PRODUCT-DETAILS

AF40-22-00-14

AF40-22-00-14 250-500V50/60HZ-DC Contactor



General Information

Extended Product Type	AF40-22-00-14
Product ID	1SBL347501R1400
EAN	3471523133846
Catalog Description	AF40-22-00-14 250-500V50/60HZ-DC Contactor
Long Description	The AF40-22-00-14 is a 4 pole - 690 V IEC or 600 UL contactor with screw terminals, controlling motors up to 18.5 kW / 400 V AC (AC-3) 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 (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

Popular Downloads

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Data Sheet, Technical Information	1SBC100214C0202
Instructions and Manuals	1SBC101047M6801
CAD Dimensional Drawing	2CDC001079B0201

Dimensions

Product Net Width	70 mm
Product Net Depth / Length	113.5 mm
Product Net Height	125.5 mm
Product Net Weight	1.16 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
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 Power AC-3 (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
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

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Maximum Mechanical Switching Frequency	3600 cycles per hour
Rated Control Circuit Voltage (U_c)	50 Hz 250 ... 500 V 60 Hz 250 ... 500 V DC Operation 250 ... 500 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
Mounting on DIN Rail	TH35-15 (35 x 15 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
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

Maximum Operating Voltage UL/CSA	Main Circuit 600 V
General Use Rating UL/CSA	(600 V AC) 60 A
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 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
Resistance to Vibrations	3g Closed Position & 2g Open Position 5 ... 300 Hz

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
SCIP	c6225134-1479-45d4-a73d-0d2aeaffd48a China (CN)

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Simplified SCIP	544b988b-78f7-45e4-89d6-bbf54a0cefd7 Spain (ES) a3bb9f99-8a63-49a9-98bf-1819806ee84e Denmark (DK) 21617718-fe14-4deb-8350-f1c02ab34f44 Germany (DE) 1ad39def-2414-4ca8-867c-592bb0263d3b Poland (PL) 1e475783-2f8b-4138-9a4a-d89530620436 Poland (PL) 5f245cba-913a-425c-8d2f-d8134e8fe927 Czech Republic (CZ) 1bafc253-143f-48da-99e0-f25590d9ca65 Belgium (BE) aaa89552-6acc-41d1-a21f-aededca1bdd5 Germany (DE) 30c7cf24-7e88-4222-80fe-d4598932daee Poland (PL) 1362daa7-e548-4cc2-a90d-9c1ba91edbb8 Sweden (SE) 6dd7c304-b9ec-4f22-a787-df7c60a5fa09 Croatia (HR) 5d5ff183-08d1-4157-93cf-7477abc6587a Germany (DE) df290ea2-6b56-4d31-8ce0-4e39a3218500 France (FR) b649956c-98f2-4806-b687-90f4ddaaf303 Portugal (PT) 56c70d5f-1861-407c-9384-06204dab4182 Germany (DE) f06df969-fbc7-4248-affd-58b12793f1d5 France (FR) f9d31ff3-1752-4d18-9e8c-fa89b1238086 Sweden (SE) 8dd39b27-8b96-46a9-aede-84965dcae41f Germany (DE) 083749d6-57b2-4d93-b1bb-7158302b2355 Greece (GR) 31a6c161-de69-4982-9799-a01fcc068488 Belgium (BE) b2281f82-2d0b-464c-9cf6-a5ddcf031a09 Netherlands (NL) d656d10b-c4d4-4ab4-9b84-f15f6b838e52 Norway (NO) f29a03fd-3628-4c27-9236-31eef2a908c5 Bulgaria (BG) 2cbd6d3a-df1f-47fa-8461-473f7d76d1c0 Hungary (HU) 57b21992-e306-4024-b8d5-a7fa0eae24b2 Hungary (HU) 03702cb4-638f-4114-a1b4-817154d6d979 Estonia (EE) 8bcaa7da-0331-4e1c-b71e-3a0ab490fc7c Finland (FI)
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

Environmental Product Declaration - EPD	2TFP200016A1001 1SBD250584E1000

Certificates and Declarations

ABS Certificate	ABS_20-2060694-PDA
BV Certificate	BV_2634H36994B1
CB Certificate	CB_SE-113324
CCC Certificate	CQC2015010304824714
CQC Certificate	CQC2015010304824714
Declaration of Conformity - CCC	2020980304001256
Declaration of Conformity - CE	1SBD250001U1000
Declaration of Conformity - UKCA	1SBD250032U1000
DNV Certificate	DNV_TAE00001AF-4
KC Certificate	KC_HW02016-15009C
UL Certificate	UL-US-L312527-1142-02114102-6 UL-CA-L312527-4142-02114102-6
UL Listing Card	UL_E312527

Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	150 mm

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Package Level 1 Depth / Length	150 mm
Package Level 1 Height	103 mm
Package Level 1 Gross Weight	1.27 kg
Package Level 1 EAN	3471523133846
Package Level 2 Units	box 8 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	10.16 kg
Package Level 3 Units	192 piece

Classifications

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 >> Iec Contactors
E-Number (Finland)	3707556
E-Number (Sweden)	3210308

Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF40



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