

PRODUCT-DETAILS

# AFS52-30-22-13

## AFS52-30-22-13 100-250V50/60HZ-DC

### Contactors



#### General Information

Extended Product Type	AFS52-30-22-13
Product ID	1SBL367082R1322
EAN	3471523157736
Catalog Description	AFS52-30-22-13 100-250V50/60HZ-DC Contactor

Long Description	<p>AFS40 ... AFS96 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<sup>-7</sup> 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)	3210670

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	167 mm
Package Level 1 Depth / Length	180 mm
Package Level 1 Height	97 mm
Package Level 1 Gross Weight	1.14 kg
Package Level 1 EAN	3471523157736
Package Level 2 Units	box 6 piece
Package Level 2 Width	250 mm
Package Level 2 Depth / Length	300 mm
Package Level 2 Height	300 mm
Package Level 2 Gross Weight	6.84 kg
Package Level 3 Units	144 piece

## Certificates and Declarations (Document Number)

CB Certificate	CB_SE-96554
CCC Certificate	CCC_2015010304824714
cUL Certificate	UL_20170607-E312527-14-1
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
RMRS Certificate	RMRS_1802705280
RoHS Information	1SBD250022U1000
UL Listing Card	E312527

## Technical UL/CSA

General Use Rating UL/CSA	(600 V AC) 80 A
Horsepower Rating UL/CSA	(220 ... 240 V AC) Three Phase 20 hp (440 ... 480 V AC) Three Phase 40 hp (550 ... 600 V AC) Three Phase 50 hp (120 V AC) Single Phase 3 hp (200 ... 208 V AC) Three Phase 15 hp (240 V AC) Single Phase 10 hp
Tightening Torque UL/CSA	Auxiliary Circuit 11 IA Control Circuit 11 IA Main Circuit 35 IA

## Environmental

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 3 g closed position / 3 g open position

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

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
Rated Operational Voltage	Main Circuit 690 V Auxiliary 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, $q = 40\text{ }^{\circ}\text{C}$ 16 A acc. to IEC 60947-4-1, Open Contactors $q = 40\text{ }^{\circ}\text{C}$ 105 A
Rated Operational Current AC-1 ( $I_e$ )	(690 V) 40 $^{\circ}\text{C}$ 100 A (690 V) 60 $^{\circ}\text{C}$ 80 A (690 V) 70 $^{\circ}\text{C}$ 70 A
Rated Operational Current AC-3 ( $I_e$ )	(220 / 230 / 240 V) 60 $^{\circ}\text{C}$ 53 A (380 / 400 V) 60 $^{\circ}\text{C}$ 53 A (415 V) 60 $^{\circ}\text{C}$ 53 A (440 V) 60 $^{\circ}\text{C}$ 53 A (500 V) 60 $^{\circ}\text{C}$ 45 A (690 V) 60 $^{\circ}\text{C}$ 35 A
Rated Operational Power AC-3 ( $P_e$ )	(220 / 230 / 240 V) 15 kW (380 / 400 V) 22 kW (415 V) 30 kW (440 V) 30 kW (500 V) 30 kW (690 V) 30 kW (400 V) 22 kW
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 $^{\circ}\text{C}$ Ambient Temp, in Free Air, from a Cold State 10 s 600 A at 40 $^{\circ}\text{C}$ Ambient Temp, in Free Air, from a Cold State 15 min 110 A at 40 $^{\circ}\text{C}$ Ambient Temp, in Free Air, from a Cold State 1 min 250 A at 40 $^{\circ}\text{C}$ Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 $^{\circ}\text{C}$ Ambient Temp, in Free Air, from a Cold State 30 s 350 A for 0.1 s 140 A for 1 s 100 A
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for $I_e > 100\text{ A}$ ) at 440 V 950 A cos phi=0.45 (cos phi=0.35 for $I_e > 100\text{ A}$ ) at 690 V 600 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 Operational Current DC-13 ( $I_e$ )	(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 <sub>i</sub> )	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	6 kV
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U <sub>c</sub> )	50 Hz 100 ... 250 V 50 Hz / 60 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
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
Connecting Capacity Main Circuit	Rigid 1/2x 6 ... 3.5 m <sup>2</sup> Flexible with Ferrule 1/2x 4 ... 35 m <sup>2</sup> Flexible with Insulated Ferrule 1/2x 4 ... 35 m <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1/2x 1 ... 2.5 m <sup>2</sup>
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <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 16 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 IP10
Terminal Type	Screw Terminals

## Dimensions

Product Net Width	55 mm
Product Net Depth / Length	144 mm
Product Net Height	125.5 mm
Product Net Weight	1 kg

## Popular Downloads

Instructions and Manuals	1SBC101052M6801
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## Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

## Categories

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

