



 PRODUCT-DETAILS

AF116-30-11-12

AF116-30-11-12 Contactor



General Information

| | |
|-----------------------|--------------------------|
| Extended Product Type | AF116-30-11-12 |
| Product ID | 1SFL427001R1211 |
| EAN | 7320500476369 |
| Catalog Description | AF116-30-11-12 Contactor |

| | |
|------------------|---|
| Long Description | <p>The AF116-30-11-12 is a 3 pole - 690 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and double clamp, controlling motors up to 55 kW / 400 V AC (AC-3) or 75 hp / 480 V UL and switching power circuits up to 160 A (AC-1) or 160 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (48-130 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.</p> |
|------------------|---|

Ordering

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

Popular Downloads

| | |
|--|------------------|
| EPLAN Data | 9AAC174538_EPLAN |
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Data Sheet, Technical Information (Part 2) | 1SAC200017M0002 |
| Instructions and Manuals | 1SFC100003M0201 |
| CAD Dimensional Drawing | 2CDC001079B0201 |

Dimensions

| | |
|----------------------------|-----------------|
| Product Net Width | 90 mm |
| Product Net Depth / Length | 126 mm |
| Product Net Height | 150 mm |
| Product Net Weight | 1.55 kg |
| Dimension Diagram | 1SFB535001G1051 |

Technical

| | |
|--|---|
| 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 690 V |
| Rated Frequency (f) | Main Circuit 50 / 60 Hz |
| Conventional Free-air Thermal Current (I _{th}) | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 160 A |
| Rated Operational Current AC-1 (I _e) | (690 V) 40 °C 160 A (690 V) 60 °C 145 A (690 V) 70 °C 130 A |
| Rated Operational Current AC-3 (I _e) | (415 V) 55 °C 116 A (440 V) 55 °C 116 A (500 V) 55 °C 110 A (690 V) 55 °C 65 A (380 / 400 V) 55 °C 116 A (220 / 230 / 240 V) 55 °C 116 A |
| Rated Operational Current AC-3e (I _e) | (415 V) 60 °C 116 A (440 V) 60 °C 116 A (500 V) 60 °C 110 A (690 V) 60 °C 65 A (380 / 400 V) 60 °C 116 A (220 / 230 / 240 V) 60 °C 116 A |
| Rated Operational Current DC-1 (I _e) | (110 V) 2 Poles in Series, 40 °C 145 A (220 V) 3 Poles in Series, 40 °C 145 A |
| Rated Operational Current DC-3 (I _e) | (110 V) 2 Poles in Series, 40 °C 145 A (220 V) 3 Poles in Series, 40 °C 145 A |
| Rated Operational Current DC-5 (I _e) | (110 V) 2 Poles in Series, 40 °C 145 A (220 V) 3 Poles in Series, 40 °C 145 A |
| Rated Operational Power AC-3 (P _e) | (415 V) 55 kW (440 V) 75 kW |

| | |
|---|--|
| | (500 V) 75 kW (690 V) 55 kW (380 / 400 V) 55 kW (220 / 230 / 240 V) 30 kW |
| Rated Operational Power AC-3e (P _e) | (415 V) 55 kW (440 V) 75 kW (500 V) 75 kW (690 V) 55 kW (380 / 400 V) 55 kW (220 / 230 / 240 V) 30 kW |
| Rated Breaking Capacity AC-3 | 8 x I _e AC-3 |
| Rated Breaking Capacity AC-3e | 8.5 x I _e AC-3e |
| Rated Making Capacity AC-3 | 10 x I _e AC-3 |
| Rated Making Capacity AC-3e | 12 x I _e AC-3e |
| Short-Circuit Protective Devices | gG Type Fuses 250 A |
| Rated Short-time Withstand Current Low Voltage (I _{cw}) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 928 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 160 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 379 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1160 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 536 A |
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 440 V 2000 A cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 1000 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) 150 cycles per hour (AC-3) 300 cycles per hour |
| Mechanical Durability | 5 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 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 V |
| Coil Consumption | Holding at Max. Rated Control Circuit Voltage 50 Hz 15.1 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 15.1 V·A Holding at Max. Rated Control Circuit Voltage DC 2.4 V·A Holding at Max. Rated Control Circuit Voltage DC 2.4 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 320 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 320 V·A Pull-in at Max. Rated Control Circuit Voltage DC 435 V·A Pull-in at Max. Rated Control Circuit Voltage DC 435 W |
| Power Loss | at Rated Operating Conditions per Pole 6 W |
| Operate Time | Between Coil De-energization and NO Contact Opening 37 ... 47 ms Between Coil Energization and NO Contact Closing 25 ... 55 ms |
| Connecting Capacity Main Circuit | Flexible 2 x 10 ... 70 mm ² Rigid Cu-Cable 2 x 10 ... 95 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 2 x 1 ... 4 mm ² |
| Connecting Capacity | Flexible 2 x 10 ... 70 mm ² Rigid Cu-Cable 2 x 10 ... 95 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 9 N-m Main Circuit 8 N-m |
| Terminal Type | Double Clamp |
| Product Name | Block Contactor |

