

# AF146-30-11-12



## AF146-30-11-12 Contactor

### General Information

Extended Product Type	AF146-30-11-12
Product ID	1SFL467001R1211
EAN	7320500481981
Catalog Description	AF146-30-11-12 Contactor
Long Description	A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, By-pass and Distribution application up to max 1000 V. Operated with wide control voltage range 48-130 V, 50/60 Hz and DC

### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

### Popular Downloads

Data Sheet, Technical Information	1SFC101070D0201
Instructions and Manuals	1SFC100003M0201
Dimension Diagram	1SFB535001G1051

### Dimensions

Product Net Width	90.0 mm
Product Net Depth / Length	126.0 mm
Product Net Height	150.0 mm
Product Net Weight	1.644 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 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 225 A
Rated Operational Current AC-1 ( $I_e$ )	(690 V) 55 °C 200 A

	(690 V) 40 °C 225 A (1000 V) 40 °C 225 A (1000 V) 55 °C 200 A (690 V) 70 °C 175 A (1000 V) 70 °C 175 A
Rated Operational Current AC-3 ( $I_e$ )	(1000 V) 55 °C 60 A (690 V) 55 °C 93 A (415 V) 55 °C 146 A (220 / 230 / 240 V) 55 °C 146 A (440 V) 55 °C 146 A (380 / 400 V) 55 °C 146 A (500 V) 55 °C 93 A
Rated Operational Power AC-3 ( $P_e$ )	(220 / 230 / 240 V) 45 kW (380 / 400 V) 75 kW (415 V) 75 kW (440 V) 90 kW (500 V) 90 kW (690 V) 90 kW (1000 V) 75 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 ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 674 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 1168 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1460 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 477 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 3000 A cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 1500 A
Maximum Electrical Switching Frequency	AC-3 300 cycles per hour AC-1 300 cycles per hour AC-2 / AC-4 150 cycles per hour
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	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 48 ... 130 V 50 Hz 48 ... 130 V DC Operation 48 ... 130 V
Coil Consumption	Pull-in at Max. Rated Control Circuit Voltage 60 Hz 170 V·A Holding at Max. Rated Control Circuit Voltage DC 2.5 W Holding at Max. Rated Control Circuit Voltage 50 Hz 4 V·A Pull-in at Max. Rated Control Circuit Voltage DC 130 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 170 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 4 V·A
Operate Time	Between Coil De-energization and NO Contact Opening 37 ... 47 ms Between Coil Energization and NO Contact Closing 25 ... 55 ms
Connecting Capacity Main Circuit	Flexible 1 x 10 ... 70 mm <sup>2</sup> Rigid Cu-Cable 2 x 10 ... 95 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Solid 2 x 1 ... 4 mm <sup>2</sup> Flexible with Insulated Ferrule 2 x 0.75 ... 2.5 mm <sup>2</sup> Stranded 2 x 1 ... 4 mm <sup>2</sup> Flexible 1x0.75 ... 2.5 mm <sup>2</sup> Flexible with Ferrule 1 x 0.75 ... 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	Double Clamp

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## Environmental

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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
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) 200 A
Horsepower Rating UL/CSA	(208 V AC) Three Phase 40 Hp (440 ... 480 V AC) Three Phase 100 Hp (550 ... 600 V AC) Three Phase 125 Hp (220 ... 240 V AC) Three Phase 50 Hp (200 V AC) Three Phase 40 Hp

## Certificates and Declarations (Document Number)

ABS Certificate	14-LD1092198-PDA
BV Certificate	BV_36353_A0BV
CB Certificate	SEMKO_SE-70479M1
CCC Certificate	2013010304604055
CCS Certificate	GB14T00030
cUL Certificate	20120925-E36588
Declaration of Conformity - CE	2CMT004242
DNV Certificate	DNV_E-14043
EAC Certificate	EAC_RUC-SE.ME77.B.01005
Environmental Information	2CMT004732
GL Certificate	GL_95071-14HH
Instructions and Manuals	1SFC100003M0201
LR Certificate	LR_14_70011(E1)
PRS Certificate	TE_2092_880423_16
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
RoHS Information	1SFC101055D0202
UL Listing Card	UL_E36588

## Container Information

Package Level 1 Units	1 piece
Package Level 1 Width	194 mm
Package Level 1 Depth / Length	115 mm
Package Level 1 Height	169 mm
Package Level 1 Gross Weight	1.774 kg
Package Level 1 EAN	7320500481981

## 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

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## Categories

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

