




---

 PRODUCT-DETAILS

# AF140-40-00-14

## AF140-40-00-14 Contactor




---

**General Information**

<b>Extended Product Type:</b>	AF140-40-00-14
<b>Product ID:</b>	1SFL447101R1400
<b>EAN:</b>	7320500505298
<b>Catalog Description:</b>	AF140-40-00-14 Contactor
<b>Long Description:</b>	The AF140-40-00-14 is a 4 pole - 690 V IEC or 600 V UL contactor with double clamp, controlling motors up to 75 kW / 400 V AC (AC-3) / and switching power circuits up to 200 A (AC-1) or 175 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.
<b>Display Name:</b>	AF140-40-00-14

---

**Ordering**

<b>Minimum Order Quantity:</b>	1 piece
<b>Customs Tariff Number:</b>	85364900

## Popular Downloads

<b>EPLAN Data:</b>	9AAC174539_EPLAN
<b>Data Sheet, Technical Information:</b>	1SBC100214C0202
<b>Data Sheet, Technical Information (Part 2):</b>	1SAC200017M0002
<b>Instructions and Manuals:</b>	1SFC100003M0201
<b>CAD Dimensional Drawing:</b>	2CDC001079B0201

## Dimensions

<b>Product Net Width:</b>	120 mm
<b>Product Net Depth / Length:</b>	128 mm
<b>Product Net Height:</b>	150 mm
<b>Product Net Weight:</b>	2.05 kg
<b>Dimension Diagram:</b>	1SFB535001G1121

## Technical

<b>Number of Main Contacts NO:</b>	4
<b>Number of Main Contacts NC:</b>	0
<b>Number of Auxiliary Contacts NO:</b>	0
<b>Number of Auxiliary Contacts NC:</b>	0
<b>Number of Poles:</b>	4P
<b>Rated Operational Voltage:</b>	Main Circuit 690 V
<b>Rated Frequency (f):</b>	Main Circuit 60 Hz Main Circuit 50 / 60 Hz
<b>Conventional Free-air Thermal Current (I<sub>th</sub>):</b>	acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 200 A
<b>Rated Operational Current AC-1 (I<sub>e</sub>):</b>	(690 V) 40 °C 200 A (690 V) 60 °C 175 A (690 V) 70 °C 160 A
<b>Rated Operational Current AC-3 (I<sub>e</sub>):</b>	(415 V) 55 °C 140 A (440 V) 55 °C 140 A (380 / 400 V) 55 °C 140 A (220 / 230 / 240 V) 55 °C 140 A
<b>Rated Operational Power AC-3 (P<sub>e</sub>):</b>	(415 V) 75 kW (440 V) 90 kW (380 / 400 V) 75 kW (220 / 230 / 240 V) 37 kW
<b>Rated Breaking Capacity AC-3:</b>	8 x I <sub>e</sub> AC-3
<b>Rated Breaking Capacity AC-3e:</b>	8.5 x I <sub>e</sub> AC-3e
<b>Rated Making Capacity AC-3:</b>	10 x I <sub>e</sub> AC-3
<b>Rated Making Capacity AC-3e:</b>	12 x I <sub>e</sub> AC-3e
<b>Short-Circuit Protective Devices:</b>	gG Type Fuses 250 A

