

## PRODUCT-DETAILS

# ASL09-30-10S-81

## ASL09-30-10S-81 24VDC Contactor



### General Information

|                       |                                 |
|-----------------------|---------------------------------|
| Extended Product Type | ASL09-30-10S-81                 |
| Product ID            | 1SBL103004R8110                 |
| EAN                   | 3471523059818                   |
| Catalog Description   | ASL09-30-10S-81 24VDC Contactor |

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Long Description | <p>ASL09 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...S contactors are the spring terminal version of the ASL... range. 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> |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Ordering

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

### Popular Downloads

|                          |                 |
|--------------------------|-----------------|
| 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         | 0.28 kg |

## Technical

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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<br>Main Circuit 690 V                                                                                                                                                                                                                                                                                                                                                                                    |
| Rated Frequency (f)                                | Auxiliary Circuit 50 / 60 Hz<br>Main Circuit 50 / 60 Hz                                                                                                                                                                                                                                                                                                                                                                          |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | acc. to IEC 60947-4-1, Open Contactors $q = 40\text{ °C } 20\text{ A}$<br>acc. to IEC 60947-5-1, $q = 40\text{ °C } 10\text{ A}$                                                                                                                                                                                                                                                                                                 |
| Rated Operational Current AC-1 ( $I_e$ )           | (690 V) $40\text{ °C } 20\text{ A}$<br>(690 V) $60\text{ °C } 15\text{ A}$<br>(690 V) $70\text{ °C } 12\text{ A}$                                                                                                                                                                                                                                                                                                                |
| Rated Operational Current AC-3 ( $I_e$ )           | (220 / 230 / 240 V) $60\text{ °C } 9\text{ A}$<br>(380 / 400 V) $60\text{ °C } 9\text{ A}$<br>(415 V) $60\text{ °C } 9\text{ A}$<br>(440 V) $60\text{ °C } 8\text{ A}$<br>(500 V) $60\text{ °C } 8\text{ A}$<br>(690 V) $60\text{ °C } 5\text{ A}$                                                                                                                                                                               |
| Rated Operational Power AC-3 ( $P_e$ )             | (220 / 230 / 240 V) 2.2 kW<br>(400 V) 4 kW<br>(415 V) 4 kW<br>(440 V) 4 kW<br>(500 V) 4 kW<br>(690 V) 4 kW                                                                                                                                                                                                                                                                                                                       |
| Rated Operational Current AC-15 ( $I_e$ )          | (220 / 240 V) 4 A<br>(24 / 127 V) 6 A<br>(400 / 440 V) 3 A<br>(500 V) 2 A<br>(690 V) 2 A                                                                                                                                                                                                                                                                                                                                         |
| Rated Short-time Withstand Current ( $I_{cw}$ )    | at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 10 s 100 A<br>at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 15 min 20 A<br>at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 1 min 50 A<br>at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 1 s 230 A<br>at $40\text{ °C}$ Ambient Temp, in Free Air, from a Cold State 30 s 65 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 $I_e > 100\text{ A}$ ) at 440 V 155 A<br>$\cos\phi=0.45$ ( $\cos\phi=0.35$ for $I_e > 100\text{ A}$ ) at 690 V 90 A                                                                                                                                                                                                                                                                        |
| 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                                                                                                                                                                                                                                                                    |
| Rated Operational Current DC-13 ( $I_e$ )          | (110 V) 0.55 A / 60 W<br>(220 V) 0.27 A / 60 W<br>(125 V) 0.55 A / 69 W<br>(24 V) 6 A / 144 W<br>(250 V) 0.27 A / 68 W<br>(48 V) 2.8 A / 134 W                                                                                                                                                                                                                                                                                   |

