



Alternate Catalog No. AFS16-30-22-13 Catalog No. 1SBL177082R1322

Description: AFS16-30-22-13 100-250V50/60HZ-DC Contactor

UPC No 3471523157231

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AFS09 ... AFS38 contactors are designed for machine safety applications. They are delivered with fixed front-mounted auxiliary contact blocks making them ideal for monitoring and controlling circuits. Mechanically linked and mirror contacts make your system safer. - control circuit with electronic coil interface: - 24...60 V AC, 20...60 V DC and 100...250 V AC / DC operated accepting a wide control voltage range - reduced panel energy consumption - mirror and mechanically linked contacts, with front marked symbol acc. to IEC60947-5-1, always guaranteeing the right contactor status - front-mounted auxiliary contact block: - permanently fixed - protective cover to prevent manual operation - yellow housing for easy identification - minimum switching capacity 12 V / 3 mA, with a failure rate 10-7 acc. to IEC 60947-5-4 - built-in surge suppression

Descriptors	
Category	AF Contactors
Block Contactor Type	3-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 100 250 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 4 g closed position / 2 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 30 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
Number of Auxiliary Contacts NC	2
Tightening Torque UL/CSA	Auxiliary Circuit 11 IA 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

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Specifications	
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
Horsepower Rating UL/CSA	(220 240 V AC) Three Phase 5 hp (440 480 V AC) Three Phase 10 hp (550 600 V AC) Three Phase 15 hp (120 V AC) Single Phase 1-1/2 hp (200 208 V AC) Three Phase 5 hp (240 V AC) Single Phase 3 hp
Conventional Free-air Thermal Current	acc. to IEC $60947-5-1$, $q = 40 ^{\circ}C 16 A$ acc. to IEC $60947-4-1$, Open Contactors $q = 40 ^{\circ}C 35 A$
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 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 0.1 s 140 A for 1 s 100 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 AC-2 / AC-4 300 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) 690 V
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for le > 100 A) at 440 V 250 A
Maximum Mechanical Switching Frequency	cos phi=0.45 (cos phi=0.35 for le > 100 A) at 690 V 106 A 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 m ² Flexible with Ferrule 1/2x 0.75 6 m ² Flexible with Insulated Ferrule 1x 0.75 4 m ² /2x 0.75 2.5 m ²
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 m ² Flexible with Insulated Ferrule 1x 0.75 2.5 m ² /2x 0.75 1.5 m ² Rigid 1/2x 1 2.5 m ² acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP20
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Adxillary Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20

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Connecting Capacity Auxiliary Circuit	Flexible with Ferrule $1/2 \times 0.75 \dots 2.5 \text{ m}^2$ Flexible with Insulated Ferrule $1 \times 0.75 \dots 2.5/2 \times 0.75 \dots 1.5 \text{ m}^2$
	Rigid 1/2x 1 2.5 m ²
Screw Terminal Type	Screw Terminals
Wire Stripping Length	Auxiliary Circuit 10 mm
	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	0.32 kg
Product Net Depth / Length	110.5 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	113 mm
Package Level 1 EAN	3471523157231
Package Level 1 Units	box 1 piece
Package Level 2 Width	250 mm
Package Level 2 Height	315 mm
Package Level 1 Gross Weight	0.32 kg
Package Level 2 Units	box 18 piece
Package Level 3 Units	864 piece
Package Level 2 Depth / Length	300 mm
Package Level 2 Gross Weight	11.52 kg

Ordering	
Minimum Order Quantity	1
Customs Tariff Number	85364900

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