

PRODUCT-DETAILS

# ESB16-20N-01

## ESB16-20N-01 Installation Contactor (NO) 16 A - 2 NO - 0 NC - 24 V - Control Circuit DC



### General Information

|                       |   |
|-----------------------|---|
| Extended Product Type | ESB16-20N-01  |
| Product ID            | 1SBE111111M0120   |
| Catalog Description   | ESB16-20N-01 Installation Contactor (NO) 16 A - 2 NO - 0 NC - 24 V - Control Circuit DC   |
| Long Description      | <p>The ESB16..N installation contactors are used to control single loads up to 16 A and can be operated by AC or DC.</p> <p>These contactors are made for use in household applications as well as in industrial environments.</p> <p>The following benefits are provided:<br/>Hum-free operation, low power consumption and integrated overvoltage protection.<br/>Various contact combinations and accessories are available.</p> |

### Ordering

|                        |               |
|------------------------|---------------|
| Package Level 1 EAN    | 3471523004726 |
| Minimum Order Quantity | 12 piece      |
| Customs Tariff Number  | 85365080      |

### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 2CDC103051C0201 |
| Instructions and Manuals          | 2CDC103043M6801 |
| CAD Dimensional Drawing           | 2CDC001079B0201 |

**Dimensions**

|                            |         |
|----------------------------|---------|
| Product Net Width          | 18 mm   |
| Product Net Height         | 85 mm   |
| Product Net Depth / Length | 65 mm   |
| Product Net Weight         | 0.14 kg |

**Technical**

|   |   |
|---|---|
| Rated Operational Voltage                     | Main Circuit 220 V DC<br>Main Circuit 250 V AC  |
| Rated Control Circuit Voltage ( $U_c$ )       | 24 V  |
| Rated Frequency (f)                           | Control Circuit DC<br>Control Circuit 50 Hz<br>Control Circuit 60 Hz<br>Control Circuit 400 Hz<br>Main Circuit DC<br>Main Circuit 50 Hz<br>Main Circuit 60 Hz   |
| Rated Operational Current AC-1 ( $I_e$ )      | (NO) 16 A   |
| Rated Operational Current AC-3 ( $I_e$ )      | (230 V) Single Phase, NO 6 A  |
| Rated Operational Power AC-1 ( $P_e$ )        | (230 V) Single Phase, NO 3.7 kW   |
| Rated Operational Power AC-3 ( $P_e$ )        | (230 V) Single Phase, NO 0.9 kW   |
| Rated Operational Current AC-7a ( $I_e$ )     | (NO) 16 A   |
| Rated Operational Power AC-7a ( $P_e$ )       | (230 V) Single Phase, NO 3.7 kW   |
| Rated Operational Current AC-7b ( $I_e$ )     | (230 V) Single Phase, NO 6 A  |
| Rated Operational Power AC-7b ( $P_e$ )       | (230 V) Single Phase, NO 0.9 kW   |
| Recommended Screw Driver                      | Control Circuit Pozidriv 1<br>Main Circuit Pozidriv 1   |
| Rated Impulse Withstand Voltage ( $U_{imp}$ ) | 6 kV  |
| Rated Insulation Voltage ( $U_i$ )            | 400 V   |
| Connecting Capacity Main Circuit              | Flexible with Ferrule 1x 1 ... 6 mm <sup>2</sup><br>Flexible with Ferrule 2x 1 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1x 1 ... 6 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 1 ... 1.5 mm <sup>2</sup><br>Flexible 1x 1 ... 6 mm <sup>2</sup><br>Flexible 2x 1 ... 4 mm <sup>2</sup><br>Rigid 1x 1 ... 10 mm <sup>2</sup><br>Rigid 2x 1 ... 4 mm <sup>2</sup>                   |
| Connecting Capacity Control Circuit           | Flexible with Ferrule 1x 1 ... 2.5 mm <sup>2</sup><br>Flexible with Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1x 1 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 1 mm <sup>2</sup><br>Flexible 1x 1 ... 2.5 mm <sup>2</sup><br>Flexible 2x 1 ... 1.5 mm <sup>2</sup><br>Rigid 1x 0.5 ... 4 mm <sup>2</sup><br>Rigid 2x 0.75 ... 2.5 mm <sup>2</sup> |
| Tightening Torque                             | Control Circuit 0.9 N·m<br>Main Circuit 1.2 N·m   |
| Wire Stripping Length                         | Control Circuit 7 mm<br>Main Circuit 10 mm  |

|                                     |  |
|-------------------------------------|--|
| Degree of Protection                | IP20   |
| Electrical Durability               | AC-1 (NO) 150000 cycle<br>AC-3 (NO) 150000 cycle<br>AC-7a (NO) 150000 cycle<br>AC-7b (NO) 150000 cycle |
| Mechanical Durability               | 1000000 cycle  |
| Number of Poles                     | 2  |
| Number of Auxiliary Contacts NC     | 0  |
| Number of Auxiliary Contacts NO     | 0  |
| Number of Main Contacts NC          | 0  |
| Number of Main Contacts NO          | 2  |
| Width in Number of Modular Spacings | 1  |
| Pollution Degree                    | 3  |
| Standards                           | IEC/EN 60947-1<br>IEC/EN 60947-4-1<br>UL 60947-1<br>UL 60947-4-1<br>IEC/EN 61095                       |

