

PRODUCT-DETAILS

# AFS16Z-30-22-30

## AFS16Z-30-22-30 24VDC Contactor



### General Information

Extended Product Type	AFS16Z-30-22-30
Product ID	1SBL176082R3022
EAN	3471523158399
Catalog Description	AFS16Z-30-22-30 24VDC Contactor

Long Description	<p>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 <math>\geq 250</math> 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</p>
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### Classifications

Object Classification Code	Q
ETIM 4	EC000066 - Magnet contactor, AC-switching
ETIM 5	EC000066 - Magnet contactor, AC-switching
ETIM 6	EC000066 - Power contactor, AC switching
ETIM 7	EC000066 - Power contactor, AC switching
E-Number (Sweden)	3210679

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**Container Information**


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Package Level 1 Units	box 1 piece
Package Level 1 Width	96 mm
Package Level 1 Depth / Length	145 mm
Package Level 1 Height	50 mm
Package Level 1 Gross Weight	0.54 kg
Package Level 1 EAN	3471523158399
Package Level 2 Units	crate 12 piece
Package Level 2 Width	51 mm
Package Level 2 Depth / Length	98 mm
Package Level 2 Height	148 mm
Package Level 2 Gross Weight	6.48 kg
Package Level 3 Units	576 piece

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**Certificates and Declarations (Document Number)**


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CB Certificate	CB_SE-80871M3
cUL Certificate	UL_20180227_E312527_7_1
Declaration of Conformity - CE	1SBD250022U1000
DNV Certificate	DNV-GL_TAE00001AF-3
DNV GL Certificate	DNV-GL_TAE00001AF-3
EAC Certificate	EAC_RUC-FRME77B03199
GL Certificate	DNV-GL_TAE00001AF-3
Instructions and Manuals	1SBC101052M6801
RINA Certificate	RINA_ELE240318XG
RMRS Certificate	RMRS_1802705280
RoHS Information	1SBD250022U1000
UL Listing Card	E312527

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**Technical UL/CSA**


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General Use Rating UL/CSA	(600 V AC) 30 A
Tightening Torque UL/CSA	Auxiliary Circuit 11 IA Control Circuit 11 IA Main Circuit 13 IA

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**Environmental**


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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
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: 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
RoHS Status	Following EU Directive 2011/65/EU

## Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	2
Number of Auxiliary Contacts NC	2
Standards	IEC 60947-1 / 60947-4-1 and EN 60947-1 / 60947-4-1, UL 508, CSA C22.2 N° 14
Rated Operational Voltage	Auxiliary Circuit 690 V Main Circuit 690 V
Rated Frequency (f)	Auxiliary Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current ( $I_{th}$ )	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-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 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
Rated Operational Current AC-15 ( $I_e$ )	(220 / 240 V) 4 A (24 / 127 V) 6 A (500 V) 2 A (690 V) 2 A (400 / 440 V) 3 A
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 0.1 s 140 A for 1 s 100 A
Maximum Breaking Capacity	$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 440 V 250 A $\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100$ A) at 690 V 106 A
Maximum Electrical	AC-1 600 cycles per hour

Switching Frequency	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 Operational Current DC-13 ( $I_{\phi}$ )	(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
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 - 50 Hz / 60 Hz 100 ... 250 V 60 Hz - DC Operation 24 V
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
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> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 m <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 Flexible with Insulated Ferrule 2x 0.75 ... 1.5 Flexible with Insulated Ferrule 1x 0.75 ... 2.5 Rigid 1/2x 1 ... 2.5 m <sup>2</sup>
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> Flexible with Insulated Ferrule 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
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
Terminal Type	Screw Terminals

## Dimensions

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

## Popular Downloads

Instructions and Manuals	1SBC101052M6801
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## Ordering

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Minimum Order Quantity

1 piece

Customs Tariff Number

85364900

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## Categories

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

