



## Alternate Catalog No. AF1650T-30-11-70 Catalog No. 1SFL677001R9101

Description: AF1650T-30-11 230-240V 50/60Hz / 230-240V DC Contactor

UPC No 7320500381090

Home > Contactors & Starters > UL Listed IEC Contactors > AF Contactors

A 3-phase Contactor with delayed de-energization up to 1 sec. (Low Voltage Ride Through, LVRT) mainly for solar & wind application up to max 1000 V. Operated with wide control voltage range 230-240 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 230 240 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
Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1	8 x le AC-3
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

electrification.us.abb.com Created on: 03/22/2024

Specifications	
Conventional Free-air Thermal Current	acc. to IEC 60947-4-1, Open Contactors q = 40 °C 2050 A
Rated Frequency	Main Circuit 50Hz Main Circuit 60 Hz
	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
Rated Short-time Withstand Current	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
	(220 / 230 / 240 V) 55 °C 1060 A (380 / 400 V) 55 °C 1060 A
Rated Operational Current AC-3	(415 V) 55 °C 1060 A (440 V) 55 °C 1060 A
	(500 V) 55 °C 970 A
Rated Making Capacity AC-3 acc. to IEC 60947-4-1	(690 V) 55 °C 970 A 10 x le AC-3
Nated Making Capacity AC-3 acc. to IEC 00347-4-1	(220 V) 3 Poles in Series, 40 °C 1650 A
Rated Operational Current DC-1	(600 V) 3 Poles in Series, 40 °C 1650 A (850 V) 3 Poles in Series, 40 °C 1650 A
Maying the Aricel Cuitching Francisco	AC-1 60 cycles per hour
Maximum Electrical Switching Frequency	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 acc. to UL/CSA 600 V
Rated Insulation Voltage	acc. to 0E/CSA 000 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 (220 V) 3 Poles in Series, 40 °C 1650 A
Rated Operational Current DC-3	(600 V) 3 Poles in Series, 40 °C 1650 A
Coil Operating Limits	(850 V) 3 Poles in Series, 40 °C 1650 A (acc. to IEC 60947-4-1) 0.85 x Uc Min 1.1 x Uc Max. (at $\theta$ ≤ 70 °
	C)
Maximum Mechanical Switching Frequency	300 cycles per hour  Between Coil De-energization and NC Contact Closing 35 55 ms
Operate Time	Between Coil De-energization and NO Contact Opening 35 55 ms
Operate Time	Between Coil Energization and NC Contact Opening 50 80 ms
Secondary Rated Impulse Withstand Voltage	Between Coil Energization and NO Contact Closing 50 80 ms  Main Circuit 8 kV
Connecting Capacity Main Circuit	Bar 100 mm
<u> </u>	Holding at Max. Rated Control Circuit Voltage 50 Hz 48 V - A
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 60 Hz 48 V - A Holding at Max. Rated Control Circuit Voltage DC 20.5 V - A
Coil Consumption	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 1x0.75 2.5 m <sup>2</sup> Stranded 2 x 1 4 m <sup>2</sup>
Screw Terminal Type	Main Circuit: Bars
Classifications	

## 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

EC000066 - Magnet contactor, AC-switching

electrification.us.abb.com Created on: 03/22/2024

ETIM 4

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	7320500381090	
Package Level 1 Units	box 1 piece	
Package Level 1 Gross Weight	35 kg	

Ordering	
Minimum Order Quantity	1
Customs Tariff Number	85364900

electrification.us.abb.com Created on: 03/22/2024