

PRODUCT-DETAILS

AF09-40-00-13

AF09-40-00-13 100-250V50/60HZ-DC Contactor



Información General

Tipo de producto extendido	AF09-40-00-13
Código de producto	1SBL137201R1300
EAN	3471523115033
Descripción corta	AF09-40-00-13 100-250V50/60HZ-DC Contactor

Descripción larga

The AF09-40-00-13 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 wide control voltage range (100-250 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.

Clasificación

Cantidad mínima de pedido	1 piece
Código arancelario	85364900

Descargas Populares

Instrucciones y manuales	1SBC101027M6801
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Dimensiones

Ancho del product	45 mm
Largo del product	77 mm
Alto del producto	86 mm
Peso del product	0.27 kg

Technical

Número de contactos principales NO	4
Número de contactos principales NC	0
Número de contactos auxiliares NO	0
Número de contactos auxiliares NC	0
Normas	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
Tensión nominal de operación	Main Circuit 690 V
Frecuencia nominal (f)	Control Circuit 50 / 60 Hz Main Circuit 50 / 60 Hz
Corriente térmica convencional de aire libre (I_{th})	acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 35 A
Corriente nominal de funcionamiento AC-1 (I_e)	(690 V) 40 °C 25 A (690 V) 60 °C 25 A (690 V) 70 °C 22 A
Corriente nominal de funcionamiento 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
Potencia operativa nominal AC-3 (P_e)	(400 V) 4 kW (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
Corriente nominal de corta duración Tensión baja (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
Capacidad de rotura máxima	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
Frecuencia máxima de conmutación eléctrica	(AC-1) 600 cycles per hour
Corriente nominal de funcionamiento DC-1 (I_e)	(110 V) 1-Pole, 40 °C 10 A (110 V) 1-Pole, 60 °C 10 A (110 V) 1-Pole, 70 °C 10 A (110 V) 2 Poles in Series, 40 °C 25 A (110 V) 2 Poles in Series, 60 °C 25 A (110 V) 2 Poles in Series, 70 °C 22 A (110 V) 3 Poles in Series, 40 °C 25 A (110 V) 3 Poles in Series, 60 °C 25 A (110 V) 3 Poles in Series, 70 °C 22 A (110 V) 4 Poles in Series, 40 °C 25 A

(110 V) 4 Poles in Series, 60 °C 25 A
 (110 V) 4 Poles in Series, 70 °C 22 A
 (220 V) 2 Poles in Series, 40 °C 10 A
 (220 V) 2 Poles in Series, 60 °C 10 A
 (220 V) 2 Poles in Series, 70 °C 10 A
 (220 V) 3 Poles in Series, 40 °C 25 A
 (220 V) 3 Poles in Series, 60 °C 25 A
 (220 V) 3 Poles in Series, 70 °C 22 A
 (220 V) 4 Poles in Series, 40 °C 25 A
 (220 V) 4 Poles in Series, 60 °C 25 A
 (220 V) 4 Poles in Series, 70 °C 22 A
 (440 V) 4 Poles in Series, 40 °C 10 A
 (440 V) 4 Poles in Series, 60 °C 10 A
 (440 V) 4 Poles in Series, 70 °C 10 A
 (72 V) 1-Pole, 40 °C 25 A
 (72 V) 1-Pole, 60 °C 25 A
 (72 V) 1-Pole, 70 °C 22 A
 (72 V) 2 Poles in Series, 40 °C 25 A
 (72 V) 2 Poles in Series, 60 °C 25 A
 (72 V) 2 Poles in Series, 70 °C 22 A
 (72 V) 3 Poles in Series, 40 °C 25 A
 (72 V) 3 Poles in Series, 60 °C 25 A
 (72 V) 3 Poles in Series, 70 °C 22 A
 (72 V) 4 Poles in Series, 40 °C 25 A
 (72 V) 4 Poles in Series, 60 °C 25 A
 (72 V) 4 Poles in Series, 70 °C 22 A

Corriente nominal de funcionamiento DC-3 (I_e)

