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PRODUCT-DETAILS

# AF145-30-11-72

## AF145-30-11 20-60V DC Contactor

For sale but "Obsolete", replaced by




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### General Information

Extended Product Type	AF145-30-11-72
Product ID	1SFL477001R7211
EAN	7320500220177
Catalog Description	AF145-30-11 20-60V DC Contactor
Long Description	A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, Bypass and Distribution application up to max 1000 V. Operated with wide control voltage range 20-60 V, DC

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### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900
Replacement Product ID (NEW)	1SFL447002R1111

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### Popular Downloads

Data Sheet, Technical Information	1SBC100192C0206
Instructions and Manuals	1SFC380003-89
Dimension Diagram	53540923-7

## Dimensions

Product Net Width	111.5 mm
Product Net Depth / Length	160 mm
Product Net Height	196 mm
Product Net Weight	3.4 kg

## Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	1
Number of Auxiliary Contacts NC	1
Rated Operational Voltage	Main Circuit 690 V
Rated Frequency (f)	Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ )	acc. to IEC 60947-4-1, Open Contactors $q = 40\text{ °C } 250\text{ A}$
Rated Operational Current AC-1 ( $I_e$ )	(1000 V) 40 °C 180 A (1000 V) 55 °C 180 A (1000 V) 70 °C 180 A (690 V) 40 °C 250 (690 V) 55 °C 230 (690 V) 70 °C 180
Rated Operational Current AC-3 ( $I_e$ )	(415 V) 55 °C 145 A (440 V) 55 °C 145 A (500 V) 55 °C 145 A (690 V) 55 °C 120 A (1000 V) 55 °C 80 A (380 / 400 V) 55 °C 145 A (220 / 230 / 240 V) 55 °C 145
Rated Operational Power AC-3 ( $P_e$ )	(415 V) 75 kW (440 V) 75 kW (500 V) 90 kW (690 V) 110 kW (1000 V) 110 kW (380 / 400 V) 75 kW (220 / 230 / 240 V) 45 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
Short-Circuit Protective Devices	gG Type Fuses 315 A
Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 1200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 280 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1800 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 800 A
Maximum Breaking Capacity	cos $\phi=0.45$ (cos $\phi=0.35$ for $I_e > 100\text{ A}$ ) at 440 V 1500 A cos $\phi=0.45$ (cos $\phi=0.35$ for $I_e > 100\text{ A}$ ) at 690 V 1200 A
Maximum Electrical	(AC-1) 300 cycles per hour

Switching Frequency	(AC-2 / AC-4) 150 cycles per hour (AC-3) 300 cycles per hour
Rated Operational Current DC-1 ( $I_e$ )	(110 V) 2 Poles in Series, 40 °C 250 A (220 V) 3 Poles in Series, 40 °C 250 A
Rated Operational Current DC-3 ( $I_e$ )	(110 V) 2 Poles in Series, 40 °C 250 A (220 V) 3 Poles in Series, 40 °C 250 A
Rated Operational Current DC-5 ( $I_e$ )	(110 V) 2 Poles in Series, 40 °C 250 A (220 V) 3 Poles in Series, 40 °C 250 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 ( $U_c$ )	DC Operation 20 ... 60 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 2 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 430 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 430 V·A Pull-in at Max. Rated Control Circuit Voltage DC 500 W
Operate Time	Between Coil De-energization and NC Contact Closing 40 ... 50 ms Between Coil De-energization and NO Contact Opening 43 ... 53 ms Between Coil Energization and NC Contact Opening 45 ... 85 ms Between Coil Energization and NO Contact Closing 50 ... 90 ms
Connecting Capacity Main Circuit	Bar 24 mm <sup>2</sup> Rigid Al-Cable 1 x 25 ... 150 mm <sup>2</sup> Rigid Cu-Cable 1 x 6 ... 185 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 2 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

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 230 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 40 hp (208 V AC) Three Phase 40 hp (220 ... 240 V AC) Three Phase 50 hp (440 ... 480 V AC) Three Phase 100 hp (550 ... 600 V AC) Three Phase 125 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

## Certificates and Declarations (Document Number)

ABS Certificate	15-LD1408622-PDA
BV Certificate	BV_13409-C0BV
CB Certificate	SEMKO_SE-69478
CCS Certificate	GB14T00030
CQC Certificate	CQC2007010304256685 CQC2009010304353527
cUL Certificate	20160920-E36588
Declaration of Conformity - CCC	2020980304001634 2020980304001069
Declaration of Conformity - CE	2CMT2015-005436
DNV GL Certificate	TAE00001W1
EAC Certificate	9AKK107046A8618
Environmental Information	1SFC101007D0201
GL Certificate	GL_20261-04HH
Instructions and Manuals	1SFC380003-89
LOVAG Certificate	SE-0105160
LR Certificate	16-20064
RINA Certificate	ELE060313XG_002
RMRS Certificate	RMRS_12-03683-315
RoHS Information	2CMT2015-005436
TÜV Certificate	MHM-EST-7.70017788e

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	178 mm
Package Level 1 Depth / Length	232 mm
Package Level 1 Height	167 mm
Package Level 1 Gross Weight	3.6 kg
Package Level 1 EAN	7320500220177

## 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 (Norway)	4115269
E-Number (Sweden)	3228282

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## Categories

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

