

PRODUCT-DETAILS

## EF65-70 EF65-70 Electronic Overload Relay 25 ... 70 A



EF65-7
1SAX331001R110
401361444225
EF65-70 Electronic Overload Relay 25 70
The EF65 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 of phase failure. Easy to use like a thermal overload relay and compatible with standard moto 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 tri 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 EF65, EF96 an EF146have ATEX and IECEx certification 1) ATEX is valid for products produced from week 42, 2014
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Popular Downloads	
Data Sheet, Technical Information	2CDC107041D0201
Instructions and Manuals	2CDC107026M6803
Instructions and Manuals (Part 2)	1SAC200017M0002
Ex Operating Instructions	2CDC107043M6801
Time-Current	1SAX100509F0002
Characteristic Curve CAD Dimensional	1SAX100510F0001 2CDC001079B0201
Drawing	
Dimension Diagram	1SAX300405F0001
Dimensions	
Product Net Width	70 mm
Product Net Height	131.2 mm
Product Net Depth / Length	105.2 mm
Product Net Weight	0.821 kg
Taskaisal	
Technical Sotting Pages	25 70 A
Setting Range Rated Operational Voltage	Auxiliary Circuit 600 V AC/DC
	Main Circuit 1000 V AC
Rated Operational Current (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	3P
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
Pated Operational Current	(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 (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	3

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Connecting Capacity Auxiliary 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>
Connecting Capacity Main Circuit	Flexible with Ferrule 1x 4 35 mm <sup>2</sup> Flexible with Ferrule 2x 2.5 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 Main Circuit Pozidriv 2
Mounting Position	16
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 60947-41 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
Connecting Capacity Main Circuit UL/CSA	(NO:) Q600 Flexible 1/2x 10-2 AWG Stranded 1/2x 10-2 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 55 in·lb
Environmental	
Ambient Air Temperature	Operation -25 +70 °C Operation Compensated -25 +70 °C Storage -50 +85 °C
Ambient Air Temperature Compensation	Yes
Maximum Operating Altitude Permissible	2000 m
Resistance to Shock acc. to IEC 60068-2-27	11 ms Pulse 25g
Resistance to Vibrations	5g 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
DoUS Information	2CMT2021 006277

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RoHS Information WEEE B2C / B2B

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2CMT2021-006277

Business To Business

ABB EcoSolutions	
ABB EcoSolutions	Yes
Environmental Product Declaration - EPD	1SAC200236H0001
Environmental Information	1SAC200098H0001

ABS Certificate	1SAA941002-010
ATEX Certificate	1SAA941004-390
BV Certificate	1SAA941002-020
CB Certificate	1SAA964013-200
CCS Certificate	1SAA941001-090
CQC Certificate	CQC201301030959213
Declaration of Conformity - CCC	202098030900028
Declaration of Conformity - CE	1SAD101100-360
Declaration of Conformity - UKCA	1SAD201100-360
DNV Certificate	1SAA941003-0302
EAC Certificate	1SAA941003-270
IECEx Certificate	1SAA941000-400
LR Certificate	1SAA941002-050
RINA Certificate	RINA_ELE376813CS
RMRS Certificate	1SAA941001-070
UL Certificate	E48139-19990512

Container Information	
Package Level 1 Units	box 1 piece
Package Level 1 Width	139 mm
Package Level 1 Height	107 mm
Package Level 1 Depth / Length	75.5 mm
Package Level 1 Gross Weight	0.876 kg
Package Level 1 EAN	4013614442254

Classifications	
Object Classification Code	<u>F</u>
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)	3706580
E-Number (Norway)	4116700
E-Number (Sweden)	3210245

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Accessories				
Identifier	Description	Туре	Quantity	Unit Of Measure
1SAZ901901R1001	DB96 Single Mounting Kit	DB96	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

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