(110 V) 1-Pole, 40 °C 6 A
 (110 V) 1-Pole, 60 °C 6 A
 (110 V) 1-Pole, 70 °C 6 A
 (110 V) 2 Poles in Series, 40 °C 25 A
 (110 V) 2 Poles in Series, 60 °C 25 A
 (110 V) 2 Poles in Series, 70 °C 22 A
 (110 V) 3 Poles in Series, 40 °C 25 A
 (110 V) 3 Poles in Series, 60 °C 25 A
 (110 V) 3 Poles in Series, 70 °C 22 A
 (110 V) 4 Poles in Series, 40 °C 25 A
 (110 V) 4 Poles in Series, 60 °C 25 A
 (110 V) 4 Poles in Series, 70 °C 22 A
 (220 V) 2 Poles in Series, 40 °C 6 A
 (220 V) 2 Poles in Series, 60 °C 6 A
 (220 V) 2 Poles in Series, 70 °C 6 A
 (220 V) 3 Poles in Series, 40 °C 25 A
 (220 V) 3 Poles in Series, 60 °C 25 A
 (220 V) 3 Poles in Series, 70 °C 22 A
 (220 V) 4 Poles in Series, 40 °C 25 A
 (220 V) 4 Poles in Series, 60 °C 25 A
 (220 V) 4 Poles in Series, 70 °C 22 A
 (440 V) 4 Poles in Series, 40 °C 6 A
 (440 V) 4 Poles in Series, 60 °C 6 A
 (440 V) 4 Poles in Series, 70 °C 6 A
 (72 V) 1-Pole, 40 °C 25 A
 (72 V) 1-Pole, 60 °C 25 A
 (72 V) 1-Pole, 70 °C 22 A
 (72 V) 2 Poles in Series, 40 °C 25 A
 (72 V) 2 Poles in Series, 60 °C 25 A
 (72 V) 2 Poles in Series, 70 °C 22 A
 (72 V) 3 Poles in Series, 40 °C 25 A
 (72 V) 3 Poles in Series, 60 °C 25 A
 (72 V) 3 Poles in Series, 70 °C 22 A
 (72 V) 4 Poles in Series, 40 °C 25 A
 (72 V) 4 Poles in Series, 60 °C 25 A
 (72 V) 4 Poles in Series, 70 °C 22 A

Corriente nominal de funcionamiento 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 10 A
 (110 V) 2 Poles in Series, 60 °C 10 A
 (110 V) 2 Poles in Series, 70 °C 10 A
 (110 V) 3 Poles in Series, 40 °C 25 A
 (110 V) 3 Poles in Series, 60 °C 25 A
 (110 V) 3 Poles in Series, 70 °C 22 A
 (110 V) 4 Poles in Series, 40 °C 25 A
 (110 V) 4 Poles in Series, 60 °C 25 A
 (110 V) 4 Poles in Series, 70 °C 22 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 9 A
 (220 V) 3 Poles in Series, 60 °C 9 A

	(220 V) 3 Poles in Series, 70 °C 9 A (220 V) 4 Poles in Series, 40 °C 10 A (220 V) 4 Poles in Series, 60 °C 10 A (220 V) 4 Poles in Series, 70 °C 10 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 9 A (72 V) 1-Pole, 60 °C 9 A (72 V) 1-Pole, 70 °C 9 A (72 V) 2 Poles in Series, 40 °C 25 A (72 V) 2 Poles in Series, 60 °C 25 A (72 V) 2 Poles in Series, 70 °C 22 A (72 V) 3 Poles in Series, 40 °C 25 A (72 V) 3 Poles in Series, 60 °C 25 A (72 V) 3 Poles in Series, 70 °C 22 A (72 V) 4 Poles in Series, 40 °C 25 A (72 V) 4 Poles in Series, 60 °C 25 A (72 V) 4 Poles in Series, 70 °C 22 A
Tensión nominal de aislamiento (U _i)	acc. to IEC 60947-4-1 690 V acc. to UL/CSA 600 V
Tensión nominal soportada por impulsos (U _{imp})	6 kV
Frecuencia máxima de conmutación mecánica	3600 cycles per hour
Tensión nominal del circuito de control (U _c)	50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Tiempo de funcionamiento	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
Montaje en contactores	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
Montaje mediante tornillos (no suministrados)	2 x M4 screws placed diagonally
Capacidad de conexión del circuito principal	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
Capacidad de conexión del circuito auxiliar	Rigid Solid 1/2x 1 ... 2.5 mm ² Rigid Stranded 1/2x 1 ... 2.5 mm ²
Conexión del circuito de control de capacidad	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
Longitud de pelado del cable	Control Circuit 10 mm Main Circuit 10 mm
Grado de protección	acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP20
Tipo de terminal	Screw Terminals

