



TECHNICAL MANUAL

Modular contactors KM

EKF PROXIMA

1 DESCRIPTION

The modular contactors KM EKF PROXIMA are designed to switch and control lighting, heating and ventilation devices, pumps and other electrical installations in control and automation systems of residential, office and industrial buildings at rated operating voltage up to 400 V AC at 50 Hz.

The modular contactors KM comply with IEC 60947-4-1:2018.

2 TECHNICAL DATA

TYPE CODE

KM RU* XXXX-24v**

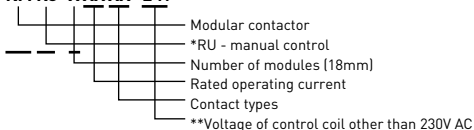


Table 1 – Specifications of modular contactors KM

Name	Diagram	Number of contacts		Number of modules	Net weight, kg
		NO	NC		
KM-1-16-11, KM-1-16-11-24v KM-1-20-11, KM-1-20-11-24v KM-1-25-11, KM-1-25-11-24v		1	1	1	0,18
KM-1-16-20, KM-1-16-20-24v KM-1-20-20, KM-1-20-20-24v KM-1-25-20, KM-1-25-20-24v		2	0		
KM-2-16-11, KM-2-16-11-24v KM-2-20-11, KM-2-20-11-24v KM-2-25-11, KM-2-25-11-24v KM-2-32-11, KM-2-32-11-24v KM-2-40-11, KM-2-40-11-24v KM-2-50-11, KM-2-50-11-24v KM-2-63-11, KM-2-63-11-24v		1	1	2	0,36
KM-2-16-20, KM-2-16-20-24v KM-2-20-20, KM-2-20-20-24v KM-2-25-20, KM-2-25-20-24v KM-2-32-20, KM-2-32-20-24v KM-2-40-20, KM-2-40-20-24v KM-2-50-20, KM-2-50-20-24v KM-2-63-20, KM-2-63-20-24v		2	0		

Table 1 continued

Name	Diagram	Number of contacts		Number of modules	Net weight, kg
		NO	NC		
KM-3-16-31, KM-3-16-31-24v KM-3-20-31, KM-3-20-31-24v KM-3-25-31, KM-3-25-31-24v KM-3-32-31, KM-3-32-31-24v KM-3-40-31, KM-3-40-31-24v KM-3-50-31, KM-3-50-31-24v KM-3-63-31, KM-3-63-31-24v		3	1	3	0,54
KM-3-16-22, KM-3-16-22-24v KM-3-20-22, KM-3-20-22-24v KM-3-25-22, KM-3-25-22-24v KM-3-32-22, KM-3-32-22-24v KM-3-40-22, KM-3-40-22-24v KM-3-50-22, KM-3-50-22-24v KM-3-63-22, KM-3-63-22-24v		2	2	3	0,54
KM-3-16-40, KM-3-16-40-24v KM-3-20-40, KM-3-20-40-24v KM-3-25-40, KM-3-25-40-24v KM-3-32-40, KM-3-32-40-24v KM-3-40-40, KM-3-40-40-24v KM-3-50-40, KM-3-50-40-24v KM-3-63-40, KM-3-63-40-24v		4	0	3	0,54

Table 2 – Specifications of modular contactors KM RU

Name	Diagram	Number of contacts		Number of modules	Net weight, kg
		NO	NC		
KM-1m-16-11 KM-1m-20-11 KM-1m-25-11		1	1	1	0,14
KM-2m-40-11 KM-2m-63-11		2	0	2	0,23
KM-1m-16-20 KM-1m-20-20 KM-1m-25-20		2	0	1	0,14
KM-2m-40-20 KM-2m-63-20		2	0	2	0,23
KM-3m-20-40 KM-3m-25-40 KM-3m-40-40 KM-3m-63-40		4	0	3	0,38

