PRODUCT-DETAILS

# AF116-30-11-13

# AF116-30-11-13 Contactor



## General Information

| | |
|---|---|
| Extended Product Type | AF116-30-11-13 |
| Product ID | 1SFL427001R1311 |
| EAN | 7320500476376 |
| Catalog Description | AF116-30-11-13 Contactor |
| Long Description | The AF116-30-11-13 is a 3 pole - 1000 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 (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 | 1SBC100192C0206 |

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|---|---|
| Instructions and Manuals | 1SFC100003M0201 |
| Dimension Diagram | 1SFB535001G1051 |

## Dimensions

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| Product Net Width | 90 mm |
| Product Net Depth / Length | 126 mm |
| Product Net Height | 150 mm |
| Product Net Weight | 1.55 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 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 q = 40 °C 160 A |
| Rated Operational Current AC-1 ($I_e$) | (690 V) 40 °C 160<br>(690 V) 60 °C 145 A<br>(690 V) 70 °C 130 |
| Rated Operational Current AC-3 ($I_e$) | (415 V) 55 °C 116 A<br>(440 V) 55 °C 116 A<br>(500 V) 55 °C 110 A<br>(690 V) 55 °C 65 A<br>(380 / 400 V) 55 °C 116 A<br>(220 / 230 / 240 V) 55 °C 116 |
| Rated Operational Power AC-3 ($P_e$) | (415 V) 55 kW<br>(440 V) 75 kW<br>(500 V) 75 kW<br>(690 V) 55 kW<br>(380 / 400 V) 55 kW<br>(220 / 230 / 240 V) 30 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 250 A |
| Rated Short-time Withstand Current ($I_{cw}$) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 928 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 160 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 379 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1160 A<br>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 Ie > 100 A) at 440 V 2000 A<br>cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 1000 A |
| Maximum Electrical Switching Frequency | (AC-1) 300 cycles per hour<br>(AC-2 / AC-4) 150 cycles per hour |

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| | (AC-3) 300 cycles per hour |
| Rated Operational Current DC-1 ($I_e$) | (110 V) 2 Poles in Series, 40 °C 145 A<br>(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<br>(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<br>(220 V) 3 Poles in Series, 40 °C 145 A |
| Rated Insulation Voltage ($U_i$) | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V<br>acc. to UL/CSA 600 V |
| Rated Impulse Withstand Voltage ($U_{imp}$) | Main Circuit 8 kV |
| Mechanical Durability | 5 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) |
| Rated Control Circuit Voltage ($U_c$) | 50 Hz 100 ... 250 V<br>60 Hz 100 ... 250 V<br>DC Operation 100 ... 250 V |
| Coil Consumption | Holding at Max. Rated Control Circuit Voltage 50 Hz 6 V·A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 6 V·A<br>Holding at Max. Rated Control Circuit Voltage DC 3 W<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 130 V·A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 130 V·A<br>Pull-in at Max. Rated Control Circuit Voltage DC 135 W |
| Operate Time | Between Coil De-energization and NO Contact Opening 37 ... 47 ms<br>Between Coil Energization and NO Contact Closing 25 ... 55 ms |
| Connecting Capacity Main Circuit | Flexible 2 x 10 ... 70 mm²<br>Rigid Cu-Cable 2 x 10 ... 95 mm² |
| Connecting Capacity Auxiliary Circuit | Flexible with Ferrule 2x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm²<br>Flexible 2x0.75 ... 2.5 mm²<br>Solid 2 x 1 ... 4 mm²<br>Stranded 2 x 1 .... 4 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 | Double Clamp |

## Technical UL/CSA

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|---|---|
| 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<br>(208 V AC) Three Phase 30 hp<br>(220 ... 240 V AC) Three Phase 40 hp<br>(440 ... 480 V AC) Three Phase 75 hp<br>(550 ... 600 V AC) Three Phase 100 hp |

## 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 |

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|---|---|
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |

## Certificates and Declarations (Document Number)

| | |
|---|---|
| ABS Certificate | 14-LD1092198-PDA |
| BV Certificate | BV_36353_A0BV |
| CB Certificate | SEMKO_SE-70479M1 |
| CCS Certificate | GB14T00030 |
| CQC Certificate | CQC2013010304604055 |
| cUL Certificate | 20120925-E36588 |
| Declaration of Conformity - CCC | 2020980304001304 |
| Declaration of Conformity - CE | 2CMT2015-005439 |
| DNV Certificate | DNV_E-14043 |
| DNV GL Certificate | DNV_E-14043 |
| EAC Certificate | 9AKK107046A8618 |
| Environmental Information | 2CMT004732<br>1SAC200032H0002 |
| GL Certificate | DNV_E-14043 |
| Instructions and Manuals | 1SFC100003M0201 |
| LR Certificate | LR_14_70011(E1) |
| PRS Certificate | TE_2092_880423_16 |
| RINA Certificate | ELE060313XG_002 |
| RMRS Certificate | 9AKK107045A6978 |
| RoHS Information | 2CMT2015-005439 |
| UL Listing Card | UL_E36588 |

## Container Information

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|---|---|
| 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 | 7320500476376 |

## Classifications

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|---|---|
| Object Classification Code | Q |
| ETIM 4 | EC000066 - Magnet contactor, AC-switching |
| ETIM 5 | EC000066 - Magnet contactor, AC-switching |
| ETIM 6 | EC000066 - Power contactor, AC switching |
| ETIM 7 | EC000066 - Power contactor, AC switching |
| eClass | V11.0 : 27371003 |
| UNSPSC | 39121529 |
| IDEA Granular Category | 4755 >> Contactors |

| Code (IGCC) | |
|---|---|
| E-Number (Finland) | 3706167 |
| E-Number (Norway) | 4117610 |
| E-Number (Sweden) | 3210068 |

## Where Used (as part of "kit")

| Identifier | Description | Type |
|---|---|---|
| 3HAC059249-001 | Contactor set | Kit |

## Categories

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

Robotics → Controllers → IRC5 → IRC5 Process Module

