



PRODUCT-DETAILS

# AF140-30-00-34

## AF140-30-00-34 Contactor



| General Information   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | AF140-30-00-34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Product ID            | 1SFL447001R3400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| EAN                   | 7320500480953                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Catalog Description   | AF140-30-00-34 Contactor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Long Description      | The AF140-30-00-34 is a 3 pole - 690 V IEC or 600 V UL contactor with double clamp, controlling motors up to 75 kW / 400 V AC (AC-3) or 100 hp / 480 V UL and switching power circuits up to 200 A (AC-1) or 200 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

|                                            |                  |
|--------------------------------------------|------------------|
| EPLAN Data                                 | 9AAC174539_EPLAN |
| Data Sheet, Technical Information          | 1SBC100214C0202  |
| Data Sheet, Technical Information (Part 2) | 1SAC200017M0002  |
| Instructions and Manuals                   | 1SFC100003M0201  |
| CAD Dimensional Drawing                    | 2CDC001079B0201  |

## Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 90 mm    |
| Product Net Depth / Length | 142.5 mm |
| Product Net Height         | 150 mm   |
| Product Net Weight         | 1.55 kg  |

## Technical

|                                                    |                                                                                                                                                         |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts NO                         | 3                                                                                                                                                       |
| Number of Main Contacts NC                         | 0                                                                                                                                                       |
| Number of Auxiliary Contacts NO                    | 0                                                                                                                                                       |
| Number of Auxiliary Contacts NC                    | 0                                                                                                                                                       |
| Number of Poles                                    | 3P                                                                                                                                                      |
| Rated Operational Voltage                          | Main Circuit 690 V                                                                                                                                      |
| Rated Frequency (f)                                | Main Circuit 50 Hz<br>Main Circuit 50 / 60 Hz                                                                                                           |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 200 A                                                                                    |
| Rated Operational Current AC-1 ( $I_e$ )           | (690 V) 40 °C 200 A<br>(690 V) 70 °C 160 A                                                                                                              |
| Rated Operational Current AC-3 ( $I_e$ )           | (415 V) 55 °C 140 A<br>(440 V) 55 °C 140 A<br>(500 V) 55 °C 130 A<br>(690 V) 55 °C 80 A<br>(380 / 400 V) 55 °C 140 A<br>(220 / 230 / 240 V) 55 °C 140 A |
| Rated Operational Current AC-3e ( $I_e$ )          | (415 V) 60 °C 140 A<br>(440 V) 60 °C 140 A<br>(500 V) 60 °C 130 A<br>(690 V) 60 °C 80 A<br>(380 / 400 V) 60 °C 140 A<br>(220 / 230 / 240 V) 60 °C 140 A |
| Rated Operational Current DC-1 ( $I_e$ )           | (110 V) 2 Poles in Series, 40 °C 160 A<br>(220 V) 3 Poles in Series, 40 °C 160 A                                                                        |
| Rated Operational Current DC-3 ( $I_e$ )           | (110 V) 2 Poles in Series, 40 °C 160 A<br>(220 V) 3 Poles in Series, 40 °C 160 A                                                                        |
| Rated Operational Current DC-5 ( $I_e$ )           | (110 V) 2 Poles in Series, 40 °C 160 A<br>(220 V) 3 Poles in Series, 40 °C 160 A                                                                        |
| Rated Operational Power AC-3 ( $P_e$ )             | (415 V) 75 kW<br>(440 V) 90 kW<br>(500 V) 90 kW                                                                                                         |

