



 PRODUCT-DETAILS

AF146-30-11-13

AF146-30-11-13 Contactor



General Information

Extended Product Type:	AF146-30-11-13
Product ID:	1SFL467001R1311
EAN:	7320500476994
Catalog Description:	AF146-30-11-13 Contactor
Long Description:	The AF146-30-11-13 is a 3 pole - 1000 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and double clamp, controlling motors up to 75 kW / 400 V AC (AC-3) or 100 hp / 480 V UL and switching power circuits up to 225 A (AC-1) or 200 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.
Display Name:	AF146-30-11-13

Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

Popular Downloads

EPLAN Data:	9AAC174540_EPLAN
Data Sheet, Technical Information:	1SBC100214C0202
Data Sheet, Technical Information (Part 2):	1SAC200017M0002
Instructions and Manuals:	1SFC100003M0201
CAD Dimensional Drawing:	2CDC001079B0201

Dimensions

Product Net Width:	90 mm
Product Net Depth / Length:	126 mm
Product Net Height:	150 mm
Product Net Weight:	1.55 kg
Dimension Diagram:	1SFB535001G1051

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 $\Theta = 40\text{ °C}$ 225 A
Rated Operational Current AC-1 (I_e):	(1000 V) 40 °C 225 A (1000 V) 60 °C 200 A (1000 V) 70 °C 175 A (690 V) 40 °C 225 A (690 V) 60 °C 200 A (690 V) 70 °C 175 A
Rated Operational Current AC-3 (I_e):	(415 V) 60 °C 146 A (440 V) 60 °C 130 A (500 V) 60 °C 130 A (690 V) 60 °C 93 A (1000 V) 60 °C 60 A (380 / 400 V) 60 °C 146 A (220 / 230 / 240 V) 60 °C 146 A
Rated Operational Current AC-3e (I_e):	(415 V) 60 °C 146 A (440 V) 60 °C 146 A (500 V) 60 °C 130 A (690 V) 60 °C 93 A (380 / 400 V) 60 °C 146 A (220 / 230 / 240 V) 60 °C 146 A

Rated Operational Power AC-3 (P_e):	(415 V) 75 kW (440 V) 90 kW (500 V) 90 kW (690 V) 90 kW (1000 V) 75 kW (380 / 400 V) 75 kW (220 / 230 / 240 V) 45 kW
Rated Operational Power AC-3e (P_e):	(415 V) 75 kW (440 V) 90 kW (500 V) 90 kW (690 V) 90 kW (1000 V) 75 kW (380 / 400 V) 75 kW (220 / 230 / 240 V) 45 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 315 A
Rated Short-time Withstand Current Low Voltage (I_{cw}):	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 15 min 200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 477 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 30 s 674 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
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 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 30.7 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 30.7 V·A Holding at Max. Rated Control Circuit Voltage DC 2.8 V·A Holding at Max. Rated Control Circuit Voltage DC 2.8 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 220 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 220 V·A Pull-in at Max. Rated Control Circuit Voltage DC 275 V·A Pull-in at Max. Rated Control Circuit Voltage DC 275 W
Power Loss:	at Rated Operating Conditions per Pole 10 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 1 x 10 ... 70 mm ² Rigid Cu-Cable 1 x 10 ... 95 mm ²
Connecting Capacity Auxiliary Circuit:	Flexible with Ferrule 2x 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

Connecting Capacity:	Flexible 2 x 10 ... 70 mm ² Rigid Cu-Cable 2 x 10 ... 95 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 9 N·m Main Circuit 8 N·m
Terminal Type:	Double Clamp
Product Name:	Block Contactor

Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Main Circuit 1000 V
General Use Rating UL/CSA:	(1000 V AC) 200 A
Horsepower Rating UL/CSA:	(200 V AC) Three Phase 40 hp (208 V AC) Three Phase 40 hp (220 ... 240 V AC) Three Phase 50 hp (440 ... 480 V AC) Three Phase 100 hp (550 ... 600 V AC) Three Phase 125 hp
Full Load Amps Motor Use:	(440 ... 480 V AC) Three Phase 124 A (550 ... 600 V AC) Three Phase 125 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 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: 1SFC100092D0201
2TFP200059A1001

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 - 87.8 %

Certificates and Declarations

A2L Certificate – UL:	9AKK108468A6693
ABS Certificate:	14-LD1092198-PDA 14-LD1092198-1-PDA-DUP
BV Certificate:	BV_36353_A0BV
CB Certificate:	SEMKO_SE-70479M1
CCS Certificate:	GB14T00030
CQC Certificate:	CQC2013010304604055
cULus Certificate:	20120925-E36588
Declaration of Conformity - CE:	2CMT2015-005439
Declaration of Conformity - UKCA:	2CMT2020-006118
DNV Certificate:	DNV_E-14043
KC Certificate:	9AKK107046A9910 9AKK108472A2576
LR Certificate:	16-20064
PRS Certificate:	TE_2092_880423_16
RINA Certificate:	ELE060313XG_002
UL Listing Card:	UL_E36588

Container Information

Package Level 1 Units:	box 1 piece
Package Level 1 Width:	207 mm
Package Level 1 Depth / Length:	216 mm
Package Level 1 Height:	150 mm
Package Level 1 Gross Weight:	1.75 kg
Package Level 1 EAN:	7320500476994

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):	3706370
E-Number (Norway):	4117629

Accessories

Identifier	Description	Type	Qty	Unit Of Measure
1SFN034403R1000	VM140/190 Mechanical Interlock Unit	VM140/190	1	piece
1SFN074203R1000	LY140 Connecting Strip	LY140	1	piece
1SFN074207R1000	LW140 Terminal Enlargement	LW140	1	piece
1SFN074208R1000	LD146-30 Connection Module	LD146-30	1	piece
1SFN074210R1000	LX140 Terminal Extension	LX140	1	piece
1SFN074211R1000	LL146-30 Connection Socket	LL146-30	1	piece
1SFN084206R1000	BEA140/XT2 Connection Set	BEA140/XT2	1	piece
1SFN084206R1001	BEA140/XT4 Connection Set	BEA140/XT4	1	piece
1SFN084206R1002	BEA140/XT3 Connection Set	BEA140/XT3	1	piece
1SFN084211R1000	BER140-4 Connection Set	BER140-4	1	piece
1SFN084214R1000	BEP140-30 Connection Set	BEP140-30	1	piece
1SFN084413R1000	BEY140-4 Connection Set	BEY140-4	1	piece
1SFN094200R1000	PR146-1 Adapter Plate	PR146-1	1	piece
1SFN124203R1000	LT140-30L Terminal Shroud	LT140-30L	1	piece
1SFN074208R2000	LD146-40 Connection Module	LD146-40	1	piece
1SFN074211R2000	LL146-40 connection sockets kit	LL146-40	1	piece
1SFN084214R2000	BEP140-40 Connection Set	BEP140-40	1	piece
1SFN124203R2000	LT140-40L Terminal Shroud	LT140-40L	1	piece

Categories

Products > Low Voltage Products and Systems > Control Products > Contactors > Block Contactors > AF Contactors > AF146