### Technical UL/CSA

|  |  |
|--|--|
| Maximum Operating Voltage UL/CSA           | Main Circuit 240 V AC                            |
| Horsepower Rating UL/CSA                   | (220 ... 240 V AC) Single Phase, NO 0.75 Hp      |
| Connecting Capacity Main Circuit UL/CSA    | Solid 14-8 AWG<br>Stranded 14-8 AWG              |
| Connecting Capacity Control Circuit UL/CSA | Solid 16-10 AWG<br>Stranded 16-10 AWG            |
| Tightening Torque UL/CSA                   | Control Circuit 8 in-lb<br>Main Circuit 11 in-lb |

### Environmental

|  |  |
|--|--|
| Ambient Air Temperature                    | Operation -25 ... +55 °C<br>Storage -40 ... +80 °C                     |
| Maximum Operating Altitude Permissible     | 2000 m   |
| Resistance to Shock acc. to IEC 60068-2-27 | 11 ms Pulse 15g  |
| RoHS Status                                | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |

### 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 Consumer   |
| WEEE Category                               | 5. Small Equipment (No External Dimension More Than 50 cm)             |

### Certificates and Declarations

|                                     |  |
|-------------------------------------|--|
| ABS Certificate                     | 1SAA920000-0101                            |
| CB Certificate                      | 1SAA920007-2001                            |
| CQC Certificate                     | CQC2018010304057353<br>CQC2018010304057344 |
| Declaration of Conformity<br>- CCC  | 2020980304001370<br>2020980304001371       |
| Declaration of Conformity<br>- CE   | 1SAD101100-3301                            |
| Declaration of Conformity<br>- UKCA | 1SAD201100-3301                            |
| DNV Certificate                     | 1SAA920000-0306                            |
| EAC Certificate                     | 1SAA920003-2701                            |
| NF Certificate                      | 1SAA920002-1201                            |
| RMRS Certificate                    | 1SAA920000-0705                            |
| UL Certificate                      | E191658-19960301                           |

### Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | 12 piece      |
| Package Level 1 Width             | 88 mm         |
| Package Level 1 Height            | 69.5 mm       |
| Package Level 1 Depth /<br>Length | 222 mm        |
| Package Level 1 Gross<br>Weight   | 1.68 kg       |
| Package Level 1 EAN               | 3471523004726 |

### Classifications

|                                       |  |
|---------------------------------------|--|
| Object Classification Code            | Q  |
| ETIM 5                                | EC001653 - Installation contactor for distribution board |
| ETIM 6                                | EC001653 - Installation contactor for distribution board |
| ETIM 7                                | EC001653 - Installation contactor for distribution board |
| eClass                                | V11.0 : 27142308   |
| UNSPSC                                | 39121529   |
| IDEA Granular Category<br>Code (IGCC) | 4759 >> Installation contactor for distribution board    |
| ETIM 8                                | EC001653 - Installation contactor for distribution board |

### Accessories

| Identifier      | Description   | Type     | Quantity | Unit Of Measure |
|-----------------|---|----------|----------|-----------------|
| 1SAE901901R1011 | EH04-11N Auxiliary Contact - 0 NO - 0 NC -<br>Auxiliary Circuit 50 Hz | EH04-11N | 1        | piece           |
| 1SAE901901M1011 | EH04-11N Auxiliary Contact - 0 NO - 0 NC -<br>Auxiliary Circuit 50 Hz | EH04-11N | 1        | piece           |
| 1SAE901901R1020 | EH04-20N Auxiliary Contact - 0 NO - 0 NC -<br>Auxiliary Circuit 50 Hz | EH04-20N | 1        | piece           |
| 1SAE901901M1020 | EH04-20N Auxiliary Contact - 0 NO - 0 NC -<br>Auxiliary Circuit 50 Hz | EH04-20N | 1        | piece           |

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## Categories

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Low Voltage Products and Systems → Control Products → Contactors → Installation Contactors

Low Voltage Products and Systems → Modular DIN Rail Products → Command and Signalling Devices → Installation Contactors

