

Representative Image

Alternate Catalog No. AF16-22-00-12
Catalog No. 1SBL177501R1200

Description: AF16-22-00-12 48-130V50/60HZ-DC Contactor

UPC No 3471523116320

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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 slightly inductive loads (i.e. resistance furnaces...). 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 4-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 2 N.O. + 2 N.C. 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.

Descriptors

Category	AF Contactors
Block Contactor Type	4-Pole Contactor

Specifications

Product Type	AF
General Use Rating UL/CSA	(600 V AC) 30 A
Object Classification Code	Q
Terminal Type	Screw Terminals
Rated Control Circuit Voltage	50 Hz /60 Hz DC Operation 48 ... 130 V
Number of Main Contacts NO	2
Number of Main Contacts NC	2
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Resistance to Vibrations acc. to IEC 60068-2-6	5 ... 300 Hz 4 g closed position / 2 g open position
Number of Auxiliary Contacts NO	0
RoHS Status	Following EU Directive 2011/65/EU
Reference Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... +70 °C
Rated Operational Voltage	Main Circuit 690 V
Number of Auxiliary Contacts NC	0
Tightening Torque UL/CSA	Control Circuit 11 IA Main Circuit 13 IA
Maximum Operating Altitude Permissible	3000 m
Rated Operational Current AC-1	(690 V) 40 °C 30 A (690 V) 60 °C 30 A (690 V) 70 °C 26 A
Standards	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N°14
Rated Operational Power AC-3	(220 / 230 / 240 V) 4 KWT (380 / 400 V) 7.5 KWT (415 V) 9 KWT (440 V) 9 KWT (500 V) 9 KWT (690 V) 9 KWT (400 V) 7.5 KWT
Conventional Free-air Thermal Current	acc. to IEC 60947-4-1, Open Contactors q = 40 °C 35 A

by ABB

Specifications

Rated Frequency	Main Circuit 50Hz Main Circuit 60 Hz
Rated Short-time Withstand Current	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 - A
Rated Operational Current AC-3	(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
Maximum Electrical Switching Frequency	AC-1 600 cycles per hour
Rated Insulation Voltage	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V
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 Mechanical Switching Frequency	3600 cycles per hour
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
Secondary Rated Impulse Withstand Voltage	6 kV
Connecting Capacity Main Circuit	Rigid 1/2x 1 ... 6 m² Flexible with Ferrule 1/2x 0.75 ... 6 m² Flexible with Insulated Ferrule 1x 0.75 ... 4 m²/2x 0.75 ... 2.5 m²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 m² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 m²/2x 0.75 ... 1.5 m² Rigid 1/2x 1 ... 2.5 m²
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
Wire Stripping Length	Control Circuit 10 mm Main Circuit 10 mm

Classifications

ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 6.0	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 5.0	EC000066 - Magnet contactor, AC-switching

Dimensions

Product Net Weight	0.27 kg
Product Net Depth / Length	77 mm
Product Net Width	45 mm
Product Net Height	86 mm

Package Information

Package Level 1 Width	87 mm
Package Level 1 Height	47 mm
Package Level 1 Depth / Length	79 mm
Package Level 1 EAN	3471523116320
Package Level 1 Units	box 1 piece
Package Level 2 Height	315 mm
Package Level 1 Gross Weight	0.27 kg

Package Information

Package Level 2 Units	27 piece
Package Level 3 Units	1296 piece
Package Level 2 Depth / Length	300 mm
Package Level 2 Gross Weight	14.58 kg

Ordering

Minimum Order Quantity	1
Customs Tariff Number	85364900