



PRODUCT-DETAILS

# AS16-30-01-20M

## AS16-30-01-20M 24V50/60HZ Contactor



General Information

|                       |                                     |
|-----------------------|-------------------------------------|
| Extended Product Type | AS16-30-01-20M                      |
| Product ID            | 1SBL121001M2001                     |
| EAN                   | 3471523049208                       |
| Catalog Description   | AS16-30-01-20M 24V50/60HZ Contactor |

|                  |  |
|------------------|--|
| Long Description | AS16 contactors are mainly used for controlling 3-phase motors and generally for controlling power circuits up to 690 V AC or 220 V DC. They are mainly used for controlling 3-phase motors, non-inductive or slightly inductive loads. The AS... series 1-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles, 1 built-in auxiliary contact, front-mounted add-on auxiliary contact blocks (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1. N.C. mirror contacts compliant with Annex F of IEC 60947-4-1) - Control circuit: AC operated with laminated magnet circuit - Accessories: a wide range of accessories is available. |
|------------------|--|

Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 40 piece |
| Customs Tariff Number  | 85364900 |

Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Instructions and Manuals          | 1SBC101020M9701 |

Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 45 mm   |
| Product Net Depth / Length | 72.5 mm |
| Product Net Height         | 68 mm   |
| Product Net Weight         | 0.22 kg |

Technical

|   |   |
|---|---|
| Number of Main Contacts NO  | 3   |
| Number of Main Contacts NC  | 0   |
| Number of Auxiliary Contacts NO                                   | 0   |
| Number of Auxiliary Contacts NC                                   | 1   |
| Standards   | IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N° 14   |
| Rated Operational Voltage   | Auxiliary Circuit 690 V<br>Main Circuit 690 V   |
| Rated Frequency (f)   | Auxiliary Circuit 50 / 60 Hz<br>Main Circuit 50 / 60 Hz   |
| Conventional Free-air Thermal Current (I <sub>th</sub> )          | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ }^{\circ}\text{C}$ 25 A<br>acc. to IEC 60947-5-1, $\Theta = 40\text{ }^{\circ}\text{C}$ 10 A  |
| Rated Operational Current AC-1 (I <sub>e</sub> )                  | (690 V) 40 °C 24 A<br>(690 V) 60 °C 20 A<br>(690 V) 70 °C 16 A  |
| Rated Operational Current AC-3 (I <sub>e</sub> )                  | (415 V) 60 °C 15.5 A<br>(440 V) 60 °C 13.6 A<br>(500 V) 60 °C 12.5 A<br>(690 V) 60 °C 9 A<br>(380 / 400 V) 60 °C 15.5 A<br>(220 / 230 / 240 V) 60 °C 15.7 A   |
| Rated Operational Current AC-15 (I <sub>e</sub> )                 | (500 V) NC 2<br>(500 V) 2 A<br>(690 V) 2 A<br>(24 / 127 V) 6 A<br>(220 / 240 V) 4 A<br>(400 / 440 V) 3 A  |
| Rated Operational Current DC-13 (I <sub>e</sub> )                 | (24 V) 6 A / 144 W<br>(48 V) 2.8 A / 134 W<br>(72 V) 1 A / 72 W<br>(110 V) 0.55 A / 60 W<br>(125 V) 0.55 A / 69 W<br>(220 V) 0.27 A / 60 W<br>(250 V) 0.27 A / 68 W   |
| Rated Operational Power AC-3 (P <sub>e</sub> )                    | (400 V) 7.5 kW<br>(415 V) 7.5 kW<br>(440 V) 7.5 kW<br>(500 V) 7.5 kW<br>(690 V) 7.5 kW<br>(220 / 230 / 240 V) 4 kW  |
| Rated Short-time Withstand Current Low Voltage (I <sub>cw</sub> ) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 124 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 24 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 55 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 250 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 75 A<br>for 0.1 s 140 A<br>for 1 s 100 A |
| Maximum Breaking Capacity   | cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 155 A<br>cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 90 A   |
| Rated Insulation Voltage  | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V  |

