

General Information

Extended Product Type:	EF45-45
Product ID:	1SAX221001R1102
EAN:	4013614403972
Catalog Description:	EF45-45 Electronic Overload Relay
Long Description:	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, STO P- 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.

Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

Dimensions

Product Net Width:	45 mm
Product Net Height:	104.7 mm
Product Net Depth:	86 mm
Product Net Weight:	0.362 kg

Popular Downloads

Data Sheet, Technical Information:	2CDC107025D0201
Data Sheet, Technical Information (Part 2):	1SAX100509F0001 1SAX100510F0001
Instructions and Manuals (Part 2):	2CDC107043M6801
Dimension Diagram:	1SAX200403F0001

Technical

Setting Range:	15 ... 45 A
Rated Operational Voltage:	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC
Rated Operational Current (I_e):	45 A
Rated Operational Current AC-3 (I_e):	45 A
Rated Frequency (f):	Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz Auxiliary Circuit DC Main Circuit 50 Hz Main Circuit 60 Hz
Rated Impulse Withstand Voltage (U_{imp}):	Auxiliary Circuit 6 kV Main Circuit 6 kV
Rated Insulation Voltage (U_i):	690 V
Number of Poles:	3
Number of Auxiliary Contacts NC:	1
Number of Auxiliary Contacts NO:	1

Number of Protected Poles:	3
Conventional Free-air Thermal Current (I_{th}):	Auxiliary Circuit NC 6 A Auxiliary Circuit NO 6 A
Rated Operational Current AC-15 (I_e):	(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
Rated Operational Current DC-13 (I_e):	(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
Degree of Protection:	IP20
Pollution Degree:	3
Connecting Capacity Auxiliary Circuit:	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible 1/2x 0.75 ... 2.5 mm ² Rigid 1/2x 1 ... 4 mm ²
Connecting Capacity Main Circuit:	Flexible with Ferrule 1/2x 2.5 ... 10 mm ² Flexible with Insulated Ferrule 1/2x 2.5 ... 10 mm ² Flexible 1/2x 2.5 ... 10 mm ² Rigid 1/2x 2.5 ... 16 mm ²
Tightening Torque:	Auxiliary Circuit 0.8 ... 1.2 N·m Main Circuit 2.3 ... 2.6 N·m
Wire Stripping Length:	Auxiliary Circuit 9 mm Main Circuit 13 mm
Recommended Screw Driver:	Auxiliary Circuit Pozidriv 2 Main Circuit Pozidriv 2
Mounting Position:	Position 1 to 6
Power Loss:	at Rated Operating Conditions per Pole 0.059 ... 0.527 W
Suitable For:	AF26 AF30 AF38
Standards:	IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1

Environmental

Ambient Air Temperature:	Operation -25 ... +70 °C Operation Compensated -25 ... +70 °C Storage -50 ... +80 °C
Ambient Air Temperature Compensation:	Yes
Maximum Operating Altitude Permissible:	2000 m
Resistance to Shock acc. to IEC 60068-2-27:	11 ms Pulse 25g
Resistance to Vibrations acc. to IEC 60068-2-6:	5g / 3 ... 150 Hz
RoHS Status:	Following EU Directive 2011/65/EU

Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
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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
Connecting Capacity Auxiliary Circuit UL/CSA:	Flexible 1/2x 18-10 AWG Stranded 1/2x 18-10 AWG
Tightening Torque UL/CSA:	Auxiliary Circuit 7 ... 1 in·lb Main Circuit 35 in·lb

Certificates and Declarations (Document Number)

ABS Certificate:	1SAA941002-0101
ATEX Certificate:	1SAA941004-3901
BV Certificate:	1SAA941002-0201
CB Certificate:	1SAA964003-2002
CCC Certificate:	1SAA942002-3801
CCS Certificate:	1SAA941001-0901
cUL Certificate:	cUL_E48139
Declaration of Conformity - CE:	1SAD938513-0180 1SAD938509-0180
DNV Certificate:	1SAA941003-0301
DNV GL Certificate:	1SAA941003-0302
EAC Certificate:	1SAA941003-2701
GOST Certificate:	1SAA941001-2701
Instructions and Manuals:	2CDC107023M6803
LR Certificate:	1SAA941002-0501
RINA Certificate:	RINA_ELE376813CS
RMRS Certificate:	1SAA964000-0703
RoHS Information:	1SAD938513-0180
UL Certificate:	UL_E48139

Container Information

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

Classifications

Object Classification Code:	F
E-nummer:	3224186
ETIM 4:	EC001080 - Electronic overload relay
ETIM 5:	EC001080 - Electronic overload relay

ETIM 5: ECU01080 - Electronic overload relay

ETIM 6: EC001080 - Electronic overload relay

eClass: 7.0 27371502

UNSPSC: 39121521

