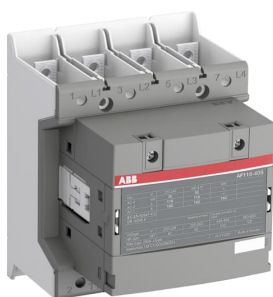


## PRODUCT-DETAILS

# AF116-40-00B-14

## AF116-40-00B-14 Contactor



### General Information

|                       |                                                                                                                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | AF116-40-00B-14                                                                                                                                                                                                    |
| Product ID            | 1SFL427102R1400                                                                                                                                                                                                    |
| EAN                   | 7320500503812                                                                                                                                                                                                      |
| Catalog Description   | AF116-40-00B-14 Contactor                                                                                                                                                                                          |
| Long Description      | A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, By-pass and Distribution application up to max 690 V. Operated with wide control voltage range 250-500 V, 50/60 Hz and DC |

### Ordering

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

### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100192C0206 |
| Instructions and Manuals          | 1SFC101065M0201 |

### Dimensions

|                     |        |
|---------------------|--------|
| Product Net Width   | 120 mm |
| Product Net Depth / | 128 mm |

|                    |         |
|--------------------|---------|
| Length             |         |
| Product Net Height | 150 mm  |
| Product Net Weight | 1.95 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 $q = 40\text{ °C}$ 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 $I_e > 100\text{ A}$ ) 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 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 $U_c$ Min. ... 1.1 x $U_c$ Max. (at $\theta \leq 70\text{ °C}$ )                                                                                                                                                                                                                                                                              |
| Rated Control Circuit Voltage ( $U_c$ )            | 50 Hz 250 ... 500 V<br>60 Hz 250 ... 500 V<br>DC Operation 250 ... 500 V                                                                                                                                                                                                                                                                                                     |
| Coil Consumption                                   | Holding at Max. Rated Control Circuit Voltage 50 Hz 16.1 V·A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 16.1 V·A<br>Holding at Max. Rated Control Circuit Voltage DC 4 W<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 205 V·A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 205 V·A<br>Pull-in at Max. Rated Control Circuit Voltage DC 204 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 1 x 10 ... 70 mm <sup>2</sup><br>Rigid Cu-Cable 2 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 2x0.75 ... 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                         | Main Circuit: Bars                                                                                                                                                                                                                               |

## 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 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                                                                                                                                                                                                              |
| RoHS Status                            | Following EU Directive 2015/863 July 22, 2019 (RoHS 3)                                                                                                                                                              |

## Certificates and Declarations (Document Number)

|                                |                   |
|--------------------------------|-------------------|
| ABS Certificate                | 14-LD1092198-PDA  |
| BV Certificate                 | BV_36353_A0BV     |
| CB Certificate                 | SEMKO_SE-70479M1  |
| CCC Certificate                | 2013010304604055  |
| cUL Certificate                | E73397_20140710   |
| Declaration of Conformity - 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 / Length | 197 mm        |
| Package Level 1 Height         | 155 mm        |
| Package Level 1 Gross Weight   | 2.15 kg       |
| Package Level 1 EAN            | 7320500503812 |

| 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  |                    |
| UNSPSC                             |                                           | 39121529           |
| IDEA Granular Category Code (IGCC) |                                           | 4755 >> Contactors |
| E-Number (Finland)                 |                                           | 3706078            |

| Categories                                                                          |  |
|-------------------------------------------------------------------------------------|--|
| Low Voltage Products and Systems → Control Products → Contactors → Block Contactors |  |

