



PRODUCT-DETAILS

AF190-40-11-13

AF190-40-11-13 Contactor



General Information	
Extended Product Type:	AF190-40-11-13
Product ID:	1SFL487102R1311
EAN:	7320500504277
Catalog Description:	AF190-40-11-13 Contactor
Long Description:	The AF190-40-11-13 is a 4 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) / 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 (100-250 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. Includes Mounting kit, containing all necessary screws, washers and sockets for connecting the terminals, and screws for mounting the device.
Display Name:	AF190-40-11-13

Ordering	
Minimum Order Quantity:	1 piece

Customs Tariff Number: 85364900

Popular Downloads

EPLAN Data:	9AAC174541_EPLAN
Data Sheet, Technical Information:	1SBC100214C0202
Data Sheet, Technical Information (Part 2):	1SAC200017M0002
Instructions and Manuals:	1SFC100008M0201
CAD Dimensional Drawing:	2CDC001079B0201

Dimensions

Product Net Width:	140 mm
Product Net Depth / Length:	153 mm
Product Net Height:	196 mm
Product Net Weight:	3.3 kg
Dimension Diagram:	1SFB535001G1122

Technical

Number of Main Contacts NO:	4
Number of Main Contacts NC:	0
Number of Auxiliary Contacts NO:	1
Number of Auxiliary Contacts NC:	1
Number of Poles:	4P
Rated Operational Voltage:	Main Circuit 1000 V
Rated Frequency (f):	Main Circuit 60 Hz 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) 60 °C 225 A (1000 V) 70 °C 185 A (690 V) 40 °C 275 A (690 V) 60 °C 250 A (690 V) 70 °C 200 A
Rated Operational Current AC-3 (I _e):	(415 V) 60 °C 190 A (440 V) 60 °C 190 A (380 / 400 V) 60 °C 190 A (220 / 230 / 240 V) 60 °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 Breaking Capacity AC-3e:	8.5 x I _e AC-3e

Rated Making Capacity AC-3:	10 x Ie AC-3
Rated Making Capacity AC-3e:	12 x Ie 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 275 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 878 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 1900 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1520 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 621 A
Maximum Breaking Capacity:	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 3300 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
Maximum Electrical Switching Frequency:	(AC-1) 300 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 θ ≤ 70 °C)
Rated Control Circuit Voltage (U_c):	50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Coil Consumption:	Holding at Max. Rated Control Circuit Voltage 50 Hz 26.8 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 26.8 V·A Holding at Max. Rated Control Circuit Voltage DC 3.5 V·A Holding at Max. Rated Control Circuit Voltage DC 3.5 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 285 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 285 V·A Pull-in at Max. Rated Control Circuit Voltage DC 360 V·A Pull-in at Max. Rated Control Circuit Voltage DC 360 W
Power Loss:	at Rated Operating Conditions per Pole 15 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 ² Rigid Al-Cable 1 x 95 ... 185 mm ² Rigid Cu-Cable 1 x 6 ... 150 mm ² Rigid Cu-Cable 2 x 50 ... 120 mm ²
Connecting Capacity Auxiliary Circuit:	Flexible with Ferrule 2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm ² Flexible 2x0.75 ... 2.5 mm ² Solid 2 x 1 ... 4 mm ² Stranded 1 x 1 ... 4 mm ² Stranded 2 x 1 ... 4 mm ²
Connecting Capacity:	Flexible 2 x 50 ... 95 mm ² Rigid Cu-Cable 2 x 10 ... 95 mm ²
Degree of Protection:	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP40 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 9 N·m Main Circuit 14 ... 31 N·m
Terminal Type:	Main Circuit: Bars
Product Name:	Block Contactor

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 ... 208 V AC) Three Phase 20 Hp (200 V AC) Three Phase 50 hp (208 V AC) Three Phase 50 hp (220 ... 240 V AC) Three Phase 25 Hp (220 ... 240 V AC) Three Phase 60 hp (440 ... 480 V AC) Three Phase 60 Hp (440 ... 480 V AC) Three Phase 125 hp (550 ... 600 V AC) Three Phase 75 Hp (550 ... 600 V AC) Three Phase 150 hp

Environmental

Ambient Air Temperature:	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 50 °C Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 55 °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
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Maximum Operating Altitude Permissible: Without Derating 3000 m

Material Compliance

Conflict Minerals Reporting Template (CMRT):	9AKK108467A5658
REACH Declaration:	2CMT2021-006202
RoHS Declaration:	2CMT2021-006277
RoHS Information:	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA:	2CMT2023-006525
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 UL 2799 Zero Waste To Landfill Validation available
EcoSolutions Profile:	1SFC100125C0366
End Of Life Disassembling Instructions:	1SFC100112M0001
Environmental Product Declaration - EPD:	1SFC100095D0201
Extended Product Lifetime:	Product Durability
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 Product Efficiency - Product considered more energy-efficient 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 - 79.1 %

Certificates and Declarations

ABS Certificate:	14-LD1092198-PDA 14-LD1092198-1-PDA-DUP
BV Certificate:	BV_36353_A0BV
CB Certificate:	SEMKO_SE-77322
CCS Certificate:	GB14T00030
CQC Certificate:	CQC2014010304676685
cULus Certificate:	20140925-E73397
Declaration of Conformity - CE:	2CMT2015-005439
Declaration of Conformity - UKCA:	2CMT2020-006118
DNV Certificate:	DNV_E-14043
LR Certificate:	16-20064
PRS Certificate:	TE_2092_880423_16
RINA Certificate:	ELE060313XG_002

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:	7320500504277

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 >> lec Contactors
E-Number (Finland):	3707186
E-Number (Norway):	4117783
E-Number (Sweden):	3210327

Accessories

Identifier	Description	Type	Qty	Unit Of Measure
1SFN010820R1011	CAL19-11 Auxiliary Contact Block	CAL19-11	1	piece

Identifier	Description	Type	Qty	Unit Of Measure
1SFN010820R3311	CAL19-11B Auxiliary Contact Block	CAL19-11B	1	piece
1SFN010832R1001	CEL19-01 Auxiliary Contact Block	CEL19-01	1	piece
1SFN010832R1010	CEL19-10 Auxiliary Contact Block	CEL19-10	1	piece
1SFN074208R2000	LD146-40 Connection Module	LD146-40	1	piece
1SFN124203R2000	LT140-40L Terminal Shroud	LT140-40L	1	piece
1SFN124801R2000	LT205-40C Terminal Shroud	LT205-40C	1	piece
1SFN074807R2000	LW205-40 Terminal Enlargement	LW205-40	1	piece
1SFN124803R2000	LT205-40L Terminal Shroud	LT205-40L	1	piece
1SFN075407R2000	LW370-40 Terminal Enlargement	LW370-40	1	piece
1SFN125401R2000	LT370-40C Terminal Shroud	LT370-40C	1	piece
1SFN125403R2000	LT370-40L Terminal Shroud	LT370-40L	1	piece

Categories

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