

General Information

Extended Product Type: TF96-96

Product ID: 1SAZ911201R1006 **EAN:** 4013614483035

Catalog Description: TF96-96 Thermal Overload Relay

Long Description: The TF96-96 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

 EAN:
 4013614483035

 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: 106.3 mm

Product Net Weight: 0.53 kg

Container Information

Package Level 1 Units: 1 piece Package Level 1 Width: 97 mm Package Level 1 Height: 121 mm Package Level 1 Length: 97 mm Package Level 1 Gross Weight: $0.63 \, \text{kg}$ Package Level 2 Units: 12 piece Package Level 2 Width: 280 mm Package Level 2 Height: 210 mm Package Level 2 Length: 395 mm Package Level 2 Gross Weight: 7.946 kg Package Level 2 EAN: 4013614485473

Technical

Setting Range: 84 ... 96 A

Rated Operational Voltage: Auxiliary Circuit 600 V AC/DC

Main Circuit 690 V AC Main Circuit 440 V DC

Rated Operational Current (I_e): 96 A Rated Operational Current AC-3 (I_e): 96 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): 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 (Ith):

Auxiliary Circuit NC 6 A Auxiliary Circuit NO 4 A

Rated Operational Current AC-15

(l_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	(125 V) NC 0.55 A
(I _e):	(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: Connecting Capacity-Auxiliary	3 Flexible with Ferrule 1/2x 0.75 2.5 mm²
Circuit:	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
Tightening Torque:	Rigid 1x 6 50 mm ² Auxiliary Circuit 1 1.5 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 2.8 3.7 W
Power Loss: Suitable For:	at Rated Operating Conditions per Pole 2.8 3.7 W AF80 AF96
	AF80 AF96 IEC/EN 60947-1
Suitable For:	AF80 AF96
Suitable For:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1
Suitable For:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1
Suitable For:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1
Suitable For: Standards:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1
Suitable For: Standards: Environmental	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature Compensation:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC 60068-2-6: RoHS Status:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g 5g / 3 150 Hz
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC 60068-2-6:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g 5g / 3 150 Hz
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC 60068-2-6: RoHS Status: Technical UL/CSA Maximum Operating Voltage	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g 5g / 3 150 Hz Following EU Directive 2002/95/EC August 18, 2005 and amendment
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC 60068-2-6: RoHS Status: Technical UL/CSA Maximum Operating Voltage UL/CSA:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g 5g / 3 150 Hz Following EU Directive 2002/95/EC August 18, 2005 and amendment Main Circuit 600 V AC 96 A (NC:) B600
Suitable For: Standards: Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC 60068-2-6: RoHS Status: Technical UL/CSA Maximum Operating Voltage UL/CSA: Ampere Rating UL/CSA:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g 5g / 3 150 Hz Following EU Directive 2002/95/EC August 18, 2005 and amendment Main Circuit 600 V AC 96 A (NC:) B600 (NC:) Q600
Environmental Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC 60068-2-6: RoHS Status: Technical UL/CSA Maximum Operating Voltage UL/CSA: Ampere Rating UL/CSA: Contact Rating UL/CSA:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g 5g / 3 150 Hz Following EU Directive 2002/95/EC August 18, 2005 and amendment Main Circuit 600 V AC 96 A (NC:) B600 (NC:) Q600 (NC:) Q600 (NC:) Q600 (NC:) Q600 (NC:) D300
Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC 60068-2-6: RoHS Status: Technical UL/CSA Maximum Operating Voltage UL/CSA: Ampere Rating UL/CSA: Contact Rating UL/CSA: Connecting Capacity Main Circuit	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-4-1 UL 60947-4-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g 5g / 3 150 Hz Following EU Directive 2002/95/EC August 18, 2005 and amendment Main Circuit 600 V AC 96 A (NC:) B600 (NC:) Q600 (NC:) Q600 (NC) D300 Flexible 1x 8 1 AWG
Environmental Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC 60068-2-6: RoHS Status: Technical UL/CSA Maximum Operating Voltage UL/CSA: Ampere Rating UL/CSA: Contact Rating UL/CSA:	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 UL 60947-4-1 Operation -25 +60 °C Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g 5g / 3 150 Hz Following EU Directive 2002/95/EC August 18, 2005 and amendment Main Circuit 600 V AC 96 A (NC:) B600 (NC:) Q600 (NC:) Q600 (NC:) Q600 (NC:) Q600 (NC:) D300
Environmental Ambient Air Temperature: Ambient Air Temperature Compensation: Maximum Operating Altitude Permissible: Resistance to Shock acc. to IEC 60068-2-27: Resistance to Vibrations acc. to IEC 60068-2-6: RoHS Status: Technical UL/CSA Maximum Operating Voltage UL/CSA: Ampere Rating UL/CSA: Contact Rating UL/CSA: Connecting Capacity Main Circuit	AF80 AF96 IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-1 UL 60947-4-1 UL 60947-4-1 UL 60947-4-1 Operation Compensated -25 +60 °C Storage -50 +80 °C Yes 2000 m 11 ms Pulse 25g 5g / 3 150 Hz Following EU Directive 2002/95/EC August 18, 2005 and amendment Main Circuit 600 V AC 96 A (NC:) B600 (NC:) Q600 (NC:) Q600 (NC:) Q300 INC:) D300 Flexible 1x 8 1 AWG Flexible 2x 8 3 AWG

Circuit UL/CSA: Stranded 1/2x 18 ... 12 AWG
Tightening Torque UL/CSA: Auxiliary Circuit 9 ... 13 in·lb
Main Circuit 53 ... 80 in·lb

Certificates and Declarations (Document Number)

ABS Certificate:	1SAA941003-0101
BV Certificate:	1SAA941001-0202
CB Certificate:	1SAA941016-2001
CCC Certificate:	1SAA941013-3801
cUL Certificate:	cUL_E48139
Declaration of Conformity - CE:	1SAD938504-0187
DNV Certificate:	1SAA941004-0301
GOST Certificate:	1SAA941001-2701
LR Certificate:	1SAA941003-0501
RINA Certificate:	RINA_ELE098115XG
RoHS Information:	1SAA941008-4401
UL Certificate:	UL_E48139

Classifications

Object Classification Code:	F
eClass:	7.0 27371501
ETIM 4:	EC000106 - Thermal overload relay
ETIM 5:	EC000106 - Thermal overload relay
UNSPSC:	39121521

