TF140DU-90

General Information

Extended Product Type:	TF140DU-90
Product ID:	1SAZ431201R1001
EAN:	4013614446818
Catalog Description:	TF140DU-90 Thermal Overload Relay 66 ... 90 A
Long Description:	The TF140DU-90 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 10A. Further features are the temperature compensation, trip contact (NC), signal contact (NO), automatic- or manual reset selectable, trip-free mechanism, STOP- and Test function and a trip indication. The overload relays are connected directly to the block contactors.

Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

Popular Downloads

Data Sheet, Technical Information:	Data sheet - Thermal Overload Relay TF140DU/TF140DU-V1000
Instructions and Manuals:	Operating instructions - Thermal overload relay TF140DU
Instructions and Manuals (Part 2):	Contactors and Overload relays guide
Time-Current Characteristic Curve:	Tripping characteristic - Thermal overload relay TF140DU-90/TF140DU-90/V1000
CAD Dimensional Drawing:	Information - 2D and 3D files for CAD systems
Dimension Diagram:	Dimension Drawing - TF140DU / TF140DU-V1000 Thermal Overload Relay

Dimensions

Product Net Width:	89 mm
Product Net Height:	140 mm
Product Net Depth / Length:	126 mm
Product Net Weight:	0.82 kg

Technical

Setting Range:	66 ... 90 A
Rated Operational Voltage:	Auxiliary Circuit 440 V DC Auxiliary Circuit 500 V AC Main Circuit 690 V AC Main Circuit 440 V DC
Rated Operational Current (I_e):	90 A
Rated Frequency (f):	Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz Auxiliary Circuit DC Main Circuit 60 Hz Main Circuit 50 Hz Main Circuit DC
Rated Impulse Withstand Voltage (U_{imp}):	Auxiliary Circuit 6 kV Main Circuit 8 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 10 A Auxiliary Circuit NO 6 A
Rated Operational Current AC-15 (I_e):	(120 V) NC 3 A (120 V) NO 1.5 A (240 V) NC 3 A (240 V) NO 1.2 A (400 V) NC 0.75 A (400 V) NO 0.37 A (440 V) NC 0.75 A (440 V) NO 0.37 A (500 V) NC 0.3 A (500 V) NO 0.25 A
Rated Operational Current DC-13 (I_e):	(125 V) NC 0.25 A (125 V) NO 0.25 A (24 V) NC 1.25 A (24 V) NO 1.25 A (250 V) NC 0.12 A (250 V) NO 0.04 A (60 V) NC 0.25 A (60 V) NO 0.25 A
Degree of Protection:	IP20 Housing IP20 Main Circuit Terminals IP10
Pollution Degree:	3
Connecting Capacity Auxiliary Circuit:	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm^2 Flexible 1/2x 0.75 ... 2.5 mm^2 Rigid 1/2x 0.75 ... 4 mm^2
Connecting Capacity Main Circuit:	Flexible with Ferrule 1/2x 16 ... 70 mm^2 Flexible with Insulated Ferrule 1/2x 16 ... 70 mm^2 Flexible 1/2x 16 ... 70 mm^2 Rigid 1/2x 16 ... 70 mm^2
Tightening Torque:	Auxiliary Circuit 0.8 ... 1.2 N·m Main Circuit 8 ... 10 N·m
Wire Stripping Length:	Auxiliary Circuit 9 mm Main Circuit 25 mm
Recommended Screw Driver:	Auxiliary Circuit Pozidriv 2 Main Circuit Hexagon 4
Mounting Position:	any
Power Loss:	at Rated Operating Conditions per Pole 2.1 W
Suitable For:	AF116 AF140
Standards:	IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1

Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
Contact Rating UL/CSA:	(NC) B600 (NO) C300
Connecting Capacity Main Circuit UL/CSA:	Flexible 1/2x 6-2/0 AWG Stranded 1/2x 6-2/0 AWG
Connecting Capacity Auxiliary Circuit UL/CSA:	Flexible 1/2x 18-14 AWG Stranded 1/2x 18-14 AWG
Tightening Torque UL/CSA:	Auxiliary Circuit 12 in·lb

Environmental

Ambient Air Temperature:	Operation -25 ... +55 °C Operation Compensated -25 ... +55 °C Storage -40 ... +70 °C
Ambient Air Temperature Compensation:	Yes
Maximum Operating Altitude Permissible:	2000 m
Resistance to Shock acc. to IEC 60068-2-27:	11 ms Pulse 12g 25g 2 shocks 13 ms
Resistance to Vibrations:	20 Cycles with Load 0.8 In: 5g 5 ... 150 ... 5 Hz
RoHS Status:	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA:	Toxic Substances Control Act (TSCA) declaration for Contactors

