

PRODUCT-DETAILS

E80DU-80

E80DU-80 Electronic Overload Relay 27 ... 80 A



| General Information | |
|-----------------------|---|
| Extended Product Type | E80DU-80 |
| Product ID | 1SAX311001R1101 |
| EAN | 4016779666626 |
| Catalog Description | E80DU-80 Electronic Overload Relay 27 80 A |
| Long Description | The E80DU-80 is an self-supplied electronic overload relay, which means no extra external supply is needed. It offers reliable and fast protection for motors in the event of overload or phase failure. Easy to use like a thermal overload relay and compatible with standard motor applications, the electronic overload relay is convincing, above all, due to its wide setting range, high accuracy, high operational temperature range and the possibility to select a trip class (10E, 20E, 30E). 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 contactors. Single mounting kits are available as accessory. |

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

| Popular Downloads | |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100173C0201 |
| Data Sheet, Technical | 1SAX100502F0002 |

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| Information (Part 2) | 1SAX100508F0001 |
|--------------------------|-----------------|
| Instructions and Manuals | 2CDC107014M5502 |
| Dimension Diagram | 1SAX300401F0001 |

| Dimensions | |
|-------------------------------|----------|
| Product Net Width | 70 mm |
| Product Net Height | 127.2 mm |
| Product Net Depth / Length | 104.4 mm |
| Product Net Weight | 0.775 kg |

