



360°

Representative Image

## Alternate Catalog No. AF305-30-22-13 Catalog No. 1SFL587002R1322

**Description: AF305-30-22-13 Contactor**
**UPC No 7320500481783**
**Home > Contactors & Starters > UL Listed IEC Contactors > AF Contactors**

A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, By-pass and Distribution application up to max 1000 V. Operated with wide control voltage range 100-250 V, 50/60 Hz and DC

### Descriptors

|                      |                  |
|----------------------|------------------|
| Category             | AF Contactors    |
| Block Contactor Type | 3-Pole Contactor |

### Specifications

|                                                    |                                                                                                                                                                                                                        |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Type                                       | AF                                                                                                                                                                                                                     |
| General Use Rating UL/CSA                          | (600 V AC) 400 A                                                                                                                                                                                                       |
| Object Classification Code                         | Q                                                                                                                                                                                                                      |
| Terminal Type                                      | Main Circuit: Bars                                                                                                                                                                                                     |
| Rated Control Circuit Voltage                      | 50 Hz /60 Hz DC Operation 100 ... 250 V                                                                                                                                                                                |
| Number of Main Contacts NO                         | 3                                                                                                                                                                                                                      |
| Number of Main Contacts NC                         | 0                                                                                                                                                                                                                      |
| Maximum Operating Voltage UL/CSA                   | Main Circuit 600 V                                                                                                                                                                                                     |
| Number of Auxiliary Contacts NO                    | 2                                                                                                                                                                                                                      |
| RoHS Status                                        | Following EU Directive 2011/65/EU                                                                                                                                                                                      |
| Reference Ambient Air Temperature                  | Close to Contactor for Storage -40 ... +70 °C<br>Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc)<br>-25 ... +50 °C<br>Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... +70 °C |
| Rated Operational Voltage                          | Main Circuit 1000 V                                                                                                                                                                                                    |
| Number of Auxiliary Contacts NC                    | 2                                                                                                                                                                                                                      |
| Maximum Operating Altitude Permissible             | 3000 m                                                                                                                                                                                                                 |
| Rated Operational Current AC-1                     | (1000 V) 40 °C 375 A<br>(1000 V) 55 °C 325 A<br>(1000 V) 70 °C 260 A<br>(690 V) 40 °C 500 A<br>(690 V) 55 °C 400 A<br>(690 V) 70 °C 325 A                                                                              |
| Rated Operational Power AC-3                       | (1000 V) 185 KWT<br>(220 / 230 / 240 V) 90 KWT<br>(380 / 400 V) 160 KWT<br>(415 V) 160 KWT<br>(440 V) 160 KWT<br>(500 V) 200 KWT<br>(690 V) 250 KWT                                                                    |
| Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1 | 8 x Ie AC-3                                                                                                                                                                                                            |