Technical UL/CSA

Tensión máxima de funcionamiento UL/CSA	Main Circuit 600 V
Clasificación de uso general UL/CSA	(600 V AC) 25 A
Capacidad de conexión del circuito principal UL/CSA	Rigid Solid 1/2x 16-10 AWG Rigid Stranded 1/2x 16-10 AWG
Capacidad de conexión Circuito auxiliar UL/CSA	Rigid Solid 1/2x 18-14 AWG Rigid Stranded 1/2x 18-14 AWG
Circuito de control de la	Rigid Solid 1/2x 18-14 AWG

capacidad de conexión UL/CSA	Rigid Stranded 1/2x 18-14 AWG
Par de apriete UL/CSA	Control Circuit 11 in-lb Main Circuit 13 in-lb

Ambiente

Temperatura ambiente	Close to Contactor for Storage -60 ... +80 °C Near Contactor for Operation in Free Air -40 ... 70 °C
Resistencia climática	Category B according to IEC 60947-1 Annex Q
Altitud máxima de funcionamiento permisible	Without Derating 3000 m
Declaración REACH	2CMT2021-006202
Resistencia a los golpes según IEC 60068-2-27	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
Resistencia a las vibraciones según IEC 60068-2-6	5 ... 300 Hz 4 g closed position / 2 g open position
Información sobre RoHS	2CMT2021-006277
Estado de RoHS	Following EU Directive 2011/65/EU

Certificados y Declaraciones (Número de Documento)

Certificado ABS	ABS_20-2060694-PDA
Certificado BV	BV_2634H24898C0
Certificado CB	CB_SE-108879
Certificado CCC	CCC_2010010304445624
Certificado CQC	CQC2010010304445624 CQC2020010304298240
Declaración de conformidad - CCC	2020980304001253 2020980304001082
Declaración de conformidad - CE	1SBD250001U1000
Declaración de conformidad - UKCA	1SBD250032U1000
Certificado DNV	DNV_TAE00001AF-4
Certificado EAC	EAC_RU_FRME77B03447
Certificado GOST	GOST_POCCFR.ME77.B07175.pdf
Certificado KC	KC_HW02016-15007C
Certificado LR	LRS_LR2002723TA-02
Certificado RINA	RINA_ELE240318XG
Certificado RMRS	RMRS_1802705280
Certificado UL	UL-US-L319322-13-72119002-5 UL-CA-L319322-43-72119002-6
Tarjeta de listado UL	UL_E319322

Información de Embalaje

Embalaje Nivel 1 Unidades	box 1 piece
Embalaje Nivel 1 Ancho	87 mm

Embalaje Nivel 1 Largo	79 mm
Embalaje Nivel 1 Alto	47 mm
Embalaje Nivel 1 Peso	0.27 kg
Embalaje Nivel 1 EAN	3471523115033
Embalaje Nivel 2 Unidades	box 27 piece
Embalaje Nivel 2 Ancho	250 mm
Embalaje Nivel 2 Largo	300 mm
Embalaje Nivel 2 Alto	315 mm
Embalaje Nivel 2 Peso	14.58 kg
Paquete Nivel 3 Unidades	1296 piece

Clasificaciones

Código de clasificación de objetos	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
ETIM 8	EC000066 - Power contactor, AC switching
Clase electrónica	V11.0 : 27371003
UNSPSC	39121529
Código de categoría granular de IDEA (IGCC)	4758 >> Iec Contactors
Número E (Finlandia)	3706330
Número E (Suecia)	3211390

