

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.

Additional Information

ABS Certificate:	1SAA941001-0102
ATEX Certificate:	1SAA941001-3901
Ambient Air Temperature:	Operation -25 ... +60 °C Operation Compensated -25 ... +60 °C Storage -50 ... +80 °C
Ambient Air Temperature Compensation:	Yes
Ampere Rating UL/CSA:	3.1 A
BV Certificate:	1SAA941001-0202
CB Certificate:	1SAA941009-2001
CCC Certificate:	1SAA941006-3804
Co-ordination with Short-Circuit Protective Devices - Type 1:	gG Type Fuses 10 A
Co-ordination with Short-Circuit Protective Devices - Type 2:	gG Type Fuses 10 A
Connecting Capacity Auxiliary Circuit UL/CSA:	Flexible 1/2x 18-12 AWG Stranded 1/2x 18-12 AWG
Connecting Capacity Main Circuit UL/CSA:	Flexible 1/2x 18-10 AWG Stranded 1/2x 18-10 AWG
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
Contact Rating UL/CSA:	(NC:) B600 (NC:) Q600 (NO:) Q600 (NO:) D300
Conventional Free-air Thermal Current (I_{th}):	Auxiliary Circuit NC 6 A Auxiliary Circuit NO 4 A
Country of Origin:	Germany (DE)
Customs Tariff Number:	85364900
Data Sheet, Technical Information:	2CDC106023D0201
Data Sheet, Technical Information (Part 2):	1SAZ700506F0012
Declaration of Conformity - CE:	1SAD938507-0181

Degree of Protection:	IP20
Dimension Diagram:	1SAZ700405F0001
E-nummer:	3211965
EAC Certificate:	1SAA941002-2701
EAN:	4013614398087
EPLAN Catalog Tree:	Electrical engineering / Relays, contactors / General
EPLAN Function Definition:	NO contact / NO contact, 2 connection points / NO auxiliary contact 97_98 NC contact / NC contact, 2 connection points / NC auxiliary contact 95_96 Overload / Thermal release, 6 connection points / Thermal release (bimetal relay) 1_2_3_4_5_6
ETIM 4:	EC000106 - Thermal overload relay
ETIM 5:	EC000106 - Thermal overload relay
ETIM 6:	EC000106 - Thermal overload relay
GL Certificate:	1SAA941007-0401
GOST Certificate:	1SAA941001-2701
IIT Publishing Status:	Level 0 - Information enabled
Industrial IT Certification Level:	0
Instructions and Manuals:	2CDC106022M6802
Instructions and Manuals (Part 2):	2CDC106076M6801
Invoice Description:	TF42-3.1 Thermal Overload Relay Trip class 10, 2.30-3.10 A
LR Certificate:	1SAA941001-0502
Maximum Operating Altitude Permissible:	2000 m
Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
Minimum Order Quantity:	1 piece
Mounting Position:	Position 1 to 5
Mounting Type:	Mounted on Contactor
Number of Auxiliary Contacts NC:	1
Number of Auxiliary Contacts NO:	1
Number of Poles:	3
Number of Protected Poles:	3
Object Classification Code:	F
Package Level 1 EAN:	4013614398087
Package Level 1 Gross Weight:	0.145 kg
Package Level 1 Height:	92 mm
Package Level 1 Length:	78 mm
Package Level 1 Units:	1 piece
Package Level 1 Width:	48 mm
Package Level 2 EAN:	4013614440120
Package Level 2 Gross Weight:	7.346 kg
Package Level 2 Height:	210 mm
Package Level 2 Length:	395 mm
Package Level 2 Units:	48 piece
Package Level 2 Width:	280 mm
Phase Loss Sensitive:	Yes
Pollution Degree:	3
Power Loss:	at Rated Operating Conditions per Pole 1.1 ... 2.0 W
Product Main Type:	TF42
Product Name:	Thermal Overload Relay
Product Net Depth:	70.5 mm

Product Net Height:	88.3 mm
Product Net Weight:	0.13 kg
Product Net Width:	45 mm
RINA Certificate:	1SAA941000-0801
RMRS Certificate:	1SAA941000-0703
Rated Current (I_n):	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
Rated Operational Current (I_e):	3.1 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 AC-3 (I_e):	3.1 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
Rated Operational Voltage:	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC
Recommended Screw Driver:	Main Circuit Pozidriv 2
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 Date:	1360
RoHS Information:	1SAA941006-4402
RoHS Status:	Following EU Directive 2002/95/EC August 18, 2005 and amendment
Selling Unit of Measure:	piece
Setting Range:	2.3 ... 3.1 A
Short Description:	TF42-3.1 Thermal Overload Relay
Short-Circuit Protective Devices:	Auxiliary Circuit NC - gG Type Fuses 6 A Auxiliary Circuit NO - gG Type Fuses 4 A
Standards:	IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1
Suitable For:	AF09 AF12 AF10

AF16
AF26
AF30
AF38

Suitable for Product Class:	Block Contactors
Terminal Type:	Screw Terminals
Tightening Torque:	Auxiliary Circuit 1 ... 1.2 N·m Main Circuit 2.5 ... 2.7 N·m
Tightening Torque UL/CSA:	Auxiliary Circuit 9 ... 11 in·lb Main Circuit 13 ... 22 in·lb
Trip Class:	10
UL Certificate:	UL_E48139
UNSPSC:	39121521
Wire Stripping Length:	Auxiliary Circuit 9 mm Main Circuit 12 mm
cUL Certificate:	1SAA941001-1702
cUR Certificate:	cUL_E48139
eClass:	7.0 27371501
DNV GL Certificate:	1SAA941001-0302

