PRODUCT-DETAILS

AF40-30-00-13

AF40-30-00-13 100-250V50/60HZ-DC Contactor



General Information

Extended Product Type	AF40-30-00-13
Product ID	1SBL347001R1300
EAN	3471523132030
Catalog Description	AF40-30-00-13 100-250V50/60HZ-DC Contactor
Long Description	The AF40-30-00-13 is a 3 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 18.5 kW / 400 V AC (AC-3) or 30 hp / 480 V UL and switching power circuits up to 70 A (AC-1) or 60 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.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

Popular Downloads

Instructions and Manuals	1SBC101036M6801
CAD Dimensional Drawing	2CDC001079B0201

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Dimensions

Product Net Width	55 mm
Product Net Depth / Length	111 mm
Product Net Height	125.5 mm
Product Net Weight	0.95 kg

Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	0
Number of Auxiliary Contacts NC	0
Standards	IEC/EN 60947-1, IEC/EN 60947-4-1, UL 60947-1, UL 60947-4-1, CSA C22.2 No. 60947-1:22, CSA C22.2 No. 60947-4-1:22
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 105 A
Rated Operational Current AC-1 (I_e)	(690 V) 40 °C 70 A (690 V) 60 °C 60 A (690 V) 70 °C 50 A
Rated Operational Current AC-3 (I_e)	(415 V) 60 °C 40 A (440 V) 60 °C 40 A (500 V) 60 °C 35 A (690 V) 60 °C 25 A (380 / 400 V) 60 °C 40 A (220 / 230 / 240 V) 60 °C 40 A
Rated Operational Current AC-3e (I_e)	(415 V) 60 °C 40 A (440 V) 60 °C 40 A (500 V) 60 °C 35 A (690 V) 60 °C 25 A (380 / 400 V) 60 °C 40 A (220 / 230 / 240 V) 60 °C 40 A
Rated Operational Power AC-3 (P_e)	(400 V) 18.5 kW (415 V) 22 kW (440 V) 22 kW (500 V) 22 kW (690 V) 22 kW (380 / 400 V) 18.5 kW (220 / 230 / 240 V) 11 kW
Rated Operational Power AC-3e (P_e)	(415 V) 22 kW (440 V) 22 kW (500 V) 22 kW (690 V) 22 kW (380 / 400 V) 18.5 kW (220 / 230 / 240 V) 11 kW
Rated Short-time Withstand Current Low Voltage (I_{cw})	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
Maximum Breaking Capacity	cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 440 V 950 A cos phi=0.45 (cos phi=0.35 for Ie > 100 A) at 690 V 600 A
Maximum Electrical Switching Frequency	(AC-1) 600 cycles per hour (AC-2 / AC-4) 150 cycles per hour (AC-3) 1200 cycles per hour
Rated Operational Current DC-1 (I_e)	(110 V) 2 Poles in Series, 40 °C 70 A (110 V) 2 Poles in Series, 60 °C 60 A (110 V) 2 Poles in Series, 70 °C 50 A