|   |  |
|---|--|
| (U <sub>i</sub> )                                   | acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V<br>acc. to UL/CSA 600 V   |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> ) | Auxiliary Circuit 6 kV   |
| Maximum Electrical Switching Frequency              | (AC-1) 600 cycles per hour<br>(AC-15) 1200 cycles per hour<br>(AC-2 / AC-4) 300 cycles per hour<br>(AC-3) 1200 cycles per hour<br>(DC-13) 900 cycles per hour  |
| Maximum Mechanical Switching Frequency              | 3600 cycles per hour   |
| Rated Control Circuit Voltage (U <sub>c</sub> )     | 50 Hz 24 V<br>60 Hz 24 V   |
| Power Loss  | at Rated Operating Conditions AC-1 per Pole 1.2 W<br>at Rated Operating Conditions AC-3 per Pole 0.5 W   |
| Operate Time  | Between Coil De-energization and NC Contact Closing 7 ... 22 ms<br>Between Coil De-energization and NO Contact Opening 5 ... 19 ms<br>Between Coil Energization and NC Contact Opening 6 ... 18 ms<br>Between Coil Energization and NO Contact Closing 9 ... 24 ms |
| Connecting Capacity Main Circuit                    | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm²<br>Rigid 1/2x 0.75 ... 4 mm²   |
| Connecting Capacity Auxiliary Circuit               | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm²<br>Rigid 1/2x 0.75 ... 2.5 mm²   |
| Connecting Capacity Control Circuit                 | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm²<br>Rigid 1/2x 0.75 ... 2.5 mm²   |
| Wire Stripping Length                               | Auxiliary Circuit 9 mm<br>Control Circuit 9 mm<br>Main Circuit 9 mm  |
| Degree of Protection                                | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20  |
| Tightening Torque                                   | Auxiliary Circuit 1 N·m<br>Control Circuit 1 N·m<br>Main Circuit 1 N·m   |
| Terminal Type                                       | Screw Terminals  |
| Product Name  | Block Contactor  |

Technical UL/CSA

|                           |  |
|---------------------------|--|
| General Use Rating UL/CSA | (600 V AC) 20 A  |
| Horsepower Rating UL/CSA  | (120 V AC) Single Phase 3/4 hp<br>(200 ... 208 V AC) Three Phase 3 hp<br>(220 ... 240 V AC) Three Phase 5 hp<br>(240 V AC) Single Phase 2 hp<br>(440 ... 480 V AC) Three Phase 10 hp<br>(550 ... 600 V AC) Three Phase 10 hp |
| Tightening Torque UL/CSA  | Auxiliary Circuit 9 in·lb<br>Control Circuit 9 in·lb<br>Main Circuit 9 in·lb   |
| Full Load Amps Motor Use  | (120 V AC) Single Phase 13.8 A<br>(200 ... 208 V AC) Three Phase 11 A<br>(220 ... 240 V AC) Three Phase 15.2 A<br>(240 V AC) Single Phase 12 A<br>(440 ... 480 V AC) Three Phase 14 A<br>(550 ... 600 V AC) Three Phase 11 A |

Environmental

|                         |   |
|-------------------------|---|
| Ambient Air Temperature | Close to Contactor Fitted with Thermal O/L Relay -25 ... 60 °C<br>Close to Contactor without Thermal O/L Relay -40 ... 70 °C<br>Close to Contactor for Storage -60 ... +80 °C |
| Climatic Withstand      | Category B according to IEC 60947-1 Annex Q   |

|  |   |
|--|---|
| Maximum Operating Altitude Permissible     | Without Derating 3000 m   |
| Resistance to Shock acc. to IEC 60068-2-27 | Closed, Shock Direction: B1 10 g<br>Closed, Shock Direction: C1 20 g<br>Closed, Shock Direction: C2 20 g<br>Open, Shock Direction: B1 5 g<br>Open, Shock Direction: C1 9 g<br>Open, Shock Direction: C2 14 g<br>Shock Direction: A 20 g<br>Shock Direction: B2 15 g |
| Resistance to Vibrations                   | 3g Closed Position & 2g Open Position 5 ... 300 Hz  |

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

Certificates and Declarations

|                                  |                           |
|----------------------------------|---------------------------|
| CB Certificate                   | CB_CN13475-M1             |
| CCC Certificate                  | CCC_2007010309251577      |
| CQC Certificate                  | CQC2007010309251577       |
| Declaration of Conformity - CCC  | 2020980304001224          |
| Declaration of Conformity - CE   | 1SBD250014U1000           |
| Declaration of Conformity - UKCA | 1SBD250049U1000           |
| GOST Certificate                 | GOST_POCCCNME77B07822.pdf |
| UL Certificate                   | UL_20120917_E312527_1_1   |
| UL Listing Card                  | UL_E312527                |

Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 40 piece  |
| Package Level 1 Width          | 293 mm        |
| Package Level 1 Depth / Length | 167 mm        |
| Package Level 1 Height         | 250 mm        |
| Package Level 1 Gross Weight   | 8.8 kg        |
| Package Level 1 EAN            | 3471523049208 |
| Package Level 2 Units          | 40 piece      |
| Package Level 2 Width          | 293 mm        |
| Package Level 2 Depth / Length | 167 mm        |
| Package Level 2 Height         | 250 mm        |
| Package Level 2 Gross Weight   | 8.8 kg        |
| Package Level 3 Units          | 960 piece     |

Classifications

|                                    |  |
|------------------------------------|--|
| Object Classification Code         | Q  |
| ETIM 7                             | EC000066 - Power contactor, AC switching |
| ETIM 8                             | EC000066 - Power contactor, AC switching |
| ETIM 9                             | EC000066 - Power contactor, AC switching |
| eClass                             | V11.0 : 27371003                         |
| UNSPSC                             | 39121529                                 |
| IDEA Granular Category Code (IGCC) | 4755 >> Contactors                       |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AS Contactors → AS16

