



**Electric Automation**  
Automation specialists

Reference: AF1650T-30-11  
Code: 1SFL677001R9101

AF1650T-30-22 230-240V 50/60Hz /  
230-240V DC Contactor

Buy it at [Electric Automation Network](#)



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

### Ordering

EAN:	7320500381090
Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

### Dimensions

Product Net Width:	438.0 mm
Product Net Depth:	244.0 mm
Product Net Height:	392.0 mm
Product Net Weight:	33.000 kg

### Container Information

Package Level 1 Units:	1 piece
Package Level 1 Width:	250 mm
Package Level 1 Length:	440 mm
Package Level 1 Height:	430 mm

Package Level 1 Gross Weight:	38 kg
Package Level 1 EAN:	7320500381090

## Technical

Number of Main Contacts NO:	3
Number of Main Contacts NC:	0
Number of Auxiliary Contacts NO:	2
Number of Auxiliary Contacts NC:	2
Rated Operational Voltage:	Main Circuit 1000 V
Rated Frequency (f):	Main Circuit 50/60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ ):	acc. to IEC 60947-4-1, Open Contactors $\theta = 40\text{ °C}$ 2050 A
Rated Operational Current AC-1 ( $I_e$ ):	(690 V) 55 °C 1450 A (690 V) 40 °C 1650 A (1000 V) 40 °C 1650 A (1000 V) 55 °C 1450 A (690 V) 70 °C 1270 A (1000 V) 70 °C 1270 A
Rated Operational Current AC-3 ( $I_e$ ):	(690 V) 55 °C 950 A (220 / 230 / 240 V) 55 °C 1050 A (415 V) 55 °C 1050 A (440 V) 55 °C 1050 A (380 / 400 V) 55 °C 1050 A (500 V) 55 °C 950 A
Rated Operational Power AC-3 ( $P_e$ ):	(500 V) 700 kW (220 / 230 / 240 V) 315 kW (690 V) 900 kW (380 / 400 V) 560 kW (440 V) 670 kW (415 V) 600 kW
Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1:	8 x $I_e$ AC-3
Rated Making Capacity AC-3 acc. to IEC 60947-4-1:	10 x $I_e$ AC-3
Rated Short-time Withstand Current ( $I_{cw}$ ):	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 10 s 10000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 7500 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 1 min 5500 A
Maximum Breaking Capacity:	$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 440 V 12000 A
Maximum Electrical Switching Frequency:	AC-3 60 cycles per hour AC-1 60 cycles per hour AC-2 / AC-4 60 cycles per hour
Rated Operational Current DC-1 ( $I_e$ ):	(850 V) 3 Poles in Series, 40 °C 1650 A (600 V) 3 Poles in Series, 40 °C 1650 A (220 V) 3 Poles in Series, 40 °C 1650 A

Rated Operational Current DC-3 ( $I_e$ ):	(850 V) 3 Poles in Series, 40 °C 1650 A (600 V) 3 Poles in Series, 40 °C 1650 A (220 V) 3 Poles in Series, 40 °C 1650 A
Rated Operational Current DC-5 ( $I_e$ ):	(850 V) 3 Poles in Series, 40 °C 1650 A (600 V) 3 Poles in Series, 40 °C 1650 A (220 V) 3 Poles in Series, 40 °C 1650 A
Rated Insulation Voltage ( $U_i$ ):	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V
Rated Impulse Withstand Voltage ( $U_{imp}$ ):	Main Circuit 8 kV
Mechanical Durability:	0.5 million
Maximum Mechanical Switching Frequency:	300 cycles per hour
Coil Operating Limits:	(acc. to IEC 60947-4-1)0.85 x $U_c$ Min. ... 1.1 x $U_c$ Max. (at $\theta \leq 70$ °C) °C
Rated Control Circuit Voltage ( $U_c$ ):	60 Hz 230 ... 240 V 50 Hz 230 ... 240 V DC Operation 230 ... 240 V
Coil Consumption:	Pull-in at Max. Rated Control Circuit Voltage 60 Hz 2450 V·A Holding at Max. Rated Control Circuit Voltage DC 20.5 V·A Holding at Max. Rated Control Circuit Voltage 50 Hz 48 V·A Pull-in at Max. Rated Control Circuit Voltage DC 2290 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 2450 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 48 V·A
Operate Time:	Between Coil Energization and NO Contact Closing 50 ... 80 ms Between Coil De-energization and NO Contact Opening 35 ... 55 ms Between Coil De-energization and NC Contact Closing 35 ... 55 ms Between Coil Energization and NC Contact Opening 50 ... 80 ms
Connecting Capacity-Main Circuit:	Bar 100 mm
Connecting Capacity-Auxiliary Circuit:	Solid 2x1...4 mm <sup>2</sup> Flexible with Insulated Ferrule 2x0.75...2.5 mm <sup>2</sup> Stranded 2x1...4 mm <sup>2</sup> Flexible 1x0.75...2.5 mm <sup>2</sup> Flexible with Ferrule 2x0.75...2.5 mm <sup>2</sup>
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
Terminal Type:	Main Circuit: Bars

## Environmental

Ambient Air Temperature:	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -25...+50 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 $U_c$ ) -40...+70 °C Close to Contactor for Storage -40...+70 °C
--------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Maximum Operating Altitude Permissible:	3000 m
RoHS Status:	Following EU Directive 2002/95/EC August 18, 2005 and amendment

## Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Main Circuit 600 V
General Use Rating UL/CSA:	(600 V AC) 1650 A
Horsepower Rating UL/CSA:	(440 ... 480 V AC) Three Phase 900 Hp (550 ... 600 V AC) Three Phase 1150 Hp (220 ... 240 V AC) Three Phase 450 Hp

## Certificates and Declarations (Document Number)

BV Certificate:	13409/C0 BV
CB Certificate:	SE-74015
CCC Certificate:	CQC_2003010304101933
Declaration of Conformity - CE:	1SFA1-67
GL Certificate:	GL_20263-04HH
LOVAG Certificate:	SE-201993
LR Certificate:	LR_04-00015-E1
RINA Certificate:	ELE060313XG/002
RoHS Information:	1SFC101061D0201

## Classifications

ETIM 5:	EC000066 - Magnet contactor, AC-switching
UNSPSC:	39121529