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	(110 V) 3 Poles in Series, 40 °C 70 A (110 V) 3 Poles in Series, 60 °C 60 A (110 V) 3 Poles in Series, 70 °C 50 A (220 V) 3 Poles in Series, 40 °C 70 A (220 V) 3 Poles in Series, 60 °C 60 A (220 V) 3 Poles in Series, 70 °C 50 A (72 V) 1-Pole, 40 °C 70 A (72 V) 1-Pole, 60 °C 60 A (72 V) 1-Pole, 70 °C 50 A (72 V) 2 Poles in Series, 40 °C 70 A (72 V) 2 Poles in Series, 60 °C 60 A (72 V) 2 Poles in Series, 70 °C 50 A (72 V) 3 Poles in Series, 40 °C 70 A (72 V) 3 Poles in Series, 60 °C 60 A (72 V) 3 Poles in Series, 70 °C 50 A
Rated Operational Current DC-3 (I_e)	(110 V) 2 Poles in Series, 40 °C 70 A (110 V) 2 Poles in Series, 60 °C 60 A (110 V) 2 Poles in Series, 70 °C 50 A (110 V) 3 Poles in Series, 40 °C 70 A (110 V) 3 Poles in Series, 60 °C 60 A (110 V) 3 Poles in Series, 70 °C 50 A (220 V) 3 Poles in Series, 40 °C 70 A (220 V) 3 Poles in Series, 60 °C 60 A (220 V) 3 Poles in Series, 70 °C 50 A (72 V) 1-Pole, 40 °C 70 A (72 V) 1-Pole, 60 °C 60 A (72 V) 1-Pole, 70 °C 50 A (72 V) 2 Poles in Series, 40 °C 70 A (72 V) 2 Poles in Series, 60 °C 60 A (72 V) 2 Poles in Series, 70 °C 50 A (72 V) 3 Poles in Series, 40 °C 70 A (72 V) 3 Poles in Series, 60 °C 60 A (72 V) 3 Poles in Series, 70 °C 50 A
Rated Operational Current DC-5 (I_e)	(110 V) 2 Poles in Series, 40 °C 70 A (110 V) 2 Poles in Series, 60 °C 60 A (110 V) 2 Poles in Series, 70 °C 50 A (110 V) 3 Poles in Series, 40 °C 70 A (110 V) 3 Poles in Series, 60 °C 60 A (110 V) 3 Poles in Series, 70 °C 50 A (220 V) 3 Poles in Series, 40 °C 70 A (220 V) 3 Poles in Series, 60 °C 60 A (220 V) 3 Poles in Series, 70 °C 50 A (72 V) 1-Pole, 40 °C 70 A (72 V) 1-Pole, 60 °C 60 A (72 V) 1-Pole, 70 °C 50 A (72 V) 2 Poles in Series, 40 °C 70 A (72 V) 2 Poles in Series, 60 °C 60 A (72 V) 2 Poles in Series, 70 °C 50 A (72 V) 3 Poles in Series, 40 °C 70 A (72 V) 3 Poles in Series, 60 °C 60 A (72 V) 3 Poles in Series, 70 °C 50 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
Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U_c)	50 Hz 100 ... 250 V 60 Hz 100 ... 250 V DC Operation 100 ... 250 V
Coil Consumption	Average Holding Value 50 / 60 Hz 4 V·A Average Holding Value 50 Hz 4 V·A Average Holding Value 60 Hz 4 V·A Average Holding Value DC 2 W Average Holding Value, from Warm State 2 W
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
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 or 2 x M6 screws placed diagonally
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 4 ... 35 mm² Flexible with Insulated Ferrule 1/2x 4 ... 35 mm² Rigid Stranded 1/2x 6 ... 35 mm²

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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 Solid 1/2x 1 ... 2.5 mm² Rigid Stranded 1/2x 1 ... 2.5 mm²
Wire Stripping Length	Control Circuit 10 mm Main Circuit 16 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 IP10
Terminal Type	Screw Terminals

Technical UL/CSA

NEMA Size	2
Continuous Current Rating NEMA	45 A
Horsepower Rating NEMA	(115 V AC) Single Phase 3 Hp (200 V AC) Three Phase 10 Hp (230 V AC) Single Phase 7-1/2 Hp (230 V AC) Three Phase 15 Hp (460 V AC) Three Phase 25 Hp (575 V AC) Three Phase 25 Hp
Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 60 A
Horsepower Rating UL/CSA	(120 V AC) Single Phase 3 hp (200 ... 208 V AC) Three Phase 10 hp (220 ... 240 V AC) Three Phase 15 hp (240 V AC) Single Phase 7-1/2 hp (440 ... 480 V AC) Three Phase 30 hp (550 ... 600 V AC) Three Phase 40 hp
Connecting Capacity Main Circuit UL/CSA	Rigid Stranded 1/2x 10-2 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 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 ... 300 Hz 3 g closed position / 3 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 Open, Shock Direction: B1 5 g
RoHS Status	Following EU Directive 2011/65/EU

Certificates and Declarations

ABS Certificate	ABS_20-2060694-PDA
BV Certificate	BV_2634H36994B1
CB Certificate	CB_SE-108889A1M1

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CCC Certificate	CCC_2012010304589737 CCC_2015010304824714
CQC Certificate	CQC2015010304824714 CQC2012010304589737
Declaration of Conformity - CCC	2020980304001256 2020980304001074
Declaration of Conformity - CE	1SBD250000U1000
Declaration of Conformity - UKCA	1SBD250031U1000
DNV Certificate	DNV_TAE00001AF-4
EAC Certificate	EAC_RU_FRME77B03447
KC Certificate	KC_HW02016-15006C
LR Certificate	LRS_LR2002723TA-02
RINA Certificate	RINA_ELE084013XG
RMRS Certificate	RMRS_1802705280
UL Certificate	UL-US-L312527-1141-10303102-9 UL-CA-L312527-4141-10303102-9
UL Listing Card	UL_E312527

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	150 mm
Package Level 1 Depth / Length	150 mm
Package Level 1 Height	97 mm
Package Level 1 Gross Weight	1.05 kg
Package Level 1 EAN	3471523132030
Package Level 2 Units	box 10 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	10.5 kg
Package Level 3 Units	240 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
ETIM 8	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003
UNSPSC	39121529
IDEA Granular Category Code (IGCC)	4758 >> Iec Contactors
E-Number (Finland)	3706599
E-Number (Sweden)	3210033

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Categories

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



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