



PRODUCT-DETAILS

AF16Z-40-00-22
AF16Z-40-00-22 48-130V50/60HZ-DC
Contactors



概要信息	
产品型号	AF16Z-40-00-22
产品ID	1SBL176201R2200
欧洲商品编号(EAN)	3471523115927
目录说明	AF16Z-40-00-22 48-130V50/60HZ-DC Contactor
详细描述	The AF16Z-40-00-22 is a 4 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 7.5 kW / 400 V AC (AC-3) and switching power circuits up to 30 A (AC-1) or 30 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (48-130 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.

订货信息	
最小起订量	1 piece

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数据手册，技术资料	1SBC100214C0202
说明书和手册	1SBC101027M6801
CAD Dimensional Drawing	2CDC001079B0201

尺寸

产品净宽	45 mm
产品净深	77 mm
产品净高	86 mm
产品净重	0.31 kg

技术参数

主触点NO数量	4
主触点NC数量	0
辅助触点NO数量	0
辅助触点NC数量	0
标准	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-1, UL 60947-4-1, CAN/CSA C22.2 No.60947-1, CAN/CSA C22.2 No.60947-4-1
额定工作电压	Main Circuit 690 V
额定频率 (f)	Control Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
额定发热电流（自由空气）(I _{th})	acc. to IEC 60947-4-1, Open Contactors Θ = 40 °C 35 A
额定工作电流 AC-1 (I _e)	(690 V) 40 °C 30 A (690 V) 60 °C 30 A (690 V) 70 °C 26 A
额定工作电流 AC-3 (I _e)	(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 (380 / 400 V) 60 °C 18 A (220 / 230 / 240 V) 60 °C 18 A
额定工作功率 AC-3 (P _e)	(400 V) 7.5 kW (415 V) 9 kW (440 V) 9 kW (500 V) 9 kW (690 V) 9 kW (380 / 400 V) 7.5 kW (220 / 230 / 240 V) 4 kW
额定不间断电流 (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
最大分断容量	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
最高电气切换频率	(AC-1) 600 cycles per hour
额定工作电流 DC-1 (I _e)	(110 V) 1-Pole, 40 °C 20 A (110 V) 1-Pole, 60 °C 20 A (110 V) 1-Pole, 70 °C 20 A (110 V) 2 Poles in Series, 40 °C 30 A (110 V) 2 Poles in Series, 60 °C 30 A (110 V) 2 Poles in Series, 70 °C 26 A (110 V) 3 Poles in Series, 40 °C 30 A (110 V) 3 Poles in Series, 60 °C 30 A (110 V) 3 Poles in Series, 70 °C 26 A (110 V) 4 Poles in Series, 40 °C 30 A (110 V) 4 Poles in Series, 60 °C 30 A (110 V) 4 Poles in Series, 70 °C 26 A

