

## PRODUCT-DETAILS

# AF460-30-22-70

## AF460-30-22 100-250V 50/60Hz / 100-250V DC Contactor



### General Information

Extended Product Type	AF460-30-22-70
Product ID	1SFL597001R7022
EAN	7320500217931
Catalog Description	AF460-30-22 100-250V 50/60Hz / 100-250V DC Contactor

### Long Description

The AF460-30-22-70 is a 3 pole - 1000 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and Main Circuit Bars, controlling motors up to 250 kW / 400 V AC (AC-3) or 400 hp / 480 V UL and switching power circuits up to 700 A (AC-1) or 650 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	1SFC380023-en

CAD Dimensional  
Drawing

2CDC001079B0201

Dimension Diagram

53540919-59

## Dimensions

Product Net Width	186 mm
Product Net Depth / Length	216 mm
Product Net Height	278 mm
Product Net Weight	10.6 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 $\Theta = 40\text{ °C}$ 700 A
Rated Operational Current AC-1 ( $I_e$ )	(1000 V) 40 °C 700 A (1000 V) 55 °C 600 A (1000 V) 60 °C 600 A (1000 V) 70 °C 480 A (690 V) 40 °C 700 A (690 V) 55 °C 600 A (690 V) 70 °C 480 A
Rated Operational Current AC-3 ( $I_e$ )	(415 V) 55 °C 460 A (440 V) 55 °C 460 A (500 V) 55 °C 460 A (690 V) 55 °C 400 A (1000 V) 55 °C 200 A (380 / 400 V) 55 °C 460 A (220 / 230 / 240 V) 55 °C 460 A
Rated Operational Power AC-3 ( $P_e$ )	(415 V) 250 kW (440 V) 250 kW (500 V) 315 kW (690 V) 355 kW (1000 V) 280 kW (380 / 400 V) 250 kW (220 / 230 / 240 V) 132 kW
Rated Breaking Capacity AC-3	8 x $I_e$ AC-3
Rated Making Capacity AC-3	10 x $I_e$ AC-3
Short-Circuit Protective Devices	gG Type Fuses 800 A
Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 4400 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 840 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 2500 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 4600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 3100 A
Maximum Breaking Capacity	$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 440 V 5000 A $\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 690 V 4500 A
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-2 / AC-4) 60 cycles per hour (AC-3) 300 cycles per hour
Rated Operational Current	(110 V) 1-Pole, 40 °C 700 A

DC-1 ( $I_e$ )	(110 V) 2 Poles in Series, 40 °C 700 A (220 V) 3 Poles in Series, 40 °C 700 A (600 V) 3 Poles in Series, 40 °C 700 A
Rated Operational Current DC-3 ( $I_e$ )	(110 V) 1-Pole, 40 °C 700 A (110 V) 2 Poles in Series, 40 °C 700 A (220 V) 3 Poles in Series, 40 °C 700 A (600 V) 3 Poles in Series, 40 °C 700 A
Rated Operational Current DC-5 ( $I_e$ )	(110 V) 1-Pole, 40 °C 700 A (110 V) 2 Poles in Series, 40 °C 700 A (220 V) 3 Poles in Series, 40 °C 700 A (600 V) 3 Poles in Series, 40 °C 700 A
Rated Insulation Voltage ( $U_i$ )	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage ( $U_{imp}$ )	Main Circuit 8 kV
Mechanical Durability	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 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 12 V·A Holding at Max. Rated Control Circuit Voltage DC 5 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 955 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 955 V·A Pull-in at Max. Rated Control Circuit Voltage DC 895 V·A
Operate Time	Between Coil De-energization and NC Contact Closing 45 ... 55 ms Between Coil De-energization and NO Contact Opening 48 ... 58 ms Between Coil Energization and NC Contact Opening 45 ... 115 ms Between Coil Energization and NO Contact Closing 50 ... 120 ms
Connecting Capacity Main Circuit	Bar 47 mm <sup>2</sup> Rigid Al-Cable 2x240 mm <sup>2</sup> Rigid Cu-Cable 240 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 1x0.75 ... 2.5 mm <sup>2</sup> Solid 2 x 1 ... 4 mm <sup>2</sup> Stranded 1 x 1 ... 4 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

## Technical UL/CSA

NEMA Size	6
Horsepower Rating NEMA	(200 V AC) Three Phase 150 Hp (230 V AC) Three Phase 200 Hp (460 V AC) Three Phase 400 Hp (575 V AC) Three Phase 400 Hp
Maximum Operating Voltage UL/CSA	Main Circuit 1000 V
General Use Rating UL/CSA	(600 V AC) 650 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 150 hp (208 V AC) Three Phase 150 hp (220 ... 240 V AC) Three Phase 200 hp (440 ... 480 V AC) Three Phase 400 hp (550 ... 600 V AC) Three Phase 500 hp

## 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
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Maximum Operating Altitude Permissible	Without Derating 3000 m
Resistance to Shock acc. to IEC 60068-2-27	Shock Direction: A 5 g Shock Direction: B1 5 g Shock Direction: B2 5 g Shock Direction: C1 5 g Shock Direction: C2 5 g
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

## Circular Value

End of Life Instructions	1SFC100112M0001
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## Eco Transparency

Environmental Product Declaration - EPD	1SFC100105D0201
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## Certificates and Declarations (Document Number)

ABS Certificate	15-LD1408622-PDA
BV Certificate	BV_13409-C0BV
CB Certificate	SE-82316
CCS Certificate	GB14T00030
CQC Certificate	CQC2007010304256683 CQC2011010304514755
CSA Certificate	306711
Declaration of Conformity - CCC	2020980304001300 2020980304001081
Declaration of Conformity - CE	2CMT2015-005436
Declaration of Conformity - UKCA	2CMT2020-006118
DNV Certificate	DNV_E-10966
DNV GL Certificate	TAE00001W1
EAC Certificate	9AKK107046A8618
Environmental Information	1SFC101004D0202 1SAC200033H0002
Environmental Product Declaration - EPD	1SFC100105D0201
GL Certificate	GL_42988-02HH
Instructions and Manuals	1SFC380023-en
LOVAG Certificate	FI102
LR Certificate	16-20064
PRS Certificate	TE_2092_880423_16
REACH Declaration	2CMT2021-006202
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
RoHS Information	2CMT2021-006277
UL Certificate	20121207-E36588
UL Listing Card	UL_E36588

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	280 mm
Package Level 1 Depth / Length	375 mm
Package Level 1 Height	310 mm
Package Level 1 Gross Weight	12 kg
Package Level 1 EAN	7320500217931

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
ETIM 8	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4758 >> lec Contactors
E-Number (Finland)	3707171

Categories

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