Material Compliance

Conflict Minerals Reporting Template (CMRT):	CMRT - Conflict Minerals Reporting Template
REACH Declaration:	REACH - Letter of Confirmation for block contactors, contactor relays, installation contactors, mini contactors, mini contactor relays, thermal overload relays, electronic overload relays and related accessories
RoHS Information:	1SAD938507-0185
WEEE B2C / B2B:	Business To Business
WEEE Category:	5. Small Equipment (No External Dimension More Than 50 cm)

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End Of Life Disassembling Instructions:	End of life Instruction TF65 / TF96 / TF140
Environmental Information:	Product Environmental Information TF140DU thermal overload relays
Environmental Product Declaration - EPD:	Environmental Product Declaration PEP TF140DU

Certificates and Declarations

ABS Certificate:	ABS Certificate - TF140DU, TF140DU-V1000 - Thermal Overload Relays
BV Certificate:	BV Certificate - TF140DU, TF140DU-V1000 - Thermal Overload Relays
CB Certificate:	CB Certificate - TF140DU - Thermal Overload Relay
CCC Certificate:	CCC Certificate_Thermal overload relay_TF140DU_Made in Bulgaria
CQC Certificate:	CQC Certificate_Thermal overload relay_TF140DU_Made in Bulgaria
Declaration of Conformity - CCC:	CCC Declaration of Conformity_Thermal overload relay_TF140DU_Made in Bulgaria
Declaration of Conformity - CE:	EU Declaration of Conformity -TF140DU - Thermal Overload Relay
Declaration of Conformity - UKCA:	UK Declaration of Conformity -TF140DU - Thermal Overload Relay
DNV GL Certificate:	DNV GL Certificate - TF65, TF96, TF140DU, TF140DU-V1000
EAC Certificate:	EAC Certificate - TA25DU, TA42DU, TA75DU, TA85DU, TA110DU, TA200DU, T16, TF42, TF65, TF96, TF140DU - Overload Relays
LR Certificate:	LR Certificate - TF140DU, TF140DU-V1000 - Thermal Overload Relays
RINA Certificate:	RINA_ELE0988115XG
RMRS Certificate:	RMRS Certificate TF65, TF96, TF140DU, TF140DU-V1000
UL Certificate:	UL Certificate of Compliance - TF140DU - Thermal Overload Relays

Container Information

Package Level 1 Units:	carton 1 piece
Package Level 1 Width:	165 mm
Package Level 1 Height:	133 mm
Package Level 1 Depth / Length:	151 mm
Package Level 1 Gross Weight:	0.945 kg
Package Level 1 EAN:	4013614446818
Package Level 2 Units:	4 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:	8.786 kg
Package Level 2 EAN:	4013614494352

External Classifications and Standards

Object Classification Code:	F
ETIM 4:	EC000106 - Thermal overload relay
ETIM 5:	EC000106 - Thermal overload relay
ETIM 6:	EC000106 - Thermal overload relay
ETIM 7:	EC000106 - Thermal overload relay
ETIM 8:	EC000106 - Thermal overload relay
eClass:	V11.0 : 27371501
UNSPSC:	39122330
IDEA Granular Category Code (IGCC):	5366 >> Thermal overload relay
E-Number (Finland):	3706676
E-Number (Norway):	4116771
E-Number (Sweden):	3210241

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Number of Auxiliary Contacts NO:	1
Number of Protected Poles:	3
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Tightening Torque:	Auxiliary Circuit 0.8 ... 1.2 N m Main Circuit 8 ... 10 N m
Wire Stripping Length:	Auxiliary Circuit 9 mm Main Circuit 25 mm
Recommended Screw Driver:	Auxiliary Circuit Pozidriv 2 Main Circuit Hexagon 4
Mounting Position:	any
Power Loss:	at Rated Operating Conditions per Pole 2.1 W
Suitable For:	AF116 AF140
Standards:	IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1

Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
Contact Rating UL/CSA:	(NC.) B600 (NO.) C300
Connecting Capacity Main Circuit UL/CSA:	Flexible 1/2x 6-2/0 AWG Stranded 1/2x 6-2/0 AWG
Connecting Capacity Auxiliary Circuit UL/CSA:	Flexible 1/2x 18-14 AWG Stranded 1/2x 18-14 AWG
Tightening Torque UL/CSA:	Auxiliary Circuit 12 in lb

Environmental

Ambient Air Temperature:	Operation -25 ... +55 °C Operation Compensated -25 ... +55 °C Storage -40 ... +70 °C
Ambient Air Temperature Compensation:	Yes
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Environmental Product Declaration - EPD:	Environmental Product Declaration PEP TF140DU

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CQC Certificate:	CQC Certificate Thermal overload relay, TF140DU, Made in Bulgaria
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RINA Certificate:	RINA_ELE0998115XG
RMRS Certificate:	RMRS Certificate TF65, TF96, TF140DU, TF140DU-V1000
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