



 PRODUCT-DETAILS

ASL12-30-10-81

ASL12-30-10-81 24VDC Contactor



General Information

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| Extended Product Type | ASL12-30-10-81 |
| Product ID | 1SBL113001R8110 |
| EAN | 3471523059412 |
| Catalog Description | ASL12-30-10-81 24VDC Contactor |

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| Long Description | <p>ASL12 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 ASL... 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: DC operated with solid core magnet circuit. The polarity on the coil terminals (A1+ and A2-) must be respected - Accessories: a wide range of accessories is available. ASL... contactors are fitted with low consumption DC coils and are suitable for a direct control by PLC outputs.</p> |
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Ordering

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| Minimum Order Quantity | 1 piece |
| Customs Tariff Number | 85364900 |

Popular Downloads

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|-----------------------------------|------------------|
| EPLAN Data | 9AAC133412_EPLAN |
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Instructions and Manuals | 1SBC101020M9701 |
| CAD Dimensional Drawing | 2CDC001079B0201 |

Dimensions

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| Product Net Width | 45 mm |
| Product Net Depth / Length | 72.5 mm |
| Product Net Height | 68 mm |
| Product Net Weight | 0.28 kg |

Technical

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| Number of Main Contacts NO | 3 |
| Number of Main Contacts NC | 0 |
| Number of Auxiliary Contacts NO | 1 |
| Number of Auxiliary Contacts NC | 0 |
| 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 Main Circuit 690 V |
| Rated Frequency (f) | Auxiliary Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz |
| Conventional Free-air Thermal Current (I _{th}) | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 25 A acc. to IEC 60947-5-1, $\Theta = 40\text{ °C}$ 10 A |
| Rated Operational Current AC-1 (I _e) | (690 V) 40 °C 24 A (690 V) 60 °C 20 A (690 V) 70 °C 16 A |
| Rated Operational Current AC-3 (I _e) | (415 V) 60 °C 12 A (440 V) 60 °C 11 A (500 V) 60 °C 11 A (690 V) 60 °C 7 A (380 / 400 V) 60 °C 12 A (220 / 230 / 240 V) 60 °C 12 A |
| Rated Operational Current AC-15 (I _e) | (500 V) NC 2 (500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A |
| Rated Operational Current DC-13 (I _e) | (24 V) 6 A / 144 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (250 V) 0.27 A / 68 W |
| Rated Operational Power AC-3 (P _e) | (400 V) 5.5 kW (415 V) 5.5 kW |

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| | (440 V) 5.5 kW (500 V) 5.5 kW (690 V) 5.5 kW (220 / 230 / 240 V) 3 kW |
| Rated Short-time Withstand Current Low Voltage (I_{cw}) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 124 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 24 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 55 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 250 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 75 A for 0.1 s 140 A for 1 s 100 A |
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 155 A cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 90 A |
| Rated Insulation Voltage (U_i) | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V acc. to UL/CSA 600 V |
| Rated Impulse Withstand Voltage (U_{imp}) | Auxiliary Circuit 6 kV |
| Maximum Electrical Switching Frequency | (AC-1) 600 cycles per hour (AC-15) 1200 cycles per hour (AC-2 / AC-4) 300 cycles per hour (AC-3) 1200 cycles per hour (DC-13) 900 cycles per hour |
| Maximum Mechanical Switching Frequency | 3600 cycles per hour |
| Rated Control Circuit Voltage (U_c) | DC Operation 24 V |
| Power Loss | at Rated Operating Conditions AC-1 per Pole 1.2 W at Rated Operating Conditions AC-3 per Pole 0.3 W |
| Operate Time | Between Coil De-energization and NC Contact Closing 15 ... 20 ms Between Coil De-energization and NO Contact Opening 13 ... 17 ms Between Coil Energization and NC Contact Opening 31 ... 53 ms Between Coil Energization and NO Contact Closing 36 ... 59 ms |
| Mounting on DIN Rail | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 |
| Connecting Capacity Main Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid 1/2x 0.75 ... 4 mm ² |
| Connecting Capacity Auxiliary Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid 1/2x 0.75 ... 2.5 mm ² |
| Connecting Capacity Control Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid 1/2x 0.75 ... 2.5 mm ² |
| Wire Stripping Length | Auxiliary Circuit 9 mm Control Circuit 9 mm Main Circuit 9 mm |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20 |
| Recommended Screw Driver | Pozidriv PZ |
| Tightening Torque | Auxiliary Circuit 1 N·m Control Circuit 1 N·m Main Circuit 1 N·m |
| Terminal Type | Screw Terminals |
| Product Name | Block Contactor |

Technical UL/CSA

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| General Use Rating UL/CSA | (600 V AC) 20 A |
| Horsepower Rating UL/CSA | (120 V AC) Single Phase 1/2 hp (200 ... 208 V AC) Three Phase 2 hp (220 ... 240 V AC) Three Phase 3 hp (240 V AC) Single Phase 1.5 hp (440 ... 480 V AC) Three Phase 7.5 hp (550 ... 600 V AC) Three Phase 10 hp |
| Connecting Capacity Auxiliary Circuit UL/CSA | Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG |
| Tightening Torque UL/CSA | Auxiliary Circuit 9 in-lb Control Circuit 9 in-lb Main Circuit 9 in-lb |
| Full Load Amps Motor Use | (120 V AC) Single Phase 9.8 A (200 ... 208 V AC) Three Phase 7.8 A (220 ... 240 V AC) Three Phase 9.6 A (240 V AC) Single Phase 10 A (440 ... 480 V AC) Three Phase 11 A (550 ... 600 V AC) Three Phase 11 A |

Environmental

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| Ambient Air Temperature | Close to Contactor Fitted with Thermal O/L Relay -25 ... 60 °C Close to Contactor without Thermal O/L Relay -40 ... 70 °C 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 Closed, Shock Direction: C1 20 g Closed, Shock Direction: C2 20 g Open, Shock Direction: B1 5 g Open, Shock Direction: C1 9 g Open, Shock Direction: C2 14 g Shock Direction: A 20 g Shock Direction: B2 15 g |
| Resistance to Vibrations | 3g Closed Position & 2g Open Position 5 ... 300 Hz |

Material Compliance

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

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|------------------------------------|----------------------|
| CB Certificate | CB_CN13475-M1 |
| CCC Certificate | CCC_2007010309251577 |
| CQC Certificate | CQC2007010309251577 |
| Declaration of Conformity - CCC | 2020980304001224 |
| Declaration of Conformity - CE | 1SB250014U1000 |

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|----------------------------------|-------------------------|
| Declaration of Conformity - UKCA | 1SBD250049U1000 |
| UL Certificate | UL_20120917_E312527_1_1 |
| UL Listing Card | UL_E312527 |

Container Information

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|--------------------------------|---------------|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 78 mm |
| Package Level 1 Depth / Length | 80 mm |
| Package Level 1 Height | 48 mm |
| Package Level 1 Gross Weight | 0.28 kg |
| Package Level 1 EAN | 3471523059412 |
| Package Level 3 Units | 960 piece |

External Classifications and Standards

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|------------------------------------|--|
| 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) | 4763 >> Power contactor, DC switching |
| E-Number (Sweden) | 3210523 |

Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|-----------------|-------------------------|--------|----------|-----------------|
| 1SBN050010R1000 | RV5/50 Surge Suppressor | RV5/50 | 1 | piece |
| 1SBN050020R1000 | RT5/32 Surge Suppressor | RT5/32 | 1 | piece |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AS Contactors → ASL12

