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PRODUCT-DETAILS

EF65-70

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



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General	Information

4013614442254
1SAX331001R1101
EF65-70

Catalog Description

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

Long Description

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 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 EF65, EF96 and EF146have 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

Minimum Order Quantity 1 piece

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Customs Tariff Number 85364900

Data Sheet, Technical Information	2CDC107041D0201
Instructions and Manuals	2CDC107026M6803
Instructions and Manuals (Part 2)	1SAC200017M0002
Ex Operating Instructions	2CDC107043M6801
Time-Current Characteristic Curve	1SAX100509F0002 1SAX100510F0001
CAD Dimensional Drawing	2CDC001079B0203
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
Technical	
Setting Range	25 70 A
Rated Operational Voltage	Auxiliary Circuit 600 V AC/DC Main Circuit 1000 V AC
Rated Operational Current (l _e)	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 _{imp})	Auxiliary Circuit 6 kV Main Circuit 8 kV
Rated Insulation Voltage (U _i)	1000 V
Number of Poles	3F
Number of Auxiliary Contacts NC	
Number of Auxiliary Contacts NO	
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

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(24 V) NC 1.6 (24 V) NO 1.5 (25 V) NO 0.2 (2		IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1
(24 V) NC 1.5 (24 V) NC 1.5 (24 V) NC 1.5 (250 V) NC 0.25 (250	Standards	IEC/EN 60947-1 IEC/EN 60947-4-1
(24 V) NC 1.8 (24 V) NO 1.9 (250 V) NC 0.2 (250 V)		AF52 AF65
(24 V) NC 1.8 (24 V) NO 1.9 (250 V) NC 0.2 (60 V) NC 0.5 (60 V) N	Suitable For	AF40
(24 V) NC 1.5 (24 V) NO 1.5 (250 V) NO 0.5 (250 V)	Power Loss	at Rated Operating Conditions per Pole 0.056 0.441 W
(24 V) NC 1.5 (24 V) NO 1.5 (25 V) NC 0.5 (25 V) NC 0.5 (60 V) NC 0.5 (60 V) NC 0.5 (60 V) NO 0.5 (6	Mounting Position	16
(24 V) NC 1.5 (24 V) NO 1.5 (250 V) NO 0.5 (250 V) NO 0.5 (60 V) NO 0.5		Auxiliary Circuit Pozidriv 2 Main Circuit Pozidriv 2
(24 V) NC 1.5 (24 V) NC 1.5 (250 V) NC 0.2 (250 V)	Wire Stripping Length	Auxiliary Circuit 9 mm Main Circuit 20 mm
(24 V) NC 1.5 (24 V) NC 1.5 (250 V) NC 0.2 (250 V) NC 0.	Tightening Torque	Auxiliary Circuit 0.8 1.2 N·m Main Circuit 4 N·m
(24 V) NC 1.5 (24 V) NO 1.5 (250 V) NC 0.2 (250 V) NC 0.2 (250 V) NO 0.2 (250 V) NO 0.2 (250 V) NO 0.5 (60 V) NO 0.5 (70 V) NO 0.5 (80 V) NO 1.5 (80 V) NO 1	Main Circuit	Flexible with Ferrule 2x 2.5 35 mm ² Flexible with Insulated Ferrule 1/2x 4 35 mm ² Flexible 1/2x 4 35 mm ² Rigid 1/2x 4 35 mm ²
(24 V) NC 1.5		Flexible with Ferrule 1x 4 35 mm ²
(24 V) NC 1.5 (24 V) NC 1.5 (250 V) NC 0.2 (250 V) NC 0.2 (250 V) NO 0.2 (60 V) NC 0.5 (60 V) NC 0.5 (60 V) NO 0.5 (60 V) NO 0.5 Pollution Degree Connecting Capacity Flexible with Ferrule 1/2x 0.75 2.5 ms	, tallinary and all	Flexible 1/2x 0.75 2.5 mm² Rigid 1/2x 1 4 mm²
(24 V) NC 1.5 (24 V) NC 1.5 (25 V) NC 0.2 (250 V) NC 0.25 (250 V) NC 0.55 (60 V) NC 0.55 (60 V) NO 0.55 (60 V) NO 0.55 (60 V) NO 0.55 (70 V)		Flexible with Ferrule 1/2x 0.75 2.5 mm ²
(24 V) NC 1.5 (24 V) NC 1.5 (250 V) NC 0.25 (250 V) NC 0.25 (60 V) NC 0.55 (60 V)	Pollution Degree	3
(24 V) NC 1.5 (24 V) NO 1.5 (250 V) NC 0.2 (250 V) NO 0.2 (60 V) NC 0.55	Degree of Protection	Housing IP20 Main Circuit Terminals IP10
Current DC-13 (I _a) (125 V) NO 0.5	Current DC-13 (I _e)	(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

