



## Alternate Catalog No. AF09-22-00-12 Catalog No. 1SBL137501R1200

Description: AF09-22-00-12 48-130V50/60HZ-DC Contactor

UPC No 3471523116221

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AF09 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          |                  |
|----------------------|------------------|
| Category             | AF Contactors    |
| Block Contactor Type | 4-Pole Contactor |

| Product Type General Use Rating UL/CSA (600 V AC) 25 A  Object Classification Code Q Terminal Type Screw Terminals  Rated Control Circuit Voltage S50 Hz /60 Hz DC Operation 48 130 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 Near Contactor for Operation in Free Air -40 +70 °C  Rated Operational Voltage Main Circuit 690 V  Number of Auxiliary Contacts NC 0 Control Circuit 11 IA Main Circuit 13 IA  Maximum Operating Altitude Permissible 3000 m  (690 V) 40 °C 25 A (690 V) 70 °C 22 A  Standards  (22 / 230 / 240 V) 2.2 kWT (380 / 400 V) 4 KWT (415 V) 4 kWT (415 V) 4 kWT (415 V) 4 kWT (414 V) 4 kWT (414 V) 4 kWT (415 V) 4 kWT   | Specifications                                 |   |
|--|--|---|
| Object Classification Code  Terminal Type  Screw Terminals  Rated Control Circuit Voltage  Sol Hz /60 Hz DC Operation 48 130 V  Number of Main Contacts NO  2  Number of Main Contacts NC  Climatic Withstand  Category B according to IEC 60947-1 Annex Q  Resistance to Vibrations acc. to IEC 60068-2-6  Solution Solut | Product Type                                   | AF  |
| Terminal Type  Rated Control Circuit Voltage  So Hz /60 Hz DC Operation 48 130 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  Some Terminals  Some Terminals  Category B according to IEC 60947-1 Annex Q  Resistance to Vibrations acc. to IEC 60068-2-6  Some Terminals  Category B according to IEC 60947-1 Annex Q  Resistance to Vibrations acc. to IEC 60068-2-6  Some Tonactor for Storage for Improving EU Directive 2011/65/EU  Reference Ambient Air Temperature  Main Circuit 690 V  Number of Auxiliary Contacts NC  0  Control Circuit 11 IA  Main Circuit 13 IA  Maximum Operating Altitude Permissible  (690 V) 40 °C 25 A  (690 V) 60 °C 25 A  (690 V) 60 °C 25 A  (690 V) 70 °C 22 A  Standards  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50  C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT  (380 / 400 V) 4 KWT  (415 V) 4 KWT  (415 V) 4 KWT  (445 V) 4 KWT   | General Use Rating UL/CSA                      | (600 V AC) 25 A   |
| Rated Control Circuit Voltage  50 Hz /60 Hz DC Operation 48 130 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  Close to Contactor for Storage -60 +80 °C  Near Contactor for Operation in Free Air -40 +70 °C  Rated Operational Voltage  Main Circuit 690 V  Number of Auxiliary Contacts NC  0  Control Circuit 11 IA  Maximum Operating Altitude Permissible  3000 m  (690 V) 40 °C 25 A (690 V) 70 °C 25 A (690 V) 70 °C 22 A  Standards  EC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT  Rated Operational Power AC-3  | Object Classification Code                     | Q   |
| Number of Main Contacts NO  Number of Main Contacts NC  Climatic Withstand  Category B according to IEC 60947-1 Annex Q  Resistance to Vibrations acc. to IEC 60068-2-6  Sumber of Auxiliary Contacts NO  ROHS Status  Following EU Directive 2011/65/EU  Reference Ambient Air Temperature  Close to Contactor for Storage -60 +80 °C Near Contactor for Operation in Free Air -40 +70 °C  Rated Operational Voltage  Main Circuit 690 V  Number of Auxiliary Contacts NC  O  Tightening Torque UL/CSA  Maximum Operating Altitude Permissible  Rated Operational Current AC-1  Standards  Category B according to IEC 60947-1 Annex Q  2  Category B according to IEC 60947-1 Annex Q  Contacts NC  Close to Contactor for Storage -60 +80 °C Near Contactor for Operation in Free Air -40 +70 °C  Rated Operational Curcuit 13 IA  Maximum Operating Altitude Permissible  3000 m  (690 V) 40 °C 25 A (690 V) 70 °C 25 A (690 V) 70 °C 22 A  Standards  Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 Category B according to IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1 and EN 60947-1 / 6094             | Terminal Type                                  | Screw Terminals   |
| Number of Main Contacts NC  Climatic Withstand  Resistance to Vibrations acc. to IEC 60068-2-6  S 300 Hz 4 g closed position / 2 g open position  Number of Auxiliary Contacts NO  RoHS Status  Following EU Directive 2011/65/EU  Reference Ambient Air Temperature  Reference Ambient Air Temperature  Reference Ambient Air Temperature  Main Circuit 690 V  Number of Auxiliary Contacts NC  O  Tightening Torque UL/CSA  Maximum Operating Altitude Permissible  Rated Operational Current AC-1  Rated Operational Current AC-1  Standards  Control Circuit 11 IA  Main Circuit 13 IA  Main Circuit 13 IA  Reference Ambient Air Temperature  (690 V) 40 °C 25 A  (690 V) 60 °C 25 A  (690 V) 70 °C 22 A  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50  C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT  (380 / 400 V) 4 KWT  (415 V) 4 KWT  Rated Operational Power AC-3  | Rated Control Circuit Voltage                  | 50 Hz /60 Hz DC Operation 48 130 V  |
| Climatic Withstand  Resistance to Vibrations acc. to IEC 60068-2-6  S 300 Hz 4 g closed position / 2 g open position  Number of Auxiliary Contacts NO  Reference Ambient Air Temperature  Rated Operational Voltage  Main Circuit 690 V  Number of Auxiliary Contacts NC  O  Tightening Torque UL/CSA  Maximum Operating Altitude Permissible  Reted Operational Current AC-1  Reted Operational Current AC-1  Standards  Category B according to IEC 60947-1 Annex Q  5 300 Hz 4 g closed position / 2 g open position  Close to Contactor for Storage -60 +80 °C  Near Contactor for Operation in Free Air -40 +70 °C  Near Contactor for Operation in Free Air -40 +70 °C  Control Circuit 11 IA  Main Circuit 13 IA  Maximum Operating Altitude Permissible  300 m  (690 V) 40 °C 25 A  (690 V) 60 °C 25 A  (690 V) 70 °C 22 A  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT  (380 / 400 V) 4 KWT  (415 V) 4 KWT  Rated Operational Power AC-3   | Number of Main Contacts NO                     | 2   |
