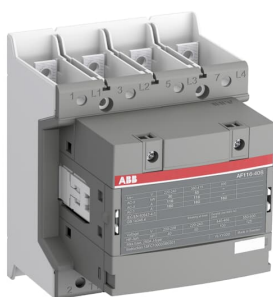


PRODUCT-DETAILS

AF116-40-00B-13

AF116-40-00B-13 Contactor



General Information

| | |
|-----------------------|--|
| Extended Product Type | AF116-40-00B-13 |
| Product ID | 1SFL427102R1300 |
| EAN | 7320500503843 |
| Catalog Description | AF116-40-00B-13 Contactor |
| Long Description | The AF116-40-00B-13 is a 4 pole - 690 V IEC or 600 V UL contactor with Main Circuit Bars, 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 (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 |
| Instructions and Manuals | 1SFC101065M0201 |
| CAD Dimensional | 2CDC001079B0201 |

Drawing

Dimension Diagram

1SFB535001G1121

Dimensions

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|----------------------------|---------|
| Product Net Width | 120 mm |
| Product Net Depth / Length | 128 mm |
| 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 50 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 (380 / 400 V) 55 °C 116 A (220 / 230 / 240 V) 55 °C 116 A |
| Rated Operational Power AC-3 (P_e) | (415 V) 55 kW (440 V) 75 kW (380 / 400 V) 55 kW (220 / 230 / 240 V) 30 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 200 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 1300 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 $I_e > 100\text{ A}$) 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 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 100 ... 250 V 60 Hz 100 ... 250 V |

| | |
|---------------------------------------|--|
| | DC Operation 100 ... 250 V |
| Coil Consumption | Holding at Max. Rated Control Circuit Voltage 50 Hz 6 V-A Holding at Max. Rated Control Circuit Voltage 60 Hz 6 V-A Holding at Max. Rated Control Circuit Voltage DC 3 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 130 V-A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 130 V-A Pull-in at Max. Rated Control Circuit Voltage DC 135 W |
| Operate Time | Between Coil De-energization and NO Contact Opening 40 ... 70 ms Between Coil Energization and NO Contact Closing 20 ... 55 ms |
| Connecting Capacity Main Circuit | Flexible 1 x 10 ... 70 mm ² Rigid Cu-Cable 1 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 |
| 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 |
| 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 |
| Horsepower Rating UL/CSA | (200 ... 208 V AC) Three Phase 15 Hp (200 V AC) Three Phase 30 hp (208 V AC) Three Phase 30 hp (220 ... 240 V AC) Three Phase 20 Hp (220 ... 240 V AC) Three Phase 40 hp (440 ... 480 V AC) Three Phase 40 Hp (440 ... 480 V AC) Three Phase 75 hp (550 ... 600 V AC) Three Phase 50 Hp (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 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 |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |

Circular Value

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|---|---|
| ABB EcoSolutions | Yes |
| Circular Design Principles Recyclability Rate | Design for Closing Resource Loops - Standard EN45555 - 87.8 % |
| End of Life Instructions | 1SFC100112M0001 |
| 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 |
| Improved Resource Efficiency for Customers | Product Efficiency - Product requires less energy to operate compared to similar product on market or older products from the same line |
| Sustainable Material Content | Recycled Metal - 37 % |

Eco Transparency

| | |
|---|-----------------|
| Environmental Product Declaration - EPD | 1SFC100092D0201 |
|---|-----------------|

Certificates and Declarations

| | |
|-------------------------------------|---------------------|
| ABS Certificate | 14-LD1092198-PDA |
| BV Certificate | BV_36353_A0BV |
| CB Certificate | SEMKO_SE-70479M1 |
| CQC Certificate | CQC2013010304604055 |
| Declaration of Conformity - CCC | 2020980304001304 |
| Declaration of Conformity - CE | 2CMT2015-005440 |
| Declaration of Conformity - UKCA | 2CMT2020-006118 |
| EAC Certificate | 9AKK107046A8618 |
| KC Certificate | 9AKK107046A9911 |
| LR Certificate | LR_14_70011(E1) |
| PRS Certificate | TE_2092_880423_16 |
| RINA Certificate | ELE060313XG_002 |
| RMRS Certificate | 9AKK107045A6978 |
| UL Certificate | E73397_20140710 |

Container Information

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|-----------------------------------|---------------|
| 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 | 7320500503843 |

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 |
| ETIM 8 | EC000066 - Power contactor, AC switching |
| eClass | V11.0 : 27371003 |
| UNSPSC | 39121529 |
| IDEA Granular Category Code (IGCC) | 4758 >> Iec Contactors |
| E-Number (Finland) | 3706075 |

Categories

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