<b>Rated Short-time Withstand Current Low Voltage (<math>I_{cw}</math>):</b>	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 200 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 674 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 1460 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1168 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 477 A
<b>Maximum Breaking Capacity:</b>	cos phi=0.45 (cos phi=0.35 for $I_e > 100$ A) at 440 V 3000 A
<b>Rated Insulation Voltage (<math>U_i</math>):</b>	acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V acc. to UL/CSA 600 V
<b>Rated Impulse Withstand Voltage (<math>U_{imp}</math>):</b>	Main Circuit 8 kV
<b>Maximum Electrical Switching Frequency:</b>	(AC-1) 300 cycles per hour (AC-3) 300 cycles per hour
<b>Mechanical Durability:</b>	5 million
<b>Maximum Mechanical Switching Frequency:</b>	300 cycles per hour
<b>Coil Operating Limits:</b>	(acc. to IEC 60947-4-1) 0.85 x $U_c$ Min. ... 1.1 x $U_c$ Max. (at $\theta \leq 70$ °C)
<b>Rated Control Circuit Voltage (<math>U_c</math>):</b>	50 Hz 250 ... 500 V 60 Hz 250 ... 500 V DC Operation 250 ... 500 V
<b>Coil Consumption:</b>	Average Pull-in Value 50 Hz 260 V·A Average Pull-in Value 60 Hz 260 V·A Holding at Max. Rated Control Circuit Voltage 50 Hz 33.2 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 33.2 V·A Holding at Max. Rated Control Circuit Voltage DC 4.3 V·A Holding at Max. Rated Control Circuit Voltage DC 4.3 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 275 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 275 V·A Pull-in at Max. Rated Control Circuit Voltage DC 820 V·A Pull-in at Max. Rated Control Circuit Voltage DC 820 W
<b>Power Loss:</b>	18 W at Rated Operating Conditions per Pole 18 W
<b>Operate Time:</b>	Between Coil De-energization and NO Contact Opening 40 ... 70 ms Between Coil Energization and NO Contact Closing 20 ... 55 ms
<b>Connecting Capacity Main Circuit:</b>	Flexible 2 x 10 ... 70 mm <sup>2</sup> Rigid Cu-Cable 1 x 10 ... 95 mm <sup>2</sup> Rigid Cu-Cable 2 x 10 ... 95 mm <sup>2</sup>
<b>Connecting Capacity Auxiliary Circuit:</b>	Flexible with Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 2x0.75 ... 2.5 mm <sup>2</sup> Solid 1 x 1 ... 4 mm <sup>2</sup> Solid 2 x 1 ... 4 mm <sup>2</sup> Stranded 2 x 1 ... 4 mm <sup>2</sup>
<b>Connecting Capacity:</b>	Flexible 2 x 10 ... 70 mm <sup>2</sup> Rigid Cu-Cable 2 x 10 ... 95 mm <sup>2</sup>
<b>Degree of Protection:</b>	acc. to IEC 60529, IEC 60947-1, EN 60529 Auxiliary Terminals IP40 acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20 acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP00
<b>Tightening Torque:</b>	Cable Lug 9 N·m Main Circuit 8 N·m
<b>Terminal Type:</b>	Double Clamp
<b>Product Name:</b>	Block Contactor

## Technical UL/CSA

**NEMA Size:** 4

<b>Horsepower Rating NEMA:</b>	(200 V AC) Three Phase 40 Hp (230 V AC) Three Phase 50 Hp (460 V AC) Three Phase 100 Hp (575 V AC) Three Phase 100 Hp
<b>Maximum Operating Voltage UL/CSA:</b>	Main Circuit 600 V
<b>General Use Rating UL/CSA:</b>	(600 V AC) 200 A
<b>Horsepower Rating UL/CSA:</b>	(200 ... 208 V AC) Three Phase 15 Hp (200 V AC) Three Phase 40 hp (208 V AC) Three Phase 40 hp (220 ... 240 V AC) Three Phase 20 Hp (220 ... 240 V AC) Three Phase 50 hp (440 ... 480 V AC) Three Phase 40 Hp (440 ... 480 V AC) Three Phase 100 hp (550 ... 600 V AC) Three Phase 50 Hp (550 ... 600 V AC) Three Phase 125 hp

## Environmental

<b>Ambient Air Temperature:</b>	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 50 °C Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 55 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... 70 °C Close to Contactor for Storage -40 ... 70 °C
---------------------------------	--

