

Representative Image

# Alternate Catalog No. AF16-22-00-14
# Catalog No. 1SBL177501R1400

**Description: AF16-22-00-14 250-500V50/60HZ-DC Contactor**

**UPC No 3471523116344**

**Home > Contactors & Starters > UL Listed IEC Contactors > AF Contactors**

AF16 4-pole contactors are used for controlling power circuits up to 690 V AC and 440 V DC. They are mainly used for controlling non-inductive or slightly inductive loads (i.e. resistance furnaces...). AF... contactors include an electronic coil interface accepting a wide control voltage Uc min. ... Uc 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 4-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 2 N.O. + 2 N.C. main poles, front and side-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: AC or DC operated - Accessories: a wide range of accessories is available.

## Descriptors

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|---|---|
| Category | AF Contactors |
| Block Contactor Type | 4-Pole Contactor |

## Specifications

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|---|---|
| Product Type | AF |
| General Use Rating UL/CSA | (600 V AC) 30 A |
| Object Classification Code | Q |
| Terminal Type | Screw Terminals |
| Rated Control Circuit Voltage | 50 Hz /60 Hz DC Operation 250 ... 500 V |
| Number of Main Contacts NO | 2 |
| Number of Main Contacts NC | 2 |
| Climatic Withstand | Category B according to IEC 60947-1 Annex Q |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5 ... 300 Hz 4 g closed position / 2 g open position |
| Number of Auxiliary Contacts NO | 0 |
| RoHS Status | Following EU Directive 2011/65/EU |
| Reference Ambient Air Temperature | Close to Contactor for Storage -60 ... +80 °C<br>Near Contactor for Operation in Free Air -40 ... +70 °C |
| Rated Operational Voltage | Main Circuit 690 V |
| Number of Auxiliary Contacts NC | 0 |
| Tightening Torque UL/CSA | Control Circuit 11 IA<br>Main Circuit 13 IA |
| Maximum Operating Altitude Permissible | 3000 m |
| Rated Operational Current AC-1 | (690 V) 40 °C 30 A<br>(690 V) 60 °C 30 A<br>(690 V) 70 °C 26 A |
| Standards | IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N°14 |
| Rated Operational Power AC-3 | (220 / 230 / 240 V) 4 KWT<br>(380 / 400 V) 7.5 KWT<br>(415 V) 9 KWT<br>(440 V) 9 KWT<br>(500 V) 9 KWT<br>(690 V) 9 KWT<br>(400 V) 7.5 KWT |
| Conventional Free-air Thermal Current | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 35 A |

by ABB

## Specifications

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|---|---|
| Rated Frequency | Main Circuit 50Hz<br>Main Circuit 60 Hz |
| Rated Short-time Withstand Current | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 150 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 35 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 60 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 300 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 80 A<br>for 1 s - A |
| Rated Operational Current AC-3 | (220 / 230 / 240 V) 60 °C 18 A<br>(380 / 400 V) 60 °C 18 A<br>(415 V) 60 °C 18 A<br>(440 V) 60 °C 18 A<br>(500 V) 60 °C 15 A<br>(690 V) 60 °C 10.5 A |
| Maximum Electrical Switching Frequency | AC-1 600 cycles per hour |
| Rated Insulation Voltage | acc. to UL/CSA 600 V<br>acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V |
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 250 A<br>cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 106 A |
| Maximum Mechanical Switching Frequency | 3600 cycles per hour |
| Operate Time | Between Coil De-energization and NC Contact Closing 13 ... 98 ms<br>Between Coil De-energization and NO Contact Opening 11 ... 95 ms<br>Between Coil Energization and NC Contact Opening 38 ... 90 ms<br>Between Coil Energization and NO Contact Closing 40 ... 95 ms |
| Secondary Rated Impulse Withstand Voltage | 6 kV |
| Connecting Capacity Main Circuit | Rigid 1/2x 1 ... 6 m²<br>Flexible with Ferrule 1/2x 0.75 ... 6 m²<br>Flexible with Insulated Ferrule 1x 0.75 ... 4 m²/2x 0.75 ... 2.5 m² |
| Connecting Capacity Control Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 m²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 m²/2x 0.75 ... 1.5 m²<br>Rigid 1/2x 1 ... 2.5 m² |
| Degree of Protection | 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 |
| Wire Stripping Length | Control Circuit 10 mm<br>Main Circuit 10 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 | 0.31kg |
| Product Net Depth / Length | 77 mm |
| Product Net Width | 45 mm |
| Product Net Height | 86 mm |

## Package Information

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| Package Level 1 Width | 87 mm |
| Package Level 1 Height | 47 mm |
| Package Level 1 Depth / Length | 79 mm |
| Package Level 1 EAN | 3471523116344 |
| Package Level 1 Units | box 1 piece |
| Package Level 2 Height | 315 mm |
| Package Level 1 Gross Weight | 0.31 kg |

## Package Information

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| Package Level 2 Units | 27 piece |
| Package Level 3 Units | 1296 piece |
| Package Level 2 Depth / Length | 300 mm |
| Package Level 2 Gross Weight | 16.74 kg |

## Ordering

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