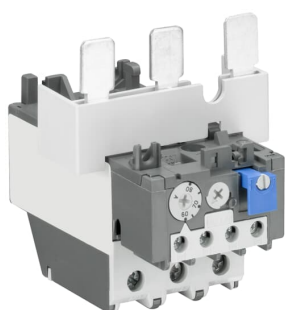


PRODUCT-DETAILS

# TA80DU-52M

## TA80DU-52M Thermal Overload Relay 36 ... 52 A



### General Information

|                       |  |
|-----------------------|--|
| Extended Product Type | TA80DU-52M   |
| Product ID            | 1SAZ331201R2004  |
| EAN                   | 4013614483929  |
| Catalog Description   | TA80DU-52M Thermal Overload Relay 36 ... 52 A  |
| Long Description      | TA80DU-52M (36.0-52.0A) 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. Single mounting kits are available as accessory. |

### Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 1 piece  |
| Customs Tariff Number  | 85364900 |

### Popular Downloads

|                          |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 2CDC106080M6802 |
| Time-Current             | 1SAZ300501F0004 |

|                         |                 |
|-------------------------|-----------------|
| Characteristic Curve    |                 |
| CAD Dimensional Drawing | 2CDC001079B0201 |
| Dimension Diagram       | 1SAZ300403F0001 |

Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 78 mm    |
| Product Net Height         | 97 mm    |
| Product Net Depth / Length | 111 mm   |
| Product Net Weight         | 0.365 kg |

Technical

|  |   |
|--|---|
| Setting Range  | 36 ... 52 A   |
| Rated Operational Voltage                                | Auxiliary Circuit 440 V DC<br>Auxiliary Circuit 500 V AC<br>Main Circuit 690 V AC<br>Main Circuit 440 V DC  |
| Rated Operational Current (I <sub>e</sub> )              | 52 A  |
| Rated Frequency (f)                                      | Auxiliary Circuit 50 Hz<br>Auxiliary Circuit 60 Hz<br>Auxiliary Circuit DC<br>Main Circuit 60 Hz<br>Main Circuit 50 Hz<br>Main Circuit DC   |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> )      | Auxiliary Circuit 6 kV<br>Main Circuit 6 kV   |
| Rated Insulation Voltage (U <sub>i</sub> )               | 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 <sub>th</sub> ) | Auxiliary Circuit NC 5 A<br>Auxiliary Circuit NO 5 A  |
| Rated Operational Current AC-15 (I <sub>e</sub> )        | (120 V) NC 3 A<br>(120 V) NO 1.5 A<br>(240 V) NC 3 A<br>(240 V) NO 1.2 A<br>(400 V) NC 0.75 A<br>(400 V) NO 0.37 A<br>(440 V) NC 0.75 A<br>(440 V) NO 0.37 A<br>(500 V) NC 0.3 A<br>(500 V) NO 0.25 A |
| Rated Operational Current DC-13 (I <sub>e</sub> )        | (125 V) NC 0.25 A<br>(125 V) NO 0.25 A<br>(24 V) NC 1.25 A<br>(24 V) NO 1.25 A<br>(250 V) NC 0.12 A<br>(250 V) NO 0.04 A<br>(60 V) NC 0.25 A<br>(60 V) NO 0.25 A                                      |
| Degree of Protection                                     | IP20<br>Housing IP20  |

|  |  |
|--|--|
|  | Main Circuit Terminals IP10  |
| Pollution Degree                         | 3  |
| Connecting Capacity<br>Auxiliary Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 0.75 ... 4 mm <sup>2</sup>   |
| Connecting Capacity<br>Main Circuit      | Flexible with Ferrule 1x 2.5 ... 25 mm <sup>2</sup><br>Flexible with Ferrule 2x 2.5 ... 10 mm <sup>2</sup><br>Rigid 1x 2.5 ... 25 mm <sup>2</sup><br>Rigid 2x 2.5 ... 16 mm <sup>2</sup> |
| Tightening Torque                        | Auxiliary Circuit 1 ... 1.3 N·m<br>Main Circuit 4.5 N·m  |
| Wire Stripping Length                    | Auxiliary Circuit 9 mm<br>Main Circuit 14 mm   |
| Recommended Screw<br>Driver              | Auxiliary Circuit Pozidriv 1<br>Main Circuit Pozidriv 2  |
| Mounting Position                        | any  |
| Power Loss                               | at Rated Operating Conditions per Pole 1.7 ... 3.5 W   |
| Standards                                | IEC/EN 60947-1<br>IEC/EN 60947-4-1<br>IEC/EN 60947-5-1<br>UL 60947-1<br>UL 60947-4-1   |

## Technical UL/CSA

|   |   |
|---|---|
| Maximum Operating<br>Voltage UL/CSA             | Main Circuit 600 V AC                               |
| Connecting Capacity<br>Main Circuit UL/CSA      | Flexible 1/2x 8-1 AWG<br>Stranded 1/2x 8-1 AWG      |
| Connecting Capacity<br>Auxiliary Circuit UL/CSA | Flexible 1/2x 18-14 AWG<br>Stranded 1/2x 18-14 AWG  |
| Tightening Torque<br>UL/CSA                     | Auxiliary Circuit 12 in·lb<br>Main Circuit 40 in·lb |

## Environmental

|   |  |
|---|--|
| Ambient Air<br>Temperature                    | Operation -25 ... +55 °C<br>Operation Compensated -25 ... +55 °C<br>Storage -40 ... +70 °C |
| Ambient Air<br>Temperature<br>Compensation    | Yes  |
| Maximum Operating<br>Altitude Permissible     | 2000 m   |
| Resistance to Shock acc.<br>to IEC 60068-2-27 | 11 ms Pulse 12g<br>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                     |

## Material Compliance

|   |  |
|---|--|
| Conflict Minerals<br>Reporting Template<br>(CMRT) | 9AKK108467A5658  |
| REACH Declaration                                 | No declaration needed  |
| RoHS Information                                  | 2CMT2021-006277  |
| RoHS Status                                       | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| WEEE B2C / B2B                                    | Business To Business   |

Certificates and Declarations

|                                    |                     |
|------------------------------------|---------------------|
| CB Certificate                     | 1SAA941014-2001     |
| CCS Certificate                    | 1SAA941000-0901     |
| CQC Certificate                    | CQC2016010309922937 |
| Declaration of<br>Conformity - CCC | 2020980304001322    |
| Declaration of<br>Conformity - CE  | 1SAD101100-3501     |
| UL Certificate                     | E48139-19960918     |

Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | 1 piece       |
| Package Level 1 Width             | 105 mm        |
| Package Level 1 Height            | 90 mm         |
| Package Level 1 Depth /<br>Length | 125 mm        |
| Package Level 1 Gross<br>Weight   | 0.405 kg      |
| Package Level 1 EAN               | 4013614483929 |
| Package Level 2 Units             | 16 piece      |
| Package Level 2 Width             | 280 mm        |
| Package Level 2 Height            | 210 mm        |
| Package Level 2 Depth /<br>Length | 395 mm        |
| Package Level 2 Gross<br>Weight   | 8.786 kg      |

Classifications

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| Object Classification<br>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<br>Code (IGCC) | 5364 >> Overload relay            |

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**Categories**

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

