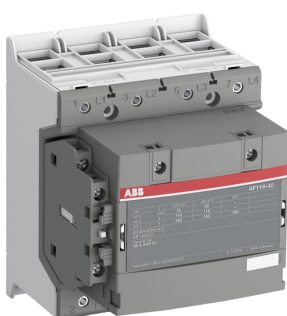


## PRODUCT-DETAILS

# AF116-40-00-11

## AF116-40-00-11 Contactor



### General Information

|                       |                          |
|-----------------------|--------------------------|
| Extended Product Type | AF116-40-00-11           |
| Product ID            | 1SFL427101R1100          |
| EAN                   | 7320500504017            |
| Catalog Description   | AF116-40-00-11 Contactor |

#### Long Description

The AF116-40-00-11 is a 4 pole - 1000 V IEC or 600 V UL contactor with double clamp, controlling motors up to 55 kW / 400 V AC (AC-3) / 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 (24-60 V 50/60 Hz and 20-60 V 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

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

### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100192C0206 |
|-----------------------------------|-----------------|

Instructions and Manuals

1SFC101065M0201

Dimension Diagram

1SFB535001G1121

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 120 mm  |
| Product Net Depth / Length | 128 mm  |
| Product Net Height         | 150 mm  |
| Product Net Weight         | 2.05 kg |

## Technical

|                                                    |                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts NO                         | 4                                                                                                                                                                                                                                                                                                                                                   |
| Number of Main Contacts NC                         | 0                                                                                                                                                                                                                                                                                                                                                   |
| Number of Auxiliary Contacts NO                    | 0                                                                                                                                                                                                                                                                                                                                                   |
| Number of Auxiliary Contacts NC                    | 0                                                                                                                                                                                                                                                                                                                                                   |
| Rated Operational Voltage                          | Main Circuit 690 V                                                                                                                                                                                                                                                                                                                                  |
| Rated Frequency (f)                                | Main Circuit 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>(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>(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 $I_e$ AC-3                                                                                                                                                                                                                                                                                                                                      |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1   | 10 x $I_e$ AC-3                                                                                                                                                                                                                                                                                                                                     |
| Short-Circuit Protective Devices                   | gG Type Fuses 200 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 1300 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 $I_e > 100$ A) at 440 V 2000 A                                                                                                                                                                                                                                                                                       |
| Maximum Electrical Switching Frequency             | (AC-1) 300 cycles per hour                                                                                                                                                                                                                                                                                                                          |
| 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                            | Main Circuit 8 kV                                                                                                                                                                                                                                                                                                                                   |

Voltage ( $U_{imp}$ )

|                                         |                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 $\theta \leq 70^\circ\text{C}$ )                                                                                                                                                                                                                                                                          |
| Rated Control Circuit Voltage ( $U_c$ ) | 50 Hz 24 ... 60 V<br>60 Hz 24 ... 60 V<br>DC Operation 20 ... 60 V                                                                                                                                                                                                                                                                                                           |
| Coil Consumption                        | Holding at Max. Rated Control Circuit Voltage 50 Hz 5.5 V·A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 5.5 V·A<br>Holding at Max. Rated Control Circuit Voltage DC 2.5 W<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 225 V·A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 225 V·A<br>Pull-in at Max. Rated Control Circuit Voltage DC 210 W |
| Operate Time                            | Between Coil De-energization and NO Contact Opening 40 ... 70 ms<br>Between Coil Energization and NO Contact Closing 20 ... 55 ms                                                                                                                                                                                                                                            |
| Connecting Capacity Main Circuit        | Flexible 2 x 10 ... 70 mm <sup>2</sup><br>Rigid Cu-Cable 1 x 10 ... 95 mm <sup>2</sup>                                                                                                                                                                                                                                                                                       |
| Connecting Capacity Auxiliary Circuit   | Flexible with Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible 1x0.75 ... 2.5 mm <sup>2</sup><br>Solid 1 x 1 ... 4 mm <sup>2</sup><br>Stranded 2 x 1 ... 4 mm <sup>2</sup>                                                                                                                             |
| 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

|                                  |                    |
|----------------------------------|--------------------|
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V |
| General Use Rating UL/CSA        | (600 V AC) 160 A   |

## Environmental

|                                        |                                                                                                                                                                                                                             |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                | Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -25 ... +50 °C<br>Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -40 ... +70 °C<br>Close to Contactor for Storage -40 ... +70 °C |
| Maximum Operating Altitude Permissible | 3000 m                                                                                                                                                                                                                      |
| 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    |
| CCC Certificate                 | 2013010304604055    |
| CQC Certificate                 | CQC2013010304604055 |
| cUL Certificate                 | E73397_20140710     |
| Declaration of Conformity - CCC | 2020980304001304    |

|                                   |                   |
|-----------------------------------|-------------------|
| Declaration of Conformity<br>- CE | 2CMT2015-005440   |
| DNV GL Certificate                | DNV_E-14043       |
| EAC Certificate                   | 9AKK107046A8618   |
| Instructions and Manuals          | 1SFC101065M0201   |
| KC Certificate                    | 9AKK107046A9911   |
| LR Certificate                    | LR_14_70011(E1)   |
| PRS Certificate                   | TE_2092_880423_16 |
| RINA Certificate                  | ELE060313XG_002   |
| RMRS Certificate                  | 9AKK107045A6978   |
| RoHS Information                  | 2CMT2015-005440   |

## Container Information

|                                   |               |
|-----------------------------------|---------------|
| Package Level 1 Units             | box 1 piece   |
| Package Level 1 Width             | 147 mm        |
| Package Level 1 Depth /<br>Length | 197 mm        |
| Package Level 1 Height            | 155 mm        |
| Package Level 1 Gross<br>Weight   | 2.25 kg       |
| Package Level 1 EAN               | 7320500504017 |

## Classifications

|                                       |                                           |
|---------------------------------------|-------------------------------------------|
| 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<br>Code (IGCC) | 4755 >> Contactors                        |
| E-Number (Finland)                    | 3706014                                   |

## Categories

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

