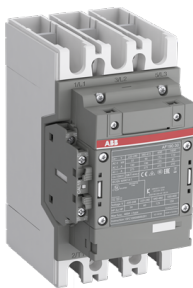




PRODUCT-DETAILS

AF190-30-11-12

AF190-30-11-12 Contactor



General Information

Extended Product Type	AF190-30-11-12
Product ID	1SFL487002R1211
EAN	7320500480427
Catalog Description	AF190-30-11-12 Contactor

Long Description	The AF190-30-11-12 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 90 kW / 400 V AC (AC-3) or 125 hp / 480 V UL and switching power circuits up to 275 A (AC-1) or 250 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (48-130 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.
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Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

Data Sheet, Technical Information	1SBC100214C0202
Data Sheet, Technical Information (Part 2)	1SAC200017M0002
Instructions and Manuals	1SFC100008M0201
CAD Dimensional Drawing	2CDC001079B0201
Dimension Diagram	1SFB535001G1056

Dimensions

Product Net Width	105 mm
Product Net Depth / Length	152 mm
Product Net Height	196 mm
Product Net Weight	2.4 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
Number of Poles	3P
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 $\Theta = 40\text{ °C}$ 275 A
Rated Operational Current AC-1 (I_e)	(1000 V) 40 °C 250 A (1000 V) 55 °C 225 A (1000 V) 60 °C 225 A (1000 V) 70 °C 185 A (690 V) 40 °C 275 A (690 V) 55 °C 250 A (690 V) 60 °C 250 A (690 V) 70 °C 200 A
Rated Operational Current AC-3 (I_e)	(415 V) 55 °C 190 A (440 V) 55 °C 190 A (500 V) 55 °C 156 A (690 V) 55 °C 135 A (1000 V) 55 °C 85 A (380 / 400 V) 55 °C 190 A (220 / 230 / 240 V) 55 °C 190 A
Rated Operational Current AC-3e (I_e)	(415 V) 60 °C 190 A (440 V) 60 °C 190 A (500 V) 60 °C 135 A (690 V) 60 °C 135 A (1000 V) 60 °C 85 A (380 / 400 V) 60 °C 190 A (220 / 230 / 240 V) 60 °C 190 A
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 Operational Power AC-3 (P_e)	(415 V) 90 kW (440 V) 110 kW (500 V) 110 kW (690 V) 132 kW (1000 V) 110 kW (380 / 400 V) 90 kW (220 / 230 / 240 V) 55 kW

Rated Operational Power AC-3e (P_e)	(415 V) 90 kW (440 V) 110 kW (500 V) 110 kW (690 V) 132 kW (1000 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 Breaking Capacity AC-3e	8.5 x I _e AC-3e
Rated Making Capacity AC-3	10 x I _e AC-3
Rated Making Capacity AC-3e	12 x I _e AC-3e
Short-Circuit Protective Devices	gG Type Fuses 355 A
Rated Short-time Withstand Current Low Voltage (I_{cw})	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 15 min 275 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 621 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 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 cos phi=0.45 (cos phi=0.35 for I _e > 100 A) at 690 V 2200 A
Rated Insulation Voltage (U_i)	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 1000 V
Rated Impulse Withstand Voltage (U_{imp})	Main Circuit 8 kV
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 300 cycles per hour
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 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 4 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 4 V·A Holding at Max. Rated Control Circuit Voltage DC 2.5 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 180 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 180 V·A Pull-in at Max. Rated Control Circuit Voltage DC 150 W
Power Loss	at Rated Operating Conditions per Pole 7 W
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 2 x 50 ... 95 mm ² Rigid Al-Cable 1 x 95 ... 185 mm ² Rigid Cu-Cable 1 x 6 ... 150 mm ²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm ² Flexible 1x0.75 ... 2.5 mm ² Solid 2 x 1 ... 4 mm ² Stranded 2 x 1 ... 4 mm ²
Connecting Capacity	Flexible 2 x 50 ... 95 mm ² Rigid Al-Cable 1 x 95 ... 185 mm ² Rigid Cu-Cable 1 x 6 ... 150 mm ²
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
Tightening Torque	Cable Lug 18 N·m Main Circuit 14 ... 31 N·m
Terminal Type	Main Circuit: Bars
Product Name	Block Contactor

Technical UL/CSA

Maximum Operating	Main Circuit 1000 V
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Voltage UL/CSA

General Use Rating (1000 V AC) 250 A

UL/CSA

Horsepower Rating

UL/CSA

(200 V AC) Three Phase 50 hp
(208 V AC) Three Phase 50 hp
(220 ... 240 V AC) Three Phase 60 hp
(440 ... 480 V AC) Three Phase 125 hp
(550 ... 600 V AC) Three Phase 150 hp**Full Load Amps Motor**

Use

(440 ... 480 V AC) Three Phase 156 A
(550 ... 600 V AC) Three Phase 144 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

Material Compliance**Conflict Minerals**

9AKK108467A5658

**Reporting Template
(CMRT)****REACH Declaration**

2CMT2021-006202

RoHS Information

2CMT2021-006277

RoHS Status

Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

Toxic Substances Control

2CMT2023-006525

Act - TSCA**WEEE B2C / B2B**

Business To Business

WEEE Category

5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions**ABB EcoSolutions**

Yes

**ABB Site Meeting Group
Waste To Landfill Target**Non-hazardous waste is sent to a landfill, where there is no alternative option
available within 100km of a facility**End Of Life Disassembling
Instructions**

1SFC100112M0001

**Environmental Product
Declaration - EPD**1SFC100095D0201
2TFP200018A1001**Improved Energy
Efficiency for Customers**Product Efficiency - Product requires less energy to operate compared to
similar product on market or older products from the same line**Recyclability Rate of the
Product acc. to EN45555**

Design for Closing Resource Loops - Standard EN45555 - 79.2 %

**Sustainable Material
Content in Product (wt. %)**

Recycled Metal - 35 %

Certificates and Declarations**A2L Certificate - UL**

9AKK108468A6695

ABS Certificate

14-LD1092198-PDA

BV Certificate

BV_36353_A0BV

CB Certificate

SE-82315

CCS Certificate

GB14T00030

CQC CertificateCQC2014010304676685
CQC2014010304724672**Declaration of Conformity
- CCC**2020980304001306
2020980304001071**Declaration of Conformity
- CE**

2CMT2015-005439

Declaration of Conformity

2CMT2020-006118

- UKCA

DNV Certificate	DNV_E-14043
EAC Certificate	9AKK107046A8618
GL Certificate	GL_95072-14HH
KC Certificate	9AKK107046A9912
LR Certificate	LR_14_70011(E1)
PRS Certificate	TE_2092_880423_16
RINA Certificate	ELE060313XG_002
RMRS Certificate	9AKK107045A6978
UL Certificate	20121023-E36588
UL Listing Card	UL_E36588

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	160 mm
Package Level 1 Depth / Length	258 mm
Package Level 1 Height	235 mm
Package Level 1 Gross Weight	3 kg
Package Level 1 EAN	7320500480427

External Classifications and Standards

Object Classification Code	Q
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 8	EC000066 - Power contactor, AC switching
ETIM 9	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4758 >> Iec Contactors
E-Number (Finland)	3706391
E-Number (Norway)	4117639
E-Number (Sweden)	3210133

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SFN170801R1001	RU19/120 LVRT-Module	RU19/120	1	piece
1SFN170801R1002	RU19/240 LVRT-Module	RU19/240	1	piece

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF190

