

## General Information

Extended Product Type:	EF45-30
Product ID:	1SAX221001R1101
EAN:	4013614403965
Catalog Description:	EF45-30 Electronic Overload Relay
Long Description:	The EF45-30 is a 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:	4013614403965

## Dimensions

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

## Container Information

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 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:	4013614483332
Package Level 1 Units:	1 piece

## Technical

Rated Operational Voltage:	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC
Rated Operational Current ( $I_e$ ):	30 A
Rated Operational Current AC-3 ( $I_e$ ):	30 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
<b>Rated Operational Current DC-13 (I<sub>e</sub>):</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 2.5 ... 10 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 2.5 ... 10 mm <sup>2</sup> Flexible 1/2x 2.5 ... 10 mm <sup>2</sup> Rigid 1/2x 2.5 ... 16 mm <sup>2</sup>
<b>Tightening Torque:</b>	Auxiliary Circuit 0.8 ... 1.2 N·m Main Circuit 2.3 ... 2.6 N·m
<b>Wire Stripping Length:</b>	Auxiliary Circuit 9 mm Main Circuit 13 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 0.021 ... 0.234 W
<b>Suitable For:</b>	AF26 AF30 AF38
<b>Standards:</b>	IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1
<b>Setting Range:</b>	9 ... 30 A

## Environmental

<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>	5g / 3 ... 150 Hz
<b>RoHS Status:</b>	Following EU Directive 2011/65/EC
<b>Ambient Air Temperature:</b>	Operation -25 ... +70 °C Operation Compensated -25 ... +70 °C Storage -50 ... +80 °C

## Technical UL/CSA

<b>Ampere Rating UL/CSA:</b>	30 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 14-6 AWG Stranded 1/2x 14-6 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 20 ... 22 in·lb
<b>Maximum Operating Voltage UL/CSA:</b>	Main Circuit 600 V AC

## Certificates and Declarations (Document Number)

<b>Data Sheet, Technical Information (Part 2):</b>	1SAX100509F0001 1SAX100510F0001
<b>Instructions and Manuals:</b>	2CDC107023M6803
<b>Instructions and Manuals (Part 2):</b>	2CDC107043M6801

<b>ABS Certificate:</b>	1SAA941002-0101
<b>ATEX Certificate:</b>	1SAA941004-3901
<b>BV Certificate:</b>	1SAA941002-0201
<b>CB Certificate:</b>	1SAA964003-2002
<b>CCC Certificate:</b>	1SAA942002-3801
<b>cUL Certificate:</b>	cUL_E48139
<b>Data Sheet, Technical Information:</b>	2CDC107025D0201
<b>Declaration of Conformity - CE:</b>	1SAD938512-0180 1SAD938509-0180
<b>DNV Certificate:</b>	1SAA941003-0301
<b>EAC Certificate:</b>	1SAA941003-2701
<b>GOST Certificate:</b>	1SAA941001-2701
<b>LR Certificate:</b>	1SAA941002-0501
<b>RINA Certificate:</b>	RINA_ELE376813CS
<b>RMRS Certificate:</b>	1SAA941001-0701
<b>RoHS Information:</b>	1SAA942001-4406
<b>UL Certificate:</b>	UL_E48139

## Classifications

<b>E-nummer:</b>	3224185
<b>ETIM 4:</b>	EC001080 - 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
<b>Object Classification Code:</b>	F

