

## PRODUCT-DETAILS

# ESB40-31N-01

## ESB40-31N-01 Installation Contactor



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | ESB40-31N-01                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Product ID            | 1SAE341111R0131                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| EAN                   | 4013614518317                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Catalog Description   | ESB40-31N-01 Installation Contactor                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Long Description      | <p>The ESB40..N installation contactors are used to control single and three-phase loads up to 40 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    | 4013614524622 |
| Minimum Order Quantity | 1 piece       |
| Customs Tariff Number  | 85365080      |

### Popular Downloads

|                          |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 2CDC103043M6801 |
|--------------------------|-----------------|

## Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 54 mm    |
| Product Net Height         | 85 mm    |
| Product Net Depth / Length | 65 mm    |
| Product Net Weight         | 0.405 kg |

## Technical

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Operational Voltage                           | Main Circuit 220 V DC<br>Main Circuit 400 V AC                                                                                                                                                                                                                                                                                                                                                                 |
| Rated Control Circuit Voltage (U <sub>c</sub> )     | 24 V                                                                                                                                                                                                                                                                                                                                                                                                           |
| Rated Frequency (f)                                 | Control Circuit 400 Hz<br>Control Circuit 50 Hz<br>Control Circuit 60 Hz<br>Control Circuit DC<br>Main Circuit 50 Hz<br>Main Circuit 60 Hz<br>Main Circuit DC                                                                                                                                                                                                                                                  |
| Rated Operational Current AC-1 (I <sub>e</sub> )    | (NC) 30 A<br>(NO) 40 A                                                                                                                                                                                                                                                                                                                                                                                         |
| Rated Operational Current AC-3 (I <sub>e</sub> )    | (230 V) Single Phase, NO 22 A<br>(400 V) Three Phase, NO 22 A                                                                                                                                                                                                                                                                                                                                                  |
| Rated Operational Power AC-1 (P <sub>e</sub> )      | (230 V) Single Phase, NC 6.9 kW<br>(230 V) Single Phase, NO 9.2 kW<br>(400 V) Three Phase, NO 27.7 kW                                                                                                                                                                                                                                                                                                          |
| Rated Operational Power AC-3 (P <sub>e</sub> )      | (230 V) Single Phase, NO 3.7 kW<br>(400 V) Three Phase, NO 11 kW                                                                                                                                                                                                                                                                                                                                               |
| Rated Operational Current AC-7a (I <sub>e</sub> )   | (NO) 40 A                                                                                                                                                                                                                                                                                                                                                                                                      |
| Rated Operational Power AC-7a (P <sub>e</sub> )     | (230 V) Single Phase, NC 6.9 kW<br>(230 V) Single Phase, NO 9.2 kW<br>(400 V) Three Phase, NO 27.7 kW                                                                                                                                                                                                                                                                                                          |
| Rated Operational Current AC-7b (I <sub>e</sub> )   | (230 V) Single Phase, NO 22 A<br>(400 V) Three Phase, NO 22 A                                                                                                                                                                                                                                                                                                                                                  |
| Rated Operational Power AC-7b (P <sub>e</sub> )     | (230 V) Single Phase, NO 3.7 kW<br>(400 V) Three Phase, NO 11 kW                                                                                                                                                                                                                                                                                                                                               |
| Recommended Screw Driver                            | Control Circuit Pozidriv 1<br>Main Circuit Pozidriv 2                                                                                                                                                                                                                                                                                                                                                          |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> ) | 6 kV                                                                                                                                                                                                                                                                                                                                                                                                           |
| Rated Insulation Voltage (U <sub>i</sub> )          | 500 V                                                                                                                                                                                                                                                                                                                                                                                                          |
| Connecting Capacity Main Circuit                    | Flexible with Ferrule 1x 1.5 ... 16 mm <sup>2</sup><br>Flexible with Ferrule 2x 1.5 ... 10 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1x 1.5 ... 16 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 1.5 ... 10 mm <sup>2</sup><br>Flexible 1x 1.5 ... 16 mm <sup>2</sup><br>Flexible 2x 1.5 ... 10 mm <sup>2</sup><br>Rigid 1x 1.5 ... 25 mm <sup>2</sup><br>Rigid 2x 1.5 ... 10 mm <sup>2</sup> |
| Connecting Capacity Control Circuit                 | Flexible with Ferrule 1x 0.75 ... 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 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 1 mm <sup>2</sup><br>Flexible 1x 1 ... 4.0 mm <sup>2</sup><br>Flexible 2x 1 ... 2.5 mm <sup>2</sup><br>Rigid 1x 1 ... 4 mm <sup>2</sup><br>Rigid 2x 1 ... 2.5 mm <sup>2</sup> |
| Tightening Torque                                   | Control Circuit 0.9 N·m<br>Main Circuit 2.5 N·m                                                                                                                                                                                                                                                                                                                                                                |
| Wire Stripping Length                               | Control Circuit 7 mm<br>Main Circuit 13 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                     | 4                                                                                                      |
| Number of Main Contacts NC          | 1                                                                                                      |
| Number of Main Contacts NO          | 3                                                                                                      |
| Width in Number of Modular Spacings | 3                                                                                                      |
| Pollution Degree                    | 3                                                                                                      |
| Standards                           | IEC/EN 60947-1<br>IEC/EN 60947-4-1<br>IEC/EN 61095<br>UL 60947-1<br>UL 60947-4-1                       |

