

## PRODUCT-DETAILS

# AF40N2-30-11-12

## AF40N2-30-11-12 48-130V50/60HZ-DC Contactor



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | AF40N2-30-11-12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Product ID            | 1SBL347001N1211                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| EAN                   | 3471523016644                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Catalog Description   | AF40N2-30-11-12 48-130V50/60HZ-DC Contactor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Long Description      | <p>The AF40N2-30-11-12 is a 3 pole - 600 V UL, NEMA size N2 contactor with pre-mounted auxiliary contacts and Screw, switching power circuits up to 60 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (48-130 V 50/60 Hz and DC), managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks. Furthermore, surge protection is built-in, offering a compact solution. AF contactors have a block type design, can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories.</p> |

### Technical

|                                                     |                                                                             |
|-----------------------------------------------------|-----------------------------------------------------------------------------|
| Standards                                           | IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N° 14 |
| Product Name                                        | Block Contactor                                                             |
| Rated Operational Voltage                           | Auxiliary Circuit 690 V<br>Main Circuit 690 V                               |
| Rated Insulation Voltage (U <sub>i</sub> )          | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V<br>acc. to UL/CSA 600 V    |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> ) | 6 kV                                                                        |
| Rated Control Circuit Voltage (U <sub>c</sub> )     | 50 Hz 48 ... 130 V<br>50 Hz / 60 Hz 48 ... 130 V                            |

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                             | 60 Hz 48 ... 130 V<br>DC Operation 48 ... 130 V                                                                                                                                                                                                                                                                                                                                         |
| Rated Operational Current AC-15 ( $I_e$ )                   | (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                                                                                                                                                                                                                                                                                                |
| Maximum Breaking Capacity                                   | $\cos \phi=0.45$ ( $\cos \phi=0.35$ for $I_e > 100$ A) at 440 V 950 A<br>$\cos \phi=0.45$ ( $\cos \phi=0.35$ for $I_e > 100$ A) at 690 V 600 A                                                                                                                                                                                                                                          |
| Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ ) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 250 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 350 A<br>for 0.1 s 140 A<br>for 1 s 100 A |
| Rated Frequency (f)                                         | Auxiliary Circuit 50 / 60 Hz<br>Main Circuit 50 / 60 Hz                                                                                                                                                                                                                                                                                                                                 |
| Power Loss                                                  | at Rated Operating Conditions AC-1 per Pole 3 W<br>at Rated Operating Conditions AC-3 per Pole 1 W                                                                                                                                                                                                                                                                                      |
| Number of Main Contacts NC                                  | 0                                                                                                                                                                                                                                                                                                                                                                                       |
| Number of Main Contacts NO                                  | 3                                                                                                                                                                                                                                                                                                                                                                                       |
| Number of Auxiliary Contacts NC                             | 1                                                                                                                                                                                                                                                                                                                                                                                       |
| Number of Auxiliary Contacts NO                             | 1                                                                                                                                                                                                                                                                                                                                                                                       |
| Low Coil Consumption                                        | No                                                                                                                                                                                                                                                                                                                                                                                      |
| Tightening Torque                                           | Auxiliary Circuit 1.2 N·m<br>Control Circuit 1.2 N·m<br>Main Circuit 4 N·m                                                                                                                                                                                                                                                                                                              |
| Mounted Auxiliary Contacts                                  | 1 NO, 1 NC                                                                                                                                                                                                                                                                                                                                                                              |
| Mounting Position                                           | Max. N.C. built-in and add-on N.C. auxiliary contacts: see accessory fitting details for a 3-pole contactor AF40 ... AF96                                                                                                                                                                                                                                                               |
| Connecting Capacity Main Circuit                            | Flexible with Ferrule 1/2x 4 ... 35 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 4 ... 35 mm <sup>2</sup><br>Rigid 1/2x 6 ... 3 5 mm <sup>2</sup>                                                                                                                                                                                                                            |
| Wire Stripping Length                                       | Auxiliary Circuit 10 mm<br>Control Circuit 10 mm<br>Main Circuit 16 mm                                                                                                                                                                                                                                                                                                                  |
| Terminal Type                                               | Screw Terminals                                                                                                                                                                                                                                                                                                                                                                         |

