



Representative Image

## Alternate Catalog No. AF580-30-22-68 Catalog No. 1SFL617001R6822

**Description:** AF580-30-22 24-60V DC Contactor

**UPC No** 7320500222010

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A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, By-pass and Distribution application up to max 1000 V. Operated with wide control voltage range 24-60 V, DC

### Descriptors

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

### Specifications

|  |   |
|--|---|
| Product Type                               | AF  |
| General Use Rating UL/CSA                  | (600 V AC) 750 A  |
| Object Classification Code                 | Q   |
| Terminal Type                              | Main Circuit: Bars  |
| Rated Control Circuit Voltage              | DC Operation 24 ... 60 V  |
| Number of Main Contacts NO                 | 3   |
| Number of Main Contacts NC                 | 0   |
| Maximum Operating Voltage UL/CSA           | Main Circuit 600 V  |
| Number of Auxiliary Contacts NO            | 2   |
| RoHS Status                                | Following EU Directive 2011/65/EU   |
| Reference Ambient Air Temperature          | Close to Contactor for Storage -40 ... +70 °C<br>Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... +50 °C<br>Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... +70 °C |
| Rated Operational Voltage                  | Main Circuit 1000 V   |
| Resistance to Shock acc. to IEC 60068-2-27 | Shock Direction: A 5 K40<br>Shock Direction: B1 5 K40<br>Shock Direction: B2 5 K40<br>Shock Direction: C1 5 K40<br>Shock Direction: C2 5 K40  |
| Number of Auxiliary Contacts NC            | 2   |
| Maximum Operating Altitude Permissible     | 3000 m  |
| Rated Operational Current AC-1             | (1000 V) 40 °C 800 A<br>(1000 V) 55 °C 700 A<br>(1000 V) 70 °C 580 A<br>(690 V) 40 °C 800 A<br>(690 V) 55 °C 700 A<br>(690 V) 70 °C 580 A   |

## Specifications

|  |   |
|--|---|
| Rated Operational Power AC-3                       | (1000 V) 355 KWT<br>(220 / 230 / 240 V) 160 KWT<br>(380 / 400 V) 315 KWT<br>(415 V) 355 KWT<br>(440 V) 355 KWT<br>(500 V) 400 KWT<br>(690 V) 500 KWT  |
| Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1 | 8 x I <sub>e</sub> AC-3   |
| Horsepower Rating UL/CSA                           | (200 V AC) Three Phase 200 hp<br>(208 V AC) Three Phase 200 hp<br>(220 ... 240 V AC) Three Phase 250 hp<br>(440 ... 480 V AC) Three Phase 500 hp<br>(550 ... 600 V AC) Three Phase 600 hp   |
| Conventional Free-air Thermal Current              | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 800 A  |
| Rated Frequency                                    | Main Circuit 60 Hz<br>Main Circuit 50Hz   |
| Rated Short-time Withstand Current                 | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 6400 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 1300 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 3500 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 7000 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 4500 A |
| Rated Operational Current AC-3                     | (1000 V) 55 °C 250 A<br>(220 / 230 / 240 V) 55 °C 580 A<br>(380 / 400 V) 55 °C 580 A<br>(415 V) 55 °C 580 A<br>(440 V) 55 °C 580 A<br>(500 V) 55 °C 580 A<br>(690 V) 55 °C 500 A  |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1   | 10 x I <sub>e</sub> AC-3  |
| Rated Operational Current DC-1                     | (110 V) 1-Pole, 40 °C 800 A<br>(110 V) 2 Poles in Series, 40 °C 800 A<br>(220 V) 3 Poles in Series, 40 °C 800 A<br>(600 V) 3 Poles in Series, 40 °C 800 A<br>(850 V) 3 Poles in Series, 40 °C 800 A   |
| Maximum Electrical Switching Frequency             | AC-1 300 cycles per hour<br>AC-2 / AC-4 60 cycles per hour<br>AC-3 300 cycles per hour  |
| Rated Operational Current DC-5                     | (110 V) 1-Pole, 40 °C 800 A<br>(110 V) 2 Poles in Series, 40 °C 800 A<br>(220 V) 3 Poles in Series, 40 °C 800 A<br>(600 V) 3 Poles in Series, 40 °C 800 A<br>(850 V) 3 Poles in Series, 40 °C 800 A   |
| Short-Circuit Protective Devices                   | gG Type Fuses 1000 A  |
| Rated Insulation Voltage                           | acc. to UL/CSA 600 V<br>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 I <sub>e</sub> > 100 A) at 440 V 6000 A<br>cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 5000 A  |
| Mechanical Durability                              | 3 million   |
| Rated Operational Current DC-3                     | (110 V) 1-Pole, 40 °C 800 A<br>(110 V) 2 Poles in Series, 40 °C 800 A<br>(220 V) 3 Poles in Series, 40 °C 800 A<br>(600 V) 3 Poles in Series, 40 °C 800 A<br>(850 V) 3 Poles in Series, 40 °C 800 A   |
| Coil Operating Limits                              | (acc. to IEC 60947-4-1) 0.85 x U <sub>c</sub> Min. ... 1.1 x U <sub>c</sub> Max. (at θ ≤ 70 °C)   |
| Maximum Mechanical Switching Frequency             | 300 cycles per hour   |
| Operate Time                                       | Between Coil De-energization and NC Contact Closing 50 ... 70 ms<br>Between Coil De-energization and NO Contact Opening 53 ... 73 ms<br>Between Coil Energization and NC Contact Opening 45 ... 115 ms<br>Between Coil Energization and NO Contact Closing 50 ... 120 ms  |
| Secondary Rated Impulse Withstand Voltage          | Main Circuit 8 kV   |
| Connecting Capacity Main Circuit                   | Bar 52 mm<br>Rigid Al-Cable 3x185 m <sup>2</sup><br>Rigid Cu-Cable 300 m <sup>2</sup>   |

## Specifications

|                                       |  |
|---------------------------------------|--|
| Coil Consumption                      | Holding at Max. Rated Control Circuit Voltage 50 Hz 12 V - A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 12 V - A<br>Holding at Max. Rated Control Circuit Voltage DC 5.5 V - A<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 780 V - A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 780 V - A<br>Pull-in at Max. Rated Control Circuit Voltage DC 785 V - A |
| 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 IP00   |
| Connecting Capacity Auxiliary Circuit | Flexible with Insulated Ferrule 1 x 0.75 ... 2.5 m <sup>2</sup><br>Stranded 2 x 1 .... 4 m <sup>2</sup>  |
| Screw Terminal Type                   | Main Circuit: Bars   |

## Classifications

|                                    |   |
|------------------------------------|---|
| ETIM 4                             | EC000066 - Magnet contactor, AC-switching |
| ETIM 6.0                           | EC000066 - Power contactor, AC switching  |
| ETIM 7                             | EC000066 - Power contactor, AC switching  |
| IDEA Granular Category Code (IGCC) | 4755 >> Contactors                        |
| ETIM 5.0                           | EC000066 - Magnet contactor, AC-switching |

## Dimensions

|                            |        |
|----------------------------|--------|
| Product Net Weight         | 13.6kg |
| Product Net Depth / Length | 242 mm |
| Product Net Width          | 210 mm |
| Product Net Height         | 283 mm |

## Package Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Width          | 280 mm        |
| Package Level 1 Height         | 310 mm        |
| Package Level 1 Depth / Length | 375 mm        |
| Package Level 1 EAN            | 7320500222010 |
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Gross Weight   | 15 kg         |

## Ordering

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