## Technical UL/CSA

|                                            |                                                                                                                                                                                                                                                                           |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Maximum Operating Voltage UL/CSA           | Main Circuit 480 V AC                                                                                                                                                                                                                                                     |
| Horsepower Rating UL/CSA                   | (220 ... 240 V AC) Single Phase, NC 3 Hp<br>(220 ... 240 V AC) Single Phase, NO 3 Hp<br>(220 ... 240 V AC) Three Phase, NO 7.5 Hp<br>(440 ... 480 V AC) Single Phase, NC 7.5 Hp<br>(440 ... 480 V AC) Single Phase, NO 7.5 Hp<br>(440 ... 480 V AC) Three Phase, NO 15 Hp |
| Connecting Capacity Main Circuit UL/CSA    | Solid 16-4 AWG<br>Stranded 16-4 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 20 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                  |

## Certificates and Declarations (Document Number)

|                                  |                                            |
|----------------------------------|--------------------------------------------|
| ABS Certificate                  | 1SAA920000-0101                            |
| CB Certificate                   | 1SAA920005-2001                            |
| CQC Certificate                  | CQC2017010304993562<br>CQC2017010304993563 |
| cULus Certificate                | cUL_E191658                                |
| Declaration of Conformity - CCC  | 2020980304001310<br>2020980304001313       |
| Declaration of Conformity - CE   | 1SAD938506-0302                            |
| Declaration of Conformity - UKCA | 1SAD938500-1302                            |
| DNV Certificate                  | 1SAA920000-0306                            |
| EAC Certificate                  | 1SAA920001-2702                            |

|                           |                 |
|---------------------------|-----------------|
| Environmental Information | 1SAC200064H0009 |
| Instructions and Manuals  | 2CDC103043M6801 |
| RINA Certificate          | 1SAA920000-0801 |
| RMRS Certificate          | 1SAA920000-0705 |
| RoHS Information          | 1SAD938506-0302 |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | 1 piece       |
| Package Level 1 Width          | 92 mm         |
| Package Level 1 Height         | 69.5 mm       |
| Package Level 1 Depth / Length | 57 mm         |
| Package Level 1 Gross Weight   | 0.405 kg      |
| Package Level 1 EAN            | 4013614524622 |
| Package Level 2 Units          | 40 piece      |
| Package Level 2 Width          | 280 mm        |
| Package Level 2 Height         | 210 mm        |
| Package Level 2 Depth / Length | 395 mm        |
| Package Level 2 Gross Weight   | 16.9 kg       |
| Package Level 2 EAN            | 4013614539015 |

## 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    |
| E-Number (Finland)                 | 3707584                                                  |

## 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

