

Representative Image

Alternate Catalog No. EF45-45
Catalog No. 1SAX221001R1102

Description: EF45-45 Electronic Overload Relay

UPC No 4013614403972

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The EF19-0.32 is an self-supplied electronic overload relay, which means no extra external supply is needed. It offers reliable and fast protection for motors in the event of overload or phase failure. Easy to use like a thermal overload relay and compatible with standard motor applications, the electronic overload relay is convincing, above all, due to its wide setting range, high accuracy, high operational temperature range and the possibility to select a trip class (10E, 20E, 30E). Further features are the temperature compensation, trip contact (NC), signal contact (NO), automatic- or manual reset selectable, trip-free mechanism, STOP- and Test function and a trip indication. The overload relays are connected directly to the contactors. Single mounting kits are available as accessory.The EF19 and EF45 have ATEX and IECEx certification 1) 1) ATEX is valid for products produced from week 42, 2014. IECEx is valid for products produced from week 15, 2017.

Descriptors

Category	Overload Relays

Specifications

Product Name	Electronic Overload Relay
Rated Operational Voltage	Auxiliary Circuit 600 V AC / DC Main Circuit 690 V AC
Rated Operational Current	45 A
Setting Range	15 ... 45 A
Rated Impulse Withstand Voltage	Auxiliary Circuit 6 kV Main Circuit 6 kV
Rated Insulation Voltage	690 V
Number of Poles	3
Number of Auxiliary Contacts NC	1
Number of Auxiliary Contacts NO	1
Number of Protected Poles	3
Trip Class	class 10E class 20E class 30E
Conventional Free-air Thermal Current	Auxiliary Circuit NC 6 A Auxiliary Circuit NO 6 A
Rated Frequency	Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz Auxiliary Circuit DC Main Circuit 50Hz Main Circuit 60 Hz
Rated Operational Current AC-3	45 A
Degree of Protection	IP20
Pollution Degree	3
Suitable For	AF26 AF30 AF38
Rated Operational Current AC-15	(240 V) NC 3 A (240 V) NO 3 A (400 V) NC 1.1 A (400 V) NO 1.1 A (500 V) NC 0.75 A (500 V) NO 0.75 A

by ABB

Specifications

Rated Operational Current DC-13	(125 V) NC 0.55 A (125 V) NO 0.5 A (24 V) NC 1.5 A (24 V) NO 1.5 A (250 V) NC 0.27 A (250 V) NO 0.27 A (60 V) NC 0.55 A (60 V) NO 0.55 A
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 2.5 ... 10 mm² Flexible with Insulated Ferrule 1/2x 2.5 ... 10 mm² Flexible 1/2x 2.5 ... 10 mm² Rigid 1/2x 2.5 ... 16 mm²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm² Flexible 1/2x 0.75 ... 2.5 mm² Rigid 1/2x 1 ... 4 mm²
Wire Stripping Length	Auxiliary Circuit 9 mm Main Circuit 13 mm
Tightening Torque	Auxiliary Circuit 0.8 ... 1.2 N·m Main Circuit 2.3 ... 2.6 N·m
Mounting Position	Position 1 to 6
Power Loss	at Rated Operating Conditions per Pole 0.059 ... 0.527 W
Standards	IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1
Recommended Screw Driver	Auxiliary Circuit Pozidriv 2 Main Circuit Pozidriv 2
Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
Ampere Rating UL/CSA	45 A
Contact Rating UL/CSA	(NC:) B600 (NC:) Q600 (NO:) B600 (NO:) Q600
Connecting Capacity Main Circuit UL/CSA	Flexible 1/2x 14-6 AWG Stranded 1/2x 14-6 AWG
Ambient Air Temperature	Operation -25 ... +70 °C Operation Compensated -25 ... +70 °C Storage -50 ... +80 °C
Ambient Air Temperature Compensation	Yes
Connecting Capacity Auxiliary Circuit UL/CSA	Flexible 1/2x 18-10 AWG Stranded 1/2x 18-10 AWG
Resistance to Shock acc. to IEC 60068-2-27	11 ms Pulse 25g
Maximum Operating Altitude Permissible	2000 m
RoHS Status	Following EU Directive 2011/65/EU
Resistance to Vibrations acc. to IEC 60068-2-6	5g / 3 ... 150 Hz
Tightening Torque UL/CSA	Auxiliary Circuit 7 ... 1 in·lb Main Circuit 35 in·lb
Object Classification Code	F

Classifications

ETIM 5.0	EC001080 - Electronic overload relay
ETIM 6.0	EC001080 - Electronic overload relay
ETIM 7	EC001080 - Electronic overload relay
eClass	7.0 27371502
ETIM 4	EC001080 - Electronic overload relay

Dimensions

Product Net Width	45 mm
Product Net Height	104.7 mm

Dimensions

Product Net Weight	0.362 kg
Product Net Depth / Length	86 mm

Package Information

Package Level 1 Units	1 piece
Package Level 1 Width	111 mm
Package Level 1 Depth / Length	93 mm
Package Level 1 Gross Weight	0.398 kg
Package Level 1 EAN	4013614403972
Package Level 1 Height	51.5 mm
Package Level 2 Width	558 mm
Package Level 2 Units	50 piece
Package Level 2 Depth / Length	263 mm
Package Level 2 EAN	4013614483349
Package Level 2 Gross Weight	20.463 kg
Package Level 2 Height	189 mm

Ordering

ECN	N
Customs Tariff Number	85364900
ECCN	N
ABB MDF Code	3DL - Relays (LV / Control + Protection)