

PRODUCT-DETAILS

AF2050-30-22-70

AF2050-30-22 100-250V 50/60Hz / 100-250 DC Contactor



General Information

Extended Product Type	AF2050-30-22-70
Product ID	1SFL707001R7022
EAN	7320500359105
Catalog Description	AF2050-30-22 100-250V 50/60Hz / 100-250 DC Contactor
Long Description	The AF2050-30-22-70 is a 3 pole - 1000 V IEC or 1000 V UL contactor with pre-mounted auxiliary contacts and Main Circuit Bars, switching power circuits up to 2050 A (AC-1) or 2100 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (100-250 V 50/60 Hz and DC), managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks. Furthermore, surge protection is built-in, offering a compact solution. AF contactors have a block type design, can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

Data Sheet, Technical Information	1SBC100192C0206
-----------------------------------	-----------------

Instructions and Manuals

1SFC101002M5501

Dimension Diagram

53540930-7

Dimensions

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

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 q = 40 °C 2050 A
Rated Operational Current AC-1 (I_e)	(1000 V) 40 °C 2050 A (1000 V) 55 °C 1750 A (1000 V) 70 °C 1500 A (690 V) 40 °C 2050 (690 V) 55 °C 1750 (690 V) 70 °C 1500
Rated Operational Current AC-3 (I_e)	(415 V) 55 °C 1060 A (440 V) 55 °C 1060 A (500 V) 55 °C 970 A (690 V) 55 °C 970 A (1000 V) 55 °C 425 A (380 / 400 V) 55 °C 1060 A (220 / 230 / 240 V) 55 °C 1060
Rated Operational Power AC-3 (P_e)	(415 V) 630 kW (440 V) 710 kW (690 V) 1000 kW (1000 V) 630 kW
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 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
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-1) 60 cycles per hour
Rated Operational Current DC-1 (I_e)	(220 V) 3 Poles in Series, 40 °C 2050 A (600 V) 3 Poles in Series, 40 °C 2050 A (850 V) 3 Poles in Series, 40 °C 2050 A

Rated Operational Current DC-3 (I_e)	(220 V) 3 Poles in Series, 40 °C 2050 A (600 V) 3 Poles in Series, 40 °C 2050 A (850 V) 3 Poles in Series, 40 °C 2050 A
Rated Operational Current DC-5 (I_e)	(220 V) 3 Poles in Series, 40 °C 2050 A (600 V) 3 Poles in Series, 40 °C 2050 A (850 V) 3 Poles in Series, 40 °C 2050 A
Rated Insulation Voltage (U_i)	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 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)
Rated Control Circuit Voltage (U_c)	50 Hz 100 ... 250 V 50 Hz / 60 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
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
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
Connecting Capacity Main Circuit	Bar 100 mm ²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible 1x0.75 ... 2.5 mm ² Solid 2 x 1 ... 4 mm ² Stranded 2 x 1 ... 4 mm ²
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

Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 1000 V
General Use Rating UL/CSA	(1000 V AC) 2100 A (600 V AC) 2100 A

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 2011/65/EU and Amendment 2015/863 July 22, 2019

Certificates and Declarations (Document Number)

ABS Certificate	15-LD1408622-PDA
BV Certificate	BV_13409-C0BV
CB Certificate	SEMKO_SE-74013
CCC Certificate	CQC_2003010304101933
CCS Certificate	GB14T00030
CQC Certificate	CQC2003010304101933 CQC2015010304752548
cUL Certificate	UL_20130904-E73397
Declaration of Conformity - CCC	2020980304001303 2020980304001043
Declaration of Conformity - CE	2CMT2019-005796
EAC Certificate	9AKK107046A8618
Environmental Information	1SFC101062D0201 1SAC200047H0009
Instructions and Manuals	1SFC101002M5501
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
RoHS Information	2CMT2019-005796
UL Listing Card	UL_E73397

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	555 mm
Package Level 1 Depth / Length	365 mm
Package Level 1 Height	500 mm
Package Level 1 Gross Weight	35 kg
Package Level 1 EAN	7320500359105

Classifications

Object Classification Code	Q
ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 5	EC000066 - Magnet contactor, AC-switching
ETIM 6	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4755 >> Contactors
E-Number (Finland)	3709260

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors

