

TF96-87

General Information

Extended Product Type:	TF96-87
Product ID:	1SAZ911201R1005
EAN:	4013614483028
Catalog Description:	TF96-87 Thermal Overload Relay
Long Description:	The TF96-87 thermal overload relay is an economic electromechanical protection device for the main circuit. It offers reliable and fast protection for motors in the event of overload or phase failure. The device has trip class 10. Further features are the temperature compensation, trip contact (NC), signal contact (NO), automatic- or manual reset selectable, trip-free mechanism, STOP function and a trip indication. The overload relays are connected directly to the block contactors. Single mounting kits are available as accessory.

Categories

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

Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

Dimensions

Product Net Width:	69.9 mm
Product Net Height:	106.9 mm
Product Net Depth / Length:	106.3 mm
Product Net Weight:	0.52 kg

Popular Downloads

Data Sheet, Technical Information:	<u>2CDC106069D0201</u>
Data Sheet, Technical Information (Part 2):	<u>1SAZ900502F0004</u>
Data Sheet, Technical Information (Part 3):	<u>1SAZ800503</u> <u>1SAZ900506</u>
Instructions and Manuals:	<u>2CDC106052M6803</u>
Instructions and Manuals (Part 2):	<u>2CDC106086M6801</u>
Dimension Diagram:	<u>1SAZ900401F0001</u>

Technical

Setting Range:	75 ... 87 A
Rated Operational Voltage:	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC Main Circuit 440 V DC

Rated Operational Current 87 A**(I_e):****Rated Operational Current** 87 A**AC-3 (I_e):**

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):	690 V
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Number of Poles:	3
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Number of Auxiliary Contacts NC:	1
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Number of Auxiliary Contacts NO:	1
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Number of Protected Poles:	3
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Conventional Free-air Thermal Current (I_{th}):	Auxiliary Circuit NC 6 A
	Auxiliary Circuit NO 4 A

Rated Operational Current AC-15 (I_e):	(120 V) NC 3 A
	(120 V) NO 0.75 A
	(240 V) NC 3 A
	(240 V) NO 0.75 A
	(400 V) NC 0.75 A
	(400 V) NO 0.75 A
	(500 V) NC 0.75 A
	(500 V) NO 0.75 A

Rated Operational Current DC-13 (I_e):	(125 V) NC 0.55 A
	(125 V) NO 0.55 A
	(24 V) NC 1.25 A
	(24 V) NO 1.25 A
	(250 V) NC 0.27 A
	(250 V) NO 0.27 A
	(500 V) NC 0.15 A
	(500 V) NO 0.15 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 ²
	Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ²
	Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ²
	Flexible 1/2x 0.75 ... 1 mm ²
	Flexible 1/2x 1 ... 2.5 mm ²
	Rigid 1/2x 0.75 ... 4 mm ²

Connecting Capacity Main Circuit:	Flexible with Ferrule 1/2x 6 ... 35 mm ² Flexible with Ferrule 1x 6 ... 50 mm ² Flexible with Insulated Ferrule 1/2x 6 ... 16 mm ² Flexible with Insulated Ferrule 1x 6 ... 50 mm ² Flexible 1/2x 6 ... 35 mm ² Flexible 1x 6 ... 50 mm ² Rigid 1/2x 6 ... 35 mm ² Rigid 1x 6 ... 50 mm ²
Tightening Torque:	Auxiliary Circuit 1 ... 1.2 N·m Main Circuit 6.0 ... 9.0 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:	Position 1 to 6
Power Loss:	at Rated Operating Conditions per Pole 2.9 ... 3.9 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

Environmental

Ambient Air Temperature:	Operation -40 ... +70 °C Operation Compensated -40 ... +70 °C Storage -50 ... +80 °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 acc. to IEC 60068-2-6:	5g / 3 ... 150 Hz
RoHS Status:	Following EU Directive 2011/65/EU
Technical UL/CSA	
Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
Ampere Rating UL/CSA:	87 A
Contact Rating UL/CSA:	(NC:) B600 (NC:) Q600 (NO:) Q600 (NO:) D300
Connecting Capacity Main Circuit UL/CSA:	Flexible 1x 8-1 AWG Flexible 2x 8-3 AWG Stranded 1x 8-1 AWG Stranded 2x 8-3 AWG

Connecting Capacity	Flexible 1/2x 18-12 AWG
Auxiliary Circuit UL/CSA:	Stranded 1/2x 18-12 AWG
Tightening Torque UL/CSA:	Auxiliary Circuit 9 ... 11 in·lb Main Circuit 53 ... 80 in·lb

Certificates and Declarations (Document Number)

ABS Certificate:	<u>1SAA941003-0101</u>
ATEX Certificate:	<u>1SAA941006-3901</u>
BV Certificate:	<u>1SAA941001-0202</u>
CB Certificate:	<u>1SAA941016-2001</u>
CCC Certificate:	<u>1SAA941013-3801</u>
cUL Certificate:	<u>cUL_E48139</u>
Declaration of Conformity - CE:	<u>1SAD938507-0187</u>
DNV GL Certificate:	<u>1SAA941004-0301</u>
EAC Certificate:	<u>1SAA941002-2701</u>
GOST Certificate:	<u>1SAA941001-2701</u>
Instructions and Manuals:	<u>2CDC106052M6803</u>
LR Certificate:	<u>1SAA941003-0501</u>
RINA Certificate:	<u>RINA_ELE098115XG</u>
RMRS Certificate:	<u>1SAA941002-0701</u>
RoHS Information:	<u>1SAD938507-0187</u>
UL Certificate:	<u>UL_E48139</u>

Container Information

Package Level 1 Units:	1 piece
Package Level 1 Width:	97 mm
Package Level 1 Height:	121 mm
Package Level 1 Depth / Length:	97 mm
Package Level 1 Gross Weight:	0.62 kg
Package Level 1 EAN:	4013614483028
Package Level 2 Units:	12 piece
Package Level 2 Width:	280 mm
Package Level 2 Height:	210 mm
Package Level 2 Depth / Length:	395 mm
Package Level 2 Gross Weight:	7.826 kg
Package Level 2 EAN:	4013614485466

Classifications

Object Classification Code: F

E-nummer:	3210274
ETIM 4:	EC000106 - Thermal overload relay
ETIM 5:	EC000106 - Thermal overload relay
ETIM 6:	EC000106 - Thermal overload relay

ETIM 7: EC000106 - Thermal overload relay

eClass: 7.0 27371501

UNSPSC: 39121521



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