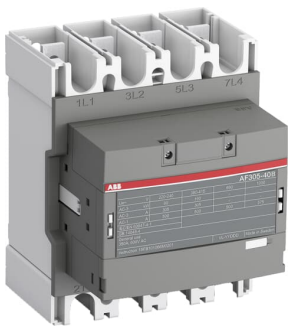


PRODUCT-DETAILS

AF305-40-00-14

AF305-40-00-14 Contactor



| General Information | |
|-----------------------|---|
| Extended Product Type | AF305-40-00-14 |
| Product ID | 1SFL587102R1400 |
| EAN | 7320500504987 |
| Catalog Description | AF305-40-00-14 Contactor |
| Long Description | The AF305-40-00-14 is a 4 pole - 1000 V IEC or 600 V UL contactor with 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. |

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

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

| | |
|--------------------------|-----------------|
| Instructions and Manuals | 1SFC100008M0201 |
| CAD Dimensional Drawing | 2CDC001079B0201 |
| Dimension Diagram | 1SFB535001G1123 |

Dimensions

| | |
|----------------------------|--------|
| Product Net Width | 184 mm |
| Product Net Depth / Length | 180 mm |
| Product Net Height | 225 mm |
| Product Net Weight | 5.7 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 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 $I_e > 100\text{ A}$) at 440 V 4600 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 Uc Min. ... 1.1 x Uc Max. (at $\theta \leq 70^\circ\text{C}$) |
| 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 |
| 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 2 x 70 ... 185 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 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 1000 V |
| General Use Rating UL/CSA | (600 V AC) 350 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

| | |
|--|--|
| 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 |

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

| | |
|--|---|
| ABB EcoSolutions | Yes |
| Circular Design Principles Recyclability Rate | Design for Closing Resource Loops - Standard EN45555 - 76.3 % |
| End of Life Instructions | 1SFC100104D0201 |
| 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 considered more energy-efficient compared to similar product on market or older products from the same line |
| Sustainable Material Content | Recycled Metal - 33 % |

Eco Transparency

| | |
|--|-----------------|
| Environmental Product Declaration - EPD | 1SFC100104D0201 |
|--|-----------------|

Certificates and Declarations

| | |
|-------------------------------------|---------------------|
| ABS Certificate | 14-LD1092198-PDA |
| BV Certificate | BV_36353_A0BV |
| CB Certificate | SE-89316 |
| 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

| | |
|-----------------------------------|---------------|
| 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 | 7320500504987 |

| 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 | |
| ETIM 8 | EC000066 - Power contactor, AC switching | |
| eClass | V11.0 : 27371003 | |
| UNSPSC | 39121529 | |
| IDEA Granular Category Code (IGCC) | 4758 >> Iec Contactors | |
| E-Number (Finland) | 3707240 | |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF305