|                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                         | (690 V) 75 kW<br>(380 / 400 V) 75 kW<br>(220 / 230 / 240 V) 37 kW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Rated Operational Power<br>AC-3e (P <sub>e</sub> )                      | (415 V) 75 kW<br>(440 V) 90 kW<br>(500 V) 90 kW<br>(690 V) 75 kW<br>(380 / 400 V) 75 kW<br>(220 / 230 / 240 V) 37 kW                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Rated Breaking Capacity<br>AC-3                                         | 8 x I <sub>e</sub> AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Rated Breaking Capacity<br>AC-3e                                        | 8.5 x I <sub>e</sub> AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Rated Making Capacity<br>AC-3                                           | 10 x I <sub>e</sub> AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Rated Making Capacity<br>AC-3e                                          | 12 x I <sub>e</sub> AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Short-Circuit Protective<br>Devices                                     | gG Type Fuses 315 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Rated Short-time<br>Withstand Current Low<br>Voltage (I <sub>cw</sub> ) | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 200 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 674 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 1460 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1168 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 477 A                                                                                                                                                                                                                                 |
| Maximum Breaking<br>Capacity                                            | cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 3000 A<br>cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 1500 A                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Rated Insulation Voltage<br>(U <sub>i</sub> )                           | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V<br>acc. to UL/CSA 600 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Rated Impulse<br>Withstand Voltage (U <sub>imp</sub> )                  | 8 kV<br>Main Circuit 8 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Maximum Electrical<br>Switching Frequency                               | (AC-1) 300 cycles per hour<br>(AC-2 / AC-4) 150 cycles per hour<br>(AC-3) 300 cycles per hour                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Mechanical Durability                                                   | 5 million                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Maximum Mechanical<br>Switching Frequency                               | 300 cycles per hour                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Coil Operating Limits                                                   | (acc. to IEC 60947-4-1) 0.85 x U <sub>c</sub> Min. ... 1.1 x U <sub>c</sub> Max. (at θ ≤ 70 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Rated Control Circuit<br>Voltage (U <sub>c</sub> )                      | 50 Hz 250 ... 500 V<br>60 Hz 250 ... 500 V<br>DC Operation 250 ... 500 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Coil Consumption                                                        | Average Pull-in Value 50 Hz 260 V-A<br>Average Pull-in Value 60 Hz 260 V-A<br>Holding at Max. Rated Control Circuit Voltage 50 Hz 33.2 V-A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 33.2 V-A<br>Holding at Max. Rated Control Circuit Voltage DC 4.3 V-A<br>Holding at Max. Rated Control Circuit Voltage DC 4.3 W<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 275 V-A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 275 V-A<br>Pull-in at Max. Rated Control Circuit Voltage DC 820 V-A<br>Pull-in at Max. Rated Control Circuit Voltage DC 820 W |
| Power Loss                                                              | at Rated Operating Conditions per Pole 9 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operate Time                                                            | Between Coil De-energization and NO Contact Opening 37 ... 47 ms<br>Between Coil Energization and NO Contact Closing 25 ... 55 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Connecting Capacity<br>Main Circuit                                     | Flexible 2 x 10 ... 70 mm <sup>2</sup><br>Rigid Cu-Cable 2 x 10 ... 95 mm <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Connecting Capacity<br>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 2 x 1 ... 4 mm <sup>2</sup><br>Stranded 2 x 1 ... 4 mm <sup>2</sup>                                                                                                                                                                                                                                                                                                                                     |
| Connecting Capacity                                                     | Flexible 2 x 10 ... 70 mm <sup>2</sup><br>Rigid Cu-Cable 2 x 10 ... 95 mm <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Degree of Protection                                                    | acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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 9 N·m<br>Main Circuit 8 N·m |
| Terminal Type     | Double Clamp                          |
| Product Name      | Block Contactor                       |

## Technical UL/CSA

|                                  |                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NEMA Size                        | 4                                                                                                                                                                                                                                                                                                                                                      |
| Continuous Current Rating NEMA   | 135 A                                                                                                                                                                                                                                                                                                                                                  |
| Horsepower Rating NEMA           | (200 V AC) Three Phase 40 Hp<br>(230 V AC) Three Phase 50 Hp<br>(460 V AC) Three Phase 100 Hp<br>(575 V AC) Three Phase 100 Hp                                                                                                                                                                                                                         |
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V                                                                                                                                                                                                                                                                                                                                     |
| General Use Rating UL/CSA        | (600 V AC) 200 A                                                                                                                                                                                                                                                                                                                                       |
| Horsepower Rating UL/CSA         | (200 ... 208 V AC) Three Phase 15 Hp<br>(200 V AC) Three Phase 40 hp<br>(208 V AC) Three Phase 40 hp<br>(220 ... 240 V AC) Three Phase 20 Hp<br>(220 ... 240 V AC) Three Phase 50 hp<br>(440 ... 480 V AC) Three Phase 40 Hp<br>(440 ... 480 V AC) Three Phase 100 hp<br>(550 ... 600 V AC) Three Phase 50 Hp<br>(550 ... 600 V AC) Three Phase 125 hp |
| Full Load Amps Motor Use         | (440 ... 480 V AC) Three Phase 124 A<br>(550 ... 600 V AC) Three Phase 125 A                                                                                                                                                                                                                                                                           |

