AF16-30-10-13

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

General Information

Extended Product Type:	AF16-30-10-13
Product ID:	1SBL177001R1310
EAN:	3471523110632
Catalog Description:	AF16-30-10-13 100-250V50/60HZ-DC Contactor
Long Description:	AF16 contactors are used for controlling power circuits up to 690 V AC and 220 V DC. They are mainly used for controlling 3-phase motors, non-inductive or slightly inductive loads. AF... contactors include an electronic coil interface accepting a wide control voltage Uc min. ... Uc max. Only four coils cover control voltages between 24...500 V 50/60 Hz or 20...500 V DC. AF contactors can manage large control voltage variations. One coil can be used for different control voltages used worldwide without any coil change. AF contactors have built-in surge protection and do not require additional surge suppressors. The AF... series 1-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles, 1 built-in auxiliary contact, front and side-mounted add-on auxiliary contact blocks (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1. N.C. mirror contacts compliant with Annex F of IEC 60947-4-1) - Control circuit: AC or DC operated - Accessories: a wide range of accessories is available.

Additional Information

ABB Industrial IT Suite:	Control IT
ABS Certificate:	ABS_15-GE1349500-PDA_90682247
Ambient Air Temperature:	Close to Contactor for Storage -60 ... +80 °C Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °C Close to Contactor without Thermal O/L Relay -40 ... +70 °C
Block Contactor Type:	3-Pole Contactor
CB Certificate:	CB_SE_70855M1
CCC Certificate:	CCC_2010010304445624
Class NK Certificate:	ClassNK_TA17156M_AF
Climatic Withstand:	Category B according to IEC 60947-1 Annex Q
Coil Voltage Code:	13
Connecting Capacity Auxiliary Circuit:	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm² Rigid 1/2x 1 ... 2.5 mm²
Connecting Capacity Control Circuit:	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm² Rigid 1/2x 1 ... 2.5 mm²
Connecting Capacity Main Circuit:	Flexible with Insulated Ferrule 1x 0.75 ... 4 mm² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm² Flexible with Ferrule 1/2x 0.75 ... 6 mm² Rigid 1/2x 1 ... 6 mm²
Conventional Free-air Thermal Current (I_{th}):	acc. to IEC 60947-4-1, Open Contactors q = 40 °C 35 A acc. to IEC 60947-5-1, q = 40 °C 16 A
Country of Origin:	France (FR)
Customs Tariff Number:	85364900
DNV Certificate:	DNV-GL_TAE00001AF-1
DNV GL Certificate:	DNV-GL_TAE00001AF-1
Data Sheet, Technical Information:	1SBC101407D0201
Declaration of Conformity - CE:	1SBD250000U1000
Degree of Protection:	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20

	acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20
E-nummer:	3211372
EAC Certificate:	EAC_RU C-FR ME77 B01010
EAN:	3471523110632
EPLAN Catalog Tree:	Electrical engineering / Relays, contactors / Contactors
EPLAN Function Definition:	Coil / Coil, 2 connection points / Coil for power contactor A1_A2 NO contact / NO contact, 2 connection points / Power NO contact 1_2 NO contact / NO contact, 2 connection points / Power NO contact 3_4 NO contact / NO contact, 2 connection points / Power NO contact 5_6 NO contact / NO contact, 2 connection points / NO auxiliary contact 13_14
EPLAN Graphical Macro:	9AKK106930A0693
EPLAN Macro:	9AKK106930A0692
ETIM 4:	EC000066 - Magnet contactor, AC-switching
ETIM 5:	EC000066 - Magnet contactor, AC-switching
ETIM 6:	EC000066 - Power contactor, AC switching
Environmental Information:	1SBD250147E1000
Full Load Amps Motor Use:	(120 V AC) Single Phase 20 A (240 V AC) Single Phase 17 A (200 ... 208 V AC) Three Phase 17.5 A (220 ... 240 V AC) Three Phase 15.2 A (440 ... 480 V AC) Three Phase 14 A (550 ... 600 V AC) Three Phase 17 A
GOST Certificate:	GOST_POCCFR.ME77.B07175.pdf
General Use Rating UL/CSA:	(600 V AC) 30 A
Horsepower Rating UL/CSA:	(120 V AC) Single Phase 1-1/2 Hp (240 V AC) Single Phase 3 Hp (200 ... 208 V AC) Three Phase 5 Hp (220 ... 240 V AC) Three Phase 5 Hp (440 ... 480 V AC) Three Phase 10 Hp (550 ... 600 V AC) Three Phase 15 Hp
IIT Publishing Status:	Level 0 - Information enabled
Industrial IT Certification Level:	0
Instructions and Manuals:	1SBC101027M6801
Invoice Description:	AF16-30-10-13 100-250V50/60HZ-DC Contactor
KC Certificate:	KC_HW02016-15005A
LR Certificate:	LRS_1300087E1
Low Coil Consumption:	No
Maximum Breaking Capacity:	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 250 A cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 106 A
Maximum Electrical Switching Frequency:	AC-1 600 cycles per hour AC-15 1200 cycles per hour AC-2 / AC-4 300 cycles per hour AC-3 1200 cycles per hour DC-13 900 cycles per hour
Maximum Mechanical Switching Frequency:	3600 cycles per hour
Maximum Operating Altitude Permissible:	3000 m
Minimum Order Quantity:	1 piece
Mounted Auxiliary Contacts:	1 NO, 0 NC
Mounted Auxiliary Contacts 1st Stack:	1 NO, 0 NC
Mounted Auxiliary Contacts 2nd Stack:	0 NO, 0 NC
Mounting Position:	Max. N.C. built-in and add-on N.C. auxiliary contacts: see accessory fitting details for a 3-pole contactor AF09 ... AF38
Mounting Positions:	1SBC500297F0000

