



Electric Automation
Automation specialists

Reference: AF96-30-00-14
Code: 1SBL407001R1400

AF96-30-00-14 250-500V50/60HZ-DC
Contactor

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AF96 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 U_c min. ... U_c 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, 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.

Ordering

EAN:	3471523133242
Minimum Order Quantity:	1 piece
Customs Tariff Number:	85369085

Dimensions

Product Net Width:	70 mm
Product Net Depth:	116 mm

Product Net Height:	125.5 mm
Product Net Weight:	1.170 kg

Container Information

Package Level 1 Units:	1 piece
Package Level 1 Width:	150 mm
Package Level 1 Length:	150 mm
Package Level 1 Height:	103 mm
Package Level 1 Gross Weight:	1.29 kg
Package Level 1 EAN:	3471523133242
Package Level 2 Units:	10 piece
Package Level 2 Width:	300 mm
Package Level 2 Length:	320 mm
Package Level 2 Height:	500 mm
Package Level 3 Units:	1296 piece

Technical

Number of Main Contacts NO:	3
Number of Main Contacts NC:	0
Number of Auxiliary Contacts NO:	0
Number of Auxiliary Contacts NC:	0
Rated Operational Voltage:	Main Circuit 690 V
Rated Frequency (f):	Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I_{th}):	acc. to IEC 60947-4-1, Open Contactors $q = 40\text{ °C}$ 130 A
Rated Operational Current AC-1 (I_e):	(690 V) 40 °C 130 A (690 V) 60 °C 105 A (690 V) 70 °C 90 A
Rated Operational Current AC-3 (I_e):	(220 / 230 / 240 V) 60 °C 96 A (380 / 400 V) 60 °C 96 A (415 V) 60 °C 96 A (440 V) 60 °C 96 A (500 V) 60 °C 80 A (690 V) 60 °C 57 A (1000 V) 60 °C 30 A
Rated Operational Power AC-3 (P_e):	(220 / 230 / 240 V) 25 kW (380 / 400 V) 45 kW (415 V) 55 kW (440 V) 55 kW (500 V) 55 kW (690 V) 55 kW

Rated Short-time Withstand Current (I_{cw}):	<p>at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 780 A</p> <p>at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 140 A</p> <p>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 300 A</p> <p>at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1200 A</p> <p>at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 450 A</p>
Maximum Breaking Capacity:	<p>cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 1150 A</p> <p>cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 690 V 750 A</p>
Maximum Electrical Switching Frequency:	<p>AC-1 600 cycles per hour</p> <p>AC-2 / AC-4 150 cycles per hour</p> <p>AC-3 1200 cycles per hour</p>
Rated Insulation Voltage (U_i):	<p>acc. to UL/CSA 600 V</p> <p>acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V</p>
Rated Impulse Withstand Voltage (U_{imp}):	8 kV
Maximum Mechanical Switching Frequency:	3600 cycles per hour
Rated Control Circuit Voltage (U_c):	<p>50 Hz 250 ... 500 V</p> <p>60 Hz 250 ... 500 V</p> <p>DC Operation 250 ... 500 V</p>
Operate Time:	<p>Between Coil De-energization and NC Contact Closing 19 ... 105 ms</p> <p>Between Coil De-energization and NO Contact Opening 17 ... 100 ms</p> <p>Between Coil Energization and NC Contact Opening 38 ... 95 ms</p> <p>Between Coil Energization and NO Contact Closing 42 ... 100 ms</p>
Connecting Capacity-Main Circuit:	<p>Flexible with Insulated Ferrule 1/2x 6...50 mm²</p> <p>Flexible with Ferrule 1/2x 6...50 mm²</p> <p>Rigid 1x 6...70 mm²</p> <p>Rigid 2x 6...50 mm²</p>
Connecting Capacity-Control Circuit:	<p>Flexible with Ferrule 1/2x 0.75 ... 2.5 mm²</p> <p>Flexible with Insulated Ferrule 1x 0.75...2.5 mm²</p> <p>Flexible with Insulated Ferrule 2x 0.75...1.5 mm²</p> <p>Rigid 1/2x 1...2.5 mm²</p>
Wire Stripping Length:	Main Circuit 17 mm
Degree of Protection:	acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10
Terminal Type:	Screw Terminals

Environmental

Ambient Air Temperature:	<p>Close to Contactor for Storage -60...+80 °C</p> <p>Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °C</p> <p>Close to Contactor without Thermal O/L Relay -40 ... +70 °C</p>
Maximum Operating Altitude Permissible:	3000 m

Resistance to Shock acc. to IEC 60068-2-27:	Closed, Shock Direction: A 25 g Closed, Shock Direction: B1 25 g Closed, Shock Direction: B2 15 g Closed, Shock Direction: C1 25 g Closed, Shock Direction: C2 25 g Open, Shock Direction: B1 5 g
Resistance to Vibrations acc. to IEC 60068-2-6:	5...300 Hz 3 g closed position / 3 g open position

Technical UL/CSA

Horsepower Rating UL/CSA:	(120 V AC) Single Phase 7-1/2 Hp (240 V AC) Single Phase 20 Hp (200 ... 208 V AC) Three Phase 30 Hp (220 ... 240 V AC) Three Phase 30 Hp (440 ... 480 V AC) Three Phase 60 Hp (550 ... 600 V AC) Three Phase 75 Hp
Tightening Torque UL/CSA:	Control Circuit 11 in·lb Main Circuit 53 in·lb

Certificates and Declarations (Document Number)

ABS Certificate:	ABS_15-GE1349500-PDA_90682247
BV Certificate:	BV_2634H36994A
CB Certificate:	CB_SE_77417
CCC Certificate:	CCC_2013010304646569
cUL Certificate:	UL_20130926-E312527_14_1
Declaration of Conformity - CE:	1SBD250176C3000
DNV Certificate:	DNV-GL_E13871
EAC Certificate:	EAC_RU C-FR ME77 B01010
GL Certificate:	DNV-GL_E13871
LR Certificate:	LRS_1300087E1
RINA Certificate:	RINA_ELE084013XG
RMRS Certificate:	RMRS_1400682124
RoHS Information:	1SBD251021E1000

Classifications

E-nummer:	3210058
ETIM 5:	EC000066 - Magnet contactor, AC-switching
UNSPSC:	39121529