AF16-40-00-14

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

General Information

Extended Product Type:	AF16-40-00-14
Product ID:	1SBL177201R1400
EAN:	3471523115149
Catalog Description:	AF16-40-00-14 250-500V50/60HZ-DC Contactor
Long Description:	AF16 4-pole contactors are used for controlling power circuits up to 690 V AC and 440 V DC. They are mainly used for controlling non-inductive or sli ghtly inductive loads (i.e. resistance furnaces...). AF... contactors include a n electronic coil interface accepting a wide control voltage Uc min. ... Uc m ax. Only four coils cover control voltages between 24...500 V 50/60 Hz or 2 0...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 re quire additional surge suppressors. The AF... series 4-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 4 N.O. main poles, front and side-mounted add-on auxiliary contact blocks (mecha nically-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 cir cuit: AC or DC operated - Accessories: a wide range of accessories is avail able.

Ordering

Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

Popular Downloads

Data Sheet, Technical Information:	1SBC101420D0201
Instructions and Manuals:	1SBC101027M6801

Dimensions

Product Net Width:	45 mm
Product Net Depth:	77 mm
Product Net Height:	86 mm
Product Net Weight:	0.310 kg

Technical

Number of Main Contacts NO:	4
Number of Main Contacts NC:	0
Number of Auxiliary Contacts NO:	0

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:	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 °C 35 A
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-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
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 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 1 s -empty- A
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
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 250 ... 500 V 60 Hz 250 ... 500 V DC Operation 250 ... 500 V

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
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
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
Wire Stripping Length:	Control Circuit 10 mm Main Circuit 10 mm
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 IP20
Terminal Type:	Screw Terminals

Environmental

Ambient Air Temperature:	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -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) 30 A
Tightening Torque UL/CSA:	Control Circuit 11 in·lb Main Circuit 13 in·lb

Certificates and Declarations (Document Number)

ABS Certificate:	ABS_15-GE1349500-PDA_90682247
CB Certificate:	CB_SE-80869M1
CCC Certificate:	CCC_2010010304445624
Declaration of Conformity - CE:	1SBD250001U1000
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_HW02016-15008A
LR Certificate:	LRS_1300087E1
RINA Certificate:	RINA_ELE084013XG
RMRS Certificate:	RMRS_1400682124
RoHS Information:	1SBD251011E1000
UL Certificate:	UL_20120918-E319322-3-1
UL Listing Card:	UL_E319322

Container Information

Package Level 1 Units:	1 piece
Package Level 1 Width:	87 mm
Package Level 1 Length:	79 mm
Package Level 1 Height:	47 mm
Package Level 1 Gross Weight:	0.31 kg
Package Level 1 EAN:	3471523115149
Package Level 2 Units:	54 piece
Package Level 2 Width:	250 mm
Package Level 2 Length:	300 mm
Package Level 2 Height:	315 mm
Package Level 3 Units:	1296 piece

Classifications

Object Classification Code:	Q
E-nummer:	3211399
ETIM 4:	EC000066 - Magnet contactor, AC-switching
ETIM 5:	EC000066 - Magnet contactor, AC-switching
ETIM 6:	EC000066 - Power contactor, AC switching
UNSPSC:	39121529


ABB
1L1
3L2
5L3
7L4
2T1
4T2
6T3
8T4