| Setting Range 2780 A Rated Operational Voltage Auxiliary Circuit 60 V ACDC Main Circuit 100 V ACDC Main Circuit 50 Hz Auxiliary Circuit 50 Hz Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz Auxiliary Circuit 60 Hz Auxiliary Circuit 60 Hz Main Circuit 50 Hz Main Circuit 84 VX Voltage (Unipu) 1000 V Rated Insulation Voltage 1000 V Wulber of Poles 3 Number of Poles 3 Number of Poles Auxiliary 1 Number of Protected Poles Auxiliary 3 Contacts NC 3 Number of Protected Poles Auxiliary Circuit NC 6 A Auxiliary Circuit NC | | |
|---|--|---|
| Rated Operational Voltage | Technical | |
| Main Circuit 1000 V A C | Setting Range | 27 80 A |
| Rated Operational Current (Image) Rated Frequency (f) | Rated Operational Voltage | |
| Rated Frequency (f) Auxiliary Circuit 60 Hz Main Circuit 8 Hz Ma | Rated Operational Current | |
| Voltage (U _{Imp}) Main Circuit 8 kV Rated Insulation Voltage (U _I) 1000 V (U _I) Number of Poles 3 Number of Auxiliary 1 Contacts NC 1 Number of Auxiliary 1 Contacts NO 3 Number of Protected 3 Poles 4uxiliary Circuit NC 6 A Conventional Free-air Auxiliary Circuit NC 6 A Thermal Current (I _{th}) Auxiliary Circuit NC 6 A Rated Operational Current (240 V) NC 3 A AC -15 (I _e) (400 V) NC 1.1 A (500 V) NC 0.72 A (500 V) NC 0.72 A (500 V) NC 0.72 A (500 V) NC 0.72 A (500 V) NC 0.72 A (500 V) NC 0.75 A (24 V) NC 1.5 A (24 V) NC 1.5 A (24 V) NC 1.5 A (25 V) NC 0.55 A (25 V) NC 0.5 A (25 V) NC 0.55 A (25 V) NC 0.5 A (25 V) NC 0.55 A (25 V) NC 0.5 A (25 V) NC 0.5 A (25 V) NC 0.5 A (25 V) NC 0.5 A (25 V) NC 0.5 A (25 V) NC 0.5 A (25 V) NC 0.5 A (25 V) NC 0.5 A | Rated Frequency (f) | Auxiliary Circuit 60 Hz Auxiliary Circuit DC Main Circuit 50 Hz |
| Number of Poles 3 3 | Rated Impulse Withstand Voltage (U _{imp}) | |
| Number of Auxiliary | Rated Insulation Voltage (U_i) | 1000 V |
| Contacts NC 1 Number of Auxiliary 1 Contacts NO 3 Poles 3 Conventional Free-air Auxiliary Circuit NO 6 A Thermal Current (I _{th}) Auxiliary Circuit NO 6 A Rated Operational Current (240 y) NO 3 A (400 V) NC 1.1 A (400 V) NC 1.1 A (500 V) NC 0.72 A (500 V) NC 0.72 A (500 V) NO 0.72 A (500 V) NO 0.72 A Reted Operational Current (125 V) NC 0.55 A DC-13 (I _e) (125 V) NC 0.55 A (24 V) NC 1.5 A (24 V) NC 1.5 A (250 V) NC 0.27 A (250 V) NC 0.25 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (500 V) NC 0.55 A (50 V) NC 0.55 A (500 V) NC 0.55 A (50 V) NC 0.55 A (500 V) NC 0.55 A (50 V) NC 0.55 A (500 V) NC 0.55 A (50 V) NC 0.55 A (500 V) NC 0.55 A (50 V) NC 0.55 A (500 V) NC 0.55 A (50 V) NC 0.55 A (500 V) NC 0.55 A (50 V) NC 0.5 | Number of Poles | 3 |
| Contacts NO 3 Number of Protected 3 Poles 4uxiliary Circuit NC 6 A Conventional Free-air Auxiliary Circuit NO 6 A Thermal Current (I _m) Auxiliary Circuit NO 6 A Rated Operational Current (240 V) NC 3.1 A AC-15 (I _e) (400 V) NC 1.1 A (400 V) NC 1.1 A (500 V) NC 0.72 A (500 V) NC 0.72 A (500 V) NC 0.75 A (500 V) NC 0.75 A (24 V) NO 0.55 A DC-13 (I _e) (125 V) NC 0.55 A (24 V) NC 1.5 A (24 V) NC 1.5 A (25 V) N NO 0.55 A (25 V) N NO 0.55 A (25 V) N NO 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NO 0.55 A (60 V) NC 0.55 A (50 V) NO 0.55 A (25 V) NO 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (60 V) NC 0.55 A (50 V) NC 0.55 A (60 V) NC 0.55 A (50 V) NC 0.55 A (50 V) NC 0.55 A (50 V) NC 0.55 A (50 V) NC 0.55 A (50 V) NC 0.55 A <td>Number of Auxiliary Contacts NC</td> <td>1</td> | Number of Auxiliary Contacts NC | 1 |
| Poles | Number of Auxiliary Contacts NO | 1 |
| Thermal Current (Ith) Auxiliarý Circuit NO 6 A Rated Operational Current (240 V) NC 3 A AC-15 (Ie) (240 V) NO 3 A (400 V) NC 1.1 A (400 V) NC 1.1 A (500 V) NC 0.72 A (500 V) NC 0.72 A (500 V) NC 0.72 A (500 V) NC 0.72 A Rated Operational Current (125 V) NC 0.55 A DC-13 (Ie) (125 V) NC 0.57 A (25 V) NC 0.27 A (25 V) NC 0.27 A (25 V) NC 0.27 A (25 V) NC 0.27 A (60 V) NC 0.55 A (60 V) NC 0.55 A Degree of Protection IP20 Pollution Degree 3 Connecting Capacity Flexible with Ferrule 1/2x 0.75 2.5 mm² Auxiliary Circuit Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm² Pollution Circuit Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm² Connecting Capacity Main Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm² Circuit Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm² Rigid 1/2x 1 4 mm² Rigid 1/2x 1 4 mm² Circuit Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm² Rigid 2x 6 35 mm² Rigid 1/2x 1 4 mm² | Number of Protected Poles | 3 |
| AC-15 (I _e) (240 V) NC 1.1 A (400 V) NC 1.1 A (500 V) NC 0.72 A (500 V) NC 0.55 A (24 V) NC 1.5 A (250 V) NC 0.27 A (250 V) NC 0.27 A (250 V) NC 0.27 A (60 V) NC 0.55 A (60 V | Conventional Free-air Thermal Current (I_{th}) | |
| Rated Operational Current DC-13 (I _e) (125 V) NC 0.55 A (24 V) NC 1.5 A (24 V) NC 1.5 A (250 V) NC 0.27 A (250 V) NC 0.27 A (250 V) NC 0.27 A (60 V) NC 0.55 | Rated Operational Current AC-15 (I _e) | (240 V) NO 3 A (400 V) NC 1.1 A (400 V) NO 1.1 A (500 V) NC 0.72 A |
| Pollution Degree Connecting Capacity Auxiliary Circuit Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm² Flexible 1/2x 0.75 2.5 mm² Flexible 1/2x 0.75 2.5 mm² Flexible 1/2x 1 4 mm² Connecting Capacity Main Circuit Flexible 1x 6 70 mm² Flexible 2x 6 35 mm² Rigid 1x 6 95 mm² Rigid 2x 6 35 mm² Rigid 2x 6 35 mm² Wire Stripping Length Auxiliary Circuit 0.8 1.2 N·m Main Circuit 6 6.5 N·m Recommended Screw Auxiliary Circuit 9 mm | Rated Operational Current DC-13 (I _e) | (125 V) NC 0.55 A (125 V) NO 0.5 A (24 V) NC 1.5 A (24 V) NC 1.5 A (250 V) NC 0.27 A (250 V) NC 0.27 A (60 V) NC 0.55 A |
| Connecting Capacity Auxiliary Circuit Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm² Flexible 1/2x 0.75 2.5 mm² Flexible 1/2x 0.75 2.5 mm² Flexible 1/2x 1 4 mm² Connecting Capacity Main Flexible 1x 6 70 mm² Flexible 2x 6 35 mm² Rigid 1x 6 95 mm² Rigid 2x 6 35 mm² Rigid 2x 6 35 mm² Tightening Torque Auxiliary Circuit 0.8 1.2 N·m Main Circuit 6 6.5 N·m Wire Stripping Length Auxiliary Circuit 9 mm Recommended Screw Auxiliary Circuit Pozidriv 2 | Degree of Protection | IP20 |
| Auxiliary Circuit Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm² Flexible 1/2x 0.75 2.5 mm² Rigid 1/2x 1 4 mm² Connecting Capacity Main Circuit Flexible 1x 6 70 mm² Flexible 2x 6 35 mm² Rigid 1x 6 95 mm² Rigid 2x 6 35 mm² Tightening Torque Auxiliary Circuit 0.8 1.2 N·m Main Circuit 6 6.5 N·m Wire Stripping Length Auxiliary Circuit 9 mm Recommended Screw Auxiliary Circuit Pozidriv 2 | Pollution Degree | 3 |
| Circuit Flexible 2x 6 35 mm² Rigid 1x 6 95 mm² Rigid 2x 6 35 mm² Rigid 2x 6 35 mm² Tightening Torque Auxiliary Circuit 0.8 1.2 N·m Main Circuit 6 6.5 N·m Wire Stripping Length Auxiliary Circuit 9 mm Recommended Screw Auxiliary Circuit Pozidriv 2 | Connecting Capacity Auxiliary Circuit | Flexible with Insulated Ferrule 1/2x 0.75 2.5 mm ² Flexible 1/2x 0.75 2.5 mm ² |
| Tightening Torque Auxiliary Circuit 0.8 1.2 N·m Main Circuit 6 6.5 N·m Wire Stripping Length Auxiliary Circuit 9 mm Recommended Screw Auxiliary Circuit Pozidriv 2 | Connecting Capacity Main Circuit | Flexible 2x 6 35 mm² Rigid 1x 6 95 mm² |
| Wire Stripping Length Auxiliary Circuit 9 mm Recommended Screw Auxiliary Circuit Pozidriv 2 | Tightening Torque | Auxiliary Circuit 0.8 1.2 N·m |
| , | Wire Stripping Length | |
| | Recommended Screw Driver | |

