



PRODUCT-DETAILS

# ESB20-02N-02

## ESB20-02N-02 Installation Contactor (NC) 20 A - 0 NO - 2 NC - 42 V - Control Circuit DC



| General Information   |                                                                                                                                              |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | ESB20-02N-02                                                                                                                                 |
| Product ID            | 1SBE121111R0202                                                                                                                              |
| EAN                   | 3471523007369                                                                                                                                |
| Catalog Description   | ESB20-02N-02 Installation Contactor (NC) 20 A - 0 NO - 2 NC - 42 V - Control Circuit DC                                                      |
| Long Description      | The ESB20..N installation contactors are used to control single loads up to 20 A and can be operated by AC or DC.                            |
|                       | These contactors are made for use in household applications as well as in industrial environments.                                           |
|                       | The following benefits are provided:                                                                                                         |
|                       | Hum-free operation, low power consumption and integrated overvoltage protection. Various contact combinations and accessories are available. |

| Ordering               |               |
|------------------------|---------------|
| Package Level 1 EAN    | 3471523004573 |
| Minimum Order Quantity | 1 piece       |
| Customs Tariff Number  | 85365080      |

| Popular Downloads                 |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 2CDC103051C0201 |
| Instructions and Manuals          | 2CDC103043M6801 |
| CAD Dimensional Drawing           | 2CDC001079B0201 |
| Dimension Diagram                 | 1SBB505186D3001 |

| 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 <sub>c</sub> )     | 42 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 <sub>e</sub> )    | (NC) 20 A                                                                                                                                                                                                                                                                                                                                               |
| Rated Operational Current AC-3 (I <sub>e</sub> )    | (230 V) Single Phase, NC 9 A                                                                                                                                                                                                                                                                                                                            |
| Rated Operational Power AC-1 (P <sub>e</sub> )      | (230 V) Single Phase, NC 4.6 kW                                                                                                                                                                                                                                                                                                                         |
| Rated Operational Power AC-3 (P <sub>e</sub> )      | (230 V) Single Phase, NC 1.3 kW                                                                                                                                                                                                                                                                                                                         |
| Rated Operational Current AC-7a (I <sub>e</sub> )   | (NC) 20 A                                                                                                                                                                                                                                                                                                                                               |
| Rated Operational Power AC-7a (P <sub>e</sub> )     | (230 V) Single Phase, NC 4.6 kW                                                                                                                                                                                                                                                                                                                         |
| Rated Operational Current AC-7b (I <sub>e</sub> )   | (230 V) Single Phase, NC 9 A                                                                                                                                                                                                                                                                                                                            |
| Rated Operational Power AC-7b (P <sub>e</sub> )     | (230 V) Single Phase, NC 1.3 kW                                                                                                                                                                                                                                                                                                                         |
| Recommended Screw Driver                            | Control Circuit Pozidriv 1<br>Main Circuit Pozidriv 1                                                                                                                                                                                                                                                                                                   |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> ) | 6 kV                                                                                                                                                                                                                                                                                                                                                    |
| Rated Insulation Voltage (U <sub>i</sub> )          | 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> |

