PRODUCT-DETAILS

AF2050-30-22-70

AF2050-30-22-70 100-250V 50/60Hz / 100-250 DC Contactor



General Information

Extended Product Type	AF2050-30-22-70
Product ID	1SFL707001R7022
EAN	7320500359105
Catalog Description	AF2050-30-22-70 100-250V 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

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Popular Downloads

EPLAN Data	9AAC133509_EPLAN
Data Sheet, Technical Information	1SBC100214C0202
Data Sheet, Technical Information (Part 2)	1SAC200017M0002
Instructions and Manuals	1SFC101002M5501
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	438 mm
Product Net Depth / Length	244 mm
Product Net Height	392 mm
Product Net Weight	33 kg
Dimension Diagram	53540930-7

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
Number of Poles	3P
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 Θ = 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 A (690 V) 55 °C 1750 A (690 V) 70 °C 1500 A
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 (220 / 230 / 240 V) 55 °C 1060 A
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 Power AC-3 (P_e)	(415 V) 630 kW (440 V) 710 kW (690 V) 1000 kW (1000 V) 630 kW
Rated Breaking Capacity AC-3	8 x Ie AC-3
Rated Making Capacity AC-3	10 x Ie AC-3

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Rated Short-time Withstand Current Low Voltage (I_{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 2200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 7500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 12000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 10000 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 5500 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 12000 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
Maximum Electrical Switching Frequency	(AC-1) 60 cycles per hour
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 Uc Min. ... 1.1 x Uc Max. (at θ ≤ 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
Power Loss	at Rated Operating Conditions per Pole 125 W
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 mm²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm² Flexible 1x0.75 ... 2.5 mm² Flexible 2x0.75 ... 2.5 mm² Solid 2 x 1 ... 4 mm² Stranded 2 x 1 .... 4 mm²
Connecting Capacity	Bar 100 mm²
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 Terminals (delivered in open position) Main Poles	M 3.5 (+,-) pozidriv 2 screw with cable clamp
Recommended Screw Driver	Main Circuit M12 Control Circuit Pozidriv 2 Control Circuit M3.5
Tightening Torque	Cable Lug 45 N·m Main Circuit 45 N·m
Terminal Type	Main Circuit: Bars
Suitable for Product Class	Block ContactorsBlock Contactors
Product Name	Block Contactor

Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 1000 V

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General Use Rating	(1000 V AC) 2100 A
UL/CSA	(600 V AC) 2100 A

Environmental

Ambient Air Temperature	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 Close to Contactor for Storage -40 ... 70 °C Operation -40 ... 70 °C Storage -40 ... +70 °C
Maximum Operating Altitude Permissible	Without Derating 3000 m

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Declaration	2CMT2021-006277
RoHS Information	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006525
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

End Of Life Disassembling Instructions	1SFC100112M0005
Environmental Product Declaration - EPD	1SFC100110D0201 2TFP200026A1001

Certificates and Declarations

ABS Certificate	15-LD1408622-PDA
BV Certificate	BV_13409-C0BV
CB Certificate	SEMKO_SE-74013
CCS Certificate	GB14T00030
CQC Certificate	CQC2003010304101933 CQC2015010304752548
Declaration of Conformity - CCC	2020980304001303 2020980304001043
Declaration of Conformity - CE	2CMT2019-005796
Declaration of Conformity - UKCA	2CMT2020-006118
EAC Certificate	9AKK107046A8618
LR Certificate	16-20064
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
UL Certificate	UL_20130904-E73397
UL Listing Card	UL_E73397

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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

External Classifications and Standards

Object Classification Code	Q
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 8	EC000066 - Power contactor, AC switching
ETIM 9	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4758 >> Iec Contactors
E-Number (Finland)	3709260