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 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	Operation -25 +70 °C
Temperature	Operation Compensated -25 +70 °C
	Storage -50 +85 °C
Ambient Air	Yes
Temperature	
Compensation	
Maximum Operating	2000 m
Altitude Permissible	
Resistance to Shock acc.	11 ms Pulse 25g

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to I	EC	600	068	-2-27
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Resistance to Vibrations	5g 3 150 Hz
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances	2CMT2023-006525
Control Act - TSCA	

Material Compliance	
Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions	
ABB EcoSolutions	Yes
End Of Life Disassembling Instructions	1SAC200283H0001
Environmental Information	1SAC200098H0001
Environmental Product Declaration - EPD	1SAC200236H0001

Certificates and Declarations	
ABS Certificate	1SAA941002-0102
ATEX Certificate	1SAA941004-3901
BV Certificate	1SAA941002-0201
CB Certificate	1SAA964013-2001
CCC Certificate	2024010304636746
CCS Certificate	1SAA941001-0901
CQC Certificate	CQC2013010309592132
Declaration of Conformity - CCC	2020980309000286
Declaration of Conformity - CE	1SAD101100-3601
Declaration of Conformity - UKCA	1SAD201100-3601
DNV Certificate	1SAA941003-0302
EAC Certificate	1SAA941003-2701
IECEx Certificate	1SAA941000-4001
LR Certificate	1SAA941002-0501
RINA Certificate	RINA_ELE376813CS
RMRS Certificate	1SAA941001-0701
UL Certificate	E48139-19990512

Container Information	
Package Level 1 Units	box 1 piece
Package Level 1 Width	139 mm

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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

External Classifications and Standards	
Object Classification	F
Code	
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	5365 >> Electronic overload relay
Code (IGCC)	
E-Number (Finland)	3706580
E-Number (Norway)	4116700
E-Number (Sweden)	3210245

Accessories				
Identifier	Description	Type 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

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Categories

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





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PRODUCT-DETAILS

EF96-100

EF96-100 Electronic Overload Relay 36 ... 100 A



Extended Product Type	EF96-100	
Product ID	1SAX341001R1101	
EAN	4013614442247	
Catalog Description	EF96-100 Electronic Overload Relay 36 100 A	

Catalog Description

The EF96 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 trip class (10E, 20E, 30E). Further features are the temperature compensation, trip contact (NE) size of extent (NE) extent to a very selection of the compensation of the compensa (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 and EF146have ATEX and IECEx certification 1)

Long Description

1) ATEX is valid for products produced from week 42, 2014. IECEx is valid for products produced from week 15, 2017.

Orderii	

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

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Popular Downloads	
Data Sheet, Technical Information	2CDC107041D0201
Instructions and Manuals	2CDC107027M6803
Instructions and Manuals (Part 2)	1SAC200017M0002
Ex Operating Instructions	2CDC107043M6801
Time-Current	1SAX100509F0002
Characteristic Curve CAD Dimensional	1SAX100510F0001 2CDC001079B0201
Drawing	20000107900201
Dimension Diagram	1SAX300406F0001
Dimensions	
Product Net Width	70 mm
Product Net Height	132.7 mm
Product Net Depth / Length	105.2 mm
Product Net Weight	0.802 kg
Technical	
Setting Range	36 100 A
Rated Operational Voltage	Auxiliary Circuit 600 V AC/DC Main Circuit 1000 V AC
Rated Operational Current (I_e)	100 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 8 kV
Rated Insulation Voltage (U _i)	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 _{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
Rated Operational Current DC-13 (I _e)	(300 V) NO 0.75 A (125 V) NO 0.55 A (125 V) NO 0.5 A (24 V) NO 1.5 A (24 V) NO 1.5 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	Housing IP20 Main Circuit Terminals IP10
	3