	(220 V) 2 Poles in Series, 40 °C 20 A
	(220 V) 2 Poles in Series, 60 °C 20 A
	(220 V) 2 Poles in Series, 70 °C 20 A
	(220 V) 3 Poles in Series, 40 °C 30 A
	(220 V) 3 Poles in Series, 60 °C 30 A
	(220 V) 3 Poles in Series, 70 °C 26 A
	(220 V) 4 Poles in Series, 40 °C 30 A
	(220 V) 4 Poles in Series, 60 °C 30 A
	(220 V) 4 Poles in Series, 70 °C 26 A
	(440 V) 4 Poles in Series, 40 °C 20 A
	(440 V) 4 Poles in Series, 60 °C 20 A
	(440 V) 4 Poles in Series, 70 °C 20 A
	(72 V) 1-Pole, 40 °C 30 A
	(72 V) 1-Pole, 60 °C 30 A
	(72 V) 1-Pole, 70 °C 26 A
	(72 V) 2 Poles in Series, 40 °C 30 A
	(72 V) 2 Poles in Series, 60 °C 30 A
	(72 V) 2 Poles in Series, 70 °C 26 A
	(72 V) 3 Poles in Series, 40 °C 30 A
	(72 V) 3 Poles in Series, 60 °C 30 A
	(72 V) 3 Poles in Series, 70 °C 26 A
	(72 V) 4 Poles in Series, 40 °C 30 A
	(72 V) 4 Poles in Series, 60 °C 30 A
	(72 V) 4 Poles in Series, 70 °C 26 A
额定工作电流 DC-3 (I _e)	(110 V) 1-Pole, 40 °C 8 A
	(110 V) 1-Pole, 60 °C 8 A
	(110 V) 1-Pole, 70 °C 8 A
	(110 V) 2 Poles in Series, 40 °C 30 A
	(110 V) 2 Poles in Series, 60 °C 30 A
	(110 V) 2 Poles in Series, 70 °C 26 A
	(110 V) 3 Poles in Series, 40 °C 30 A
	(110 V) 3 Poles in Series, 60 °C 30 A
	(110 V) 3 Poles in Series, 70 °C 26 A
	(110 V) 4 Poles in Series, 40 °C 30 A
	(110 V) 4 Poles in Series, 60 °C 30 A
	(110 V) 4 Poles in Series, 70 °C 26 A
	(220 V) 2 Poles in Series, 40 °C 8 A
	(220 V) 2 Poles in Series, 60 °C 8 A
	(220 V) 2 Poles in Series, 70 °C 8 A
	(220 V) 3 Poles in Series, 40 °C 30 A
	(220 V) 3 Poles in Series, 60 °C 30 A
	(220 V) 3 Poles in Series, 70 °C 26 A
	(220 V) 4 Poles in Series, 40 °C 30 A
	(220 V) 4 Poles in Series, 60 °C 30 A
	(220 V) 4 Poles in Series, 70 °C 26 A
	(440 V) 4 Poles in Series, 40 °C 8 A
	(440 V) 4 Poles in Series, 60 °C 8 A
	(440 V) 4 Poles in Series, 70 °C 8 A
	(72 V) 1-Pole, 40 °C 30 A
	(72 V) 1-Pole, 60 °C 30 A
	(72 V) 1-Pole, 70 °C 26 A
	(72 V) 2 Poles in Series, 40 °C 30 A
	(72 V) 2 Poles in Series, 60 °C 30 A
	(72 V) 2 Poles in Series, 70 °C 26 A
	(72 V) 3 Poles in Series, 40 °C 30 A
	(72 V) 3 Poles in Series, 60 °C 30 A
	(72 V) 3 Poles in Series, 70 °C 26 A
	(72 V) 4 Poles in Series, 40 °C 30 A
	(72 V) 4 Poles in Series, 60 °C 30 A
	(72 V) 4 Poles in Series, 70 °C 26 A
额定工作电流 DC-5 (I _e)	(110 V) 1-Pole, 40 °C 4 A
	(110 V) 1-Pole, 60 °C 4 A
	(110 V) 1-Pole, 70 °C 4 A
	(110 V) 2 Poles in Series, 40 °C 20 A
	(110 V) 2 Poles in Series, 60 °C 20 A
	(110 V) 2 Poles in Series, 70 °C 20 A
	(110 V) 3 Poles in Series, 40 °C 30 A
	(110 V) 3 Poles in Series, 60 °C 30 A
	(110 V) 3 Poles in Series, 70 °C 26 A
	(110 V) 4 Poles in Series, 40 °C 30 A
	(110 V) 4 Poles in Series, 60 °C 30 A

	(110 V) 4 Poles in Series, 70 °C 26 A (220 V) 2 Poles in Series, 40 °C 4 A (220 V) 2 Poles in Series, 60 °C 4 A (220 V) 2 Poles in Series, 70 °C 4 A (220 V) 3 Poles in Series, 40 °C 16 A (220 V) 3 Poles in Series, 60 °C 16 A (220 V) 3 Poles in Series, 70 °C 16 A (220 V) 4 Poles in Series, 40 °C 20 A (220 V) 4 Poles in Series, 60 °C 20 A (220 V) 4 Poles in Series, 70 °C 20 A (440 V) 4 Poles in Series, 40 °C 4 A (440 V) 4 Poles in Series, 60 °C 4 A (440 V) 4 Poles in Series, 70 °C 4 A (72 V) 1-Pole, 40 °C 16 A (72 V) 1-Pole, 60 °C 16 A (72 V) 1-Pole, 70 °C 16 A (72 V) 2 Poles in Series, 40 °C 30 A (72 V) 2 Poles in Series, 60 °C 30 A (72 V) 2 Poles in Series, 70 °C 26 A (72 V) 3 Poles in Series, 40 °C 30 A (72 V) 3 Poles in Series, 60 °C 30 A (72 V) 3 Poles in Series, 70 °C 26 A (72 V) 4 Poles in Series, 40 °C 30 A (72 V) 4 Poles in Series, 60 °C 30 A (72 V) 4 Poles in Series, 70 °C 26 A
额定绝缘电压 (U _i)	acc. to IEC 60947-4-1 690 V acc. to UL/CSA 600 V
额定冲击耐受电压 (U _{imp})	6 kV
最高机械切换频率	3600 cycles per hour
额定控制电路电压 (U _c)	50 Hz 48 ... 130 V 60 Hz 48 ... 130 V DC Operation 48 ... 130 V
工作时间	Between Coil De-energization and NC Contact Closing 13 ... 98 ms Between Coil De-energization and NO Contact Opening 11 ... 95 ms Between Coil Energization and NC Contact Opening 38 ... 90 ms Between Coil Energization and NO Contact Closing 40 ... 95 ms
安装到DIN导轨上	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
螺钉安装（螺钉须自备）	2 x M4 screws placed diagonally
主电路连接容量	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
辅助电路连接容量	Rigid Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 mm ²
控制电路连接容量	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
剥线长度	Control Circuit 10 mm Main Circuit 10 mm
防护等级	acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20
端子类型	Screw Terminals