| Resistance to Vibrations acc. to IEC 60068-2-6  Number of Auxiliary Contacts NO  RoHS Status  Reference Ambient Air Temperature  Reference Ambient Air Temperature  Rated Operational Voltage  Number of Auxiliary Contacts NC  Tightening Torque UL/CSA  Main Circuit 11 IA  Maximum Operating Altitude Permissible  Rated Operational Current AC-1  Standards  Standards  Standards  Summary Contacts NC  Tightening Torque UL/CSA  Rated Operational Current AC-1  Rated Operational Power AC-3  Rated Operational Power AC-3   | Number of Main Contacts NC                     | 2   |
| Number of Auxiliary Contacts NO  RoHS Status  Following EU Directive 2011/65/EU  Reference Ambient Air Temperature  Rated Operational Voltage  Number of Auxiliary Contacts NC  Number of Auxiliary Contacts NC  Tightening Torque UL/CSA  Main Circuit 11 IA  Main Circuit 13 IA  Maximum Operating Altitude Permissible  3000 m  (690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A  Standards  Standards  Tightening Torque UL/CSA  Rated Operational Current AC-1  Standards  Rated Operational Current AC-1  (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT (445 V) 4 KWT (446 V) 4 KWT  | Climatic Withstand                             | Category B according to IEC 60947-1 Annex Q   |
| RoHS Status  Following EU Directive 2011/65/EU  Reference Ambient Air Temperature  Rated Operational Voltage  Number of Auxiliary Contacts NC  Tightening Torque UL/CSA  Maximum Operating Altitude Permissible  Rated Operational Current AC-1  Standards  Following EU Directive 2011/65/EU  Close to Contactor for Storage -60 +80 °C Near Contactor for Operation in Free Air -40 +70 °C  Near Contactor for Operation in Free Air -40 +70 °C  Near Contactor for Operation in Free Air -40 +70 °C  Ontrol Circuit 11 IA Main Circuit 13 IA  Maximum Operating Altitude Permissible  3000 m  (690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT  Rated Operational Power AC-3   | Resistance to Vibrations acc. to IEC 60068-2-6 | 5 300 Hz 4 g closed position / 2 g open position  |
| Reference Ambient Air Temperature  Reference Ambient Air Temperature  Rated Operational Voltage  Number of Auxiliary Contacts NC  Tightening Torque UL/CSA  Main Circuit 11 IA Maximum Operating Altitude Permissible  Rated Operational Current AC-1  Standards  Close to Control Corcuit 10 IA Main Circuit 690 V  Main Circuit 11 IA Main Circuit 13 IA  Maximum Operating Altitude Permissible  3000 m  (690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT (415 V) 4 KWT  | Number of Auxiliary Contacts NO                | 0   |
| Reference Ambient Air Temperature  Rated Operational Voltage  Main Circuit 690 V  Number of Auxiliary Contacts NC  Tightening Torque UL/CSA  Maximum Operating Altitude Permissible  Rated Operational Current AC-1  Standards  Standards  Reference Ambient Air Temperature  Mear Contactor for Operation in Free Air -40 +70 °C  Main Circuit 690 V  Control Circuit 11 IA  Main Circuit 13 IA  3000 m  (690 V) 40 °C 25 A  (690 V) 60 °C 25 A  (690 V) 70 °C 22 A  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50  C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT  (380 / 400 V) 4 KWT  (415 V) 4 KWT  Rated Operational Power AC-3   | RoHS Status                                    | Following EU Directive 2011/65/EU   |
| Number of Auxiliary Contacts NC       0         Tightening Torque UL/CSA       Control Circuit 11 IA Main Circuit 13 IA         Maximum Operating Altitude Permissible       3000 m         Rated Operational Current AC-1       (690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A         Standards       IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 C22.2 N°14         (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT (415 V) 4 KWT         Rated Operational Power AC-3       (440 V) 4 KWT  | Reference Ambient Air Temperature              |   |
| Tightening Torque UL/CSA  Maximum Operating Altitude Permissible  Rated Operational Current AC-1  Standards  Control Circuit 11 IA Main Circuit 13 IA  3000 m  (690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT  Rated Operational Power AC-3   | Rated Operational Voltage                      | Main Circuit 690 V  |
| Maximum Operating Altitude Permissible  3000 m  Rated Operational Current AC-1  Standards  (690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT  Rated Operational Power AC-3   | Number of Auxiliary Contacts NC                | 0   |
| Rated Operational Current AC-1  (690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT (415 V) 4 KWT (440 V) 4 KWT  | Tightening Torque UL/CSA                       |   |
| Rated Operational Current AC-1  (690 V) 60 °C 25 A (690 V) 70 °C 22 A  IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 50 C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT  Rated Operational Power AC-3   | Maximum Operating Altitude Permissible         |   |
| C22.2 N°14  (220 / 230 / 240 V) 2.2 KWT (380 / 400 V) 4 KWT (415 V) 4 KWT  Rated Operational Power AC-3  (440 V) 4 KWT   | Rated Operational Current AC-1                 | (690 V) 60 °C 25 A<br>(690 V) 70 °C 22 A  |
| (380 / 400 V) 4 KWT<br>(415 V) 4 KWT<br>Rated Operational Power AC-3 (440 V) 4 KWT   | Standards                                      |   |
| (690 V) 5.5 KWT<br>(690 V) 4 KWT   | Rated Operational Power AC-3                   | (380 / 400 V) 4 KWT<br>(415 V) 4 KWT<br>(440 V) 4 KWT<br>(500 V) 5.5 KWT<br>(690 V) 5.5 KWT |
| Conventional Free-air Thermal Current acc. to IEC 60947-4-1, Open Contactors q = 40 °C 35 A  | Conventional Free-air Thermal Current          |   |



