

PRODUCT-DETAILS

## AFS65-30-22-11 AFS65-30-22-11 24-60V50/60HZ 20-60VDC Contactor



General Information	
Extended Product Type	AFS65-30-22-11
Product ID	1SBL387082R1122
EAN	3471523157811
Catalog Description	AFS65-30-22-11 24-60V50/60HZ 20-60VDC Contactor
Long Description	The AFS65-30-22-11 is a 3 pole - 690 V IEC or 600 V UL contactor with fixed 2 N.O + 2 N.C. front mounted auxiliary contact blocks with screw connections, controlling motors up to 30 kW / 400 V AC (AC-3) or 50 hp / 480 V UL and switching power circuits up to 105 A (AC-1) or 90 A UL general use. AFS contactors can be easily integrated in machine manufacturer's systems complying with main standards EN ISO 13849 and EN 62061 - guaranteeing the safe use of your machinery and equipment. An easily identifiable yellow low energy auxiliary contact block ensures the status feedback circuits required in machine safety applications. Thanks to the AF technology, the contactor has a wide control voltage range (24 60 V), managing large control voltage variations, reducing panel energy consumptions and ensuring distinct operations in unstable networks. Furthermore, surge protection is built-in, offering a compact solution. AF contactors have a block type design, can be easily extended with add-on auxiliary contact blocks and an additional wide range of accessories.

Ordering	
Minimum Order Quantity	1 piece
Customs Tariff Number	85364900
Popular Downloads	
Instructions and Manuals	1SBC101052M6801

Dimensions	
Product Net Width	55 mm
Product Net Depth / Length	144 mm
Product Net Height	125.5 mm
Product Net Weight	1.02 kg
Technical	
Number of Main Contacts	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	2
Number of Auxiliary Contacts NC	2
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 <sub>th</sub> )	acc. to IEC 60947-4-1, Open Contactors $q = 40 ^{\circ}\text{C}  105  \text{A}$ acc. to IEC 60947-5-1, $q = 40 ^{\circ}\text{C}  16  \text{A}$
Rated Operational Current AC-1 (I <sub>e</sub> )	(690 V) 40 °C 105 (690 V) 60 °C 90 A (690 V) 70 °C 80
Rated Operational Current AC-3 (I <sub>e</sub> )	(415 V) 60 °C 65 A (440 V) 60 °C 65 A (500 V) 60 °C 55 A (690 V) 60 °C 39 A (380 / 400 V) 60 °C 65 A (220 / 230 / 240 V) 60 °C 65 A
Rated Operational Power AC-3 (P <sub>e</sub> )	(400 V) 30 kW (415 V) 37 kW (440 V) 37 kW (500 V) 37 kW (509 V) 37 kW (380 / 400 V) 30 kW (220 / 230 / 240 V) 18.5 kW
Rated Operational Current AC-15 (I <sub>e</sub> )	(500 V) 2 A (690 V) 2 A (24 / 127 V) 6 A (220 / 240 V) 4 A (400 / 440 V) 3 A
Rated Short-time Withstand Current Low Voltage (I <sub>cw</sub> )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 600 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 110 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 250 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1000 A at 40 °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 le > 100 A) at 440 V 950 A cos phi=0.45 (cos phi=0.35 for le > 100 A) at 690 V 600 A
Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour (AC-15) 1200 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 1200 cycles per hour (DC-13) 900 cycles per hour
Rated Operational Current DC-13 (I <sub>e</sub> )	(24 V) 6 A / 144 W (48 V) 2.8 A / 134 W (72 V) 1 A / 72 W (110 V) 0.55 A / 60 W (125 V) 0.55 A / 69 W (220 V) 0.27 A / 68 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 IEC 60947-4-1 and VDE 0110 (Gr. C) 690 V acc. to UL/CSA 600 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 24 60 V 50 Hz / 60 Hz 24 60 V 60 Hz 24 60 V DC Operation 20 60 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	Flexible with Ferrule 1/2x 4 35 mm² Flexible with Insulated Ferrule 1/2x 4 35 mm² Rigid 1/2x 6 3 5 mm²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Rigid 1/2x 1 2.5 mm²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 2.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Rigid 1/2x 1 2.5 mm²
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
Technical UL/CSA	_
General Use Rating	(600 V AC) 90 A

Technical UL/CSA	
General Use Rating UL/CSA	(600 V AC) 90 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 5 hp (200 208 V AC) Three Phase 20 hp (220 240 V AC) Three Phase 25 hp (240 V AC) Single Phase 15 hp (440 480 V AC) Three Phase 50 hp (550 600 V AC) Three Phase 60 hp
Tightening Torque UL/CSA	Auxiliary Circuit 11 in·lb Control Circuit 11 in·lb Main Circuit 35 in·lb

Environmental	
Ambient Air Temperature	Close to Contactor Fitted with Thermal O/L Relay -40 70 °C Close to Contactor without Thermal O/L Relay -40 70 °C Close to Contactor for Storage -60 +80 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating Altitude Permissible	Without Derating 3000 m
Resistance to Vibrations acc. to IEC 60068-2-6	$5 \dots 300 \ \text{Hz} \ 3 \ \text{g}$ closed position / $3 \ \text{g}$ open position
Resistance to Shock acc. to IEC 60068-2-27	Closed, Shock Direction: A 25 g Closed, Shock Direction: B1 25 g Closed, Shock Direction: B2 15 g Closed, Shock Direction: C1 25 g Closed, Shock Direction: C2 25 g
RoHS Status	Following EU Directive 2011/65/EU

## Certificates and Declarations (Document Number)

BV Certificate	BV_2634H36994A
CB Certificate	CB_SE-96554
CCC Certificate	CCC_2015010304824714
CQC Certificate	CQC2015010304824714
cUL Certificate	UL_20170607-E312527-14-1
Declaration of Conformity - CCC	2020980304001256
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

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	1.16 kg
Package Level 1 EAN	3471523157811
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	6.96 kg
Package Level 3 Units	144 piece

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
eClass	V11.0 : 27371003
E-Number (Finland)	3708059
E-Number (Sweden)	3210671

## Categories

 $Low\ Voltage\ Products\ and\ Systems \rightarrow Control\ Products \rightarrow Contactors \rightarrow Block\ Contactors$ 

