

AF12-30-10-13



AF12-30-10-13 100-250V50/60HZ-DC Contactor

General Information

Extended Product Type	AF12-30-10-13
Product ID	1SBL157001R1310
EAN	3471523110335
Catalog Description	AF12-30-10-13 100-250V50/60HZ-DC Contactor
Long Description	AF12 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 $U_c \text{ min.} \dots U_c \text{ max.}$ 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.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

Data Sheet, Technical Information	1SBC101404D0201
Instructions and Manuals	1SBC101027M6801

Dimensions

Product Net Width	45 mm
Product Net Depth / Length	77 mm
Product Net Height	86 mm
Product Net Weight	0.270 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	0

Standards	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N°14
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I_{th})	acc. to IEC 60947-4-1, Open Contactors $q = 40\text{ °C } 35\text{ A}$ acc. to IEC 60947-5-1, $q = 40\text{ °C } 16\text{ A}$
Rated Operational Current AC-1 (I_e)	(690 V) $40\text{ °C } 28\text{ A}$ (690 V) $60\text{ °C } 28\text{ A}$ (690 V) $70\text{ °C } 24\text{ A}$
Rated Operational Current AC-3 (I_e)	(220 / 230 / 240 V) $60\text{ °C } 12\text{ A}$ (380 / 400 V) $60\text{ °C } 12\text{ A}$ (415 V) $60\text{ °C } 12\text{ A}$ (440 V) $60\text{ °C } 12\text{ A}$ (500 V) $60\text{ °C } 12.5\text{ A}$ (690 V) $60\text{ °C } 9\text{ A}$
Rated Operational Power AC-3 (P_e)	(220 / 230 / 240 V) 3 kW (380 / 400 V) 5.5 kW (400 V) 5.5 kW (415 V) 5.5 kW (440 V) 5.5 kW (500 V) 7.5 kW (690 V) 7.5 kW
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 Short-time Withstand Current (I_{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State $10\text{ s } 150\text{ A}$ at 40 °C Ambient Temp, in Free Air, from a Cold State $15\text{ min } 35\text{ A}$ at 40 °C Ambient Temp, in Free Air, from a Cold State $1\text{ min } 60\text{ A}$ at 40 °C Ambient Temp, in Free Air, from a Cold State $1\text{ s } 300\text{ A}$ at 40 °C Ambient Temp, in Free Air, from a Cold State $30\text{ s } 80\text{ A}$ for $0.1\text{ s } 140\text{ A}$ for $1\text{ s } 100\text{ A}$
Maximum Breaking Capacity	$\cos\phi=0.45$ ($\cos\phi=0.35$ for $I_e > 100\text{ A}$) at $440\text{ V } 250\text{ A}$ $\cos\phi=0.45$ ($\cos\phi=0.35$ for $I_e > 100\text{ A}$) at $690\text{ V } 106\text{ A}$
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
Rated Operational Current DC-13 (I_e)	(110 V) $0.55\text{ A} / 60\text{ W}$ (220 V) $0.27\text{ A} / 60\text{ W}$ (400 V) $0.15\text{ A} / 60\text{ W}$ (500 V) $0.13\text{ A} / 65\text{ W}$ (600 V) $0.1\text{ A} / 60\text{ W}$ (125 V) $0.55\text{ A} / 69\text{ W}$ (24 V) $6\text{ A} / 144\text{ W}$ (250 V) $0.27\text{ A} / 68\text{ W}$ (48 V) $2.8\text{ A} / 134\text{ W}$ (72 V) $1\text{ A} / 72\text{ W}$
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 Impulse Withstand Voltage (U_{imp})	6 kV
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U_c)	50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Operate Time	Between Coil De-energization and NC Contact Closing $13\text{ ... }98\text{ ms}$ Between Coil De-energization and NO Contact Opening $11\text{ ... }95\text{ ms}$ Between Coil Energization and NC Contact Opening $38\text{ ... }90\text{ ms}$ Between Coil Energization and NO Contact Closing $40\text{ ... }95\text{ ms}$
Connecting Capacity Main Circuit	Flexible with Insulated Ferrule $1 \times 0.75\text{ ... }4\text{ mm}^2$ Flexible with Insulated Ferrule $2 \times 0.75\text{ ... }2.5\text{ mm}^2$

	Flexible with Ferrule 1/2x 0.75 ... 6 mm ² Rigid 1/2x 1 ... 6 mm ²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid 1/2x 1 ... 2.5 mm ²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid 1/2x 1 ... 2.5 mm ²
Wire Stripping Length	Auxiliary Circuit 10 mm Control Circuit 10 mm Main Circuit 10 mm
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
Terminal Type	Screw Terminals

Environmental

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
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating Altitude Permissible	3000 m
Resistance to Vibrations acc. to IEC 60068-2-6	5 ... 300 Hz 4 g closed position / 2 g open position
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

Technical UL/CSA

General Use Rating UL/CSA	(600 V AC) 28 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 1 Hp (240 V AC) Single Phase 2 Hp (200 ... 208 V AC) Three Phase 3 Hp (220 ... 240 V AC) Three Phase 3 Hp (440 ... 480 V AC) Three Phase 7-1/2 Hp (550 ... 600 V AC) Three Phase 10 Hp
Tightening Torque UL/CSA	Auxiliary Circuit 11 in-lb Control Circuit 11 in-lb Main Circuit 13 in-lb

Certificates and Declarations (Document Number)

ABS Certificate	ABS_15-GE1349500-PDA_90682247
BV Certificate	BV_2634H24898B0
CB Certificate	CB_SE-80871M3
CCC Certificate	CCC_2010010304445624
cUL Certificate	UL_20180227_E312527_7_1
Declaration of Conformity - CE	1SBD250000U1000
DNV Certificate	DNV-GL_TAE00001AF-1
DNV GL Certificate	DNV-GL_TAE00001AF-1
EAC Certificate	EAC_RU C-FR ME77 B01010

Environmental Information	1SBD250147E1000
GOST Certificate	GOST_POCCFR.ME77.B07175.pdf
Instructions and Manuals	1SBC101027M6801
KC Certificate	KC_HW02016-15005A
LR Certificate	LRS_1300087E1
RINA Certificate	RINA_ELE084013XG
RMRS Certificate	RMRS_1400682124
RoHS Information	1SBD251013E1000
UL Certificate	UL_20140305-E312527_7_1
UL Listing Card	E312527

Container Information

Package Level 1 Units	1 piece
Package Level 1 Width	87 mm
Package Level 1 Depth / Length	79 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.27 kg
Package Level 1 EAN	3471523110335
Package Level 2 Units	54 piece
Package Level 2 Width	250 mm
Package Level 2 Depth / Length	300 mm
Package Level 2 Height	315 mm
Package Level 2 Gross Weight	14.58 kg
Package Level 3 Units	1296 piece

Classifications

Object Classification Code	Q
E-nummer	3211364
ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 5	EC000066 - Magnet contactor, AC-switching
ETIM 6	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
UNSPSC	39121529

Categories

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