Created on: 10/17/2025

| Specifications                              |   |
|---|---|
| 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 at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 35 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 60 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 80 A for 1 s - A |
| Rated Operational Current AC-3              | (220 / 230 / 240 V) 60 °C 9 A<br>(380 / 400 V) 60 °C 9 A<br>(415 V) 60 °C 9 A<br>(440 V) 60 °C 9 A<br>(500 V) 60 °C 9.5 A<br>(690 V) 60 °C 7 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 le > 100 A) at 440 V 250 A<br>cos phi=0.45 (cos phi=0.35 for le > 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 Between Coil De-energization and NO Contact Opening 11 95 ms Between Coil Energization and NC Contact Opening 38 90 ms 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 m <sup>2</sup> Flexible with Ferrule 1/2x 0.75 6 m <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 4 m <sup>2</sup> /2x 0.75 2.5 m <sup>2</sup>   |
| Connecting Capacity Control Circuit         | Flexible with Ferrule 1/2x 0.75 2.5 m <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 2.5 m <sup>2</sup> /2x 0.75 1.5 m <sup>2</sup> Rigid 1/2x 1 2.5 m <sup>2</sup>   |
| Degree of Protection  Wire Stripping Length | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20 Control Circuit 10 mm  Main Circuit 10 mm   |
| Classifications                             |   |
| 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                                  |   |
| Product Net Weight                          | 0.27 kg   |
| Product Net Depth / Length                  | 77 mm   |
| Product Net Width                           | 45 mm   |
| Product Net Height                          | 86 mm   |
| Package Information                         |   |
| Package Level 1 Width                       | 87 mm   |
| Package Level 1 Height                      | 47 mm   |
| Package Level 1 Depth / Length              | 79 mm   |
| Package Level 1 EAN                         | 3471523116221   |

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box 1 piece

315 mm

0.27 kg

Package Level 1 Units

Package Level 2 Height

Package Level 1 Gross Weight

| Package Information            |            |  |
|--------------------------------|------------|--|
| Package Level 2 Units          | 27 piece   |  |
| Package Level 3 Units          | 1296 piece |  |
| Package Level 2 Depth / Length | 300 mm     |  |
| Package Level 2 Gross Weight   | 14.58 kg   |  |

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

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