## Environmental

|                                        |                                                                                                                                                                                                                  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                | Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 55 °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 | Without Derating 3000 m                                                                                                                                                                                          |

## Material Compliance

|                                             |                                                                        |
|---------------------------------------------|------------------------------------------------------------------------|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658                                                        |
| REACH Declaration                           | 2CMT2021-006202                                                        |
| RoHS Declaration                            | 2CMT2021-006277                                                        |
| RoHS Information                            | 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 | Non-hazardous waste is sent to a landfill, where there is no alternative |

|                                                   |                                                                                                                                         |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Waste To Landfill Target                          | option available within 100km of a facility                                                                                             |
| End Of Life Disassembling Instructions            | 1SFC100112M0001                                                                                                                         |
| Environmental Product Declaration - EPD           | 1SFC100092D0201                                                                                                                         |
| Improved Energy Efficiency for Customers          | Product Efficiency - Product requires less energy to operate 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 - 87.8 %                                                                           |

## Certificates and Declarations

|                                  |                     |
|----------------------------------|---------------------|
| A2L Certificate – UL             | 9AKK108468A6693     |
| ABS Certificate                  | 14-LD1092198-PDA    |
| BV Certificate                   | BV_36353_A0BV       |
| CB Certificate                   | SEMKO_SE-70479M1    |
| CCS Certificate                  | GB14T00030          |
| CQC Certificate                  | CQC2013010304604055 |
| Declaration of Conformity - CCC  | 2020980304001304    |
| Declaration of Conformity - CE   | 2CMT2015-005439     |
| Declaration of Conformity - UKCA | 2CMT2020-006118     |
| DNV Certificate                  | DNV_E-14043         |
| DNV GL Certificate               | DNV_E-14043         |
| GL Certificate                   | DNV_E-14043         |
| LR Certificate                   | 16-20064            |
| PRS Certificate                  | TE_2092_880423_16   |
| RINA Certificate                 | ELE060313XG_002     |
| RMRS Certificate                 | 9AKK107045A6978     |
| UL Certificate                   | 20120925-E36588     |
| UL Listing Card                  | UL_E36588           |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Width          | 207 mm        |
| Package Level 1 Depth / Length | 216 mm        |
| Package Level 1 Height         | 150 mm        |
| Package Level 1 Gross Weight   | 1.75 kg       |
| Package Level 1 EAN            | 7320500480953 |

## External Classifications and Standards

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

Accessories

| Identifier      | Description                         | Type       | Quantity | Unit Of Measure |
|-----------------|-------------------------------------|------------|----------|-----------------|
| 1SFN074207R1000 | LW140 Terminal Enlargement          | LW140      | 1        | piece           |
| 1SFN074210R1000 | LX140 Terminal Extension            | LX140      | 1        | piece           |
| 1SFN084206R1000 | BEA140/XT2 Connection Set           | BEA140/XT2 | 1        | piece           |
| 1SFN084206R1001 | BEA140/XT4 Connection Set           | BEA140/XT4 | 1        | piece           |
| 1SFN084211R1000 | BER140-4 Connection Set             | BER140-4   | 1        | piece           |
| 1SFN084214R1000 | BEP140-30 Connection Set            | BEP140-30  | 1        | piece           |
| 1SFN084214R2000 | BEP140-40 Connection Set            | BEP140-40  | 1        | piece           |
| 1SFN010820R1011 | CAL19-11 Auxiliary Contact Block    | CAL19-11   | 1        | piece           |
| 1SFN010820R3311 | CAL19-11B Auxiliary Contact Block   | CAL19-11B  | 1        | piece           |
| 1SFN030300R1000 | VM19 Mechanical Interlock Unit      | VM19       | 1        | piece           |
| 1SFN034403R1000 | VM140/190 Mechanical Interlock Unit | VM140/190  | 1        | piece           |
| 1SFN010832R1001 | CEL19-01 Auxiliary Contact Block    | CEL19-01   | 1        | piece           |
| 1SFN010832R1010 | CEL19-10 Auxiliary Contact Block    | CEL19-10   | 1        | piece           |
| 1SFN124203R1000 | LT140-30L Terminal Shroud           | LT140-30L  | 1        | piece           |
| 1SFN084413R1000 | BEY140-4 Connection Set             | BEY140-4   | 1        | piece           |
| 1SFN084813R1000 | BEY190-4 Connection Set             | BEY190-4   | 1        | piece           |

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF140

