

AV AVERES



TECHNICAL MANUAL

Modular switch
disconnectors AVN
EKF AVERES

1 DESCRIPTION

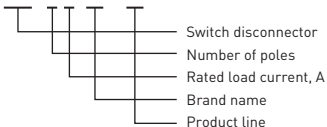
Modular switch disconnectors AVN EKF AVERES are electromechanical switching devices used for close/open operations in AC electrical circuits.

Switch disconnectors are designed for switching active and inductive loads including motors already protected with other switching devices.

Modular switch disconnectors correspond to IEC 60947-3.

TYPE CODE

AVN - X XX EKF AVERES



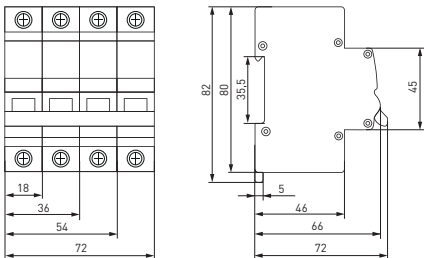
2 TECHNICAL DATA

The main technical data are listed in Table 1.

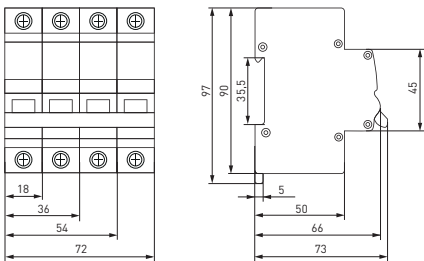
Table 1

Characteristics	Values			
Rated operating voltage U_e , V	230 / 400			
Frequency, Hz	50 / 60			
Rated current I_n , A	16, 25, 40, 63, 100, 125			
Mechanical endurance, O-C cycles	20 000			
Electrical endurance, O-C cycles	10 000			
Maximum short-time current for 16-63A switch disconnectors I_{cw} , kA (1sec.)	1			
Maximum short-time current for 100A & 125A switch disconnectors I_{cw} , kA (1sec.)	2			
Rated impulse withstand voltage U_{imp} , kV	6			
Rated making capacity I_{cm} , kA	6			
Rated insulation voltage (AC 50/60 Hz) U_i , V	500			
Degree of protection	IP20			
Poles	1	2	3	4
Max. weight, kg (depending on the number of poles)	0,12	0,24	0,36	0,48
Minimum cross-section of connected wires for 16, 25, 40, 63 A versions, mm ²	1,5			
Minimum cross-section of connected wires for 100A and 125A versions, mm ²	16			
Maximum cross-section of connected wires for 16, 25, 40, 63 A versions, mm ²	25			
Maximum cross-section of connected wires for 100A and 125A versions, mm ²	35			
Operating temperature, °C	from - 25 to + 50			

3 OVERALL DIMENSIONS



Overall dimensions of modular switch disconnectors EKF AVERES, 25A, 40A, 63A versions



Overall dimensions of modular switch disconnectors EKF AVERES, 100A, 125A versions

Figure 1. Overall dimensions

4 INSTALLATION AND CONNECTION

Modular switch disconnectors shall be installed and connected by qualified electrical personnel.

Before installation, make sure that:

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

Copper and aluminum wire connections are supported. Do not connect copper and aluminum wires to one terminal concurrently. Power supply can be connected both from terminals 1, 3, 5, 7 and from terminals 2, 4, 6, 8. Tightening torque: max. 3 N•m for copper wires; max. 2,2 N•m for aluminum-alloy wires, series 8000.

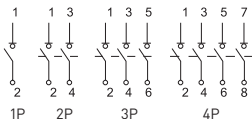



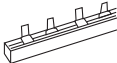


Figure 2. Wiring diagrams

Modular switch disconnectors AVN EKF AVERES can be complemented with the following accessories: auxiliary contact AV-OFF, auto reclosers M1, M6 and M6, and undervoltage release AV-MIN. All auto reclosers match only single- and double-pole switch disconnectors with rated current up to 63A. Accessories shall be ordered separately and installed on the device left side.

Position in space: vertical or horizontal on a vertical plane. If vertically installed, the upper position of the operating handle shall correspond to the device ON status, while the handle lower position shall correspond to the device 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.

Table 2

Wire			PIN-type connecting bar
rigid	flexible	with lug	
 <p>L=15 mm² from 16 to 63A; L=19 mm² from 100 to 125A</p>	 <p>L=15 mm² from 16 to 63A; L=19 mm² from 100 to 125A</p>	 <p>L=15 mm² from 16 to 63A; L=19 mm² from 100 to 125A</p>	

5 OPERATION CONDITIONS

Altitude above sea level: max. 2000 m.

Operating temperature: from -25 to +50 °C.

6 DELIVERY SCOPE

Modular switch disconnectors AVN EKF AVERES 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 switch disconnectors with visual mechanical damage.

By protection method against electric shock, modular switch disconnectors belong to protection class «0» according to IEC 61140 and shall be installed in distribution enclosures with protection class «1» and higher.

8 MAINTENANCE

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

Under normal operating conditions, visually inspect switch disconnectors, check «ON/OFF» operations, and tighten screw terminals every 6 months. Discontinue operating the switch disconnector, if visual damage to its housing is found.

9 STORAGE AND TRANSPORTATION

Modular switch disconnectors can be transported by any means of enclosed transport that ensures protection of packed products from mechanical impacts and weather exposure.

Modular switch disconnectors shall be stored indoors in the original

package at the ambient temperature from -40°C to $+55^{\circ}\text{C}$ and relative humidity of max. 80% at $+25^{\circ}\text{C}$.

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: 10 years from the date of sale specified in the sales receipt.

Shelf life: 10 years from the date of manufacture specified on the product package or housing.

Service life: 25 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.

CERTIFICATE OF ACCEPTANCE

The modular switch disconnecter AVN EKF AVERES has been approved for operation.

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

Quality control stamp



EAC



v3

ekfgroup.com