UL/CSA适用的技术参数

最高工作电压UL/CSA	Main Circuit 600 V
通用等级UL/CSA	(600 V AC) 30 A
主电路连接容量 UL/CSA	Rigid Solid 1/2x 16-10 AWG Rigid Stranded 1/2x 16-10 AWG
辅助电路连接容量	Rigid Solid 1/2x 18-14 AWG

UL/CSA	Rigid Stranded 1/2x 18-14 AWG
控制电路连接容量	Rigid Solid 1/2x 18-14 AWG
UL/CSA	Rigid Stranded 1/2x 18-14 AWG
拧紧力矩UL/CSA	Control Circuit 11 in-lb Main Circuit 13 in-lb

环境条件

周围环境温度	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °C
耐候	Category B according to IEC 60947-1 Annex Q
允许的最高工作海拔	Without Derating 3000 m
抗机械冲击符合IEC 60068-2-27标准	Closed, Shock Direction: B1 25 g Open, Shock Direction: B1 5 g Shock Direction: A 30 g Shock Direction: B2 15 g Shock Direction: C1 25 g Shock Direction: C2 25 g
耐振动符合IEC 60068-2-6标准	4g Closed Position & 2g Open position 5 ... 300 Hz

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS信息	2CMT2021-006277
RoHS状态	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 类别	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

产品环境声明 - EPD	1SBD250584E3000 2TFP200035A1001
产品中可持续材料含量 (重量%)	Recycled Metal - 28 %
包装中的可持续材料含量 (重量%)	Recycled Cardboard - 86 %
产品寿命终止后的拆解指南	1SBC101080M6801

认证及声明（文件编码）

ABS认证	ABS_20-2060694-PDA
BV认证	BV_2634H24898C0
CB认证	CB_SE-113345
CCC认证	CCC_2010010304445624
CQC认证	CQC2010010304445624 CQC2020010304298240
Declaration of Conformity - CCC	2020980304001253 2020980304001082
符合性声明 - CE	1SBD250001U1000

Declaration of Conformity - UKCA	1SBD250032U1000
DNV认证	DNV_TAE00001AF-4
GOST认证	GOST_POCCFR.ME77.807175.pdf
KC认证	KC_HW02016-15008C
LR认证	LRS_LR23403517TA-02
RINA认证	RINA_ELE142224XG
RMRS认证	RMRS_1802705280
UL认证	UL-US-L319322-13-72119002-5 UL-CA-L319322-43-72119002-6
UL列表卡	UL_E319322

包装信息

1级包装单元	box 1 piece
1级包装宽度	87 mm
1级包装长度	79 mm
1级包装高度	47 mm
1级包装 总重	0.31 kg
1级包装 EAN	3471523115927
2级包装单元	box 27 piece
2级包装宽度	250 mm
2级包装长度	300 mm
2级包装高度	315 mm
2级包装 总重	16.74 kg
3级包装单元	1296 piece

分类

对象分类代码	Q
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 8	EC000066 - Power contactor, AC switching
ETIM 9	EC000066 - Power contactor, AC switching
e级	V11.0 : 27371003
UNSPSC	39121529
IDEA 粒度分类代码 (IGCC)	4758 >> lec Contactors
E-Number (Finland)	3706341

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SBN112303T1000	BP38-4 Mounting Piece	BP38-4	1	piece
1SBN113403T1000	BP65-4 Mounting Piece	BP65-4	1	piece
1SBN113903T1000	BP96-4 Mounting Piece	BP96-4	1	piece
1SBN110108T1000	BX4 Protective Cover	BX4	1	piece
1SBN110109W1000	BX4-CA Protective Cover	BX4-CA	1	piece
1SBN010110R1001	CA4-01 Auxiliary Contact Block	CA4-01	1	piece
1SBN010160R1001	CA4-01K Auxiliary Contact Block	CA4-01K	1	piece
1SBN010110T1001	CA4-01-T Auxiliary Contact Block	CA4-01-T	1	piece
1SBN010140R1004	CA4-04E Auxiliary Contact Block	CA4-04E	1	piece
1SBN010110R1010	CA4-10 Auxiliary Contact Block	CA4-10	1	piece
1SBN010160R1010	CA4-10K Auxiliary Contact Block	CA4-10K	1	piece