|                                                        |                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                        | (72 V) 1 A / 72 W                                                                                                                                                                                                                                                      |
| Rated Insulation Voltage<br>(U <sub>i</sub> )          | acc. to UL/CSA 600 V<br>acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V<br>acc. to IEC 60947-5-1 and VDE 0110 (Gr. C) 690 V                                                                                                                                           |
| Rated Impulse<br>Withstand Voltage (U <sub>imp</sub> ) | 6 kV                                                                                                                                                                                                                                                                   |
| Maximum Mechanical<br>Switching Frequency              | 3600 cycles per hour                                                                                                                                                                                                                                                   |
| Rated Control Circuit<br>Voltage (U <sub>c</sub> )     | DC Operation 24 V                                                                                                                                                                                                                                                      |
| Operate Time                                           | Between Coil De-energization and NC Contact Closing 15 ... 20 ms<br>Between Coil De-energization and NO Contact Opening 13 ... 17 ms<br>Between Coil Energization and NC Contact Opening 31 ... 53 ms<br>Between Coil Energization and NO Contact Closing 36 ... 59 ms |
| Connecting Capacity<br>Main Circuit                    | Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm <sup>2</sup><br>Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 0.75 ... 2.5 mm <sup>2</sup>                                                                                                |
| Connecting Capacity<br>Auxiliary Circuit               | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm <sup>2</sup><br>Rigid 1/2x 0.75 ... 2.5 mm <sup>2</sup>                                                                                                |
| Connecting Capacity<br>Control Circuit                 | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm <sup>2</sup><br>Rigid 1/2x 0.75 ... 2.5 mm <sup>2</sup>                                                                                                |
| Wire Stripping Length                                  | Auxiliary Circuit 10 mm<br>Control Circuit 10 mm<br>Main Circuit 10 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                                                                      |
| Terminal Type                                          | Spring Terminals                                                                                                                                                                                                                                                       |

## Technical UL/CSA

|                              |                                                                                                                                                                                                                              |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Use Rating<br>UL/CSA | (600 V AC) 12 A                                                                                                                                                                                                              |
| Horsepower Rating<br>UL/CSA  | (120 V AC) Single Phase 1/3 Hp<br>(240 V AC) Single Phase 1 Hp<br>(200 ... 208 V AC) Three Phase 2 Hp<br>(220 ... 240 V AC) Three Phase 2 Hp<br>(440 ... 480 V AC) Three Phase 5 Hp<br>(550 ... 600 V AC) Three Phase 7.5 Hp |

## Environmental

|                                                   |                                                                                                                                                                                                                                                                     |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air<br>Temperature                        | Close to Contactor for Storage -60 ... +80 °C<br>Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °C<br>Close to Contactor without Thermal O/L Relay -40 ... +70 °C                                                                                     |
| Climatic Withstand                                | Category B according to IEC 60947-1 Annex Q                                                                                                                                                                                                                         |
| Maximum Operating<br>Altitude Permissible         | 3000 m                                                                                                                                                                                                                                                              |
| Resistance to Vibrations<br>acc. to IEC 60068-2-6 | 5 ... 300 Hz 3 g Closed position / 2 g Open position                                                                                                                                                                                                                |
| Resistance to Shock acc.<br>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 |

## Certificates and Declarations (Document Number)

|                |               |
|----------------|---------------|
| CB Certificate | CB_CN13475-M1 |
|----------------|---------------|

|                                 |                           |
|---------------------------------|---------------------------|
| CCC Certificate                 | CCC_2007010309251577      |
| CQC Certificate                 | CQC2007010309251577       |
| Declaration of Conformity - CCC | 2020980304001224          |
| Declaration of Conformity - CE  | 1SBD250014U1000           |
| Environmental Information       | 1SBD250157E1000           |
| GOST Certificate                | GOST_POCCCNME77B07822.pdf |
| Instructions and Manuals        | 1SBC101020M9701           |
| RoHS Information                | 1SBD251006E1001           |
| UL Certificate                  | UL_20120917-E312527-1-1   |
| UL Listing Card                 | UL_E312527                |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | 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            | 3471523059818 |
| Package Level 2 Units          | 40 piece      |
| Package Level 2 Width          | 250 mm        |
| Package Level 2 Depth / Length | 195 mm        |
| Package Level 2 Height         | 315 mm        |
| Package Level 2 Gross Weight   | 11.2 kg       |
| Package Level 3 Units          | 960 piece     |

## Classifications

|                                    |                                           |
|------------------------------------|-------------------------------------------|
| Object Classification Code         | Q                                         |
| ETIM 4                             | EC000066 - Magnet contactor, AC-switching |
| ETIM 5                             | EC000066 - Magnet contactor, AC-switching |
| ETIM 6                             | EC000066 - Power contactor, AC switching  |
| ETIM 7                             | EC000066 - Power contactor, AC switching  |
| UNSPSC                             | 39121529                                  |
| IDEA Granular Category Code (IGCC) | 4755 >> Contactors                        |

## Categories

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

