



 PRODUCT-DETAILS

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 | The AF580-30-11-70 is a 3 pole - 1000 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and Main Circuit Bars, controlling motors up to 315 kW / 400 V AC (AC-3) or 500 hp / 480 V UL and switching power circuits up to 800 A (AC-1) or 750 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (100-250 V 50/60 Hz and DC), managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks. Furthermore, surge protection is built-in, offering a compact solution. AF contactors have a block type design, can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories. |

Ordering

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

Popular Downloads

| | |
|--|-----------------|
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Data Sheet, Technical Information (Part 2) | 1SAC200017M0002 |
| Instructions and Manuals | 1SFC380023-en |
| CAD Dimensional Drawing | 2CDC001079B0201 |
| Dimension Diagram | 53540919-60 |

Dimensions

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| Product Net Width | 210 mm |
| Product Net Depth / Length | 242 mm |
| Product Net Height | 283 mm |
| Product Net Weight | 13.6 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 |
| Number of Poles | 3P |
| 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 $\Theta = 40\text{ °C}$ 800 A |
| Rated Operational Current AC-1 (I _e) | (1000 V) 40 °C 800 A (1000 V) 55 °C 700 A (1000 V) 70 °C 580 A (690 V) 40 °C 800 A (690 V) 55 °C 700 A (690 V) 70 °C 580 A |
| Rated Operational Current AC-3 (I _e) | (415 V) 55 °C 580 A (440 V) 55 °C 580 A (500 V) 55 °C 580 A (690 V) 55 °C 500 A (1000 V) 55 °C 250 A (380 / 400 V) 55 °C 580 A (220 / 230 / 240 V) 55 °C 580 A |
| Rated Operational Current DC-1 (I _e) | (110 V) 1-Pole, 40 °C 800 A (110 V) 2 Poles in Series, 40 °C 800 A (220 V) 3 Poles in Series, 40 °C 800 A (600 V) 3 Poles in Series, 40 °C 800 A (850 V) 3 Poles in Series, 40 °C 800 A |
| Rated Operational Current DC-3 (I _e) | (110 V) 1-Pole, 40 °C 800 A (110 V) 2 Poles in Series, 40 °C 800 A (220 V) 3 Poles in Series, 40 °C 800 A (600 V) 3 Poles in Series, 40 °C 800 A |
| Rated Operational Current DC-5 (I _e) | (110 V) 1-Pole, 40 °C 800 A (110 V) 2 Poles in Series, 40 °C 800 A (220 V) 3 Poles in Series, 40 °C 800 A |

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| | (600 V) 3 Poles in Series, 40 °C 800 A |
| Rated Operational Power AC-3 (P _e) | (415 V) 355 kW (440 V) 355 kW (500 V) 400 kW (690 V) 500 kW (1000 V) 355 kW (380 / 400 V) 315 kW (220 / 230 / 240 V) 160 kW |
| Rated Breaking Capacity AC-3 | 8 x I _e AC-3 |
| Rated Making Capacity AC-3 | 10 x I _e AC-3 |
| Short-Circuit Protective Devices | gG Type Fuses 1000 A |
| Rated Short-time Withstand Current Low Voltage (I _{cw}) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 6400 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 1300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 3500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 7000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 4500 A |
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 440 V 6000 A cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 5000 A |
| Rated Insulation Voltage (U _i) | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V |
| Rated Impulse Withstand Voltage (U _{imp}) | Main Circuit 8 kV |
| Maximum Electrical Switching Frequency | (AC-1) 300 cycles per hour (AC-2 / AC-4) 60 cycles per hour (AC-3) 300 cycles per hour |
| Mechanical Durability | 3 million |
| Maximum Mechanical Switching Frequency | 300 cycles per hour |
| Coil Operating Limits | (acc. to IEC 60947-4-1) 0.85 x U _c Min. ... 1.1 x U _c Max. (at θ ≤ 70 °C) |
| Rated Control Circuit Voltage (U _c) | 50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V |
| Coil Consumption | Holding at Max. Rated Control Circuit Voltage 50 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage DC 5 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 880 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 880 V·A Pull-in at Max. Rated Control Circuit Voltage DC 880 V·A |
| Power Loss | at Rated Operating Conditions per Pole 32 W |
| Operate Time | Between Coil De-energization and NC Contact Closing 50 ... 70 ms Between Coil De-energization and NO Contact Opening 53 ... 73 ms Between Coil Energization and NC Contact Opening 45 ... 115 ms Between Coil Energization and NO Contact Closing 50 ... 120 ms |
| Connecting Capacity Main Circuit | Bar 52 mm ² Rigid Al-Cable 300 mm ² Rigid Cu-Cable 300 mm ² |
| Connecting Capacity Auxiliary Circuit | Flexible with Ferrule 2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm ² Flexible 2x0.75 ... 2.5 mm ² Solid 2 x 1 ... 4 mm ² Stranded 1 x 1 ... 4 mm ² |
| Connecting Capacity | Bar 52 mm ² Rigid Al-Cable 300 mm ² Rigid Cu-Cable 300 mm ² |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00 |
| Tightening Torque | Cable Lug 45 N·m Main Circuit 45 N·m |
| Terminal Type | Main Circuit: Bars |
| Product Name | Block Contactor |