1SBN010110T1010	CA4-10-T Auxiliary Contact Block	CA4-10-T	1	piece
1SBN010140R1022	CA4-22E Auxiliary Contact Block	CA4-22E	1	piece
1SBN010146R1022	CA4-22EK Auxiliary Contact Block	CA4-22EK	1	piece
1SBN010140R1031	CA4-31E Auxiliary Contact Block	CA4-31E	1	piece
1SBN010146R1031	CA4-31EK Auxiliary Contact Block	CA4-31EK	1	piece
1SBN010140R1040	CA4-40E Auxiliary Contact Block	CA4-40E	1	piece
1SBN010146R1040	CA4-40EK Auxiliary Contact Block	CA4-40EK	1	piece
1SBN010120R1011	CAL4-11 Auxiliary Contact Block	CAL4-11	1	piece
1SBN010134R1011	CAL4-11K Auxiliary Contact Block	CAL4-11K	1	piece
1SBN010120T1011	CAL4-11-T Auxiliary Contact Block	CAL4-11-T	1	piece
1SBN010151R1011	CAT4-11E Auxiliary Contact / Coil Terminal Block	CAT4-11E	1	piece
1SBN010111R1001	CC4-01 Lagging Auxiliary Contact Block	CC4-01	1	piece
1SBN010111R1010	CC4-10 Leading Auxiliary Contact Block	CC4-10	1	piece
1SBN010015R1001	CE5-01D0.1 Auxiliary Contact Block	CE5-01D0.1	1	piece
1SBN010017R1001	CE5-01D2 Auxiliary Contact Block	CE5-01D2	1	piece
1SBN010016R1001	CE5-01W0.1 Auxiliary Contact Block	CE5-01W0.1	1	piece
1SBN010018R1001	CE5-01W2 Auxiliary Contact Block	CE5-01W2	1	piece
1SBN010015R1010	CE5-10D0.1 Auxiliary Contact Block	CE5-10D0.1	1	piece
1SBN010017R1010	CE5-10D2 Auxiliary Contact Block	CE5-10D2	1	piece
1SBN010016R1010	CE5-10W0.1 Auxiliary Contact Block	CE5-10W0.1	1	piece
1SBN010018R1010	CE5-10W2 Auxiliary Contact Block	CE5-10W2	1	piece
1SBN073452R2000	LK96-4F Terminals for Control Lead Connections	LK96-4F	1	piece
1SBN070156T1000	LDC4 Additional Coil Terminal Block	LDC4	1	piece
1SBN070159T1000	LDC4K Additional Coil Terminal Block	LDC4K	1	piece
1SBN071305R1000	LF16-4 Connecting Strip	LF16-4	1	piece
1SBN071306R1000	LG16-4 Connecting Strip	LG16-4	1	piece
1SBN123402R1000	LT52-40 Terminal Shroud	LT52-40	1	piece
1SBN123902R1000	LT80-40 Terminal Shroud	LT80-40	1	piece
1SBN071303T1000	LY16-4 Connecting Strip	LY16-4	1	piece
1SBN060100R1000	RA4 Interface Relay	RA4	1	piece
1SBN020114R1000	TEF4-OFF Frontal Electronic Timer	TEF4-OFF	1	piece
1SBN020112R1000	TEF4-ON Frontal Electronic Timer	TEF4-ON	1	piece
1SBN020115R1000	TEF4S-OFF Frontal Electronic Timer	TEF4S-OFF	1	piece
1SBN020113R1000	TEF4S-ON Frontal Electronic Timer	TEF4S-ON	1	piece
1SBN040100R1010	WA4-10 24VDC Mechanical Latching Unit	WA4-10	1	piece
1SBN040100R1011	WA4-11 24-60V50/60HZ-DC Mechanical Latching Unit	WA4-11	1	piece
1SBN040100R1012	WA4-12 48-130V50/60HZ-DC Mechanical Latching Unit	WA4-12	1	piece
1SBN040100R1013	WA4-13 100-250V50/60HZ-DC Mechanical Latching Unit	WA4-13	1	piece
1SBN040100R1014	WA4-14 250-500V50/60HZ-DC Mechanical Latching Unit	WA4-14	1	piece
1SBN040200R1011	WA4-96-11 24-60V50/60HZ-DC Mechanical Latching Unit	WA4-96-11	1	piece
1SBN040200R1012	WA4-96-12 48-130V50/60HZ-DC Mechanical Latching Unit	WA4-96-12	1	piece
1SBN040200R1013	WA4-96-13 100-250V50/60HZ-DC Mechanical Latching Unit	WA4-96-13	1	piece
1SBN040200R1014	WA4-96-14 250-500V50/60HZ-DC Mechanical Latching Unit	WA4-96-14	1	piece

分类

低压产品及系统 → 控制产品 → 接触器 → 模块化接触器 → AF Contactors → AF16