Number of Auxiliary Contacts NC:	0
Number of Auxiliary Contacts NO:	1
Number of Main Contacts NC:	0
Number of Main Contacts NO:	3
Object Classification Code:	Q
Operate Time:	Between Coil De-energization and NC Contact Closing 13 ... 98 ms Between Coil De-energization and NO Contact Opening 11 ... 95 ms Between Coil Energization and NC Contact Opening 38 ... 90 ms Between Coil Energization and NO Contact Closing 40 ... 95 ms
Order Multiple:	1 piece
Package Level 1 EAN:	3471523110632
Package Level 1 Gross Weight:	0.27 kg
Package Level 1 Height:	47 mm
Package Level 1 Length:	79 mm
Package Level 1 Units:	1 piece
Package Level 1 Width:	87 mm
Package Level 2 Height:	315 mm
Package Level 2 Length:	300 mm
Package Level 2 Units:	54 piece
Package Level 2 Width:	250 mm
Package Level 3 Units:	1296 piece
Power Loss:	at Rated Operating Conditions AC-1 per Pole 1.2 W at Rated Operating Conditions AC-3 per Pole 0.35 W
Product Main Type:	AF16
Product Name:	Block Contactor
Product Net Depth:	77 mm
Product Net Height:	86 mm
Product Net Weight:	0.270 kg
Product Net Width:	45 mm
Product Packing Type:	Box
RINA Certificate:	RINA_ELE084013XG
RMRS Certificate:	RMRS_1400682124
Rated Control Circuit Voltage (U_c):	50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Rated Frequency (f):	Auxiliary Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Rated Impulse Withstand Voltage (U_{imp}):	6 kV
Rated Insulation Voltage (U_i):	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V
Rated Operational Current AC-1 (I_e):	(690 V) 40 °C 30 A (690 V) 60 °C 30 A (690 V) 70 °C 26 A
Rated Operational Current AC-15 (I_e):	(220 / 240 V) 4 A (24 / 127 V) 6 A (400 / 440 V) 3 A (500 V) 2 A (690 V) 2 A
Rated Operational Current AC-3 (I_e):	(220 / 230 / 240 V) 60 °C 18 A (380 / 400 V) 60 °C 18 A (415 V) 60 °C 18 A (440 V) 60 °C 18 A (500 V) 60 °C 15 A (690 V) 60 °C 10.5 A

	(690 V) 60 °C 10.5 A
Rated Operational Current DC-13 (I_e):	(110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 60 W (24 V) 6 A / 144 W (250 V) 0.27 A / 68 W (400 V) 0.15 A / 60 W (48 V) 2.8 A / 134 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W (72 V) 1 A / 72 W
Rated Operational Power AC-3 (P_e):	(220 / 230 / 240 V) 4 kW (380 / 400 V) 7.5 kW (400 V) 7.5 kW (415 V) 9 kW (440 V) 9 kW (500 V) 9 kW (690 V) 9 kW
Rated Operational Voltage:	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Short-time Withstand Current (I_{cw}):	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 150 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 35 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 60 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 80 A for 0.1 s 140 A for 1 s 100 A
Resistance to Shock acc. to IEC 60068-2-27:	Closed, Shock Direction: B1 25 g Open, Shock Direction: B1 5 g Shock Direction: A 30 g Shock Direction: B2 15 g Shock Direction: C1 25 g Shock Direction: C2 25 g
Resistance to Vibrations acc. to IEC 60068-2-6:	5 ... 300 Hz 4 g closed position / 2 g open position
RoHS Date:	20090609
RoHS Information:	1SBD251013E1000
Selling Unit of Measure:	piece
Short Description:	AF16-30-10-13 100-250V50/60HZ-DC Contactor
Standards:	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N°14
Terminal Type:	Screw Terminals
Tightening Torque:	Auxiliary Circuit 1.2 N·m Control Circuit 1.2 N·m Main Circuit 1.5 N·m
Tightening Torque UL/CSA:	Auxiliary Circuit 11 in·lb Control Circuit 11 in·lb Main Circuit 13 in·lb
UL Certificate:	UL_20140305-E312527_7_1
UL Listing Card:	E312527
UNSPSC:	39121529
Wire Stripping Length:	Auxiliary Circuit 10 mm Control Circuit 10 mm Main Circuit 10 mm
cUL Certificate:	UL_20170607-E312527-7-1


ABB
1L1
3L2
5L3
13NO
2T1
4T2
6T3
14NO