



PRODUCT-DETAILS

TF42-20

TF42-20 Thermal Overload Relay 16 ... 20 A



General Information	
Extended Product Type:	TF42-20
Product ID:	1SAZ721201R1049
EAN:	4016779764971
Catalog Description:	TF42-20 Thermal Overload Relay 16 ... 20 A
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.
Display Name:	TF42-20

Ordering	
Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

Popular Downloads

Data Sheet, Technical Information:	2CDC106023D0201
Instructions and Manuals:	2CDC106022M6802
Instructions and Manuals (Part 2):	1SAC200017M0002
Ex Operating Instructions:	2CDC106076M6801
Time-Current Characteristic Curve:	1SAZ700506F0019
CAD Dimensional Drawing:	2CDC001079B0201
Dimension Diagram:	1SAZ700405F0001

Dimensions

Product Net Width:	45 mm
Product Net Height:	88.3 mm
Product Net Depth / Length:	70.5 mm
Product Net Weight:	0.135 kg

Technical

Setting Range:	16 ... 20 A
Rated Operational Voltage:	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC Main Circuit 600 V DC
Rated Operational Current (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:	3P
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 0.5 A (240 V) NC 3 A (240 V) NO 0.5 A (400 V) NC 0.75 A (400 V) NO 0.5 A (500 V) NC 0.75 A (500 V) NO 0.5 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 ... 1.2 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
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 IEC 60335-2-40 A2L

Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
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 ... 11 in·lb Main Circuit 13 ... 22 in·lb

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:	5g 3 ... 150 Hz
RoHS Information:	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA:	2CMT2023-006525

Material Compliance

Conflict Minerals Reporting Template (CMRT):	9AKK108467A5658
REACH Declaration:	2CMT2021-006202
RoHS Declaration:	2CMT2021-006277
WEEE B2C / B2B:	Business To Business
WEEE Category:	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

ABB EcoSolutions:	Yes
ABB Site Meeting Group Waste To Landfill Target:	UL 2799 Zero Waste To Landfill Validation available
EcoSolutions Profile:	1SFC100125C0355
End Of Life Disassembling Instructions:	1SAC200429H0001
Environmental Information:	1SAC200057H0009
Environmental Product Declaration - EPD:	1SAC200373H0001
Improved Energy Efficiency for Customers:	Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line
Recyclability Rate of the Product acc. to EN45555:	Design for Closing Resource Loops - Standard EN45555 - 65 %

Certificates and Declarations

A2L Certificate – IEC:	1SAA941000-4601
ABS Certificate:	1SAA941001-0102
ATEX Certificate:	1SAA941010-3901
BV Certificate:	1SAA941001-0203
CB Certificate:	1SAA941009-2001
CCC Certificate:	2024010304658956
CQC Certificate:	CQC2011010309464423

Declaration of Conformity - CCC:	2020980304001788
Declaration of Conformity - CE:	1SAD101100-3503
Declaration of Conformity - UKCA:	1SAD201100-3503
DNV GL Certificate:	1SAA941001-0302
EAC Certificate:	1SAA941002-2701
GL Certificate:	1SAA941007-0401
IECEX Certificate:	1SAA941003-4001
LR Certificate:	1SAA941001-0502
RINA Certificate:	1SAA941000-0802
RMRS Certificate:	1SAA941000-0704
UL Certificate:	E48139-20090126

Container Information

Package Level 1 Units:	carton 1 piece
Package Level 1 Width:	48 mm
Package Level 1 Height:	92 mm
Package Level 1 Depth / Length:	78 mm
Package Level 1 Gross Weight:	0.15 kg
Package Level 1 EAN:	4016779764971
Package Level 2 Units:	carton 40 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:	7.586 kg
Package Level 2 EAN:	4013614440199

External Classifications and Standards

Object Classification Code:	F
ETIM 9:	EC000106 - Thermal overload relay
ETIM 10:	EC000106 - Thermal overload relay
eClass:	V11.0 : 27371501
UNSPSC:	39122330
IDEA Granular Category Code (IGCC):	5366 >> Thermal overload relay
E-Number (Finland):	3706128
E-Number (Norway):	4116769
E-Number (Sweden):	3211972

Accessories

Identifier	Description	Type	Qty	Unit Of Measure
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1SAZ701902R0001	DB42 Single Mounting Kit	DB42	1	piece
1SAX101911R1001	DRS-F-01 Remote Reset Coil	DRS-F-01	1	piece
1SAX101911R1002	DRS-F-02 Remote Reset Coil	DRS-F-02	1	piece
1SAX101911R1003	DRS-F-03 Remote Reset Coil	DRS-F-03	1	piece
1SAX101911R1004	DRS-F-04 Remote Reset Coil	DRS-F-04	1	piece
1SAZ701904R1001	DRS-F-TF-01 Remote Coil	DRS-F-TF-01	1	piece
1SAZ701904R1002	DRS-F-TF-02 Remote Coil	DRS-F-TF-02	1	piece
1SAZ701904R1003	DRS-F-TF-03 Remote Coil	DRS-F-TF-03	1	piece
1SAZ701904R1004	DRS-F-TF-04 Remote Coil	DRS-F-TF-04	1	piece
1SAZ701903R1001	WRH-F Holder	WRH-F	1	piece
1SAZ701903R1011	WRB-400 Bowden Wire	WRB-400	1	piece
1SAZ701903R1012	WRB-600 Bowden Wire	WRB-600	1	piece
1SAZ701903R1013	WRB-1000 Bowden Wire	WRB-1000	1	piece
1SAZ701903R1030	WRBG Gasket	WRBG	1	piece
1SFA616162R1014	KPR3-101L Reset push button	KPR-101L	1	piece

Categories

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

