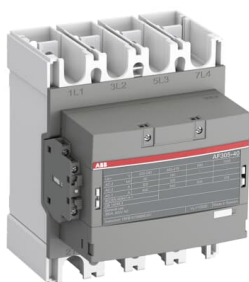




 PRODUCT-DETAILS

AF305-40-11-14

AF305-40-11-14 Contactor



General Information

| | |
|-----------------------|--------------------------|
| Extended Product Type | AF305-40-11-14 |
| Product ID | 1SFL587102R1411 |
| EAN | 7320500504970 |
| Catalog Description | AF305-40-11-14 Contactor |

| | |
|------------------|---|
| Long Description | <p>The AF305-40-11-14 is a 4 pole - 1000 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and Main Circuit Bars, controlling motors up to 160 kW / 400 V AC (AC-3) / and switching power circuits up to 500 A (AC-1) or 350 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.</p> |
|------------------|---|

Ordering

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

Popular Downloads

| | |
|--|-----------------|
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Data Sheet, Technical Information (Part 2) | 1SAC200017M0002 |
| Instructions and Manuals | 1SFC100008M0201 |
| CAD Dimensional Drawing | 2CDC001079B0201 |
| Dimension Diagram | 1SFB535001G1123 |

Dimensions

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|----------------------------|----------|
| Product Net Width | 184 mm |
| Product Net Depth / Length | 180 mm |
| Product Net Height | 225.4 mm |
| Product Net Weight | 5.7 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 |
| Number of Poles | 4P |
| Rated Operational Voltage | Main Circuit 1000 V |
| Rated Frequency (f) | Main Circuit 60 Hz |
| Conventional Free-air Thermal Current (I _{th}) | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 500 A |
| Rated Operational Current AC-1 (I _e) | (1000 V) 40 °C 375 A (1000 V) 60 °C 325 A (1000 V) 70 °C 260 A (690 V) 40 °C 500 A (690 V) 60 °C 400 A (690 V) 70 °C 325 A |
| Rated Operational Current AC-3 (I _e) | (415 V) 55 °C 305 A (440 V) 55 °C 305 A (380 / 400 V) 55 °C 305 A (220 / 230 / 240 V) 55 °C 305 A |
| Rated Operational Power AC-3 (P _e) | (415 V) 160 kW (440 V) 160 kW (380 / 400 V) 160 kW (220 / 230 / 240 V) 90 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 630 A |
| Rated Short-time Withstand Current Low Voltage (I _{cw}) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 2440 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 996 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 3050 A |

at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 1409 A

| | |
|---|--|
| Maximum Breaking Capacity | cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 4600 A |
| Rated Insulation Voltage (U _i) | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 1000 V |
| Rated Impulse Withstand Voltage (U _{imp}) | Main Circuit 8 kV |
| Maximum Electrical Switching Frequency | (AC-1) 300 cycles per hour |
| 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 θ ≤ 70 °C) |
| Rated Control Circuit Voltage (U _c) | 50 Hz 250 ... 500 V 60 Hz 250 ... 500 V DC Operation 250 ... 500 V |
| Coil Consumption | Holding at Max. Rated Control Circuit Voltage 50 Hz 20.4 V-A Holding at Max. Rated Control Circuit Voltage 60 Hz 20.4 V-A Holding at Max. Rated Control Circuit Voltage DC 4.7 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 550 V-A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 550 V-A Pull-in at Max. Rated Control Circuit Voltage DC 650 W |
| Power Loss | at Rated Operating Conditions per Pole 50 W |
| Operate Time | Between Coil De-energization and NO Contact Opening 45 ... 80 ms Between Coil Energization and NO Contact Closing 30 ... 60 ms |
| Connecting Capacity Main Circuit | Flexible 1 x 16 ... 240 mm ² Rigid Al-Cable 1 x 185 ... 240 mm ² Rigid Cu-Cable 1 x 6 ... 300 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 1x0.75 ... 2.5 mm ² Solid 2 x 1 ... 4 mm ² Stranded 1 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 |
| Tightening Torque | Cable Lug 28 N-m Main Circuit 22 ... 43 N-m |
| Terminal Type | Main Circuit: Bars |
| Product Name | Block Contactor |

Technical UL/CSA

| | |
|----------------------------------|---|
| Maximum Operating Voltage UL/CSA | Main Circuit 1000 V |
| General Use Rating UL/CSA | (1000 V AC) 400 A |
| Horsepower Rating UL/CSA | (200 ... 208 V AC) Three Phase 40 Hp (200 V AC) Three Phase 100 hp (208 V AC) Three Phase 100 hp (220 ... 240 V AC) Three Phase 50 Hp (220 ... 240 V AC) Three Phase 125 hp (440 ... 480 V AC) Three Phase 100 Hp (440 ... 480 V AC) Three Phase 250 hp (550 ... 600 V AC) Three Phase 150 Hp (550 ... 600 V AC) Three Phase 300 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 Uc) -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) |

ABB EcoSolutions

| | |
|---|--|
| ABB EcoSolutions | Yes |
| ABB Site Meeting 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 |
| End Of Life Disassembling Instructions | 1SFC100112M0002 |
| Environmental Product Declaration - EPD | 1SFC100104D0201 |
| Improved Energy Efficiency for Customers | Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line |
| Recyclability Rate of the Product acc. to EN45555 | Design for Closing Resource Loops - Standard EN45555 - 76.3 % |
| Sustainable Material Content in Product (wt. %) | Recycled Metal - 33 % |

Certificates and Declarations

| | |
|----------------------------------|---------------------|
| A2L Certificate – UL | 9AKK108468A6695 |
| ABS Certificate | 14-LD1092198-PDA |
| BV Certificate | BV_36353_A0BV |
| CB Certificate | SEMKO_SE-73326 |
| CQC Certificate | CQC2014010304676670 |
| Declaration of Conformity - CCC | 2020980304001305 |
| Declaration of Conformity - CE | 2CMT2015-005439 |
| Declaration of Conformity - UKCA | 2CMT2020-006118 |
| EAC Certificate | 9AKK107046A8618 |
| LR Certificate | LR_14_70011(E1) |
| PRS Certificate | TE_2092_880423_16 |
| RINA Certificate | ELE060313XG_002 |
| RMRS Certificate | 9AKK107045A6978 |
| UL Certificate | 20140910-E73397 |

Container Information

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|--------------------------------|---------------|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 212 mm |
| Package Level 1 Depth / Length | 262 mm |
| Package Level 1 Height | 212 mm |
| Package Level 1 Gross Weight | 6.4 kg |
| Package Level 1 EAN | 7320500504970 |

External Classifications and Standards

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|------------------------------------|--|
| Object Classification Code | Q |
| ETIM 7 | EC000066 - Power contactor, AC switching |
| ETIM 8 | EC000066 - Power contactor, AC switching |
| ETIM 9 | EC000066 - Power contactor, AC switching |
| eClass | V11.0 : 27371003 |
| UNSPSC | 39121529 |
| IDEA Granular Category Code (IGCC) | 4758 >> lec Contactors |
| E-Number (Finland) | 3707241 |
| E-Number (Norway) | 3210345 |
| E-Number (Sweden) | 3210345 |

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 → AF305

