 25, 32, 40, 50, 63

Characteristics	Values	
Tripping curve type	C (Figure 2)	
Degree of protection	IP20	
Rated breaking capacity I_{cn} , kA	6	
Energy limiting class	3	
Rated impulse withstand voltage U_{imp} , kV	6,2	
Mechanical endurance, O-C cycles	20 000	
Electrical endurance, O-C cycles	10 000	
Operation ambient temperature, °C	- 25 to + 50	
Max. weight, kg	1P	2P
	0,1	0,2
Minimum cross-section of connected wires, mm ²	1	
Maximum cross-section of connected wires, mm ²	25	
Tightening torque, N*m	3	

3 TRIPPING CHARACTERISTICS

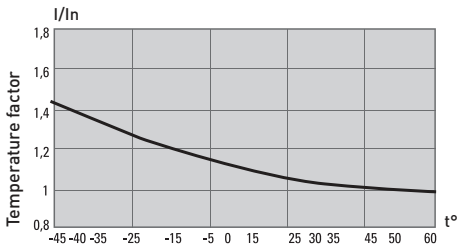


Figure 1. MCB temperature derating factor

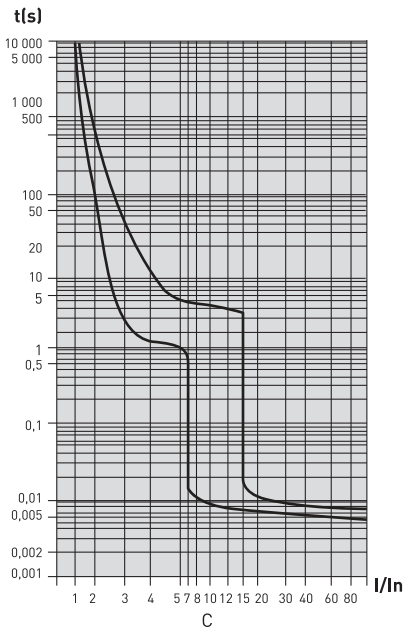
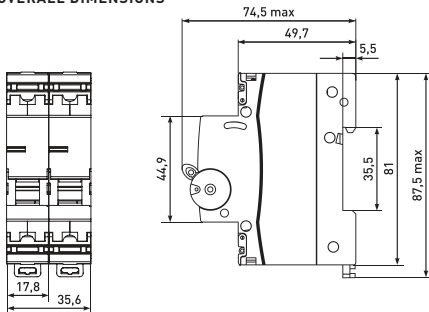


Figure 2. Tripping characteristics

4 OVERALL DIMENSIONS



5 INSTALLATION AND CONNECTION

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

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

Always connect anode (+) and cathode (-) to the respective terminals of the circuit breakers (Figure 3).

MCB is mounted onto 35 mm DIN rail.

Tightening torque: max. 3 N•m for copper wires; max. 2,2 N•m for aluminum-alloy series 8000 wires.

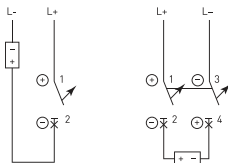


Figure 3. Wiring diagrams

6 OPERATION CONDITIONS

Operating temperature: from -25 to +50°C

Altitude above sea level: max. 2000 m.

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

7 DELIVERY SCOPE

Miniature circuit breakers VA 47-63N DC PROXIMA EKF are supplied in a 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 visible mechanical damage.

MCBs conform to IEC 61140 Class 0 for protection against electrical shock and must be installed in distribution enclosures with Class 1 protection or 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 miniature circuit breakers with visibly damaged housing.

10 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.

The MCBs shall be stored indoors in the original package at the ambient temperature from -40°C to +55°C and relative humidity of max. 80% at +25°C.

11 DISPOSAL

Life-expired and failed MCBs 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 effective national and local laws and regulations.

12 MANUFACTURER'S WARRANTY

The manufacturer guarantees miniature circuit breakers comply with the declared characteristics, provided that consumers follow 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 packaging 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, Techno Hub-2, DSO, P.O. box 341079, Dubai, United Arab Emirates, tel. +971-4-547-06-18.

Importer and EKF trademark service representative in 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 breakers VA 47-63N DC PROXIMA EKF have been approved for operation.

Date of manufacture:

For information refer to the product package.

Quality control stamp



v3

ERL



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EKF