

PRODUCT-DETAILS

## **EF19-1.0** EF19-1.0 Electronic Overload Relay 0.30 ... 1.0 A



General Information	
Extended Product Type	EF19-1.0
Product ID	1SAX121001R1102
EAN	4013614403996
Catalog Description	EF19-1.0 Electronic Overload Relay 0.30 1.0 A
Long Description	The EF19-1.0 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. 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

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2024/07/23

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Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads	
Data Sheet, Technical Information	2CDC107025D0201
Instructions and Manuals	2CDC107023M6803
Instructions and Manuals (Part 2)	1SAC200017M0002
Ex Operating Instructions	2CDC107043M6801
Time-Current Characteristic Curve	1SAX100509F0002 1SAX100510F0001
CAD Dimensional Drawing	2CDC001079B0201
Dimension Diagram	15AX100403F0001
Dimensions	
Product Net Width	44.4 mm
Product Net Height	85 mm

Product Net Height	85 mm
Product Net Depth / Length	59.3 mm
Product Net Weight	0.158 kg

Technical	
Setting Range	0.30 1.0 A
Rated Operational Voltage	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC
Rated Operational Current (I <sub>e</sub> )	14
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 (Ui)	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 <sub>th</sub> )	Auxiliary Circuit NC 6 A Auxiliary Circuit NO 6 A
Rated Operational Current AC-15 (I <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

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	(500 V) NO 0.75 A
Rated Operational Current DC-13 (I <sub>e</sub> )	(125 V) NC 0.55 A (125 V) NO 0.5 A (24 V) NC 1.5 A (24 V) NO 1.5 A (24 V) NO 1.5 A (250 V) NC 0.27 A (250 V) NO 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 mm² Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm² Flexible 1/2x 0.75 2.5 mm² Rigid 1/2x 1 4 mm²
Connecting Capacity Main Circuit	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>
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	16
Power Loss	at Rated Operating Conditions per Pole 0.005 0.054 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
Technical UL/CSA	
Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
Contact Rating UL/CSA	(NC:) B600 (NC:) Q600 (NO:) B600 (NO:) Q600
Connecting Capacity Main Circuit UL/CSA	Flexible 1/2x 16-10 AWG Stranded 1/2x 16-10 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 7 13 in·lb

Environmental	
Ambient Air	Operation -25 +70 °C
Temperature	Operation Compensated -25 +70 °C
	Storage -50 +80 °C
Ambient Air	Yes
Temperature	
Compensation	
Maximum Operating	2000 m
Altitude Permissible	

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Resistance to Shock acc. to IEC 60068-2-27	11 ms Pulse 25g
Resistance to Vibrations	3g 3 150 Hz
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006525
Material Compliance	
Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006525
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)
Eco Transparency	
Environmental Product	1SAC200355H0001
Environmental Product Declaration - EPD	
Environmental Product	1SAC200355H0001 1SAC200096H0001
Environmental Product Declaration - EPD Environmental	
Environmental Product Declaration - EPD Environmental Information	
Environmental Product Declaration - EPD Environmental Information	1SAC200096H0001
Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate	1SAC200096H0001 1SAA941002-0102
Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate ATEX Certificate	1SAC200096H0001 1SAA941002-0102 1SAA941002-3901
Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate ATEX Certificate BV Certificate	1SAC200096H0001 1SAA941002-0102 1SAA941002-0102 1SAA941004-3901 1SAA941002-0201
Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate ATEX Certificate BV Certificate CB Certificate	1SAC200096H0001 1SAA941002-0102 1SAA941004-3901 1SAA941002-0201 1SAA941002-0201 1SAA964002-2002
Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate ATEX Certificate BV Certificate CB Certificate CCS Certificate	1SAC200096H0001 1SAA941002-0102 1SAA941002-0102 1SAA941002-0201 1SAA941002-0201 1SAA964002-2002 1SAA941001-0901
Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate ATEX Certificate BV Certificate CB Certificate CCS Certificate CCS Certificate CQC Certificate Declaration of	1SAC200096H0001 1SAA941002-0102 1SAA941004-3901 1SAA941002-0201 1SAA941002-0201 1SAA964002-2002 1SAA941001-0901 CQC2008010309289447
Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate ATEX Certificate BV Certificate CB Certificate CCS Certificate CCS Certificate CCS Certificate Declaration of Conformity - CCC Declaration of	1SAC200096H0001 1SAA941002-0102 1SAA941004-3901 1SAA941002-0201 1SAA941002-0201 1SAA941002-0202 1SAA941001-0901 CQC2008010309289447 2020980309000285
Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate ATEX Certificate BV Certificate CB Certificate CCS Certificate CCS Certificate CCS Certificate Declaration of Conformity - CCC Declaration of Conformity - CE Declaration of	1SAC200096H0001 1SAA941002-0102 1SAA941004-3901 1SAA941002-0201 1SAA941002-0201 1SAA941002-0202 1SAA941001-0901 CQC2008010309289447 2020980309000285 1SAD101100-3601
Environmental Product Declaration - EPD Environmental Information	1SAC200096H0001 1SAA941002-0102 1SAA941004-3901 1SAA941002-0201 1SAA941002-0201 1SAA941001-0901 1SAA941001-0901 CQC2008010309289447 2020980309000285 1SAD101100-3601 1SAD201100-3601
Environmental Product Declaration - EPD Environmental Information	1SAC200096H0001 1SAA941002-0102 1SAA941004-3901 1SAA941002-0201 1SAA941002-0201 1SAA941002-0201 1SAA941001-0901 CQC2008010309289447 2020980309000285 1SAD101100-3601 1SAD201100-3601 1SAA941003-0302
Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate ATEX Certificate BV Certificate CCS Certificate CCS Certificate CQC Certificate CQC Certificate Declaration of Conformity - CCC Declaration of Conformity - CE Declaration of Conformity - UKCA DNV Certificate EAC Certificate	1SAC200096H0001 1SAA941002-0102 1SAA941004-3901 1SAA941002-0201 1SAA941002-0201 1SAA941002-2002 1SAA941001-0901 CQC2008010309289447 2020980309000285 1SAD101100-3601 1SAD201100-3601 1SAA941003-0302 1SAA941003-0302
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Environmental Product Declaration - EPD Environmental Information Certificates and Declarations ABS Certificate ATEX Certificate BV Certificate CB Certificate CCS Certificate CCS Certificate CQC Certificate Declaration of Conformity - CCC Declaration of Conformity - CE Declaration of Conformity - UKCA DNV Certificate EAC Certificate EAC Certificate LR Certificate LR Certificate	1SAC200096H0001 1SAA941002-0102 1SAA941002-0102 1SAA941002-0201 1SAA941002-0201 1SAA941002-2002 1SAA941001-0901 CQC2008010309289447 2020980309000285 1SAD101100-3601 1SAD201100-3601 1SAA941003-0302 1SAA941003-2701 1SAA941003-2701 1SAA941003-2701