Technical UL/CSA

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|----------------------------------|---|
| Maximum Operating Voltage UL/CSA | Main Circuit 1000 V |
| General Use Rating UL/CSA | (600 V AC) 750 A |
| Horsepower Rating UL/CSA | (200 V AC) Three Phase 200 hp (208 V AC) Three Phase 200 hp (220 ... 240 V AC) Three Phase 250 hp (440 ... 480 V AC) Three Phase 500 hp (550 ... 600 V AC) Three Phase 600 hp |
| Full Load Amps Motor Use | (440 ... 480 V AC) Three Phase 590 A (550 ... 600 V AC) Three Phase 578 A |

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 Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... 70 °C Close to Contactor for Storage -40 ... 70 °C |
| Maximum Operating Altitude Permissible | Without Derating 3000 m |
| Resistance to Shock acc. to IEC 60068-2-27 | Shock Direction: A 5 g Shock Direction: B1 5 g Shock Direction: B2 5 g Shock Direction: C1 5 g Shock Direction: C2 5 g |

Material Compliance

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| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Information | 2CMT2021-006277 |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| Toxic Substances Control Act - TSCA | 2CMT2023-006525 |
| WEEE B2C / B2B | Business To Business |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |

ABB EcoSolutions

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|---|-----------------|
| End Of Life Disassembling Instructions | 1SFC100112M0004 |
| Environmental Product Declaration - EPD | 1SFC100109D0201 |

Certificates and Declarations

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|-----------------|---------------------|
| ABS Certificate | 15-LD1408622-PDA |
| BV Certificate | BV_13409-C0BV |
| CB Certificate | SE-82863 |
| CCS Certificate | GB14T00030 |
| CQC Certificate | CQC2007010304256684 |

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|----------------------------------|--------------------------------------|
| | CQC2012010304540080 |
| Declaration of Conformity - CCC | 2020980304001301 2020980304001045 |
| Declaration of Conformity - CE | 2CMT2019-005796 |
| Declaration of Conformity - UKCA | 2CMT2020-006118 |
| DNV Certificate | DNV_E-10966 |
| DNV GL Certificate | TAE00001W1 |
| EAC Certificate | 9AKK107046A8618 |
| GL Certificate | GL_42988-02HH |
| LOVAG Certificate | FI107 |
| LR Certificate | 16-20064 |
| PRS Certificate | TE_2092_880423_16 |
| RINA Certificate | ELE060313XG_002 |
| RMRS Certificate | 9AKK107045A6978 |
| UL Certificate | UL_20111101-E36588 |
| UL Listing Card | UL_E36588 |

Container Information

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|--------------------------------|---------------|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 280 mm |
| Package Level 1 Depth / Length | 375 mm |
| Package Level 1 Height | 310 mm |
| Package Level 1 Gross Weight | 15 kg |
| Package Level 1 EAN | 7320500217696 |

External Classifications and Standards

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|------------------------------------|--|
| Object Classification Code | Q |
| ETIM 7 | EC000066 - Power contactor, AC switching |
| ETIM 8 | EC000066 - Power contactor, AC switching |
| ETIM 9 | EC000066 - Power contactor, AC switching |
| eClass | V11.0 : 27371003 |
| UNSPSC | 39121529 |
| IDEA Granular Category Code (IGCC) | 4758 >> lec Contactors |
| E-Number (Finland) | 3709334 |
| E-Number (Norway) | 4115296 |
| E-Number (Sweden) | 3228356 |

Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|-----------------|----------------------|----------|----------|-----------------|
| 1SFN170801R1001 | RU19/120 LVRT-Module | RU19/120 | 1 | piece |
| 1SFN170801R1002 | RU19/240 LVRT-Module | RU19/240 | 1 | piece |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF580

