

## **General Information**

Extended Product Type: EF65-70

**Product ID:** 1SAX331001R1101 **EAN:** 4013614442254

Catalog Description: EF65-70 Electronic Overload Relay

Long Description: The EF65-70 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.

## Categories

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

#### Ordering

 Minimum Order Quantity:
 1 piece

 Customs Tariff Number:
 85364900

 EAN:
 4013614442254

#### **Dimensions**

Product Net Height: 131.2 mm

Product Net Depth: 105.2 mm

Product Net Weight: 0.821 kg

Product Net Width: 70 mm

## **Container Information**

Package Level 1 Width: 139 mm Package Level 1 Height: 107 mm Package Level 1 Length: 75.5 mm Package Level 1 Gross Weight: 0.876 kg Package Level 2 Units: 20 piece Package Level 2 Width: 393 mm Package Level 2 Height: 227 mm Package Level 2 Length: 290 mm Package Level 2 Gross Weight: 18.803 kg Package Level 2 EAN: 4013614483370 Package Level 1 Units: 1 piece

#### **Technical**

Rated Operational Voltage: Auxiliary Circuit 600 V AC/DC

Main Circuit 1000 V AC

Rated Operational Current (I<sub>e</sub>): 70 A Rated Operational Current AC-3 (I<sub>e</sub>): 70 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 8 kV

Rated Insulation Voltage (U<sub>i</sub>): 1000 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: Housing IP20 Main Circuit Terminals IP10 **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> **Connecting Capacity Main Circuit:** Flexible with Ferrule 1/2x 4 ... 35 mm<sup>2</sup> Flexible with Insulated Ferrule 1/2x 4 ... 35 mm<sup>2</sup> Flexible 1/2x 4 ... 35 mm<sup>2</sup> Rigid 1/2x 4 ... 35 mm<sup>2</sup> **Tightening Torque:** Auxiliary Circuit 0.8 ... 1.2 N·m Main Circuit 4 N·m Wire Stripping Length: Auxiliary Circuit 9 mm Main Circuit 20 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 0.056 ... 0.441 W Suitable For: AF40 AF52 AF65 Standards: IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 **Setting Range:** 25 ... 70 A **Environmental Ambient Air Temperature** Yes

Compensation:

**Maximum Operating Altitude** 

Permissible:

Resistance to Shock acc. to IEC

Resistance to Vibrations acc. to IEC 5g / 3 ... 150 Hz

UL/CSA:

**RoHS Status:** 

60068-2-27:

60068-2-6:

2000 m

11 ms Pulse 25g

Following EU Directive 2011/65/EC

Operation -25 ... +75 °C **Ambient Air Temperature:** 

Operation Compensated -25 ... +75 °C

Storage -50 ... +85 °C

# Technical UL/CSA

Ampere Rating UL/CSA: 70 A Contact Rating UL/CSA: (NC:) B600 (NC:) Q600 (NO:) B600 (NO:) Q600 **Connecting Capacity Main Circuit** Flexible 1/2x 10-2 AWG UL/CSA: Stranded 1/2x 10-2 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 55 in·lb **Maximum Operating Voltage** Main Circuit 600 V AC

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

Data Sheet, Technical Information	1SAX100509F0001
(Part 2):	1SAX100510F0001
Instructions and Manuals:	2CDC107026M6801

Instructions and Manuals (Part 2): 2CDC107043M6801 ABS Certificate: 1SAA941002-0101 **ATEX Certificate:** 1SAA941004-3901 **BV Certificate:** 1SAA941002-0201 **CB Certificate:** 1SAA942012-2002 **CCC Certificate:** 1SAA942006-3802 **cUL Certificate:** cUL E48139 Data Sheet, Technical Information: 2CDC107041D0201 1SAD938512-0180 **Declaration of Conformity - CE:** 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:	3210245
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

