



**Electric Automation**  
Automation specialists

Reference: AF65-30-11-13  
Code: 1SBL387001R1311

AF65-30-11-13 100-250V50/60HZ-DC  
Contactor

Buy it at [Electric Automation Network](#)



AF65 contactors are used for controlling power circuits up to 690 V AC and 220 V DC. They are mainly used for controlling 3-phase motors, non-inductive or slightly inductive loads. AF... contactors include an electronic coil interface accepting a wide control voltage  $U_c$  min. ...  $U_c$  max. Only four coils cover control voltages between 24...500 V 50/60 Hz or 20...500 V DC. AF contactors can manage large control voltage variations. One coil can be used for different control voltages used worldwide without any coil change. AF contactors have built-in surge protection and do not require additional surge suppressors. The AF... series 2-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles with side-mounted 1 N.O. + 1 N.C. auxiliary contact block, front-mounted add-on auxiliary contact blocks (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 including the "Mechanically Linked" symbol on the contactor side. N.C. mirror contacts compliant with Annex F of IEC 60947-4-1) - Control circuit: AC or DC operated - Accessories: a wide range of accessories is available. Note: 2-stack contactors available in some countries: please consult your ABB representative. AF.-30-.-11 not suitable for a direct control by PLC-output.

### Ordering

|                         |               |
|-------------------------|---------------|
| EAN:                    | 3471523132733 |
| Minimum Order Quantity: | 1 piece       |
| Customs Tariff Number:  | 85369085      |

### Dimensions

|                     |          |
|---------------------|----------|
| Product Net Width:  | 67 mm    |
| Product Net Depth:  | 111 mm   |
| Product Net Height: | 125.5 mm |
| Product Net Weight: | 0.990 kg |

## Container Information

|                               |               |
|-------------------------------|---------------|
| Package Level 1 Units:        | 1 piece       |
| Package Level 1 Width:        | 150 mm        |
| Package Level 1 Length:       | 150 mm        |
| Package Level 1 Height:       | 97 mm         |
| Package Level 1 Gross Weight: | 1.09 kg       |
| Package Level 1 EAN:          | 3471523132733 |
| Package Level 2 Units:        | 12 piece      |
| Package Level 2 Width:        | 300 mm        |
| Package Level 2 Length:       | 320 mm        |
| Package Level 2 Height:       | 500 mm        |

## Technical

|   |  |
|---|--|
| Number of Main Contacts NO:                         | 3  |
| Number of Main Contacts NC:                         | 0  |
| Number of Auxiliary Contacts NO:                    | 1  |
| Number of Auxiliary Contacts NC:                    | 1  |
| 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 $q = 40\text{ °C}$ 105 A<br>acc. to IEC 60947-5-1, $q = 40\text{ °C}$ 16 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 ( $I_e$ ):           | (220 / 230 / 240 V) 60 °C 65 A<br>(380 / 400 V) 60 °C 65 A<br>(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 |
| Rated Operational Power AC-3 ( $P_e$ ):             | (220 / 230 / 240 V) 18.5 kW<br>(380 / 400 V) 30 kW<br>(415 V) 37 kW<br>(440 V) 37 kW<br>(500 V) 37 kW<br>(690 V) 37 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 °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 |
| 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-15 1200 cycles per hour<br>AC-2 / AC-4 150 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>(125 V) 0.55 A / 69 W<br>(220 V) 0.27 A / 60 W<br>(24 V) 6 A / 144 W<br>(250 V) 0.27 A / 68 W<br>(400 V) 0.15 A / 60 W<br>(48 V) 2.8 A / 134 W<br>(500 V) 0.13 A / 65 W<br>(600 V) 0.1 A / 60 W<br>(72 V) 1 A / 72 W   |
| Rated Insulation Voltage ( $U_i$ ):              | acc. to UL/CSA 600 V<br>acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 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 100 ... 250 V<br>60 Hz 100 ... 250 V<br>DC Operation 100 ... 250 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 Insulated Ferrule 1/2x 4...35 mm <sup>2</sup><br>Flexible with Ferrule 1/2x 4...35 mm <sup>2</sup><br>Rigid 1/2x 6...35 mm <sup>2</sup>   |
| Connecting Capacity-Auxiliary Circuit:           | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>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>   |

|                                      |   |
|--------------------------------------|---|
| Connecting Capacity-Control Circuit: | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>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 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                               |
| Terminal Type:                       | Screw Terminals   |

## Environmental

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|---|--|
| Ambient Air 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                                    |
| Maximum Operating Altitude Permissible:         | 3000 m   |
| 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: B1 5 g |
| Resistance to Vibrations acc. to IEC 60068-2-6: | 5...300 Hz 3 g closed position / 3 g open position   |

## Technical UL/CSA

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

## Certificates and Declarations (Document Number)

|                                 |                               |
|---------------------------------|-------------------------------|
| ABS Certificate:                | ABS_15-GE1349500-PDA_90682247 |
| BV Certificate:                 | BV_2634H36994A                |
| CB Certificate:                 | CB_SE_77418                   |
| CCC Certificate:                | CCC_2012010304589737          |
| cUL Certificate:                | UL_20130926-E312527_14_1      |
| Declaration of Conformity - CE: | 1SBD250176C3000               |
| DNV Certificate:                | DNV-GL_E13871                 |

|                   |                         |
|-------------------|-------------------------|
| EAC Certificate:  | EAC_RU C-FR ME77 B01010 |
| GL Certificate:   | DNV-GL_E13871           |
| LR Certificate:   | LRS_1300087E1           |
| RINA Certificate: | RINA_ELE084013XG        |
| RMRS Certificate: | RMRS_1400682124         |
| RoHS Information: | 1SBD251021E1000         |

## Classifications

|         |   |
|---------|---|
| ETIM 5: | EC000066 - Magnet contactor, AC-switching |
| UNSPSC: | 39121529                                  |