**Maximum Operating Altitude Permissible:** Without Derating 3000 m

## Material Compliance

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

## ABB EcoSolutions

<b>ABB EcoSolutions:</b>	Yes
<b>ABB Site Meeting Group Waste To Landfill Target:</b>	Non-hazardous waste is sent to a landfill, where there is no alternative option available within 100km of a facility UL 2799 Zero Waste To Landfill Validation available
<b>EcoSolutions Profile:</b>	1SFC100125C0366
<b>End Of Life Disassembling Instructions:</b>	1SFC100112M0001
<b>Environmental Product Declaration - EPD:</b>	1SFC100092D0201
<b>Improved Energy Efficiency for Customers:</b>	Product Efficiency - Product requires less energy to operate compared to similar product on market or older products from the same line Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line
<b>Recyclability Rate of the Product acc. to EN45555:</b>	Design for Closing Resource Loops - Standard EN45555 - 87.8 %

---

## Certificates and Declarations

---

<b>ABS Certificate:</b>	14-LD1092198-PDA 14-LD1092198-1-PDA-DUP
<b>BV Certificate:</b>	BV_36353_A0BV
<b>CB Certificate:</b>	SEMKO_SE-77317
<b>CCS Certificate:</b>	GB14T00030
<b>CQC Certificate:</b>	CQC2013010304604055
<b>cULus Certificate:</b>	E73397_20140710
<b>Declaration of Conformity - CE:</b>	2CMT2015-005439
<b>Declaration of Conformity - UKCA:</b>	2CMT2020-006118
<b>DNV Certificate:</b>	DNV_E-14043
<b>KC Certificate:</b>	9AKK107046A9911 9AKK108472A2576
<b>LR Certificate:</b>	16-20064
<b>PRS Certificate:</b>	TE_2092_880423_16
<b>RINA Certificate:</b>	ELE060313XG_002

---

## Container Information

---

<b>Package Level 1 Units:</b>	box 1 piece
<b>Package Level 1 Width:</b>	147 mm
<b>Package Level 1 Depth / Length:</b>	197 mm
<b>Package Level 1 Height:</b>	155 mm
<b>Package Level 1 Gross Weight:</b>	2.25 kg
<b>Package Level 1 EAN:</b>	7320500505298

---

## External Classifications and Standards

---

<b>Object Classification Code:</b>	Q
<b>ETIM 7:</b>	EC000066 - Power contactor, AC switching
<b>ETIM 8:</b>	EC000066 - Power contactor, AC switching
<b>ETIM 9:</b>	EC000066 - Power contactor, AC switching
<b>eClass:</b>	V11.0 : 27371003
<b>UNSPSC:</b>	39121529
<b>IDEA Granular Category Code (IGCC):</b>	4758 >> Iec Contactors
<b>E-Number (Finland):</b>	3706090

---

## Accessories

---

Identifier	Description	Type	Qty	Unit Of Measure
1SFN010820R1011	CAL19-11 Auxiliary Contact Block	CAL19-11	1	piece
1SFN010820R3311	CAL19-11B Auxiliary Contact Block	CAL19-11B	1	piece
1SFN010832R1001	CEL19-01 Auxiliary Contact Block	CEL19-01	1	piece
1SFN010832R1010	CEL19-10 Auxiliary Contact Block	CEL19-10	1	piece
1SFN074208R2000	LD146-40 Connection Module	LD146-40	1	piece
1SFN124203R2000	LT140-40L Terminal Shroud	LT140-40L	1	piece
1SFN124801R2000	LT205-40C Terminal Shroud	LT205-40C	1	piece
1SFN074807R2000	LW205-40 Terminal Enlargement	LW205-40	1	piece
1SFN124803R2000	LT205-40L Terminal Shroud	LT205-40L	1	piece
1SFN075407R2000	LW370-40 Terminal Enlargement	LW370-40	1	piece
1SFN125401R2000	LT370-40C Terminal Shroud	LT370-40C	1	piece
1SFN125403R2000	LT370-40L Terminal Shroud	LT370-40L	1	piece

### Categories

Products > Low Voltage Products and Systems > Control Products > Contactors > Block Contactors > AF Contactors > AF140