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Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 2.5 mm ² Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm ²
•	Flexible 1/2x 0.75 2.5 mm² Rigid 1/2x 1 4 mm²
Connecting Capacity Main	Flexible with Ferrule 2x 4 35 mm ²
Circuit	Flexible with Ferrule 1x 4 50 mm² Flexible with Insulated Ferrule 2x 2 35 mm²
	Flexible with Insulated Ferrule 1x 4 50 mm ² Flexible 1x 4 50 mm ²
	Flexible 2x 4 35 mm ²
	Rigid 1x 4 70 mm² Rigid 2x 4 35 mm²
Fightening Torque	Auxiliary Circuit 0.8 1.2 N·m Main Circuit 6 N·m
Wire Stripping Length	Auxiliary Circuit 9 mm Main Circuit 20 mm
Recommended Screw Driver	Auxiliary Circuit Pozidriv 2 Main Circuit Hexagon 4
Mounting Position	16
Power Loss	at Rated Operating Conditions per Pole 0.117 0.9 W
Suitable For	AF80 AF96
Standards	IEC/EN 60947-1
	IEC/EN 60947-4-1 IEC/EN 60947-5-1
	UL 60947-1
	UL 60947-4-1
T	
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	(NO:) Q600 Flexible 1/2x 10-2 AWG
Circuit UL/CSA	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	Auxiliary Circuit 7 1 in·lb
UĽ/CSA Ö	Main Circuit 70 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
	23.112321 000202

2025/02/14

2CMT2021-006277

Subject to change without notice

RoHS Information

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WEEE B2C / B2B Business To Business
WEEE Category 5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions	
ABB EcoSolutions	Yes
End Of Life Disassembling Instructions	1SAC200283H0001
Environmental Information	1SAC200099H0001
Environmental Product Declaration - EPD	1SAC200236H0001

Certificates and Declarations	
ABS Certificate	1SAA941002-0102
ATEX Certificate	1SAA941004-3901
BV Certificate	1SAA941002-0201
CB Certificate	1SAA964013-2001
CCC Certificate	2024010304636746
CCS Certificate	1SAA941001-0901
CQC Certificate	CQC2013010309592132
Declaration of Conformity - CCC	2020980309000286
Declaration of Conformity - CE	1SAD101100-3601
Declaration of Conformity - UKCA	1SAD201100-3601
DNV Certificate	1SAA941003-0302
EAC Certificate	1SAA941003-2701
IECEx Certificate	1SAA941000-4001
LR Certificate	1SAA941002-0501
RINA Certificate	RINA_ELE376813CS
RMRS Certificate	1SAA941001-0701
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	0.857 kg
Package Level 1 EAN	4013614442247

External Classifications and Standards	
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

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E-Number (Finland)	3706581
E-Number (Norway)	4116701
E-Number (Sweden)	3210246

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

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





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PRODUCT-DETAILS

EF146-150

EF146-150 Electronic Overload Relay 54 ... 150



_	
General	Information

Extended Product Type	EF146-150
Product ID	1SAX351001R1101
EAN	4013614442230
Catalog Description	EF146-150 Electronic Overload Relay 54 150 A

The EF146 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. The EF65, EF96 and EF146 have ATEX and IECEx certification 1)

Long Description

1) ATEX is valid for products produced from week 42, 2014. IECEx is valid for products produced from week 15, 2017.

