

TF42-3.1



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

General Information

Extended Product Type:	TF42-3.1
Product ID:	1SAZ721201R1033
EAN:	4013614398087
Catalog Description:	TF42-3.1 Thermal Overload Relay
Long Description:	The TF42-3.1 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.

Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

Dimensions

Product Net Width:	45 mm
Product Net Height:	88.3 mm
Product Net Depth:	70.5 mm
Product Net Weight:	0.13 kg

Popular Downloads

Data Sheet, Technical Information:	2CDC106023D0201
Data Sheet, Technical Information (Part 2):	1SAZ700506F0012
Data Sheet, Technical Information (Part 3):	1SAZ70051101 1SAZ700504
Instructions and Manuals:	2CDC106022M6802
Instructions and Manuals (Part 2):	2CDC106076M6801
Dimension Diagram:	1SAZ700405F0001

Technical

Setting Range:	2.3 ... 3.1 A
Rated Operational Voltage:	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC

Rated Operational Current (I_e):	3.1 A
Rated Operational Current AC-3 (I_e):	3.1 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 6 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 (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:	IP20
Pollution Degree:	3
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 0.75 ... 4 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 4 mm ² Flexible 1/2x 0.75 ... 4 mm ² Rigid 1/2x 0.75 ... 4 mm ²
Tightening Torque:	Auxiliary Circuit 1 ... 1.5 N·m Main Circuit 1.5 ... 2.5 N·m
Wire Stripping Length:	Auxiliary Circuit 9 mm Main Circuit 12 mm
Recommended Screw Driver:	Main Circuit Pozidriv 2
Mounting Position:	Position 1 to 5
Power Loss:	at Rated Operating Conditions per Pole 1.1 ... 2.0 W
Suitable For:	AF09 AF12 AF16 AF26 AF30 AF38
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 -25 ... +60 °C Operation Compensated -25 ... +60 °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:	3.1 A

Contact Rating UL/CSA:	(NC:) B600 (NC:) Q600 (NO:) Q600 (NO:) D300
Connecting Capacity Main Circuit UL/CSA:	Flexible 1/2x 18-10 AWG Stranded 1/2x 18-10 AWG
Connecting Capacity Auxiliary Circuit UL/CSA:	Flexible 1/2x 18-12 AWG Stranded 1/2x 18-12 AWG
Tightening Torque UL/CSA:	Auxiliary Circuit 9 ... 13 in·lb Main Circuit 13 ... 22 in·lb

Certificates and Declarations (Document Number)

ABS Certificate:	1SAA941001-0102
ATEX Certificate:	1SAA941001-3901
BV Certificate:	1SAA941001-0202
CB Certificate:	1SAA941009-2001
CCC Certificate:	1SAA941006-3804
cUL Certificate:	1SAA941001-1702
cUR Certificate:	cUL_E48139
Declaration of Conformity - CE:	1SAD938508-0181
DNV GL Certificate:	1SAA941001-0302
EAC Certificate:	1SAA941002-2701
GL Certificate:	1SAA941007-0401
GOST Certificate:	1SAA941001-2701
Instructions and Manuals:	2CDC106022M6802
LR Certificate:	1SAA941001-0502
RINA Certificate:	1SAA941000-0802
RMRS Certificate:	1SAA941000-0704
RoHS Information:	1SAD938508-0181
UL Certificate:	UL_E48139

Container Information

Package Level 1 Units:	1 piece
Package Level 1 Width:	48 mm
Package Level 1 Height:	92 mm
Package Level 1 Length:	78 mm
Package Level 1 Gross Weight:	0.145 kg
Package Level 1 EAN:	4013614398087
Package Level 2 Units:	48 piece
Package Level 2 Width:	280 mm

Package Level 2 Height:	210 mm
Package Level 2 Length:	395 mm
Package Level 2 Gross Weight:	7.346 kg
Package Level 2 EAN:	4013614440120

Classifications

Object Classification Code:	F
E-nummer:	3211965
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