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| Mounting Position | 1 6 |
|-------------------|------------------|
| Suitable For | A50 |
| | A63 |
| | A75 |
| | AE50 |
| | AE63 |
| | AE75 |
| | TAE50 |
| | TAE63 |
| | TAE75 |
| 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 |
| Connecting Capacity Main | Flexible 1/2x 10-0 AWG |
| Circuit UL/CSA | Stranded 1/2x 10-0 AWG |
| Connecting Capacity | Flexible 1/2x 16-10 AWG |
| Auxiliary Circuit UL/CSA | Stranded 1/2x 16-10 AWG |
| Tightening Torque | Auxiliary Circuit 7 in·lb |
| <u>UL/CSA</u> | Main Circuit 53 in·lb |

| Environmental | |
|--|--|
| Ambient Air Temperature | Operation -25 +70 °C Operation Compensated -25 +70 °C Storage -25 +70 °C |
| Ambient Air Temperature Compensation | Yes |
| Maximum Operating Altitude Permissible | 2000 m |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |

| Material Compliance | |
|---------------------|--|
| REACH Declaration | 2CMT2021-006202 |
| 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 |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |

| Certificates and Declarations | |
|----------------------------------|---------------------|
| CB Certificate | 1SAA964003-2001 |
| CCC Certificate | 1SAA964001-3802 |
| CQC Certificate | CQC2006010309192159 |
| Declaration of Conformity - CCC | 2020980309000294 |
| Declaration of Conformity - CE | 1SAD101100-3602 |
| Declaration of Conformity - UKCA | 1SAD201100-3602 |
| RMRS Certificate | 1SAA964000-0703 |
| UL Certificate | E48139-19990512 |

Container Information

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| Package Level 1 Units | 1 piece |
|---------------------------------|---------------|
| Package Level 1 Width | 139 mm |
| Package Level 1 Height | 79.5 mm |
| Package Level 1 Depth / Length | 107 mm |
| Package Level 1 Gross Weight | 0.847 kg |
| Package Level 1 EAN | 4016779666626 |
| Package Level 2 Units | 20 piece |
| Package Level 2 Width | 413 mm |
| Package Level 2 Height | 227 mm |
| Package Level 2 Depth / Length | 290 mm |
| Package Level 2 Gross Weight | 17.503 kg |
| Package Level 2 EAN | 4013614483356 |

| Classifications | |
|---------------------------------------|--------------------------------------|
| Object Classification Code | F |
| ETIM 4 | EC001080 - Electronic overload relay |
| ETIM 5 | EC001080 - Electronic overload relay |
| ETIM 6 | EC001080 - Electronic overload relay |
| ETIM 7 | EC001080 - Electronic overload relay |
| ETIM 8 | EC001080 - Electronic overload relay |
| eClass | V11.0 : 27371502 |
| UNSPSC | 39122330 |
| IDEA Granular Category Code (IGCC) | 5365 >> Electronic overload relay |

Categories

 $\text{Low Voltage Products and Systems} \rightarrow \text{Control Products} \rightarrow \text{Contactors} \rightarrow \text{Electronic Overload Relays}$