Technical UL/CSA

| | |
|----------------------------------|---|
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V |
| General Use Rating UL/CSA | (600 V AC) 160 A |
| Horsepower Rating UL/CSA | (200 V AC) Three Phase 30 hp (208 V AC) Three Phase 30 hp (220 ... 240 V AC) Three Phase 40 hp (440 ... 480 V AC) Three Phase 75 hp (550 ... 600 V AC) Three Phase 100 hp |
| Full Load Amps Motor Use | (440 ... 480 V AC) Three Phase 96 A (550 ... 600 V AC) Three Phase 99 A |

Environmental

| | |
|--|--|
| 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 |

Material Compliance

| | |
|---|--|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Declaration | 2CMT2021-006277 |
| RoHS Information | 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

| | |
|---|---|
| ABB EcoSolutions | Yes |
| ABB Site Meeting Group Waste To Landfill Target | Non-hazardous waste is sent to a landfill, where there is no alternative option available within 100km of a facility UL 2799 Zero Waste To Landfill Validation available |
| EcoSolutions Profile | 1SFC100125C0366 |
| End Of Life Disassembling Instructions | 1SFC100112M0001 |
| Environmental Product Declaration - EPD | 1SFC100092D0201 2TFP200059A1001 |
| Improved Energy Efficiency for Customers | Product Efficiency - Product requires less energy to operate compared to similar product on market or older products from the same line Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line |

Recyclability Rate of the
Product acc. to EN45555

Design for Closing Resource Loops - Standard EN45555 - 87.8 %

Certificates and Declarations

| | |
|-------------------------------------|--|
| A2L Certificate – UL | 9AKK108468A6693 |
| ABS Certificate | 14-LD1092198-PDA 14-LD1092198-1-PDA-DUP |
| BV Certificate | BV_36353_A0BV |
| CB Certificate | SEMKO_SE-70479M1 |
| CCS Certificate | GB14T00030 |
| CQC Certificate | CQC2013010304604055 |
| Declaration of Conformity - CCC | 2020980304001304 |
| Declaration of Conformity - CE | 2CMT2015-005439 |
| Declaration of Conformity - UKCA | 2CMT2020-006118 |
| DNV Certificate | DNV_E-14043 |
| LR Certificate | 16-20064 |
| PRS Certificate | TE_2092_880423_16 |
| RINA Certificate | ELE060313XG_002 |
| RMRS Certificate | 9AKK107045A6978 |
| UL Certificate | 20120925-E36588 |
| UL Listing Card | UL_E36588 |

Container Information

| | |
|-----------------------------------|---------------|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 207 mm |
| Package Level 1 Depth / Length | 216 mm |
| Package Level 1 Height | 150 mm |
| Package Level 1 Gross Weight | 1.75 kg |
| Package Level 1 EAN | 7320500476369 |

External Classifications and Standards

| | |
|---------------------------------------|--|
| 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) | 3706164 |
| E-Number (Norway) | 4117613 |
| E-Number (Sweden) | 3210067 |

Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|-----------------|-------------------------------------|------------|----------|-----------------|
| 1SFN034403R1000 | VM140/190 Mechanical Interlock Unit | VM140/190 | 1 | piece |
| 1SFN074203R1000 | LY140 Connecting Strip | LY140 | 1 | piece |
| 1SFN074207R1000 | LW140 Terminal Enlargement | LW140 | 1 | piece |
| 1SFN074208R1000 | LD146-30 Connection Module | LD146-30 | 1 | piece |
| 1SFN074210R1000 | LX140 Terminal Extension | LX140 | 1 | piece |
| 1SFN074211R1000 | LL146-30 Connection Socket | LL146-30 | 1 | piece |
| 1SFN084206R1000 | BEA140/XT2 Connection Set | BEA140/XT2 | 1 | piece |
| 1SFN084206R1001 | BEA140/XT4 Connection Set | BEA140/XT4 | 1 | piece |
| 1SFN084206R1002 | BEA140/XT3 Connection Set | BEA140/XT3 | 1 | piece |
| 1SFN084211R1000 | BER140-4 Connection Set | BER140-4 | 1 | piece |
| 1SFN084214R1000 | BEP140-30 Connection Set | BEP140-30 | 1 | piece |
| 1SFN084413R1000 | BEY140-4 Connection Set | BEY140-4 | 1 | piece |
| 1SFN094200R1000 | PR146-1 Adapter Plate | PR146-1 | 1 | piece |
| 1SFN124203R1000 | LT140-30L Terminal Shroud | LT140-30L | 1 | piece |
| 1SFN074208R2000 | LD146-40 Connection Module | LD146-40 | 1 | piece |
| 1SFN074211R2000 | LL146-40 connection sockets kit | LL146-40 | 1 | piece |
| 1SFN084214R2000 | BEP140-40 Connection Set | BEP140-40 | 1 | piece |
| 1SFN124203R2000 | LT140-40L Terminal Shroud | LT140-40L | 1 | piece |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF116

