

## PRODUCT-DETAILS

# AF65-30-00-12

## AF65-30-00-12 48-130V50/60HZ-DC Contactor



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | AF65-30-00-12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Product ID            | 1SBL387001R1200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| EAN                   | 3471523132627                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Catalog Description   | AF65-30-00-12 48-130V50/60HZ-DC Contactor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Long Description      | <p>The AF65-30-00-12 is a 3 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 30 kW / 400 V AC (AC-3) or 50 hp / 480 V UL and switching power circuits up to 105 A (AC-1) or 90 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> |

### Ordering

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

### Popular Downloads

|                          |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 1SBC101036M6801 |
|--------------------------|-----------------|

## Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 55 mm    |
| Product Net Depth / Length | 111 mm   |
| Product Net Height         | 125.5 mm |
| Product Net Weight         | 0.97 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                    | 0                                                                                                                                                                                                                                                                                                                                                                        |
| Rated Operational Voltage                          | Main Circuit 690 V                                                                                                                                                                                                                                                                                                                                                       |
| Rated Frequency (f)                                | Main Circuit 50 / 60 Hz                                                                                                                                                                                                                                                                                                                                                  |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 105 A                                                                                                                                                                                                                                                                                                                   |
| Rated Operational Current AC-1 ( $I_e$ )           | (690 V) 40 °C 105 A<br>(690 V) 60 °C 90 A<br>(690 V) 70 °C 80 A                                                                                                                                                                                                                                                                                                          |
| Rated Operational Current AC-3 ( $I_e$ )           | (415 V) 60 °C 65 A<br>(440 V) 60 °C 65 A<br>(500 V) 60 °C 55 A<br>(690 V) 60 °C 39 A<br>(380 / 400 V) 60 °C 65 A<br>(220 / 230 / 240 V) 60 °C 65 A                                                                                                                                                                                                                       |
| Rated Operational Power AC-3 ( $P_e$ )             | (400 V) 30 kW<br>(415 V) 37 kW<br>(440 V) 37 kW<br>(500 V) 37 kW<br>(690 V) 37 kW<br>(380 / 400 V) 30 kW<br>(220 / 230 / 240 V) 18.5 kW                                                                                                                                                                                                                                  |
| Rated Short-time Withstand Current ( $I_{cw}$ )    | 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 1 s -empty- 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                                                                                                                                                                                                                                             |
| Maximum Electrical Switching Frequency             | (AC-1) 600 cycles per hour<br>(AC-2 / AC-4) 150 cycles per hour<br>(AC-3) 1200 cycles per hour                                                                                                                                                                                                                                                                           |
| Rated Insulation Voltage ( $U_i$ )                 | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V<br>acc. to UL/CSA 600 V                                                                                                                                                                                                                                                                                                 |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )      | 6 kV                                                                                                                                                                                                                                                                                                                                                                     |
| Maximum Mechanical Switching Frequency             | 3600 cycles per hour                                                                                                                                                                                                                                                                                                                                                     |
| Rated Control Circuit Voltage ( $U_c$ )            | 50 Hz 48 ... 130 V<br>50 Hz / 60 Hz 48 ... 130 V<br>60 Hz 48 ... 130 V<br>DC Operation 48 ... 130 V                                                                                                                                                                                                                                                                      |
| Operate Time                                       | Between Coil De-energization and NC Contact Closing 19 ... 105 ms<br>Between Coil De-energization and NO Contact Opening 17 ... 100 ms<br>Between Coil Energization and NC Contact Opening 38 ... 95 ms<br>Between Coil Energization and NO Contact Closing 42 ... 100 ms                                                                                                |
| 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>                                                                                                                                                                                                                                                     |

|                       |                                                                                                                                                                            |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | Rigid 1/2x 6 ... 3 5 mm <sup>2</sup>                                                                                                                                       |
| Connecting Capacity   | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup>                                                                                                                    |
| Control Circuit       | Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 2.5 mm <sup>2</sup> |
| Wire Stripping Length | Main Circuit 16 mm                                                                                                                                                         |
| Degree of Protection  | acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10                                                                                                               |
| Terminal Type         | Screw Terminals                                                                                                                                                            |

## Technical UL/CSA

|                   |                                                                                                                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Horsepower Rating | (120 V AC) Single Phase 5 hp                                                                                                                                                                  |
| UL/CSA            | (200 ... 208 V AC) Three Phase 20 hp<br>(220 ... 240 V AC) Three Phase 25 hp<br>(240 V AC) Single Phase 15 hp<br>(440 ... 480 V AC) Three Phase 50 hp<br>(550 ... 600 V AC) Three Phase 60 hp |
| Tightening Torque | Control Circuit 11 lA                                                                                                                                                                         |
| UL/CSA            | Main Circuit 35 lA                                                                                                                                                                            |

## 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         | 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 K40<br>Closed, Shock Direction: B1 25 K40<br>Closed, Shock Direction: B2 15 K40<br>Closed, Shock Direction: C1 25 K40<br>Closed, Shock Direction: C2 25 K40<br>Open, Shock Direction: B1 5 K40 |
| RoHS Status                                    | Following EU Directive 2011/65/EU                                                                                                                                                                                            |

## Certificates and Declarations (Document Number)

|                                 |                                              |
|---------------------------------|----------------------------------------------|
| ABS Certificate                 | ABS_15-GE1349500-PDA_90682247                |
| BV Certificate                  | BV_2634H36994A                               |
| CB Certificate                  | CB_SE-96554                                  |
| CCC Certificate                 | CCC_2012010304589737<br>CCC_2015010304824714 |
| CQC Certificate                 | CQC2015010304824714<br>CQC2012010304589737   |
| Declaration of Conformity - CCC | 2020980304001256<br>2020980304001074         |
| Declaration of Conformity - CE  | 1SBD250000U1000                              |
| DNV Certificate                 | DNV-GL_TAE00001AF-3                          |
| DNV GL Certificate              | DNV-GL_TAE00001AF-3                          |
| EAC Certificate                 | EAC_RU_FRME77B03447                          |
| Environmental Information       | 1SBD250168E1000                              |
| GL Certificate                  | DNV-GL_TAE00001AF-3                          |
| Instructions and Manuals        | 1SBC101036M6801                              |
| KC Certificate                  | KC_HW02016-15003C                            |
| LR Certificate                  | LRS_1300087E1                                |
| RINA Certificate                | RINA_ELE084013XG                             |

|                  |                          |
|------------------|--------------------------|
| RMRS Certificate | RMRS_1802705280          |
| RoHS Information | 1SBD250000U1000          |
| UL Certificate   | UL_20130926-E312527_14_1 |
| UL Listing Card  | UL_E312527               |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Width          | 150 mm        |
| Package Level 1 Depth / Length | 150 mm        |
| Package Level 1 Height         | 97 mm         |
| Package Level 1 Gross Weight   | 1.07 kg       |
| Package Level 1 EAN            | 3471523132627 |
| Package Level 2 Units          | box 10 piece  |
| Package Level 2 Width          | 250 mm        |
| Package Level 2 Depth / Length | 300 mm        |
| Package Level 2 Height         | 300 mm        |
| Package Level 2 Gross Weight   | 10.7 kg       |
| Package Level 3 Units          | 240 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  |
| eClass                     | V11.0 : 27371003                          |
| UNSPSC                     | 39121529                                  |
| E-Number (Finland)         | 3707047                                   |
| E-Number (Sweden)          | 3210043                                   |

## Categories

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