## Environmental

|                                                |                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                        | Close to Contactor Fitted with Thermal O/L Relay -40 ... 70 °C<br>Close to Contactor without Thermal O/L Relay -40 ... 70 °C<br>Close to Contactor for Storage -60 ... +80 °C                                                                                                                                                                           |
| 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 IP10                                                                                                                                                       |
| Maximum Operating Altitude Permissible         | Without Derating 3000 m                                                                                                                                                                                                                                                                                                                                 |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5 ... 300 Hz 3 g closed position / 3 g open position                                                                                                                                                                                                                                                                                                    |
| Resistance to Shock acc. to IEC 60068-2-27     | Closed, Shock Direction: A 25 g<br>Closed, Shock Direction: B1 25 g<br>Closed, Shock Direction: B2 15 g<br>Closed, Shock Direction: C1 25 g<br>Closed, Shock Direction: C2 25 g<br>Open, Shock Direction: A 25 g<br>Open, Shock Direction: B1 5 g<br>Open, Shock Direction: B2 15 g<br>Open, Shock Direction: C1 25 g<br>Open, Shock Direction: C2 25 g |
| RoHS Status                                    | Following EU Directive 2011/65/EU                                                                                                                                                                                                                                                                                                                       |

## Technical UL/CSA

|                              |                                                                                                                                                                                                                                  |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General Use Rating<br>UL/CSA | (600 V AC) 60 A                                                                                                                                                                                                                  |
| Horsepower Rating<br>UL/CSA  | (120 V AC) Single Phase 3 hp<br>(200 ... 208 V AC) Three Phase 10 hp<br>(220 ... 240 V AC) Three Phase 15 hp<br>(240 V AC) Single Phase 7-1/2 hp<br>(440 ... 480 V AC) Three Phase 30 hp<br>(550 ... 600 V AC) Three Phase 40 hp |
| Tightening Torque<br>UL/CSA  | Auxiliary Circuit 11 in-lb<br>Control Circuit 11 in-lb<br>Main Circuit 35 in-lb                                                                                                                                                  |

## Dimensions

|                               |          |
|-------------------------------|----------|
| Product Net Width             | 67 mm    |
| Product Net Height            | 125.5 mm |
| Product Net Depth /<br>Length | 111 mm   |
| Product Net Weight            | 1.01 kg  |

## Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | box 1 piece   |
| Package Level 1 Width             | 150 mm        |
| Package Level 1 Height            | 97 mm         |
| Package Level 1 Depth /<br>Length | 150 mm        |
| Package Level 1 Gross<br>Weight   | 1.11 kg       |
| Package Level 1 EAN               | 3471523016644 |
| Package Level 3 Units             | 240 piece     |

## Ordering

|                         |                    |
|-------------------------|--------------------|
| Minimum Order Quantity  | 1 piece            |
| Customs Tariff Number   | 85364900           |
| Country of Origin       | United States (US) |
| Selling Unit of Measure | piece              |

## Certificates and Declarations (Document Number)

|                                    |                                            |
|------------------------------------|--------------------------------------------|
| CB Certificate                     | CB_SE-96554M2                              |
| CQC Certificate                    | CQC2015010304824714<br>CQC2012010304589737 |
| cUL Certificate                    | UL_20180227_E312527_7_1                    |
| Declaration of<br>Conformity - CCC | 2020980304001256<br>2020980304001074       |
| Declaration of<br>Conformity - CE  | 1SBD250027U1000                            |
| Instructions and<br>Manuals        | 1SBC101036M6801                            |
| RoHS Information                   | 1SBD250027U1000                            |
| UL Certificate                     | UL_20140305-E312527_7_1                    |
| UL Listing Card                    | UL_E312527                                 |

| Popular Downloads        |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 1SBC101036M6801 |
| Mounting Positions       | 1SBC500297F0000 |
| UL Listing Card          | UL_E312527      |
| EPLAN Graphical Macro    | 9AKK106930A0715 |
| EPLAN Macro              | 9AKK106930A0714 |

| Classifications            |                                          |
|----------------------------|------------------------------------------|
| ETIM 6                     | EC000066 - Power contactor, AC switching |
| ETIM 7                     | EC000066 - Power contactor, AC switching |
| ETIM 8                     | EC000066 - Power contactor, AC switching |
| WEEE Category              | Product Not in WEEE Scope                |
| CN8                        | 8536 49 00                               |
| UNSPSC                     | 39121529                                 |
| eClass                     | V11.0 : 27371003                         |
| Object Classification Code | Q                                        |

Categories

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

