



Representative Image

## 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

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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

## Specifications

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 at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 7500 A
Rated Operational Current AC-3	(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 I <sub>e</sub> 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 I <sub>e</sub> > 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 U <sub>c</sub> Min. ... 1.1 x U <sub>c</sub> Max. (at θ ≤ 70 ° 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 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00
Connecting Capacity Auxiliary Circuit	Flexible with Insulated Ferrule 1 x 0.75 ... 2.5 m <sup>2</sup> Flexible 2x0.75 ... 2.5 m <sup>2</sup> Stranded 2 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
ETIM 5.0	EC000066 - Magnet contactor, AC-switching

## 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