Ordering

Minimum Order Quantity 1 piece

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Customs Tariff Number 85364900

Popular Downloads	
Data Sheet, Technical Information	2CDC107041D0201
Instructions and Manuals	2CDC107028M6803
Instructions and Manuals (Part 2)	1SAC200017M0002
Ex Operating Instructions	2CDC107043M6803
Time-Current Characteristic Curve	1SAX100509F0002 1SAX100510F0000
CAD Dimensional Drawing	2CDC001079B0203
Dimension Diagram	1SAX300407F0001
Dimensions	
Product Net Width	89.05 mm
Product Net Height	150.4 mm
Product Net Depth / Length	105.2 mm
Product Net Weight	0.879 kg
Technical	
Setting Range	54 150 A
Rated Operational Voltage	Auxiliary Circuit 600 V AC/DC Main Circuit 1000 V AC
Rated Operational Current (l _e)	150 A
Rated Frequency (f)	Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz
	Auxiliary Circuit DC
	Main Circuit 50 Hz
Daka d Januaria	Main Circuit 60 Ha
Rated Impulse Withstand Voltage (U _{imp}	Auxiliary Circuit 6 k\ Main Circuit 8 k\
Rated Insulation Voltage (U _i)	1000 V
Number of Poles	3F
Number of Auxiliary Contacts NC	•
Number of Auxiliary Contacts NO	
Number of Protected Poles	3
Conventional Free-air Thermal Current (I _{th})	Auxiliary Circuit NC 6 A Auxiliary Circuit NO 6 A
Rated Operational	(240 V) NC 3 A
Current AC-15 (I _e)	(240 V) NO 3 A (400 V) NC 1.1 A
	(400 V) NO 1.1 A (500 V) NC 0.75 A
ated Operational	

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Current DC-13 (I _e)	(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
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 1x 10 70 mm² Flexible with Ferrule 2x 10 35 mm² Flexible with Insulated Ferrule 1x 10 70 mm² Flexible with Insulated Ferrule 2x 2 35 mm² Flexible 1x 10 70 mm² Flexible 2x 10 35 mm² Rigid 1x 10 95 mm² Rigid 2x 10 35 mm²
Tightening Torque	Auxiliary Circuit 0.8 1.2 N·m Main Circuit 10 N·m
Wire Stripping Length	Auxiliary Circuit 9 mm Main Circuit 20 mm
Recommended Screw Driver	Auxiliary Circuit Pozidriv 2 Main Circuit Hexagon 4
Mounting Position	16
Power Loss	at Rated Operating Conditions per Pole 0.204 1.575 W
Suitable For	AF116 AF140 AF146
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 1x 6-00 AV Flexible 2x 6-2 AV Stranded 2x 6-2 AV Stranded 1x 6-00 AV	
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 70 in·lb	

Environmental

Operation -25 ... +70 °C Ambient Air Operation Compensated -25 ... +70 °C Storage -50 ... +85 °C Temperature

Ambient Air

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Temperature	
Compensation	
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
RoHS Information	1SAD938519-0180
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions	
ABB EcoSolutions	Yes
End Of Life Disassembling Instructions	1SAC200283H0001
Environmental Information	1SAC200100H0001
Environmental Product Declaration - EPD	1SAC200236H0001

Certificates and Declarations	
ABS Certificate	1SAA941002-0102
ATEX Certificate	1SAA941004-3901
BV Certificate	1SAA941002-0201
CB Certificate	1SAA964013-2001
CCC Certificate	2024010304636746
CCS Certificate	1SAA941001-0901
CQC Certificate	CQC2013010309592132
Declaration of Conformity - CCC	2020980309000286
Declaration of Conformity - CE	1SAD101100-3601
Declaration of Conformity - UKCA	1SAD201100-3601
DNV Certificate	1SAA941003-0302
EAC Certificate	1SAA941003-2701
IECEx Certificate	1SAA941000-4001
LR Certificate	1SAA941002-0501
RINA Certificate	RINA_ELE376813CS
RMRS Certificate	1SAA941001-0701
UL Certificate	E48139-19990512

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Container Information			
Package Level 1 Units	box 1 piece		
Package Level 1 Width	160 mm		
Package Level 1 Height	107 mm		
Package Level 1 Depth / Length	97 mm		
Package Level 1 Gross Weight	0.984 kg		
Package Level 1 EAN	4013614442230		

External Classifications and Standards				
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)	3706582			
E-Number (Norway)	4116702			
E-Number (Sweden)	3210247			

Accessories						
Identifier 1SAX101911R1001	Description	Type Quantity		Unit Of Measure		
	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		

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Categories

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



