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 PRODUCT-DETAILS

## AF190B-40-22-14

### AF190B-40-22-14 Contactor




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**General Information**

Extended Product Type	AF190B-40-22-14
Product ID	1SFL487263R1422
EAN	7320500511237
Catalog Description	AF190B-40-22-14 Contactor

Long Description	<p>The AF190B-40-22-14 is a 4 pole - 1000 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and standard ferrules, controlling motors up to 90 kW / 400 V AC (AC-3) / and switching power circuits up to 275 A (AC-1) or 230 A UL general use. Thanks to the AF technology, the contactor has a wide control voltage range (250-500 V 50/60 Hz ), 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.</p>
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**Ordering**

Minimum Order Quantity	1 piece
Customs Tariff Number	85364900

### Popular Downloads

Data Sheet, Technical Information	1SBC100214C0202
Instructions and Manuals	1SFC100008M0201
CAD Dimensional Drawing	2CDC001079B0201

### Dimensions

Product Net Width	140 mm
Product Net Depth / Length	153 mm
Product Net Height	196 mm
Product Net Weight	3.3 kg

### Technical

Number of Main Contacts NO	4
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	2
Number of Auxiliary Contacts NC	2
Rated Operational Voltage	Main Circuit 1000 V
Rated Operational Current AC-1 (I <sub>e</sub> )	(1000 V) 40 °C 250 A (1000 V) 55 °C 225 A (1000 V) 60 °C 225 A (1000 V) 70 °C 185 A (690 V) 40 °C 275 A (690 V) 55 °C 250 A (690 V) 60 °C 250 A (690 V) 70 °C 200 A
Rated Operational Current AC-3 (I <sub>e</sub> )	(415 V) 55 °C 190 A (440 V) 55 °C 190 A (380 / 400 V) 55 °C 190 A (220 / 230 / 240 V) 55 °C 190 A
Rated Operational Power AC-3 (P <sub>e</sub> )	(415 V) 90 kW (440 V) 110 kW (500 V) 110 kW (690 V) 132 kW (1000 V) 110 kW (380 / 400 V) 90 kW (220 / 230 / 240 V) 55 kW
Rated Operational Power AC-3e (P <sub>e</sub> )	(415 V) 90 kW (440 V) 110 kW (500 V) 110 kW (690 V) 132 kW (1000 V) 110 kW (380 / 400 V) 90 kW (220 / 230 / 240 V) 55 kW
Rated Short-time Withstand Current Low Voltage (I <sub>cw</sub> )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 1520 A at 40 °C Ambient Temp, in Free Air, from a Cold State 15 min 275 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 621 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 s 1900 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 878 A
Rated Operational Current DC-1 (I <sub>e</sub> )	(100 V) 1 Pole, 40 °C 250 A (100 V) 1 Pole, 60 °C 250 A

- (100 V) 1 Pole, 70 °C 200 A
- (110 V) 2 Poles in Series, 40 °C 250 A
- (110 V) 2 Poles in Series, 60 °C 250 A
- (110 V) 2 Poles in Series, 70 °C 200 A
- (110 V) 3 Poles in Series, 40 °C 250 A
- (110 V) 3 Poles in Series, 60 °C 250 A
- (110 V) 3 Poles in Series, 70 °C 200 A
- (175 V) 2 Poles in Series, 40 °C 250 A
- (175 V) 2 Poles in Series, 60 °C 250 A
- (175 V) 2 Poles in Series, 70 °C 200 A
- (200 V) 2 Poles in Series, 40 °C 250 A
- (200 V) 2 Poles in Series, 60 °C 250 A
- (200 V) 2 Poles in Series, 70 °C 200 A
- (220 V) 3 Poles in Series, 40 °C 250 A
- (220 V) 3 Poles in Series, 60 °C 250 A
- (220 V) 3 Poles in Series, 70 °C 200 A
- (260 V) 3 Poles in Series, 40 °C 250 A
- (260 V) 3 Poles in Series, 60 °C 250 A
- (260 V) 3 Poles in Series, 70 °C 200 A
- (300 V) 3 Poles in Series, 40 °C 250 A
- (300 V) 3 Poles in Series, 60 °C 250 A
- (300 V) 3 Poles in Series, 70 °C 200 A
- (350 V) 4 Poles in Series, 40 °C 250 A
- (350 V) 4 Poles in Series, 60 °C 250 A
- (350 V) 4 Poles in Series, 70 °C 200 A
- (400 V) 4 Poles in Series, 40 °C 250 A
- (400 V) 4 Poles in Series, 60 °C 250 A
- (400 V) 4 Poles in Series, 70 °C 200 A
- (72 V) 1-Pole, 40 °C 250 A
- (72 V) 1-Pole, 60 °C 250 A
- (72 V) 1-Pole, 70 °C 200 A
- (72 V) 2 Poles in Series, 40 °C 250 A
- (72 V) 2 Poles in Series, 60 °C 250 A
- (72 V) 2 Poles in Series, 70 °C 200 A
- (72 V) 3 Poles in Series, 40 °C 250 A
- (72 V) 3 Poles in Series, 60 °C 250 A
- (72 V) 3 Poles in Series, 70 °C 200 A
- (90 V) 1 Pole, 40 °C 250 A
- (90 V) 1 Pole, 60 °C 250 A
- (90 V) 1 Pole, 70 °C 200 A