by **ABB**

## Specifications

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Horsepower Rating UL/CSA                         | (200 V AC) Three Phase 100 hp<br>(208 V AC) Three Phase 100 hp<br>(220 ... 240 V AC) Three Phase 125 hp<br>(440 ... 480 V AC) Three Phase 250 hp<br>(550 ... 600 V AC) Three Phase 300 hp                                                                                                                                                                                              |
| Conventional Free-air Thermal Current            | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 500 A                                                                                                                                                                                                                                                                                                                                 |
| Rated Frequency                                  | Main Circuit 50Hz<br>Main Circuit 60 Hz                                                                                                                                                                                                                                                                                                                                                |
| Rated Short-time Withstand Current               | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 2440 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 500 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 996 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 3050 A<br>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 1409 A                                  |
| Rated Operational Current AC-3                   | (1000 V) 55 °C 131 A<br>(220 / 230 / 240 V) 55 °C 305 A<br>(380 / 400 V) 55 °C 305 A<br>(415 V) 55 °C 305 A<br>(440 V) 55 °C 305 A<br>(500 V) 55 °C 290 A<br>(690 V) 55 °C 290 A                                                                                                                                                                                                       |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1 | 10 x I <sub>e</sub> AC-3                                                                                                                                                                                                                                                                                                                                                               |
| Rated Operational Current DC-1                   | (110 V) 1-Pole, 40 °C 500 A<br>(220 V) 2 Poles in Series, 40 °C 500 A<br>(220 V) 3 Poles in Series, 40 °C 500 A                                                                                                                                                                                                                                                                        |
| Maximum Electrical Switching Frequency           | AC-1 300 cycles per hour<br>AC-2 / AC-4 150 cycles per hour<br>AC-3 300 cycles per hour                                                                                                                                                                                                                                                                                                |
| Rated Operational Current DC-5                   | (110 V) 2 Poles in Series, 40 °C 400 A<br>(220 V) 3 Poles in Series, 40 °C 400 A                                                                                                                                                                                                                                                                                                       |
| Short-Circuit Protective Devices                 | gG Type Fuses 500 A                                                                                                                                                                                                                                                                                                                                                                    |
| Rated Insulation Voltage                         | acc. to UL/CSA 600 V<br>acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V                                                                                                                                                                                                                                                                                                              |
| Maximum Breaking Capacity                        | cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 4600 A<br>cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 3800 A                                                                                                                                                                                                                                       |
| Mechanical Durability                            | 5 million                                                                                                                                                                                                                                                                                                                                                                              |
| Rated Operational Current DC-3                   | (110 V) 2 Poles in Series, 40 °C 400 A<br>(220 V) 3 Poles in Series, 40 °C 400 A                                                                                                                                                                                                                                                                                                       |
| 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 $\theta \leq 70^\circ \text{C}$ )                                                                                                                                                                                                                                                                 |
| Maximum Mechanical Switching Frequency           | 300 cycles per hour                                                                                                                                                                                                                                                                                                                                                                    |
| Operate Time                                     | Between Coil De-energization and NO Contact Opening 37 ... 47 ms<br>Between Coil Energization and NO Contact Closing 25 ... 55 ms                                                                                                                                                                                                                                                      |
| Secondary Rated Impulse Withstand Voltage        | Main Circuit 8 kV                                                                                                                                                                                                                                                                                                                                                                      |
| Connecting Capacity Main Circuit                 | Flexible 2 x 70 ... 185 m <sup>2</sup><br>Rigid Al-Cable 1 x 185 ... 240 m <sup>2</sup><br>Rigid Cu-Cable 2 x 70 ... 185 m <sup>2</sup>                                                                                                                                                                                                                                                |
| Coil Consumption                                 | Holding at Max. Rated Control Circuit Voltage 50 Hz 17.5 V - A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 17.5 V - A<br>Holding at Max. Rated Control Circuit Voltage DC 4.5 W<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 385 V - A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 385 V - A<br>Pull-in at Max. Rated Control Circuit Voltage DC 410 W |
| Degree of Protection                             | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00                                                                                                                                                                                                                                                           |
| Connecting Capacity Auxiliary Circuit            | Flexible 2x0.75 ... 2.5 m <sup>2</sup><br>Solid 1 x 1 ... 4 m <sup>2</sup><br>Stranded 1 x 1 ... 4 m <sup>2</sup>                                                                                                                                                                                                                                                                      |
| Screw Terminal Type                              | Main Circuit: Bars                                                                                                                                                                                                                                                                                                                                                                     |

## Classifications

|                                    |                                           |
|------------------------------------|-------------------------------------------|
| ETIM 4                             | EC000066 - Magnet contactor, AC-switching |
| ETIM 6.0                           | EC000066 - Power contactor, AC switching  |
| ETIM 7                             | EC000066 - Power contactor, AC switching  |
| IDEA Granular Category Code (IGCC) | 4755 >> Contactors                        |

## Classifications

ETIM 5.0

EC000066 - Magnet contactor, AC-switching

## Dimensions

|                            |        |
|----------------------------|--------|
| Product Net Weight         | 3.9 kg |
| Product Net Depth / Length | 180 mm |
| Product Net Width          | 140 mm |
| Product Net Height         | 225 mm |

## Package Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Width          | 263 mm        |
| Package Level 1 Height         | 289 mm        |
| Package Level 1 Depth / Length | 203 mm        |
| Package Level 1 EAN            | 7320500481783 |
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Gross Weight   | 4.6 kg        |

## Ordering

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