



PRODUCT-DETAILS

AF38B-22-00-14
AF38B-22-00-14 250-500V50/60HZ-DC
Contactor



General Information	
Extended Product Type	AF38B-22-00-14
Product ID	1SBL297561R1400
EAN	3471523123441
Catalog Description	AF38B-22-00-14 250-500V50/60HZ-DC Contactor
Long Description	The AF38B-22-00-14 is a 4 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 11 kW / 400 V AC (AC-3) and switching power circuits up to 55 A (AC-1) or 55 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (250-500 V 50/60 Hz and DC), 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	
Data Sheet, Technical Information	1SBC100220C0201
Instructions and Manuals	1SBC101027M6801
CAD Dimensional Drawing	2CDC001079B0201

Dimensions	
Product Net Width	45 mm
Product Net Depth / Length	101 mm
Product Net Height	86 mm
Product Net Weight	0.41 kg

Technical	
Number of Main Contacts NO	2
Number of Main Contacts NC	2
Number of Auxiliary Contacts NO	0
Number of Auxiliary Contacts NC	0
Number of Poles	4P
Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60335-2-40 LZGH2 A2L, UL 60947-1, UL 60947-4-1, CSA C22.2 No. 60335-2-40 LZGH2 A2L, CSA C22.2 No. 60947-1, CSA C22.2 No. 60947-4-1, IEC 60077-1 (applicable parts), IEC 60077-2 (applicable parts), EN 50155 (applicable parts), TR CU 001/2011, IEC 61373, For compliance confirmation on applicable parts based on your application and combination, please consult your ABB sales representatives.
Rated Operational Voltage	Main Circuit 690 V
Rated Frequency (f)	Control Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I _{th})	acc. to IEC 60947-4-1, Open Contactors Θ = 40 °C 55 A
Rated Operational Current AC-1 (I _e)	(1000 V) 60 °C 45 A (690 V) 40 °C 55 A (690 V) 70 °C 37 A
Rated Operational Current AC-3 (I _e)	(415 V) 60 °C 21.2 A (440 V) 60 °C 20 A (500 V) 60 °C 17.6 A (690 V) 60 °C 10.5 A (380 / 400 V) 60 °C 22 A (220 / 230 / 240 V) 60 °C 23.2 A
Rated Operational Power AC-3 (P _e)	(400 V) 11 kW (415 V) 11 kW (440 V) 11 kW (500 V) 11 kW (690 V) 9 kW (220 / 230 / 240 V) 5.5 kW
Rated Short-time Withstand Current Low Voltage (I _{cw})	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 300 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 55 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 150 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 450 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 225 A

Rated Insulation Voltage (U _i)	acc. to IEC 60947-4-1 690 V acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U _{imp})	6 kV
Rated Control Circuit Voltage (U _c)	50 Hz 250 ... 500 V 60 Hz 250 ... 500 V DC Operation 250 ... 500 V
Power Loss	at Rated Operating Conditions AC-1 per Pole 2.3 W at Rated Operating Conditions AC-3 per Pole 0.42 W
Mounting on DIN Rail	TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715
Mounting by Screws (not supplied)	2 x M4 screws placed diagonally
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 1.5 ... 16 mm ² Flexible with Insulated Ferrule 1/2x 1.5 ... 16 mm ² Rigid Solid 1/2x 1.5 ... 4 mm ² Rigid Stranded 1/2x 1.5 ... 16 mm ²
Connecting Capacity Control Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm ² Rigid Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 mm ²
Wire Stripping Length	Control Circuit 10 mm Main Circuit 12 mm
Degree of Protection	acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20
Tightening Torque	Control Circuit 1.2 N·m Main Circuit 2.5 N·m
Terminal Type	Screw Terminals
Product Name	Block Contactor

Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 55 A
Connecting Capacity Main Circuit UL/CSA	Rigid Solid 1/2x 16-10 AWG Rigid Stranded 1/2x 16-6 AWG
Connecting Capacity Control Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG
Tightening Torque UL/CSA	Control Circuit 11 in·lb Main Circuit 22 in·lb

Environmental

Ambient Air Temperature	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °C
Climatic Withstand	Category B according to IEC 60947-1 Annex Q
Maximum Operating Altitude Permissible	Without Derating 3000 m
Shock and Vibration Withstand acc. to IEC 61373	Category 1, Class B
Pollution Degree	3

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006525
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

End Of Life Disassembling Instructions	1SBC101080M6801
Environmental Product Declaration - EPD	1SBD250584E4000
Sustainable Material Content in Packaging (wt. %)	Recycled Cardboard - 86 %
Sustainable Material Content in Product (wt. %)	Recycled Metal - 28 %

Certificates and Declarations

A2L Certificate – UL	9AKK108469A4875;9AKK108469A4879
CB Certificate	CB_SE-96553
CCC Certificate	CCC_2010010304445623
CQC Certificate	CQC2010010304445623
Declaration of Conformity - CCC	2020980304001254
Declaration of Conformity - CE	1SBD250002U1000
Declaration of Conformity - UKCA	1SBD250033U1000
GOST Certificate	GOST_POCCFR.ME77.B07175.pdf
KC Certificate	KC_HW02016-15002C
UL Certificate	UL-US-L319322-13-72119002-5 UL-CA-L319322-43-72119002-6
UL Listing Card	UL_E319322

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	87 mm
Package Level 1 Depth / Length	103 mm
Package Level 1 Height	47 mm
Package Level 1 Gross Weight	0.41 kg
Package Level 1 EAN	3471523123441
Package Level 2 Units	box 18 piece
Package Level 2 Width	250 mm
Package Level 2 Depth /	300 mm

Length	
Package Level 2 Height	315 mm
Package Level 2 Gross Weight	14.76 kg
Package Level 3 Units	864 piece

External Classifications and Standards

Object Classification Code		Q
ETIM 7	EC000066 - Power contactor, AC switching	
ETIM 8	EC000066 - Power contactor, AC switching	
ETIM 9	EC000066 - Power contactor, AC switching	
eClass	V11.0 : 27371003	
UNSPSC	39121529	
IDEA Granular Category Code (IGCC)	4758 >> lec Contactors	

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF38