|                                        |                                                               |
|----------------------------------------|---------------------------------------------------------------|
|                                        | Rigid 2x 1 ... 4 mm <sup>2</sup>                              |
| Connecting Capacity                    | Flexible with Ferrule 1x 1 ... 2.5 mm <sup>2</sup>            |
| Control Circuit                        | Flexible with Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup>         |
|                                        | Flexible with Insulated Ferrule 1x 1 ... 2.5 mm <sup>2</sup>  |
|                                        | Flexible with Insulated Ferrule 2x 0.75 ... 1 mm <sup>2</sup> |
|                                        | Flexible 1x 1 ... 2.5 mm <sup>2</sup>                         |
|                                        | Flexible 2x 1 ... 1.5 mm <sup>2</sup>                         |
|                                        | Rigid 1x 0.5 ... 4 mm <sup>2</sup>                            |
|                                        | Rigid 2x 0.75 ... 2.5 mm <sup>2</sup>                         |
| Tightening Torque                      | Control Circuit 0.9 N·m                                       |
|                                        | Main Circuit 1.2 N·m                                          |
| Wire Stripping Length                  | Control Circuit 7 mm                                          |
|                                        | Main Circuit 10 mm                                            |
| Degree of Protection                   | IP20                                                          |
| Electrical Durability                  | AC-1 (NC) 150000 cycle                                        |
|                                        | AC-3 (NC) 150000 cycle                                        |
|                                        | AC-7a (NC) 150000 cycle                                       |
| Mechanical Durability                  | 1000000 cycle                                                 |
| Number of Poles                        | 2                                                             |
| Number of Auxiliary<br>Contacts NC     | 0                                                             |
| Number of Auxiliary<br>Contacts NO     | 0                                                             |
| Number of Main<br>Contacts NC          | 2                                                             |
| Number of Main<br>Contacts NO          | 0                                                             |
| Width in Number of<br>Modular Spacings | 1                                                             |
| Pollution Degree                       | 3                                                             |
| Standards                              | IEC/EN 60947-1                                                |
|                                        | IEC/EN 60947-4-1                                              |
|                                        | UL 60947-1                                                    |
|                                        | UL 60947-4-1                                                  |
|                                        | IEC/EN 61095                                                  |

## Technical UL/CSA

|                                               |                                          |
|-----------------------------------------------|------------------------------------------|
| Maximum Operating<br>Voltage UL/CSA           | Main Circuit 240 V AC                    |
| Horsepower Rating<br>UL/CSA                   | (220 ... 240 V AC) Single Phase, NC 1 Hp |
| Connecting Capacity<br>Main Circuit UL/CSA    | Solid 14-8 AWG                           |
|                                               | Stranded 14-8 AWG                        |
| Connecting Capacity<br>Control Circuit UL/CSA | Solid 16-10 AWG                          |
|                                               | Stranded 16-10 AWG                       |
| Tightening Torque<br>UL/CSA                   | Control Circuit 8 in·lb                  |
|                                               | Main Circuit 11 in·lb                    |

## Environmental

|                                               |                                                                        |
|-----------------------------------------------|------------------------------------------------------------------------|
| Ambient Air<br>Temperature                    | Operation -25 ... +55 °C                                               |
|                                               | Storage -40 ... +80 °C                                                 |
| Maximum Operating<br>Altitude Permissible     | 2000 m                                                                 |
| Resistance to Shock acc.<br>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 |
|                                  |  | CQC2018010304057344 |
| Declaration of Conformity - CCC  |  | 2020980304001370    |
|                                  |  | 2020980304001371    |
| Declaration of Conformity - CE   |  | 1SAD101100-3301     |
| Declaration of Conformity - UKCA |  | 1SAD201100-3301     |
| DNV Certificate                  |  | 1SAA920000-0306     |
| EAC Certificate                  |  | 1SAA920003-2701     |
| RMRS Certificate                 |  | 1SAA920000-0705     |
| UL Certificate                   |  | E191658-19960301    |

| Container Information          |  |               |
|--------------------------------|--|---------------|
| Package Level 1 Units          |  | 1 piece       |
| Package Level 1 Width          |  | 88 mm         |
| Package Level 1 Height         |  | 71 mm         |
| Package Level 1 Depth / Length |  | 20 mm         |
| Package Level 1 Gross Weight   |  | 0.14 kg       |
| Package Level 1 EAN            |  | 3471523004573 |

| 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 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 - Auxiliary Circuit 50 Hz | EH04-11N | 1        | piece           |  |
| 1SAE901901M1011 | EH04-11N Auxiliary Contact - 0 NO - 0 NC - Auxiliary Circuit 50 Hz | EH04-11N | 1        | piece           |  |
| 1SAE901901R1020 | EH04-20N Auxiliary Contact - 0 NO - 0 NC - Auxiliary Circuit 50 Hz | EH04-20N | 1        | piece           |  |
| 1SAE901901M1020 | EH04-20N Auxiliary Contact - 0 NO - 0 NC - Auxiliary Circuit 50 Hz | EH04-20N | 1        | piece           |  |

### Categories

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