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SFN035203R1000	VM205/265 Mechanical Interlock Unit	VM205/265	1	piece
1SFN074807R1000	LW205 Terminal Enlargement	LW205	1	piece
1SFN074807R2000	LW205-40 Terminal Enlargement	LW205-40	1	piece
1SFN074810R1000	LX205 Terminal Extension	LX205	1	piece
1SFN074811R1000	LL205-30 Connection Socket	LL205-30	1	piece
1SFN074811R2000	LL205-40 Connection Socket	LL205-40	1	piece
1SFN084806R1000	BEA205/XT4 Connection Set	BEA205/XT4	1	piece
1SFN084806R1001	BEA205/T4 Connection Set	BEA205/T4	1	piece
1SFN084811R1000	BER205-4 Connection Set	BER205-4	1	piece
1SFN084814R1000	BEP205-30 Connection Set	BEP205-30	1	piece
1SFN084814R2000	BEP205-40 Connection Set	BEP205-40	1	piece
1SFN085213R1000	BEY205-4 Connection Set	BEY205-4	1	piece
1SFN124801R1000	LT205-30C Terminal Shroud	LT205-30C	1	piece
1SFN124801R2000	LT205-40C Terminal Shroud	LT205-40C	1	piece
1SFN124803R1000	LT205-30L Terminal Shroud	LT205-30L	1	piece
1SFN124803R2000	LT205-40L Terminal Shroud	LT205-40L	1	piece
1SFN124804R1000	LT205-30Y Terminal Shroud	LT205-30Y	1	piece
1SFN165503R9220	AF2050 Cover Replacement Part	Spare Part Cover AF2050	1	piece
1SFN165503R9221	AF2050T Cover Replacement Part	Spare Part Cover AF2050T	1	piece
1SFN165503R9248	AF2050 Base Replacement Part	Spare Part Bottom AF2050	1	piece
1SFN165503R9252	AF2050 Base Replacement Part	Spare Part Bottom AF2050	1	piece

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1SFN167003R1000	ZL2050 Main Contact Kit	ZL2050	1	piece
1SFN167003R1001	ZL2050-1 Main Contact Kit	ZL2050-1	1	piece
1SFN075703R1000	LY460 Connecting Strip	LY460	1	piece
1SFN075707R1000	LW460 Terminal Enlargement	LW460	1	piece
1SFN075710R1000	LX460 Terminal Extension	LX460	1	piece
1SFN075716R1000	LE460 Mounting Kit	LE460	1	piece
1SFN085503R9100	BED400-9100 Connection Set	BED400-9100	1	piece
1SFN085503R9105	BED400-9105 Connection Set	BED400-9105	1	piece
1SFN085701R1000	BEM460-30 Connection Set	BEM460-30	1	piece
1SFN085703R1000	BED460 Connection Set	BED460	1	piece
1SFN085703R9100	BED460-9100 Connection Set	BED460-9100	1	piece
1SFN085703R9101	BED400-9101 Connection Set	BED400-9101	1	piece
1SFN085703R9102	BED460U Connection Set	BED460U	1	piece
1SFN085704R1000	BES460-30 Connection Set	BES460-30	1	piece
1SFN085706R1000	BEA400/S5 Connection Set	BEA400/S5	1	piece
1SFN085706R1002	BEA400D/S5 Connection Set	BEA400D/S5	1	piece
1SFN085707R1000	BEA400H/S5 Connection Set	BEA400H/S5	1	piece
1SFN085708R1000	BEF460/OESA400 Connection Set	BEF460/OESA 400	1	piece
1SFN085709R1000	BEF460H/OESA400 Connection Set	BEF460H/OES A400	1	piece
1SFN085907R1000	BEA460H/S6 Connection Set	BEA460H/S6	1	piece
1SFN125701R1000	LT460-AC Terminal shroud	LT460-AC	1	piece
1SFN125703R1000	LT460-AL Terminal shroud	LT460-AL	1	piece
1SFN155770R6906	ZAF460 48-130V Operating Coil	ZAF460	1	piece
1SFN155770R7006	ZAF460 100-250V Operating Coil	ZAF460	1	piece
1SFN155770R7106	ZAF460 250-500V Operating Coil	ZAF460	1	piece
1SFN165503R9111	AF460 Base Replacement Kit	REPLACEMEN T KIT AF460 Bottom part	1	piece
1SFN165503R9241	AF400/460 Base Replacement Part	Spare Part Bottom AF400/460	1	piece
1SFN095700R1000	PR460-1 Adapter Plate	PR460-1	1	piece
1SFN095700R1001	PR460-2 Adapter Plate	PR460-2	1	piece

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF2050

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