



Representative Image

## Alternate Catalog No. AFS16Z-30-22-30 Catalog No. 1SBL176082R3022

**Description:** AFS16Z-30-22-30 24VDC Contactor

**UPC No** 3471523158399

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AFS09Z ... AFS38Z 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: - dedicated 24 V DC for direct control by PLC-output  $\geq 250$  mA, low holding consumption up to 1.7 W - 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 24 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
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
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

**by ABB**

## Specifications

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 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 I <sub>e</sub> > 100 A) at 440 V 250 A cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 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 22 ... 57 ms Between Coil De-energization and NO Contact Opening 17 ... 29 ms Between Coil Energization and NC Contact Opening 20 ... 35 ms Between Coil Energization and NO Contact Closing 27 ... 53 ms
Secondary Rated Impulse Withstand Voltage	6 kV
Connecting Capacity Main Circuit	Rigid 1/2x 1 ... 6 m <sup>2</sup> Flexible with Ferrule 1/2x 0.75 ... 6 m <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 4 m <sup>2</sup> /2x 0.75 ... 2.5 m <sup>2</sup>
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 <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 m <sup>2</sup> /2x 0.75 ... 1.5 m <sup>2</sup> Rigid 1/2x 1 ... 2.5 m <sup>2</sup>
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
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 m <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5/2x 0.75 ... 1.5 m <sup>2</sup> Rigid 1/2x 1 ... 2.5 m <sup>2</sup>
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

## Classifications

ETIM 5.0

EC000066 - Magnet contactor, AC-switching

## Dimensions

Product Net Weight	0.49 kg
Product Net Depth / Length	130.5 mm
Product Net Width	45 mm
Product Net Height	86 mm

## Package Information

Package Level 1 Width	96 mm
Package Level 1 Height	50 mm
Package Level 1 Depth / Length	145 mm
Package Level 1 EAN	3471523158399
Package Level 1 Units	box 1 piece
Package Level 2 Height	148 mm
Package Level 1 Gross Weight	0.54 kg
Package Level 2 Units	box 12 piece
Package Level 3 Units	576 piece
Package Level 2 Depth / Length	98 mm
Package Level 2 Gross Weight	6.48 kg

## Ordering

Minimum Order Quantity	1
Customs Tariff Number	85364900