

#### **General Information**

 Extended Product Type:
 EF19-18.9

 Product ID:
 1SAX121001R1105

 EAN:
 4013614404023

Catalog Description: EF19-18.9 Electronic Overload Relay

Long Description: The EF19-18.9 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.

5

### Categories

Products » Low Voltage Products and Systems » Control Products » Contactors » Electronic Overload Relays

### **Ordering**

 Minimum Order Quantity:
 1 piece

 Customs Tariff Number:
 85364900

 EAN:
 4013614404023

#### **Dimensions**

Product Net Height: 85 mm

Product Net Depth: 59.3 mm

Product Net Weight: 0.158 kg

Product Net Width: 44.4 mm

### **Container Information**

Package Level 1 Width: 91 mm Package Level 1 Height: 51.5 mm Package Level 1 Length: 68 mm Package Level 1 Gross Weight: 0.183 kg Package Level 2 Units: 100 piece Package Level 2 Width: 463 mm Package Level 2 Height: 276 mm Package Level 2 Length: 263 mm Package Level 2 Gross Weight: 18.863 kg Package Level 2 EAN: 4013614483301 Package Level 1 Units: 1 piece

#### **Technical**

Rated Operational Voltage: Auxiliary Circuit 600 V AC/DC

Main Circuit 690 V AC

Rated Operational Current (I<sub>e</sub>): 18.9 A Rated Operational Current AC-3 (I<sub>e</sub>): 18.9 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<sub>imp</sub>):

Auxiliary Circuit 6 kV Main Circuit 6 kV

Rated Insulation Voltage (U<sub>i</sub>): 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 (Ith):

Auxiliary Circuit NC 6 A Auxiliary Circuit NO 6 A

Rated Operational Current AC-15

(l<sub>e</sub>):

(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** (125 V) NC 0.55 A (125 V) NO 0.5 A (l<sub>e</sub>): (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: Connecting Capacity Auxiliary** Flexible with Ferrule 1/2x 0.75 ... 2.5 mm<sup>2</sup> Circuit: 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> Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² **Connecting Capacity Main Circuit:** 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> **Tightening Torque:** Auxiliary Circuit 0.8 ... 1.2 N·m Main Circuit 0.8 ... 1.5 N·m Wire Stripping Length: Auxiliary Circuit 9 mm Main Circuit 9 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 0.028 ... 0.304 W Suitable For: AF09 AF12 AF16 AF26 Standards: IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 **Setting Range:** 5.7 ... 18.9 A

# **Environmental**

Ambient Air Temperature

Compensation:

Maximum Operating Altitude

Permissible:

2000 m

Yes

Resistance to Shock acc. to IEC

60068-2-27:

11 ms Pulse 25g

Resistance to Vibrations acc. to IEC 3g/3...150 Hz

60068-2-6: RoHS Status:

Following EU Directive 2011/65/EC

Ambient Air Temperature:

Operation -25 ... +70 °C

Operation Compensated -25 ... +70 °C

Storage -50 ... +80 °C

## Technical UL/CSA

Ampere Rating UL/CSA: 18.9 A Contact Rating UL/CSA: (NC:) B600 (NC:) Q600 (NO:) B600 (NO:) Q600 **Connecting Capacity Main Circuit** Flexible 1/2x 16-10 AWG UL/CSA: Stranded 1/2x 16-10 AWG Flexible 1/2x 18-10 AWG **Connecting Capacity Auxiliary** Circuit UL/CSA: Stranded 1/2x 18-10 AWG Tightening Torque UL/CSA: Auxiliary Circuit 7 ... 1 in·lb Main Circuit 7 ... 13 in·lb

Maximum Operating Voltage

UL/CSA:

Main Circuit 600 V AC

## **Certificates and Declarations (Document Number)**

Data Sheet, Technical Information	1SAX100509F0001
(Part 2):	1SAX100510F0001
Instructions and Manuals:	2CDC107023M6801

Instructions and Manuals (Part 2):	2CDC107043M6801
ABS Certificate:	1SAA941002-0101
ATEX Certificate:	1SAA941004-3901
BV Certificate:	1SAA941002-0201
CB Certificate:	1SAA964002-2002
CCC Certificate:	1SAA942001-3801
cUL Certificate:	cUL_E48139
Data Sheet, Technical Information:	2CDC107025D0201
Declaration of Conformity - CE:	1SAD938512-0180 1SAD938509-0180
DNV Certificate:	1SAA941003-0301
EAC Certificate:	1SAA941003-2701
GOST Certificate:	1SAA941001-2701
LR Certificate:	1SAA941002-0501
RINA Certificate:	RINA_ELE376813CS
RMRS Certificate:	1SAA941001-0701
RoHS Information:	1SAA942001-4406
UL Certificate:	UL_E48139

# Classifications

E-nummer:	3224184
ETIM 4:	EC001080 - Electronic overload relay
ETIM 5:	EC001080 - Electronic overload relay
ETIM 6:	EC001080 - Electronic overload relay
eClass:	7.0 27371502
UNSPSC:	39121521
Object Classification Code:	F

# Accessories

1 Products		Filter		
Identifier	Description	Туре	Qty	Unit Of Measure
1SAX101910R1001	DB19FF Single Mounting Kit	DB19FF	1	piece

