PRODUCT-DETAILS

# ESB40-20N-06

## ESB40-20N-06 Installation Contactor (NO) 40 A - 2 NO - 0 NC - 230 V - Control Circuit 400 Hz



### General Information

| | |
|---|---|
| Extended Product Type | ESB40-20N-06 |
| Product ID | 1SAE341111R0620 |
| EAN | 4013614518478 |
| Catalog Description | ESB40-20N-06 Installation Contactor (NO) 40 A - 2 NO - 0 NC - 230 V - Control Circuit 400 Hz |
| Long Description | 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.<br>These contactors are made for use in household applications as well as in industrial environments.<br>The following benefits are provided:<br>Hum-free operation, low power consumption and integrated overvoltage protection.<br>Various contact combinations and accessories are available. |

### Ordering

| | |
|---|---|
| Package Level 1 EAN | 4013614524783 |
| Minimum Order Quantity | 1 piece |
| Customs Tariff Number | 85365080 |

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## Popular Downloads

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

## Dimensions

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|---|---|
| Product Net Width | 54 mm |
| Product Net Height | 85 mm |
| Product Net Depth / Length | 65 mm |
| Product Net Weight | 0.37 kg |

## Technical

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|---|---|
| Rated Operational Voltage | Main Circuit 220 V DC<br>Main Circuit 400 V AC |
| Rated Control Circuit Voltage ($U_c$) | 230 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 ($I_e$) | (NO) 40 A |
| Rated Operational Current AC-3 ($I_e$) | (230 V) Single Phase, NO 22 A |
| Rated Operational Power AC-1 ($P_e$) | (230 V) Single Phase, NO 9.2 kW |
| Rated Operational Power AC-3 ($P_e$) | (230 V) Single Phase, NO 3.7 kW |
| Rated Operational Current AC-7a ($I_e$) | (NO) 40 A |
| Rated Operational Power AC-7a ($P_e$) | (230 V) Single Phase, NO 9.2 kW |
| Rated Operational Current AC-7b ($I_e$) | (230 V) Single Phase, NO 22 A |
| Rated Operational Power AC-7b ($P_e$) | (230 V) Single Phase, NO 3.7 kW |
| Recommended Screw Driver | Control Circuit Pozidriv 1<br>Main Circuit Pozidriv 2 |
| Rated Impulse Withstand Voltage ($U_{imp}$) | 6 kV |
| Rated Insulation Voltage ($U_i$) | 500 V |
| Connecting Capacity Main Circuit | Flexible with Ferrule 1x 1.5 ... 16 mm²<br>Flexible with Ferrule 2x 1.5 ... 10 mm²<br>Flexible with Insulated Ferrule 1x 1.5 ... 16 mm²<br>Flexible with Insulated Ferrule 2x 1.5 ... 10 mm²<br>Flexible 1x 1.5 ... 16 mm²<br>Flexible 2x 1.5 ... 10 mm²<br>Rigid 1x 1.5 ... 25 mm²<br>Rigid 2x 1.5 ... 10 mm² |

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| | |
|---|---|
| Connecting Capacity Control Circuit | Flexible with Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible with Ferrule 2x 0.75 ... 1.5 mm²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 2x 0.75 ... 1 mm²<br>Flexible 1x 1 ... 4.0 mm²<br>Flexible 2x 1 ... 2.5 mm²<br>Rigid 1x 1 ... 4 mm²<br>Rigid 2x 1 ... 2.5 mm² |
| 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) 100000 cycle<br>AC-7a (NO) 150000 cycle<br>AC-7b (NO) 100000 cycle |
| Mechanical Durability | 1000000 cycle |
| Number of Poles | 2P |
| 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 | 3.0 |
| 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<br>IEC 60335-2-40 A2L |

## Technical UL/CSA

| | |
|---|---|
| Maximum Operating Voltage UL/CSA | Main Circuit 480 V AC |
| Horsepower Rating UL/CSA | (220 ... 240 V AC) Single Phase, NO 3 Hp<br>(440 ... 480 V AC) Single Phase, NO 7.5 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

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|---|---|
| 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 |

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## Material Compliance

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|---|---|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Information | 2CMT2021-006277 |
| 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) |

## ABB EcoSolutions

| | |
|---|---|
| End of Life Instructions | 1SBC100156C0267 |

## Certificates and Declarations

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|---|---|
| A2L Certificate – IEC | 1SAA920000-4601 |
| ABS Certificate | 1SAA920000-0101 |
| CB Certificate | 1SAA920005-2001 |
| CQC Certificate | CQC2017010304993562<br>CQC2017010304993563 |
| Declaration of Conformity - CCC | 2020980304001310<br>2020980304001313 |
| Declaration of Conformity - CE | 1SAD101100-3301 |
| Declaration of Conformity - UKCA | 1SAD201100-3301 |
| DNV Certificate | 1SAA920000-0306 |
| EAC Certificate | 1SAA920001-2702 |
| RINA Certificate | 1SAA920000-0801 |
| RMRS Certificate | 1SAA920000-0705 |
| UL Certificate | E191658-19960301 |

## Container Information

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|---|---|
| Package Level 1 Units | box 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 | 0.37 kg |
| Package Level 2 Units | 32 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 | 12.2 kg |
| Package Level 2 EAN | 4013614539176 |

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## Classifications

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|---|---|
| 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) | 3707589 |
| 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 |
| GHE3401903R0001 | ESB-PLK40/63 Sealing Cover | ESB-PLK40/63 | 1 | piece |
| GHE3201902R0001 | ESB-DIS Distance Piece | ESB-DIS | 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



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