Container Information	
Package Level 1 Units	box 1 piece
Package Level 1 Width	91 mm
Package Level 1 Height	51.5 mm

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Package Level 1 Depth / Length	68 mm
Package Level 1 Gross Weight	0.183 kg
Package Level 1 EAN	4013614403996
Package Level 2 Units	100 piece
Package Level 2 Width	463 mm
Package Level 2 Height	276 mm
Package Level 2 Depth / Length	263 mm
Package Level 2 Gross Weight	18.863 kg

## Classifications

Object Classification Code	F
ETIM 4	EC001080 - Electronic overload relay
ETIM 5	EC001080 - Electronic overload relay
ETIM 6	EC001080 - Electronic overload relay
ETIM 7	EC001080 - Electronic overload relay
ETIM 8	EC001080 - Electronic overload relay
eClass	V11.0 : 27371502
UNSPSC	39122330
IDEA Granular Category Code (IGCC)	5365 >> Electronic overload relay
E-Number (Finland)	3706152
E-Number (Sweden)	3224181

## Accessories

Identifier 1SAX101910R1001	Description	Type Quantity		Unit Of Measure
	DB19EF Single Mounting Kit	DB19EF	1	piece
1SAX101911R1001	DRS-F-01 Remote Reset Coil	DRS-F-01	1	piece
1SAX101911R1002	DRS-F-02 Remote Reset Coil	DRS-F-02	1	piece
1SAX101911R1003	DRS-F-03 Remote Reset Coil	DRS-F-03	1	piece
1SAX101911R1004	DRS-F-04 Remote Reset Coil	DRS-F-04	1	piece
1SAX101911R1011	DRS-F-EF-01 Remote Coil	DRS-F-EF-01	1	piece
1SAX101911R1012	DRS-F-EF-02 Remote Coil	DRS-F-EF-02	1	piece
1SAX101911R1013	DRS-F-EF-03 Remote Coil	DRS-F-EF-03	1	piece
1SAX101911R1014	DRS-F-EF-04 Remote Coil	DRS-F-EF-04	1	piece
1SAZ701903R1001	WRH-F Holder	WRH-F	1	piece
1SAZ701903R1011	WRB-400 Bowden Wire	WRB-400	1	piece
1SAZ701903R1012	WRB-600 Bowden Wire	WRB-600	1	piece
1SAZ701903R1013	WRB-1000 Bowden Wire	WRB-1000	1	piece
1SAZ701903R1030	WRBG Gasket	WRBG	1	piece
1SFA616162R1014	KPR3-101L Reset push button	KPR-101L	1	piece

## Categories

Low Voltage Products and Systems  $\rightarrow$  Control Products  $\rightarrow$  Contactors  $\rightarrow$  Electronic Overload Relays

