



PRODUCT-DETAILS

AF09Z-22-00-30

AF09Z-22-00-30 24VDC Contactor



Informações gerais	
Tipo de produto alargado	AF09Z-22-00-30
ID do produto	1SBL136501R3000
EAN	3471523116696
Descrição do catálogo	AF09Z-22-00-30 24VDC Contactor
Descrição longa	The AF09Z-22-00-30 is a 4-pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 4 kW / 400 V AC (AC-3) and switching power circuits up to 25 A (AC-1) or 25 A UL general use. Thanks to the AF technology, the contactor has a 24 V DC coil, featuring a reduced holding coil consumption down to 1.7 W and offering the possibility of a direct control by PLC-output ≥ 250 mA 24 V DC, without need of additional interface relay, 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	
Quantidade Mínima de Encomenda	1 piece

Popular Downloads	
Ficha de dados, informação técnica	1SBC100214C0202
Instruções e Manuais	1SBC101053M6801
CAD Dimensional Drawing	2CDC001079B0201

Dimensions	
Largura Líquida do Produto	45 mm
Profundidade/Comprimento Líquidos do Produto	97 mm
Altura Líquida do Produto	86 mm
Peso Líquido do Produto	0.43 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
Número de polos	4P
Normas	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, CAN/CSA C22.2 No.60947-1, CAN/CSA C22.2 No.60947-4-1
Tensão operacional nominal	Main Circuit 690 V
Frequência nominal (f)	Main Circuit 50 / 60 Hz
Conventional Free-air Thermal Current (I _{th})	acc. to IEC 60947-4-1, Open Contactors Θ = 40 °C 35 A
Rated Operational Current AC-1 (I _e)	(690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A
Rated Operational Current AC-3 (I _e)	(415 V) 60 °C 9 A (440 V) 60 °C 9 A (500 V) 60 °C 9.5 A (690 V) 60 °C 7 A (380 / 400 V) 60 °C 9 A (220 / 230 / 240 V) 60 °C 9 A
Rated Operational Power AC-3 (P _e)	(415 V) 4 kW (440 V) 4 kW (500 V) 5.5 kW (690 V) 5.5 kW (380 / 400 V) 4 kW (220 / 230 / 240 V) 2.2 kW
Rated Short-time Withstand Current Low Voltage (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
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
Rated Insulation Voltage	acc. to IEC 60947-4-1 690 V

(U _i)	acc. to UL/CSA 600 V
Rated Impulse Withstand Voltage (U _{imp})	6 kV
Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U _c)	DC Operation 24 V
Power Loss	at Rated Operating Conditions AC-1 per Pole 0.8 W at Rated Operating Conditions AC-3 per Pole 0.1 W
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
Montagem na calha DIN	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 0.75 ... 6 mm ² Flexible with Insulated Ferrule 1x 0.75 ... 4 mm ² Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm ² Rigid Solid 1/2x 1 ... 4 mm ² Rigid Stranded 1/2x 1 ... 6 mm ²
Connecting Capacity Auxiliary Circuit	Rigid Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 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 10 mm
Grau de proteção	acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20
Binário de aperto	Control Circuit 1.2 N·m Main Circuit 1.5 N·m
Tipo de terminal	Screw Terminals
Nome de Produto	Block Contactor

Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 25 A
Connecting Capacity Main Circuit UL/CSA	Rigid Solid 1/2x 16-10 AWG Rigid Stranded 1/2x 16-10 AWG
Connecting Capacity Auxiliary Circuit UL/CSA	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 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 13 in·lb

Environmental

Temperatura do ar ambiente	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
Altitude de operação máxima permissível	Without Derating 3000 m
Resistance to Vibrations	4g Closed Position & 2g Open position 5 ... 300 Hz
Pollution Degree	3

Material Compliance

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

ABB EcoSolutions

End Of Life Disassembling Instructions	1SBC101080M6801
Environmental Product Declaration - EPD	1SBD250584E3000
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
Certificado ABS	ABS_20-2060694-PDA
CB Certificate	CB_SE-113345
CCC Certificate	CCC_2010010304445624
CQC Certificate	CQC2010010304445624 CQC2020010304298240
Declaration of Conformity - CCC	2020980304001253 2020980304001082
Declaração de conformidade -CE	1SBD250001U1000
Declaration of Conformity - UKCA	1SBD250032U1000
Certificado DNV	DNV_TAE00001AF-4
Certificado RMRS	RMRS_1802705280
Certificado UL	UL-US-L319322-13-72119002-5 UL-CA-L319322-43-72119002-6

Container Information

Unidades de embalagem Nível 1	box 1 piece
----------------------------------	-------------

Largura da embalagem Nível 1	96 mm
Profundidade/Comprimento da embalagem Nível 1	112 mm
Altura da embalagem Nível 1	50 mm
Peso bruto da embalagem Nível 1	0.475 kg
Nível de Embalagem 1 EAN	3471523116696
Unidades de embalagem Nível 2	crate 12 piece
Largura da embalagem Nível 2	51 mm
Profundidade/Comprimento da embalagem Nível 2	98 mm
Altura da embalagem Nível 2	114 mm
Peso bruto da embalagem Nível 2	5.7 kg
Package Level 3 Units	576 piece

Classifications

Código de classificação do objeto	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
Código de Categoria Granular IDEA (IGCC)	4758 >> Iec Contactors
E-Number (Finland)	3709064

Categorias

Produtos e Sistemas de Baixa Tensão → Produtos para controle → Contatores → Contatores → AF Contactors → AF09

