# AF580-30-11-70

AF580-30-11 100-250V 50/60Hz / 100-250V DC Contactor

## General Information

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|---|---|
| Extended Product Type | AF580-30-11-70 |
| Product ID | 1SFL617001R7011 |
| EAN | 7320500217696 |
| Catalog Description | AF580-30-11 100-250V 50/60Hz / 100-250V DC Contactor |
| Long Description | 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 100-250 V, AC/DC |

## Ordering

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

## Popular Downloads

| | |
|---|---|
| Data Sheet, Technical Information | 1SBC100122C0202 |
| Instructions and Manuals | 1SFC380023-en |
| Dimension Diagram | 53540919-60 |

## Dimensions

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|---|---|
| Product Net Width | 210.0 mm |
| Product Net Depth / Length | 242.0 mm |
| Product Net Height | 283.0 mm |
| Product Net Weight | 15.000 kg |

## Technical

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| 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 | Main Circuit 1000 V |
| Rated Frequency (f) | Main Circuit 50/60 Hz |
| Conventional Free-air Thermal Current ($I_{th}$) | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 800 A |
| Rated Operational Current AC-1 ($I_e$) | (690 V) 55 °C 700 A<br>(690 V) 40 °C 800 A |

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|---|---|
| | (1000 V) 40 °C 800 A<br>(1000 V) 55 °C 700 A<br>(690 V) 70 °C 580 A<br>(1000 V) 70 °C 580 A |
| Rated Operational Current AC-3 ($I_e$) | (1000 V) 55 °C 250 A<br>(415 V) 55 °C 580 A<br>(220 / 230 / 240 V) 55 °C 580 A<br>(690 V) 55 °C 500 A<br>(440 V) 55 °C 580 A<br>(380 / 400 V) 55 °C 580 A<br>(500 V) 55 °C 580 A |
| Rated Operational Power AC-3 ($P_e$) | (220 / 230 / 240 V) 160 kW<br>(380 / 400 V) 315 kW<br>(415 V) 355 kW<br>(440 V) 355 kW<br>(500 V) 400 kW<br>(690 V) 500 kW<br>(1000 V) 355 kW |
| Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1 | 8 x Ie AC-3 |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1 | 10 x Ie AC-3 |
| Short-Circuit Protective Devices | gG Type Fuses 1000 A |
| Rated Short-time Withstand Current ($I_{cw}$) | 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 30 s 4500 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 1 min 3500 A |
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 6000 A<br>cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 5000 A |
| Maximum Electrical Switching Frequency | AC-3 300 cycles per hour<br>AC-1 300 cycles per hour<br>AC-2 / AC-4 60 cycles per hour |
| Rated Operational Current DC-1 ($I_e$) | (850 V) 3 Poles in Series, 40 °C 800 A<br>(600 V) 3 Poles in Series, 40 °C 800 A<br>(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 |
| Rated Operational Current DC-3 ($I_e$) | (850 V) 3 Poles in Series, 40 °C 800 A<br>(600 V) 3 Poles in Series, 40 °C 800 A<br>(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 |
| Rated Operational Current DC-5 ($I_e$) | (850 V) 3 Poles in Series, 40 °C 800 A<br>(600 V) 3 Poles in Series, 40 °C 800 A<br>(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 |
| Rated Insulation Voltage ($U_i$) | acc. to UL/CSA 600 V<br>acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V |
| Rated Impulse Withstand Voltage ($U_{imp}$) | Main Circuit 8 kV |
| Mechanical Durability | 3 million |
| Maximum Mechanical Switching Frequency | 300 cycles per hour |
| Coil Operating Limits | (acc. to IEC 60947-4-1) 0.85 x Uc Min. ... 1.1 x Uc Max. (at θ ≤ 70 °C) °C |
| Rated Control Circuit Voltage ($U_c$) | 60 Hz 100 ... 250 V<br>50 Hz 100 ... 250 V<br>DC Operation 100 ... 250 V |
| Coil Consumption | Pull-in at Max. Rated Control Circuit Voltage 60 Hz 880 V·A<br>Holding at Max. Rated Control Circuit Voltage DC 5 V·A<br>Holding at Max. Rated Control Circuit Voltage 50 Hz 12 V·A<br>Pull-in at Max. Rated Control Circuit Voltage DC 880 V·A<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 880 V·A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 12 V·A |
| Operate Time | Between Coil Energization and NO Contact Closing 50 ... 120 ms<br>Between Coil De-energization and NO Contact Opening 53 ... 73 ms<br>Between Coil De-energization and NC Contact Closing 50 ... 70 ms<br>Between Coil Energization and NC Contact Opening 45 ... 115 ms |

