



Alternate Catalog No. AF1650-30-11-70 Catalog No. 1SFL677001R7011

Description: AF1650-30-11 100-250V 50/60Hz / 100-250V DC Contactor

UPC No 7320500249703

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, AC/DC

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

| Specifications | |
|--|---|
| Product Type | AF |
| General Use Rating UL/CSA | (600 V AC) 1650 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 | 1 |
| RoHS Status | Following EU Directive 2011/65/EU |
| Reference Ambient Air Temperature | Close to Contactor for Storage -40 +70 °C 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 |
| Rated Operational Voltage | Main Circuit 1000 V |
| Number of Auxiliary Contacts NC | 1 |
| Maximum Operating Altitude Permissible | 3000 m |
| Rated Operational Current AC-1 | (1000 V) 40 °C 1650 A (1000 V) 55 °C 1450 A (1000 V) 70 °C 1270 A (690 V) 40 °C 1650 A (690 V) 55 °C 1450 A (690 V) 70 °C 1270 A |
| Rated Operational Power AC-3 | (1000 V) 600 KWT (220 / 230 / 240 V) 315 KWT (380 / 400 V) 560 KWT (415 V) 630 KWT (440 V) 710 KWT (500 V) 710 KWT (690 V) 1000 KWT |
| Horsepower Rating UL/CSA | (220 240 V AC) Three Phase 450 hp (440 480 V AC) Three Phase 900 hp (550 600 V AC) Three Phase 1150 hp |
| Conventional Free-air Thermal Current | acc. to IEC 60947-4-1, Open Contactors q = 40 °C 1650 A |
| | |

electrification.us.abb.com Created on: 09/30/2024

| Rated Frequency | Main Circuit 50Hz Main Circuit 60 Hz |
|--|---|
| Rated Short-time Withstand Current | at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 10000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 2200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 5500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 12000 A |
| Rated Operational Current AC-3 | at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 7500 A (220 / 230 / 240 V) 55 °C 1060 A (380 / 400 V) 55 °C 1060 A (415 V) 55 °C 1060 A (440 V) 55 °C 1060 A (500 V) 55 °C 970 A (690 V) 55 °C 970 A |
| Rated Making Capacity AC-3 acc. to IEC 60947-4-1 | 10 x le AC-3 |
| Rated Operational Current DC-1 | (220 V) 3 Poles in Series, 40 °C 1650 A (600 V) 3 Poles in Series, 40 °C 1650 A (850 V) 3 Poles in Series, 40 °C 1650 A |
| Maximum Electrical Switching Frequency | AC-1 60 cycles per hour AC-2 / AC-4 60 cycles per hour AC-3 60 cycles per hour |
| Rated Operational Current DC-5 | (220 V) 3 Poles in Series, 40 °C 1650 A (600 V) 3 Poles in Series, 40 °C 1650 A (850 V) 3 Poles in Series, 40 °C 1650 A |
| Rated Insulation Voltage | acc. to UL/CSA 600 V 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 le $>$ 100 A) at 440 V 12000 A |
| Mechanical Durability | 0.5 million |
| Rated Operational Current DC-3 | (220 V) 3 Poles in Series, 40 °C 1650 A (600 V) 3 Poles in Series, 40 °C 1650 A (850 V) 3 Poles in Series, 40 °C 1650 A |
| Coil Operating Limits | (acc. to IEC 60947-4-1) 0.85 x Uc Min 1.1 x Uc Max. (at $\theta \le 70^{\circ}$ C) |
| Maximum Mechanical Switching Frequency | 300 cycles per hour |
| Operate Time | Between Coil De-energization and NC Contact Closing 35 55 ms Between Coil De-energization and NO Contact Opening 35 55 ms Between Coil Energization and NC Contact Opening 50 80 ms Between Coil Energization and NO Contact Closing 50 80 ms |
| Secondary Rated Impulse Withstand Voltage | Main Circuit 8 kV |
| Connecting Capacity Main Circuit | Bar 100 mm |
| Coil Consumption | Holding at Max. Rated Control Circuit Voltage 50 Hz 48 V - A Holding at Max. Rated Control Circuit Voltage 60 Hz 48 V - A Holding at Max. Rated Control Circuit Voltage DC 20.5 V - A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 2450 V - A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 2450 V - A Pull-in at Max. Rated Control Circuit Voltage DC 2290 V - A |
| Degree of Protection | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 |
| Connecting Capacity Auxiliary Circuit | acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00 Flexible with Insulated Ferrule 1 x 0.75 2.5 m ² Flexible 2x0.75 2.5 m ² Stranded 2 x 1 4 m ² |
| 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 |
| ETIM 5.0 | EC000066 - Magnet contactor, AC-switching |

electrification.us.abb.com Created on: 09/30/2024

| Dimensions | | |
|----------------------------|--------|--|
| Product Net Weight | 33 kg | |
| Product Net Depth / Length | 244 mm | |
| Product Net Width | 438 mm | |
| Product Net Height | 392 mm | |

| Package Information | | |
|--------------------------------|---------------|--|
| Package Level 1 Width | 555 mm | |
| Package Level 1 Height | 500 mm | |
| Package Level 1 Depth / Length | 365 mm | |
| Package Level 1 EAN | 7320500249703 | |
| Package Level 1 Units | box 1 piece | |
| Package Level 1 Gross Weight | 35 kg | |
| Package Level 2 Units | 1 piece | |

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

electrification.us.abb.com Created on: 09/30/2024