

# AF190-30-11-13



## AF190-30-11-13 Contactor

### General Information

Extended Product Type	AF190-30-11-13
Product ID	1SFL487002R1311
EAN	7320500480434
Catalog Description	AF190-30-11-13 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 100-250 V, 50/60 Hz and DC

### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

### Popular Downloads

Data Sheet, Technical Information	1SBC100192C0206
Instructions and Manuals	1SFC100008M0201
Dimension Diagram	1SFB535001G1056

### Dimensions

Product Net Width	105 mm
Product Net Depth / Length	152 mm
Product Net Height	196 mm
Product Net Weight	2.778 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 275 A
Rated Operational Current AC-1 ( $I_e$ )	(690 V) 55 °C 250 A

	(690 V) 40 °C 275 A (1000 V) 40 °C 250 A (1000 V) 55 °C 225 A (690 V) 70 °C 200 A (1000 V) 70 °C 185 A
Rated Operational Current AC-3 ( $I_e$ )	(1000 V) 55 °C 85 A (415 V) 55 °C 190 A (690 V) 55 °C 135 A (220 / 230 / 240 V) 55 °C 190 A (440 V) 55 °C 190 A (380 / 400 V) 55 °C 190 A (500 V) 55 °C 135 A
Rated Operational Power AC-3 ( $P_e$ )	(220 / 230 / 240 V) 55 kW (380 / 400 V) 90 kW (415 V) 90 kW (440 V) 110 kW (500 V) 90 kW (690 V) 132 kW (1000 V) 110 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 355 A
Rated Short-time Withstand Current ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 275 A at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 1520 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 878 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1900 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 621 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 3300 A cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 2200 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 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 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 100 ... 250 V 50 Hz 100 ... 250 V DC Operation 100 ... 250 V
Coil Consumption	Pull-in at Max. Rated Control Circuit Voltage 60 Hz 220 V·A Holding at Max. Rated Control Circuit Voltage DC 2.5 W Holding at Max. Rated Control Circuit Voltage 50 Hz 7 V·A Pull-in at Max. Rated Control Circuit Voltage DC 190 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 220 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 7 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	Rigid Al-Cable 1 x 95 ... 185 mm <sup>2</sup> Flexible 2 x 50 ... 95 mm Rigid Cu-Cable 1 x 6 ... 150 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Solid 2 x 1 ... 4 mm <sup>2</sup> Flexible with Insulated Ferrule 1 x 0.75 ... 2.5 mm <sup>2</sup> Stranded 2 x 1 ... 4 mm <sup>2</sup> Flexible 2x0.75 ... 2.5 mm <sup>2</sup> Flexible with Ferrule 2 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
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Terminal Type	Main Circuit: Bars
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## 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
Maximum Operating Altitude Permissible	3000 m
RoHS Status	Following EU Directive 2011/65/EU

## Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 250 A
Horsepower Rating UL/CSA	(208 V AC) Three Phase 50 Hp (440 ... 480 V AC) Three Phase 125 Hp (550 ... 600 V AC) Three Phase 150 Hp (220 ... 240 V AC) Three Phase 60 Hp (200 V AC) Three Phase 50 Hp

## Certificates and Declarations (Document Number)

ABS Certificate	14-LD1092198-PDA
BV Certificate	BV_36353_A0BV
CB Certificate	SE-82315
CCC Certificate	CQC_2014010304676685
CCS Certificate	GB14T00030
cUL Certificate	20121023-E36588
Declaration of Conformity - CE	2CMT2015-005439
DNV Certificate	DNV_E-14043
DNV GL Certificate	DNV_E-14043
EAC Certificate	9AKK107046A8618
Environmental Information	2CMT004732
GL Certificate	GL_95072-14HH
Instructions and Manuals	1SFC100008M0201
KC Certificate	9AKK107046A9912
LR Certificate	LR_14_70011(E1)
PRS Certificate	TE_2092_880423_16
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
RoHS Information	2CMT2016-006693
UL Listing Card	UL_E36588

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	223 mm
Package Level 1 Depth / Length	133 mm
Package Level 1 Height	186 mm

Package Level 1 Gross Weight	3.228 kg
Package Level 1 EAN	7320500480434

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## Classifications

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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
UNSPSC	39121529
E-Number (Norway)	4117637
E-Number (Sweden)	3210134

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## Categories

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

