PRODUCT-DETAILS

TF65-40B

TF65-40B Thermal Overload Relay 30 ... 40 A

General Information

Extended Product Type	TF65-40B
Product ID	1SAZ821201R1003
EAN	4013614563164
Catalog Description	TF65-40B Thermal Overload Relay 30 ... 40 A
Long Description	The TF65-40B thermal overload relay is an economic electromechanical protection device for the main circuit, complying with the latest railway rolling stock standards and allowing installation in passengers or driver cabins for trains frequently operating tunnels or undergrounds. 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

Popular Downloads

Data Sheet, Technical Information	2CDC106069D0201
Instructions and Manuals	2CDC106051M6803
Instructions and Manuals (Part 2)	1SAC200017M0002
Time-Current Characteristic Curve	1SAZ800502F0003
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	106.9 mm
Product Net Height	101.4 mm
Product Net Depth / Length	54.9 mm
Product Net Weight	0.372 kg

Technical

Setting Range	30 ... 40 A
Rated Operational Voltage	Auxiliary Circuit 600 V AC/DC Main Circuit 690 V AC Main Circuit 440 V DC
Rated Operational Current (I_e)	40 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 8 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 0.5 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	Housing IP20 Main Circuit Terminals IP10
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 2.5 ... 10 mm² Flexible with Ferrule 1x 2.5 ... 35 mm² Flexible with Insulated Ferrule 1x 2.5 ... 35 mm² Flexible with Insulated Ferrule 1/2x 2.5 ... 10 mm² Flexible 1/2x 2.5 ... 16 mm² Flexible 1x 2.5 ... 35 mm² Rigid 1/2x 2.5 ... 16 mm² Rigid 1x 2.5 ... 35 mm²
Tightening Torque	Auxiliary Circuit 1 ... 1.2 N·m Main Circuit 4.0 ... 4.5 N·m
Wire Stripping Length	Auxiliary Circuit 9 mm Main Circuit 17 mm
Recommended Screw Driver	Auxiliary Circuit Pozidriv 2 Main Circuit Pozidriv 2
Power Loss	at Rated Operating Conditions per Pole 2.1 ... 3.7 W
Suitable For	AF40B AF52B AF65B
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 (NC:) Q600 (NO:) Q600 (NO:) D300
Connecting Capacity Main Circuit UL/CSA	Flexible 1x 12-2 AWG Flexible 2x 12-6 AWG Stranded 1x 12-2 AWG Stranded 2x 12-6 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 35 ... 40 in·lb

Environmental

Ambient Air Temperature	Operation -40 ... +70 °C Operation Compensated -40 ... +70 °C Storage -50 ... +80 °C
Ambient Air Temperature	Yes

Compensation	
Maximum Operating Altitude Permissible	2000 m
Resistance to Shock acc. to IEC 60068-2-27	11 ms Pulse 25g 25g 2 shocks 13 ms
Resistance to Vibrations	5g 3 ... 150 Hz
RoHS Status	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 Information	2CMT2021-006277
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006525
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

Circular Value

End of Life Instructions	1SAC200334H0001

Eco Transparency

Environmental Product Declaration - EPD	1SAC200249H0001

Certificates and Declarations

Declaration of Conformity - CE	1SAD101100-3505
Declaration of Conformity - UKCA	1SAD201100-3505
UL Certificate	E48139-20130329

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	121 mm
Package Level 1 Height	82 mm
Package Level 1 Depth / Length	123 mm
Package Level 1 Gross Weight	0.456 kg
Package Level 1 EAN	4013614563164
Package Level 2 EAN	4013614564437

Classifications

Object Classification Code	F
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	39121520
IDEA Granular Category Code (IGCC)	5364 >> Overload relay

Categories

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