

## PRODUCT-DETAILS

# ESB20-20N-03

## ESB20-20N-03 Installation Contactor



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | ESB20-20N-03                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Product ID            | 1SBE121111R0320                                                                                                                                                                                                                                                                                                                                                                                                                           |
| EAN                   | 3471523007413                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Catalog Description   | ESB20-20N-03 Installation Contactor                                                                                                                                                                                                                                                                                                                                                                                                       |
| Long Description      | <p>The ESB20..N installation contactors are used to control single loads up to 20 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:</p> <p>Hum-free operation, low power consumption and integrated overvoltage protection.</p> <p>Various contact combinations and accessories are available.</p> |

### Ordering

|                        |               |
|------------------------|---------------|
| Package Level 1 EAN    | 3471523004603 |
| Minimum Order Quantity | 1 piece       |
| Customs Tariff Number  | 85365080      |

### Popular Downloads

|                          |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 2CDC103043M6801 |
| 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> )     | 48 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> )    | (NO) 20 A                                                                                                                                                                                                                                                                                                                                                                                                     |
| Rated Operational Current AC-3 (I <sub>e</sub> )    | (230 V) Single Phase, NO 9 A                                                                                                                                                                                                                                                                                                                                                                                  |
| Rated Operational Power AC-1 (P <sub>e</sub> )      | (230 V) Single Phase, NO 4.6 kW                                                                                                                                                                                                                                                                                                                                                                               |
| Rated Operational Power AC-3 (P <sub>e</sub> )      | (230 V) Single Phase, NO 1.3 kW                                                                                                                                                                                                                                                                                                                                                                               |
| Rated Operational Current AC-7a (I <sub>e</sub> )   | (NO) 20 A                                                                                                                                                                                                                                                                                                                                                                                                     |
| Rated Operational Power AC-7a (P <sub>e</sub> )     | (230 V) Single Phase, NO 4.6 kW                                                                                                                                                                                                                                                                                                                                                                               |
| Rated Operational Current AC-7b (I <sub>e</sub> )   | (230 V) Single Phase, NO 9 A                                                                                                                                                                                                                                                                                                                                                                                  |
| Rated Operational Power AC-7b (P <sub>e</sub> )     | (230 V) Single Phase, NO 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><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                                                                                                                                                                                                                                                                                                                                                                                        |

|                                        |                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------|
|                                        | AC-3 (NO) 150000 cycle                                                           |
|                                        | AC-7a (NO) 150000 cycle                                                          |
|                                        | AC-7b (NO) 150000 cycle                                                          |
| Mechanical Durability                  | 1000000 cycle                                                                    |
| Number of Poles                        | 2                                                                                |
| Number of Main<br>Contacts NC          | 0                                                                                |
| Number of Main<br>Contacts NO          | 2                                                                                |
| Width in Number of<br>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<br>Voltage UL/CSA           | Main Circuit 240 V AC                            |
| Horsepower Rating<br>UL/CSA                   | (220 ... 240 V AC) Single Phase, NO 1 Hp         |
| Connecting Capacity<br>Main Circuit UL/CSA    | Solid 14-8 AWG<br>Stranded 14-8 AWG              |
| Connecting Capacity<br>Control Circuit UL/CSA | Solid 16-10 AWG<br>Stranded 16-10 AWG            |
| Tightening Torque<br>UL/CSA                   | Control Circuit 8 in-lb<br>Main Circuit 11 in-lb |

## Environmental

|                                               |                                                    |
|-----------------------------------------------|----------------------------------------------------|
| Ambient Air<br>Temperature                    | Operation -25 ... +55 °C<br>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                  |

## Certificates and Declarations (Document Number)

|                                     |                                            |
|-------------------------------------|--------------------------------------------|
| ABS Certificate                     | 1SAA920000-0101                            |
| CB Certificate                      | 1SAA920007-2001                            |
| CQC Certificate                     | CQC2018010304057353<br>CQC2018010304057344 |
| cULus Certificate                   | cUL_E191658                                |
| Declaration of<br>Conformity - CCC  | 2020980304001370<br>2020980304001371       |
| Declaration of<br>Conformity - CE   | 1SAD938506-0302                            |
| Declaration of<br>Conformity - UKCA | 1SAD938500-1302                            |
| DNV Certificate                     | 1SAA920000-0306                            |
| EAC Certificate                     | 1SAA920003-2701                            |
| Environmental<br>Information        | 1SAC200062H0009                            |
| Instructions and<br>Manuals         | 2CDC103043M6801                            |
| NF Certificate                      | 1SAA920002-1201                            |

|                  |                 |
|------------------|-----------------|
| RMRS Certificate | 1SAA920000-0705 |
| RoHS Information | 1SAD938506-0302 |

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            | 3471523004603 |

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    |

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