Table 3 – Characteristics of modular contactors KM

Characteristics			Value						
			KM-16	KM-20	KM-25	KM-32	KM-40	KM-50	KM-63
Thermal resistance current I _{th} , A			16	20	25	32	40	50	63
Rated insulation voltage U _i , V			415	440	440	500	500	500	500
Rated power, kW, under application category	AC-1/AC7a (low-inductive loads)	Rated operating current I _e , A	16	20	25	32	40	50	63
		230 V	3	3,8	4,5	6,6	8,4	10,5	13
		400 V	10,5	13	16	20	25	33	40
	AC-3/AC-7b (high-inductive loads)	Rated operating current I _e , A	6	7	9	18	22	27	30
		230 V	1	1	1,3	3	3,7	4,5	5
		400 V	3	3,6	4,5	10	11,3	13,7	15
Rated operating voltage U _e , V			230/400						
Rated pulse voltage U _{imp} , kV			6						
Rated conventional short-circuit current, kA			3						
Inrush current of control coil, mA			30 (KM-16, KM-20), 60 (KM-25, KM-32, KM-40), 95 (KM-50, KM-63)						
Hold current of control coil, mA			18 (KM-16, KM-20), 12 (others)						
Contact closing voltage, V			from 195 to 253						
Contact opening voltage, V			from 46 to 172						
Closing response time, ms			20						
Opening response time, ms			30						
Max. power of control coil, W			5						
Rated voltage of control coil U _c , V			24 V DC, 230 V AC						
Mechanical endurance, O-C cycles			1 000 000						
Electrical endurance, O-C cycles			150 000						
Operation environment			Non-explosive, dust-free						
Version			Fixed						
Position in space			Vertical						
Operating mode			Continuous						
Degree of protection			IP20						
Installation			to 35 mm DIN rail						

3 INSTALLATION AND OVERALL DIMENSIONS

Table 4 - Overall dimensions of modular contactors KM

Number of modules	Width A, mm
1	18
2	36
3	54

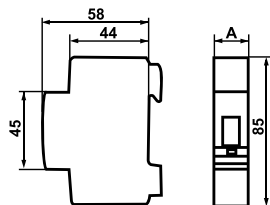


Figure 1. Overall dimensions of modular contactors KM

Table 5 - Overall dimensions of modular contactors KM RU

Number of modules	Width A, mm	Height, H
1	18	81
2	36	85
3	54	85

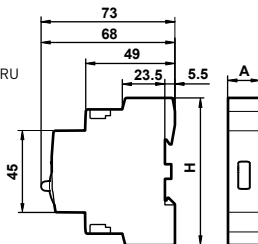


Figure 2. Overall dimensions of modular contactors KM RU

Table 6

Contactor type	Cross-section of connected wires, mm ²			
	Contacts		Coil	
	single-wire	flexible multi-wire	single-wire	flexible multi-wire
KM-16	1-2,5	1-2,5	1-2,5	1-2,5
KM-20, KM-25	1-4	1-4	1-2,5	1-2,5
KM-32, KM-40, KM-50, KM-63	1-25	1-16	1-4	1-2,5

4 INSTALLATION AND OPERATION

The modular contactors KM shall be installed and connected by qualified electrical personnel.

Before installation, make sure that:

- The device characteristics (KM marking) meet the required values.
- The device has no visible damage.

Connection options with copper and aluminum wires are supported. Do not connect copper and aluminum wires to one terminal concurrently.

Power supply can be connected from any side. Tightening torque is specified on the contactor.

For control circuit (A1, A2), tightening torque shall not exceed 0,8 N·m;

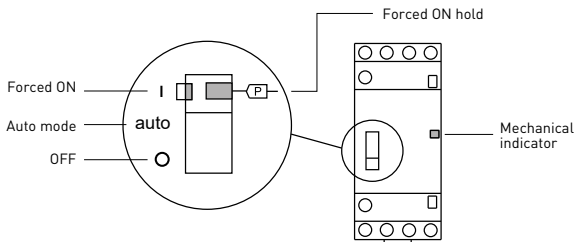
For power contacts:

- for one-module contactors, tightening torque shall not exceed 0,8 N·m;
- for two-module contactors, tightening torque shall not exceed 3,5 N·m.

Operating temperature: from +1°C to +35°C

Altitude above sea level: max. 2000m

Front panel of modular contactors KM RU



The contactor will be locked in the «I» position with a latch for the maintenance of the electrical installation.

5 DELIVERY SCOPE

The modular contactors KM are supplied in individual or group package. For all available documentation, scan the QR-code on the insert or on the inside of the package.

6 SAFETY REQUIREMENTS

Do not operate contactors with visual mechanical damage.

By protection method against electric shock, modular contactors KM belong to protection class "0" according to IEC 61140.

7 MAINTENANCE

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

Under normal operating conditions, visually inspect the contactor and tighten screw terminals every 6 months.

8 TRANSPORTATION AND STORAGE

The contactors can be transported by any means of enclosed transport that ensures protection of packed products from mechanical and atmospheric impacts. The contactors shall be stored in the original package indoors at the ambient temperature from -40°C to +50°C and relative humidity of max. 85% at +25°C.

9 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.

10 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: 10 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.

11 CERTIFICATE OF ACCEPTANCE

The modular contactor KM EKF PROXIMA has been approved for operation.

Date of manufacture:

For information, refer to the product package.

Technical control stamp.



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