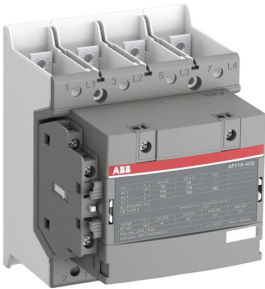




PRODUCT-DETAILS

AF116-40-11B-14

AF116-40-11B-14 Contactor



General Information

| | |
|-----------------------|---------------------------|
| Extended Product Type | AF116-40-11B-14 |
| Product ID | 1SFL427102R1411 |
| EAN | 7320500503805 |
| Catalog Description | AF116-40-11B-14 Contactor |

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|------------------|---|
| Long Description | The AF116-40-11B-14 is a 4 pole - 690 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and 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 (250-500 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 | 1SFC100003M0201 |
| CAD Dimensional Drawing | 2CDC001079B0201 |
| 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

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| Number of Main Contacts NO | 4 |
| 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 60 Hz |
| Conventional Free-air Thermal Current (I _{th}) | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ }^{\circ}\text{C}$ 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 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 $\Theta \leq 70\text{ }^{\circ}\text{C}$) |
| Rated Control Circuit | 50 Hz 250 ... 500 V 60 Hz 250 ... 500 V |

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|---------------------------------------|--|
| Voltage (U _c) | DC Operation 250 ... 500 V |
| Coil Consumption | Average Pull-in Value 50 Hz 260 V·A Average Pull-in Value 60 Hz 260 V·A Holding at Max. Rated Control Circuit Voltage 50 Hz 16.1 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 16.1 V·A Holding at Max. Rated Control Circuit Voltage DC 4 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 205 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 205 V·A Pull-in at Max. Rated Control Circuit Voltage DC 230 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 2 x 10 ... 70 mm² Rigid Cu-Cable 2 x 10 ... 95 mm² |
| Connecting Capacity Auxiliary Circuit | Flexible with Ferrule 2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm² Flexible 2x0.75 ... 2.5 mm² Solid 2 x 1 ... 4 mm² Stranded 2 x 1 ... 4 mm² |
| 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

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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 ... 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 U _c) -25 ... 50 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 U _c) -40 ... 70 °C Close to Contactor for Storage -40 ... 70 °C |
| Maximum Operating Altitude Permissible | Without Derating 3000 m |

Material Compliance

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

Circular Value

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|---|---|
| ABB EcoSolutions | Yes |
| Circular Design Principles Recyclability Rate | Design for Closing Resource Loops - Standard EN45555 - 87.8 % |

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|--|---|
| 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

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

Certificates and Declarations

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|----------------------------------|---------------------|
| 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 | 7320500503805 |

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 >> lec Contactors |
| E-Number (Finland) | 3706079 |

| Accessories | | | | |
|-----------------|-----------------------------------|-----------|----------|-----------------|
| Identifier | Description | Type | Quantity | Unit Of Measure |
| 1SFN010820R1011 | CAL19-11 Auxiliary Contact Block | CAL19-11 | 1 | piece |
| 1SFN010820R3311 | CAL19-11B Auxiliary Contact Block | CAL19-11B | 1 | piece |
| 1SFN010832R1001 | CEL19-01 Auxiliary Contact Block | CEL19-01 | 1 | piece |
| 1SFN010832R1010 | CEL19-10 Auxiliary Contact Block | CEL19-10 | 1 | piece |
| 1SFN074208R2000 | LD146-40 Connection Module | LD146-40 | 1 | piece |
| 1SFN124203R2000 | LT140-40L Terminal Shroud | LT140-40L | 1 | piece |
| 1SFN124801R2000 | LT205-40C Terminal Shroud | LT205-40C | 1 | piece |
| 1SFN074807R2000 | LW205-40 Terminal Enlargement | LW205-40 | 1 | piece |
| 1SFN124803R2000 | LT205-40L Terminal Shroud | LT205-40L | 1 | piece |
| 1SFN075407R2000 | LW370-40 Terminal Enlargement | LW370-40 | 1 | piece |
| 1SFN125401R2000 | LT370-40C Terminal Shroud | LT370-40C | 1 | piece |
| 1SFN125403R2000 | LT370-40L Terminal Shroud | LT370-40L | 1 | piece |

Categories

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

