TF42-20

General Information

Extended Product Type:	TF42-20
Product ID:	1SAZ721201R1049
EAN:	4016779764971
Catalog Description:	TF42-20 Thermal Overload Relay
Long Description:	The TF42-20 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:	4016779764971
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:	0.135 kg

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:	0.15 kg
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:	7.586 kg
Package Level 2 EAN:	4013614440199

Technical

Setting Range:	16 ... 20 A
Rated Operational Voltage:	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC
Rated Operational Current (I_e):	20 A
Rated Operational Current AC-3 (I_e):	20 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 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm² Flexible 1/2x 0.75 ... 1 mm² Flexible 1/2x 1 ... 2.5 mm² Rigid 1/2x 0.75 ... 4 mm²
Connecting Capacity-Main Circuit:	Flexible with Ferrule 1/2x 0.75 ... 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 ... 4 mm² Flexible 1/2x 0.75 ... 4 mm² Rigid 1/2x 0.75 ... 4 mm²
Tightening Torque:	Auxiliary Circuit 1 ... 1.5 N·m Main Circuit 2.5 ... 2.7 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 1.8 ... 2.6 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 2002/95/EC August 18, 2005 and amendment

Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
Ampere Rating UL/CSA:	20 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:	1SAA941001-0101
ATEX Certificate:	1SAA941001-3901
BV Certificate:	1SAA941001-0202
CB Certificate:	1SAA941009-2001
CCC Certificate:	1SAA941002-3805
cUL Certificate:	1SAA941001-1702
cUR Certificate:	cUL_E48139
Declaration of Conformity - CE:	1SAD938504-0181
DNV Certificate:	1SAA941002-0301
GL Certificate:	1SAA941007-0401
GOST Certificate:	1SAA941001-2701
LR Certificate:	1SAA941001-0501
RINA Certificate:	1SAA941000-0801
RMRS Certificate:	1SAA941000-0703
RoHS Information:	1SAA941006-4402
UL Certificate:	UL_E48139

Classifications

Object Classification Code:	F
eClass:	7.0 27371501
E-nummer:	3211972
ETIM 4:	EC000106 - Thermal overload relay
ETIM 5:	EC000106 - Thermal overload relay
UNSPSC:	39121521