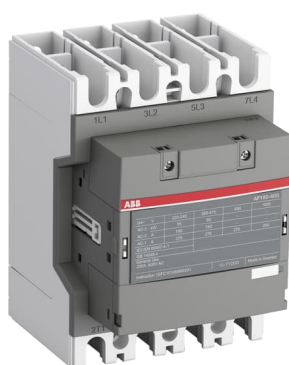


PRODUCT-DETAILS

# AF190-40-00-11

## AF190-40-00-11 Contactor



### General Information

Extended Product Type	AF190-40-00-11
Product ID	1SFL487102R1100
EAN	7320500504208
Catalog Description	AF190-40-00-11 Contactor
Long Description	The AF190-40-00-11 is a 4 pole - 1000 V IEC or 600 V UL contactor with Main Circuit Bars, controlling motors up to 90 kW / 400 V AC (AC-3) / and switching power circuits up to 275 A (AC-1) or 230 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (24-60 V 50/60 Hz and 20-60 V 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	1SFC101066M0201
Dimension Diagram	1SFB535001G1122

## Dimensions

Product Net Width	140 mm
Product Net Depth / Length	153 mm
Product Net Height	196 mm
Product Net Weight	3.3 kg

## Technical

Number of Main Contacts NO	4
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	0
Number of Auxiliary Contacts NC	0
Rated Operational Voltage	Main Circuit 1000 V
Rated Frequency (f)	Main Circuit 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ )	acc. to IEC 60947-4-1, Open Contactors $q = 40^\circ\text{C}$ 275 A
Rated Operational Current AC-1 ( $I_e$ )	(1000 V) $40^\circ\text{C}$ 250 A (1000 V) $55^\circ\text{C}$ 225 A (1000 V) $60^\circ\text{C}$ 225 A (1000 V) $70^\circ\text{C}$ 185 A (690 V) $40^\circ\text{C}$ 275 A (690 V) $55^\circ\text{C}$ 250 A (690 V) $60^\circ\text{C}$ 250 A (690 V) $70^\circ\text{C}$ 200 A
Rated Operational Current AC-3 ( $I_e$ )	(415 V) $55^\circ\text{C}$ 190 A (440 V) $55^\circ\text{C}$ 190 A (380 / 400 V) $55^\circ\text{C}$ 190 A (220 / 230 / 240 V) $55^\circ\text{C}$ 190 A
Rated Operational Power AC-3 ( $P_e$ )	(415 V) 90 kW (440 V) 110 kW (380 / 400 V) 90 kW (220 / 230 / 240 V) 55 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 355 A
Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 10 s 1520 A at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 15 min 275 A at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 1 min 621 A at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 1 s 1900 A at $40^\circ\text{C}$ Ambient Temp, in Free Air, from a Cold State 30 s 878 A
Maximum Breaking Capacity	$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 440 V 3300 A
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour
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) $0.85 \times U_c$ Min. ... $1.1 \times U_c$ Max. (at $\theta \leq 70^\circ\text{C}$ )
Rated Control Circuit Voltage ( $U_c$ )	50 Hz 24 ... 60 V 60 Hz 24 ... 60 V DC Operation 20 ... 60 V

Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 6 V-A Holding at Max. Rated Control Circuit Voltage 60 Hz 6 V-A Holding at Max. Rated Control Circuit Voltage DC 2.5 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 165 V-A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 165 V-A Pull-in at Max. Rated Control Circuit Voltage DC 205 W
Operate Time	Between Coil De-energization and NO Contact Opening 45 ... 80 ms Between Coil Energization and NO Contact Closing 25 ... 60 ms
Connecting Capacity Main Circuit	Flexible 2 x 50 ... 95 mm <sup>2</sup> Rigid Al-Cable 1 x 95 ... 185 mm <sup>2</sup> Rigid Cu-Cable 2 x 50 ... 120 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 1000 V
General Use Rating UL/CSA	(600 V AC) 230 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
Maximum Operating Altitude Permissible	Without Derating 3000 m
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

## Certificates and Declarations (Document Number)

ABS Certificate	14-LD1092198-PDA
BV Certificate	BV_36353_A0BV
CB Certificate	SE-82315
CQC Certificate	CQC2014010304676685
cUL Certificate	20140925-E73397
Declaration of Conformity - CCC	2020980304001306
Declaration of Conformity - CE	2CMT2015-005440
Declaration of Conformity - UKCA	2CMT2020-006118
DNV GL Certificate	DNV_E-14043
EAC Certificate	9AKK107046A8618
Instructions and Manuals	1SFC101066M0201
LR Certificate	LR_14_70011(E1)
PRS Certificate	TE_2092_880423_16
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
RoHS Information	2CMT2015-005440

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	166 mm
Package Level 1 Depth / Length	238 mm
Package Level 1 Height	180 mm
Package Level 1 Gross Weight	3.9 kg
Package Level 1 EAN	7320500504208

## 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)	4755 >> Contactors
E-Number (Finland)	3707179

## Categories

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

