

Representative Image

Alternate Catalog No. AF80-30-22-12
Catalog No. 1SBL397001R1222

Description: AF80-30-22-12 48-130V50/60HZ-DC Contactor

UPC No 3471523133129

Home > Contactors & Starters > UL Listed IEC Contactors > AF Contactors

AF80 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 2-stack 3-pole contactors are of the block type design. - Main poles and auxiliary contact blocks: 3 main poles with a non-removable front-mounted 2 N.O. + 2 N.C. auxiliary contact block, side-mounted add-on auxiliary contact blocks (mechanically-linked auxiliary contacts compliant with Annex L of IEC 60947-5-1 including the "Mechanically Linked" symbol on the contactor side. 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. Note: 2-stack contactors available in some countries: please consult your ABB representative.

Descriptors

Category	AF Contactors
Block Contactor Type	3-Pole Contactor

Specifications

Product Type	AF
General Use Rating UL/CSA	(600 V AC) 105 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	3
Number of Main Contacts NC	0
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Resistance to Vibrations acc. to IEC 60068-2-6	5 ... 300 Hz 3 g closed position / 3 g open position
Number of Auxiliary Contacts NO	2
RoHS Status	Following EU Directive 2011/65/EU
Reference Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Close to Contactor without Thermal O/L Relay -40 ... +70 °C Close to Contactor Fitted with Thermal O/L Relay -25 ... +60 °C
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 690 V
Resistance to Shock acc. to IEC 60068-2-27	Closed, Shock Direction: A 25 K40 Closed, Shock Direction: B1 25 K40 Closed, Shock Direction: B2 15 K40 Closed, Shock Direction: C1 25 K40 Closed, Shock Direction: C2 25 K40 Open, Shock Direction: B1 5 K40
Number of Auxiliary Contacts NC	2
Tightening Torque UL/CSA	Auxiliary Circuit 11 IA Control Circuit 11 IA Main Circuit 53 IA
Maximum Operating Altitude Permissible	3000 m
Rated Operational Current AC-1	(690 V) 40 °C 125 A (690 V) 60 °C 100 A (690 V) 70 °C 85 A

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Specifications

Rated Operational Power AC-3	(220 / 230 / 240 V) 22 KWT (380 / 400 V) 37 KWT (415 V) 45 KWT (440 V) 45 KWT (500 V) 45 KWT (690 V) 45 KWT (400 V) 37 KWT
Horsepower Rating UL/CSA	(220 ... 240 V AC) Three Phase 30 hp (440 ... 480 V AC) Three Phase 60 hp (550 ... 600 V AC) Three Phase 75 hp (120 V AC) Single Phase 7-1/2 hp (200 ... 208 V AC) Three Phase 25 hp (240 V AC) Single Phase 15 hp
Conventional Free-air Thermal Current	acc. to IEC 60947-5-1, q = 40 °C 16 A acc. to IEC 60947-4-1, Open Contactors q = 40 °C 130 A
Rated Operational Current AC-15	(220 / 240 V) 4 A (24 / 127 V) 6 A (500 V) 2 A (690 V) 2 A (400 / 440 V) 3 A
Rated Frequency	Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz 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 780 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 140 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 450 A for 0.1 s 140 A for 1 s 100 A
Rated Operational Current AC-3	(220 / 230 / 240 V) 60 °C 80 A (380 / 400 V) 60 °C 80 A (415 V) 60 °C 80 A (440 V) 60 °C 80 A (500 V) 60 °C 65 A (690 V) 60 °C 49 A (1000 V) 60 °C 25 A
Maximum Electrical Switching Frequency	AC-1 600 cycles per hour AC-2 / AC-4 150 cycles per hour AC-3 1200 cycles per hour AC-15 1200 cycles per hour DC-13 900 cycles per hour
Rated Insulation Voltage	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 1150 A cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 750 A
Maximum Mechanical Switching Frequency	3600 cycles per hour
Operate Time	Between Coil De-energization and NC Contact Closing 19 ... 105 ms Between Coil De-energization and NO Contact Opening 17 ... 100 ms Between Coil Energization and NC Contact Opening 38 ... 95 ms Between Coil Energization and NO Contact Closing 42 ... 100 ms
Secondary Rated Impulse Withstand Voltage	8 kV
Connecting Capacity Main Circuit	Rigid 1x 6 ... 70 m²/2x 6 ... 50 m² / Flexible with Ferrule 1/2x 6 ... 50 m² Flexible with Insulated Ferrule 1/2x 6 ... 50 m²
Rated Operational Current DC-13	(125 V) 0.55 A / 69 W (24 V) 6 A / 144 W (250 V) 0.27 A / 68 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (220 V) 0.27 A / 60 W (400 V) 0.15 A / 60 W (500 V) 0.13 A / 65 W (600 V) 0.1 A / 60 W
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

Specifications

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 IP10
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 m² Flexible with Insulated Ferrule 1x 0.75 ... 2.5/2x 0.75 ... 1.5 m² Rigid 1/2x 1 ... 2.5 m²
Screw Terminal Type	Screw Terminals
Wire Stripping Length	Main Circuit 17 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	1.27 kg
Product Net Depth / Length	149 mm
Product Net Width	70 mm
Product Net Height	125.5 mm

Package Information

Package Level 1 Width	180 mm
Package Level 1 Height	102 mm
Package Level 1 Depth / Length	150 mm
Package Level 1 EAN	3471523133129
Package Level 1 Units	box 1 piece
Package Level 2 Width	250 mm
Package Level 2 Height	300 mm
Package Level 1 Gross Weight	1.41 kg
Package Level 2 Units	box 6 piece
Package Level 3 Units	144 piece
Package Level 2 Depth / Length	300 mm
Package Level 2 Gross Weight	8.46 kg

Ordering

Minimum Order Quantity	1
Customs Tariff Number	85364900