



Representative Image

Alternate Catalog No. AF80-30-11-13 Catalog No. 1SBL397001R1311

Description: AF80-30-11-13 100-250V50/60HZ-DC Contactor

UPC No 3471523133037

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AF80 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.

Descriptors

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| Category | AF Contactors |
| Block Contactor Type | 3-Pole Contactor |

Specifications

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| Product Type | AF |
| General Use Rating UL/CSA | (600 V AC) 105 A |
| Object Classification Code | Q |
| Terminal Type | Screw Terminals |
| Rated Control Circuit Voltage | 50 Hz /60 Hz DC Operation 100 ... 250 V |
| Number of Main Contacts NO | 3 |
| Number of Main Contacts NC | 0 |
| Climatic Withstand | Category B according to IEC 60947-1 Annex Q |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5 ... 300 Hz 3 g closed position / 3 g open position |
| Number of Auxiliary Contacts NO | 1 |
| RoHS Status | Following EU Directive 2011/65/EU |
| Reference Ambient Air Temperature | Close to Contactor for Storage -60 ... +80 °C Close to Contactor without Thermal O/L Relay -40 ... +70 °C Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °C |
| Rated Operational Voltage | Auxiliary Circuit 690 V Main Circuit 690 V |
| Resistance to Shock acc. to IEC 60068-2-27 | Closed, Shock Direction: A 25 K40 Closed, Shock Direction: B1 25 K40 Closed, Shock Direction: B2 15 K40 Closed, Shock Direction: C1 25 K40 Closed, Shock Direction: C2 25 K40 Open, Shock Direction: B1 5 K40 |
| Number of Auxiliary Contacts NC | 1 |
| Tightening Torque UL/CSA | Auxiliary Circuit 11 IA Control Circuit 11 IA Main Circuit 53 IA |
| Maximum Operating Altitude Permissible | 3000 m |

Specifications

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| Rated Operational Current AC-1 | (690 V) 40 °C 125 A (690 V) 60 °C 100 A (690 V) 70 °C 85 A |
| Rated Operational Power AC-3 | (220 / 230 / 240 V) 22 KWT (380 / 400 V) 37 KWT (415 V) 45 KWT (440 V) 45 KWT (500 V) 45 KWT (690 V) 45 KWT (400 V) 37 KWT |
| Horsepower Rating UL/CSA | (220 ... 240 V AC) Three Phase 30 hp (440 ... 480 V AC) Three Phase 60 hp (550 ... 600 V AC) Three Phase 75 hp (120 V AC) Single Phase 7-1/2 hp (200 ... 208 V AC) Three Phase 25 hp (240 V AC) Single Phase 15 hp |
| Conventional Free-air Thermal Current | acc. to IEC 60947-5-1, q = 40 °C 16 A acc. to IEC 60947-4-1, Open Contactors q = 40 °C 130 A |
| Rated Operational Current AC-15 | (220 / 240 V) 4 A (24 / 127 V) 6 A (500 V) 2 A (690 V) 2 A (400 / 440 V) 3 A |
| Rated Frequency | Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz Main Circuit 50Hz Main Circuit 60 Hz |
| Rated Short-time Withstand Current | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 780 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 140 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 450 A for 0.1 s 140 A for 1 s 100 A |
| Rated Operational Current AC-3 | (220 / 230 / 240 V) 60 °C 80 A (380 / 400 V) 60 °C 80 A (415 V) 60 °C 80 A (440 V) 60 °C 80 A (500 V) 60 °C 65 A (690 V) 60 °C 49 A (1000 V) 60 °C 25 A |
| Maximum Electrical Switching Frequency | AC-1 600 cycles per hour AC-2 / AC-4 150 cycles per hour AC-3 1200 cycles per hour AC-15 1200 cycles per hour DC-13 900 cycles per hour |
| Rated Insulation Voltage | acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V |
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 1150 A cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 750 A |
| Maximum Mechanical Switching Frequency | 3600 cycles per hour |
| Operate Time | Between Coil De-energization and NC Contact Closing 19 ... 105 ms Between Coil De-energization and NO Contact Opening 17 ... 100 ms Between Coil Energization and NC Contact Opening 38 ... 95 ms Between Coil Energization and NO Contact Closing 42 ... 100 ms |
| Secondary Rated Impulse Withstand Voltage | 8 kV |
| Connecting Capacity Main Circuit | Rigid 1x 6 ... 70 m ² /2x 6 ... 50 m ² / Flexible with Ferrule 1/2x 6 ... 50 m ² Flexible with Insulated Ferrule 1/2x 6 ... 50 m ² |
| Rated Operational Current DC-13 | (125 V) 0.55 A / 69 W (24 V) 6 A / 144 W (250 V) 0.27 A / 68 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (220 V) 0.27 A / 60 W (400 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W |

Specifications

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| Connecting Capacity Control Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 m ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 m ² /2x 0.75 ... 1.5 m ² Rigid 1/2x 1 ... 2.5 m ² |
| 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 IP10 |
| Connecting Capacity Auxiliary Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 m ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5/2x 0.75 ... 1.5 m ² Rigid 1/2x 1 ... 2.5 m ² |
| Screw Terminal Type | Screw Terminals |
| Wire Stripping Length | Main Circuit 17 mm |

Classifications

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| ETIM 4 | EC000066 - Magnet contactor, AC-switching |
| ETIM 6.0 | EC000066 - Power contactor, AC switching |
| ETIM 7 | EC000066 - Power contactor, AC switching |
| ETIM 5.0 | EC000066 - Magnet contactor, AC-switching |

Dimensions

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| Product Net Weight | 1.21 kg |
| Product Net Depth / Length | 116 mm |
| Product Net Width | 82 mm |
| Product Net Height | 125.5 mm |

Package Information

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| Package Level 1 Width | 150 mm |
| Package Level 1 Height | 103 mm |
| Package Level 1 Depth / Length | 150 mm |
| Package Level 1 EAN | 3471523133037 |
| Package Level 1 Units | box 1 piece |
| Package Level 2 Width | 250 mm |
| Package Level 2 Height | 300 mm |
| Package Level 1 Gross Weight | 1.33 kg |
| Package Level 2 Units | box 8 piece |
| Package Level 3 Units | 192 piece |
| Package Level 2 Depth / Length | 300 mm |
| Package Level 2 Gross Weight | 10.64 kg |

Ordering

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