Rated Operational  
Current DC-3 (I<sub>e</sub>)

- (110 V) 2 Poles in Series, 40 °C 250 A
- (110 V) 2 Poles in Series, 60 °C 250 A
- (110 V) 2 Poles in Series, 70 °C 200 A
- (110 V) 3 Poles in Series, 40 °C 250 A
- (110 V) 3 Poles in Series, 60 °C 250 A
- (110 V) 3 Poles in Series, 70 °C 200 A
- (220 V) 3 Poles in Series, 40 °C 250 A
- (220 V) 3 Poles in Series, 60 °C 250 A
- (220 V) 3 Poles in Series, 70 °C 200 A
- (72 V) 2 Poles in Series, 40 °C 250 A
- (72 V) 2 Poles in Series, 60 °C 250 A
- (72 V) 2 Poles in Series, 70 °C 200 A
- (72 V) 3 Poles in Series, 40 °C 250 A
- (72 V) 3 Poles in Series, 60 °C 250 A
- (72 V) 3 Poles in Series, 70 °C 200 A

Rated Operational  
Current DC-5 (I<sub>e</sub>)

- (110 V) 2 Poles in Series, 40 °C 250 A
- (110 V) 2 Poles in Series, 60 °C 250 A
- (110 V) 2 Poles in Series, 70 °C 200 A
- (110 V) 3 Poles in Series, 40 °C 250 A
- (110 V) 3 Poles in Series, 60 °C 250 A
- (110 V) 3 Poles in Series, 70 °C 200 A
- (220 V) 3 Poles in Series, 40 °C 250 A
- (220 V) 3 Poles in Series, 60 °C 250 A
- (220 V) 3 Poles in Series, 70 °C 200 A
- (72 V) 2 Poles in Series, 40 °C 250 A
- (72 V) 2 Poles in Series, 60 °C 250 A
- (72 V) 2 Poles in Series, 70 °C 200 A
- (72 V) 3 Poles in Series, 40 °C 250 A
- (72 V) 3 Poles in Series, 60 °C 250 A
- (72 V) 3 Poles in Series, 70 °C 200 A

Mechanical Durability

5 million

Maximum Mechanical Switching Frequency	300 cycles per hour
Rated Control Circuit Voltage (U <sub>c</sub> )	50 Hz / 60 Hz 250 ... 500 V DC Operation 250 ... 500 V
Coil Consumption	Holding at Max. Rated Control Circuit Voltage 50 Hz 16.1 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 16.1 V·A Pull-in at Max. Rated Control Circuit Voltage 50 Hz 260 V·A Pull-in at Max. Rated Control Circuit Voltage 60 Hz 260 V·A Pull-in at Max. Rated Control Circuit Voltage DC 230 W
Terminal Type	Main Circuit: Bars

### Technical UL/CSA

General Use Rating UL/CSA	(600 V AC) 230 A
Horsepower Rating UL/CSA	(200 ... 208 V AC) Three Phase 20 Hp (200 V AC) Three Phase 50 hp (208 V AC) Three Phase 50 hp (220 ... 240 V AC) Three Phase 25 Hp (220 ... 240 V AC) Three Phase 60 hp (440 ... 480 V AC) Three Phase 60 Hp (440 ... 480 V AC) Three Phase 125 hp (550 ... 600 V AC) Three Phase 75 Hp (550 ... 600 V AC) Three Phase 150 hp

### Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
RoHS Status	Following EU Directive 2011/65/EU
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

ABB EcoSolutions	Yes
Environmental Product Declaration - EPD	1SFC100095D0201
Circular Design Principles Recyclability Rate	Design for Closing Resource Loops - Standard EN45555 - 79.2 %
Sustainable Material Content	Recycled Metal - 35 %
Group Waste to Landfill Target	Non-hazardous waste is sent to a landfill, where there is no alternative option available within 100km of a facility
Improved Resource Efficiency for Customers	Product Efficiency - Product requires less energy to operate compared to similar product on market or older products from the same line
End of Life Instructions	1SFC100112M0001

### Certificates and Declarations

CB Certificate	SE-82315
CQC Certificate	CQC2014010304676685

Declaration of Conformity - CCC	2020980304001306
Declaration of Conformity - CE	2CMT2015-005440
Declaration of Conformity - UKCA	2CMT2020-006124
EAC Certificate	9AKK107046A8618
UL Certificate	20140925-E73397

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	166 mm
Package Level 1 Depth / Length	238 mm
Package Level 1 Height	180 mm
Package Level 1 Gross Weight	3.9 kg
Package Level 1 EAN	7320500511237

## 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)	4755 >> Contactors
E-Number (Sweden)	3210471

## Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → AF Contactors → AF190

