

## General Information

<b>Extended Product Type:</b>	EF19-1.0
<b>Product ID:</b>	1SAX121001R1102
<b>EAN:</b>	4013614403996
<b>Catalog Description:</b>	EF19-1.0 Electronic Overload Relay
<b>Long Description:</b>	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

<b>Minimum Order Quantity:</b>	1 piece
<b>Customs Tariff Number:</b>	85364900

## Dimensions

<b>Product Net Width:</b>	44.4 mm
<b>Product Net Height:</b>	85 mm
<b>Product Net Depth:</b>	59.3 mm
<b>Product Net Weight:</b>	0.158 kg

## Popular Downloads

<b>Data Sheet, Technical Information:</b>	2CDC107025D0201
<b>Data Sheet, Technical Information (Part 2):</b>	1SAX100509F0001 1SAX100510F0001
<b>Instructions and Manuals (Part 2):</b>	2CDC107043M6801
<b>Dimension Diagram:</b>	1SAX100403F0001

## Technical

<b>Setting Range:</b>	0.3 ... 1 A
<b>Rated Operational Voltage:</b>	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC
<b>Rated Operational Current (I<sub>e</sub>):</b>	1 A
<b>Rated Operational Current AC-3 (I<sub>e</sub>):</b>	1 A
<b>Rated Frequency (f):</b>	Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz Auxiliary Circuit DC Main Circuit 50 Hz Main Circuit 60 Hz
<b>Rated Impulse Withstand Voltage (U<sub>imp</sub>):</b>	Auxiliary Circuit 6 kV Main Circuit 6 kV
<b>Rated Insulation Voltage (U<sub>i</sub>):</b>	690 V
<b>Number of Poles:</b>	3
<b>Number of Auxiliary Contacts NC:</b>	1
<b>Number of Auxiliary Contacts NO:</b>	1

<b>Number of Protected Poles:</b>	3
<b>Conventional Free-air Thermal Current (<math>I_{th}</math>):</b>	Auxiliary Circuit NC 6 A Auxiliary Circuit NO 6 A
<b>Rated Operational Current AC-15 (<math>I_e</math>):</b>	(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
<b>Rated Operational Current DC-13 (<math>I_e</math>):</b>	(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
<b>Degree of Protection:</b>	IP20
<b>Pollution Degree:</b>	3
<b>Connecting Capacity Auxiliary Circuit:</b>	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1/2x 1 ... 4 mm <sup>2</sup>
<b>Connecting Capacity Main Circuit:</b>	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1/2x 1 ... 4 mm <sup>2</sup>
<b>Tightening Torque:</b>	Auxiliary Circuit 0.8 ... 1.2 N·m Main Circuit 0.8 ... 1.5 N·m
<b>Wire Stripping Length:</b>	Auxiliary Circuit 9 mm Main Circuit 9 mm
<b>Recommended Screw Driver:</b>	Auxiliary Circuit Pozidriv 2 Main Circuit Pozidriv 2
<b>Mounting Position:</b>	Position 1 to 6
<b>Power Loss:</b>	at Rated Operating Conditions per Pole 0.005 ... 0.054 W
<b>Suitable For:</b>	AF09 AF12 AF16 AF26
<b>Standards:</b>	IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1

## Environmental

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

<b>Maximum Operating Voltage UL/CSA:</b>	Main Circuit 600 V AC
<b>Ampere Rating UL/CSA:</b>	1 A
<b>Contact Rating UL/CSA:</b>	(NC:) B600 (NC:) Q600 (NO:) B600 (NO:) Q600
<b>Connecting Capacity Main Circuit UL/CSA:</b>	Flexible 1/2x 16-10 AWG Stranded 1/2x 16-10 AWG
<b>Connecting Capacity Auxiliary Circuit UL/CSA:</b>	Flexible 1/2x 18-10 AWG Stranded 1/2x 18-10 AWG
<b>Tightening Torque UL/CSA:</b>	Auxiliary Circuit 7 ... 1 in·lb Main Circuit 7 ... 13 in·lb

#### Certificates and Declarations (Document Number)

<b>ABS Certificate:</b>	1SAA941002-0101
<b>ATEX Certificate:</b>	1SAA941004-3901
<b>BV Certificate:</b>	1SAA941002-0201
<b>CB Certificate:</b>	1SAA964002-2002
<b>CCC Certificate:</b>	1SAA942001-3801
<b>CCS Certificate:</b>	1SAA941001-0901
<b>cUL Certificate:</b>	cUL_E48139
<b>Declaration of Conformity - CE:</b>	1SAD938513-0180 1SAD938509-0180
<b>DNV Certificate:</b>	1SAA941003-0301
<b>DNV GL Certificate:</b>	1SAA941003-0302
<b>EAC Certificate:</b>	1SAA941003-2701
<b>GOST Certificate:</b>	1SAA941001-2701
<b>Instructions and Manuals:</b>	2CDC107023M6803
<b>LR Certificate:</b>	1SAA941002-0501
<b>RINA Certificate:</b>	RINA_ELE376813CS
<b>RMRS Certificate:</b>	1SAA964000-0703
<b>RoHS Information:</b>	1SAD938513-0180
<b>UL Certificate:</b>	UL_E48139

#### Container Information

<b>Package Level 1 Units:</b>	1 piece
<b>Package Level 1 Width:</b>	91 mm
<b>Package Level 1 Height:</b>	51.5 mm
<b>Package Level 1 Length:</b>	68 mm
<b>Package Level 1 Gross Weight:</b>	0.183 kg
<b>Package Level 1 EAN:</b>	4013614403996
<b>Package Level 2 Units:</b>	100 piece
<b>Package Level 2 Width:</b>	463 mm
<b>Package Level 2 Height:</b>	276 mm
<b>Package Level 2 Length:</b>	263 mm
<b>Package Level 2 Gross Weight:</b>	18.863 kg
<b>Package Level 2 EAN:</b>	4013614483271

#### Classifications

<b>Object Classification Code:</b>	F
<b>E-nummer:</b>	3224181
<b>ETIM 4:</b>	EC001080 - Electronic overload relav

Electronic overload relay

<b>ETIM 5:</b>	EC001080 - Electronic overload relay
<b>ETIM 6:</b>	EC001080 - Electronic overload relay
<b>eClass:</b>	7.0 27371502
<b>UNSPSC:</b>	39121521

Accessories

Identifier	Description	Type	Qty	Unit Of Measure
1SAX101910R1001	DB19EF Single Mounting Kit	DB19EF	1	piece