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| Connecting Capacity Main Circuit | Rigid Al-Cable 300 mm²<br>Bar 52 mm<br>Rigid Cu-Cable 300 mm² |
| Connecting Capacity Auxiliary Circuit | Solid 2 x 1 ... 4 mm²<br>Flexible with Insulated Ferrule 2 x 0.75 ... 2.5 mm²<br>Stranded 1 x 1 .... 4 mm²<br>Flexible 2x0.75 ... 2.5 mm²<br>Flexible with Ferrule 2 x 0.75 ... 2.5 mm² |
| 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 |
| Terminal Type | Main Circuit: Bars |

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## Environmental

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| Ambient Air Temperature | 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<br>Close to Contactor for Storage -40 ... +70 °C |
| Maximum Operating Altitude Permissible | 3000 m |
| Resistance to Shock acc. to IEC 60068-2-27 | Shock Direction: A 5 g<br>Shock Direction: C2 5 g<br>Shock Direction: B2 5 g<br>Shock Direction: C1 5 g<br>Shock Direction: B1 5 g |
| RoHS Status | Following EU Directive 2002/95/EC August 18, 2005 and amendment |

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## Technical UL/CSA

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|---|---|
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V |
| General Use Rating UL/CSA | (600 V AC) 750 A |
| Horsepower Rating UL/CSA | (208 V AC) Three Phase 200 Hp<br>(440 ... 480 V AC) Three Phase 500 Hp<br>(550 ... 600 V AC) Three Phase 600 Hp<br>(220 ... 240 V AC) Three Phase 250 Hp<br>(200 V AC) Three Phase 200 Hp |

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## Certificates and Declarations (Document Number)

| | |
|---|---|
| ABS Certificate | 15-LD1408622-PDA |
| BV Certificate | BV_13409-C0BV |
| CB Certificate | SE-82863 |
| CCC Certificate | CQC_2007010304256684 |
| CCS Certificate | GB14T00030 |
| cUL Certificate | UL_20111101-E36588 |
| Declaration of Conformity - CE | 1SFA1-65 |
| DNV Certificate | DNV_E-10966 |
| DNV GL Certificate | TAE00001W1 |
| EAC Certificate | EAC_RUC-SE.ME77.B.01005 |
| Environmental Information | 1SFC101005D0201 |
| GL Certificate | GL_42988-02HH |
| Instructions and Manuals | 1SFC380023-en |
| LOVAG Certificate | FI107 |
| LR Certificate | 16-20064 |
| PRS Certificate | TE_2092_880423_16 |
| RINA Certificate | ELE060313XG_002 |
| RMRS Certificate | 9AKK107045A6978 |

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|---|---|
| RoHS Information | 1SFC101055D0202 |
| UL Listing Card | UL_E36588 |

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## Container Information

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| Package Level 1 Units | 1 piece |
| Package Level 1 Width | 290 mm |
| Package Level 1 Depth / Length | 270 mm |
| Package Level 1 Height | 350 mm |
| Package Level 1 Gross Weight | 15 kg |
| Package Level 1 EAN | 7320500217696 |

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## Classifications

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|---|---|
| Object Classification Code | Q |
| E-nummer | 3228356 |
| ETIM 4 | EC000066 - Magnet contactor, AC-switching |
| ETIM 5 | EC000066 - Magnet contactor, AC-switching |
| ETIM 6 | EC000066 - Power contactor, AC switching |
| UNSPSC | 39121529 |

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## Where Used (as a spare part for "Products")

| Identifier | Description | Quantity | Unit Of Measure |
|---|---|---|---|
| FC-0460-0600 | No Description Available | 1 | piece |

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## Product specific part data

| Product | Category | Drive Part Category |
|---|---|---|
| FC-0460-0600 | MoCon | Switches, Relays, Contactors |

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## Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors

Drives → Low voltage AC drives → Legacy AC drives → MoCon