





## AF140-40-22B-12

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### General Information

**Extended Product Type:**

AF140-40-22B-12

**Product ID:**

1SFL447102R1222

**EAN:**

7320500505229

**Catalog Description:**

AF140-40-22B-12 Contactor

**Long Description:**

The AF140-40-22B-12 is a 4 pole - 690 V IEC or 600 V UL contactor with pre-mounted auxiliary contacts and Main Circuit Bars, 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 wi... [Show more](#)

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## Go To Section:

Ordering  
Popular Downloads  
Dimensions  
Technical  
Technical UL/CSA  
Environmental  
Material Compliance  
ABB EcoSolutions  
Certificates and Declarations  
Container Information  
External Classifications and Standards  
Accessories

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## Ordering

### Minimum Order Quantity:

1 piece

### Customs Tariff Number:

85364900

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## Popular Downloads

### EPLAN Data:

[EPLAN EDZ AF140](#)

### Data Sheet, Technical Information:

[1SBC100214C0202 - Main catalog.Motor protection and control Manual motor starters, contactors and overload relays \(PDF\) - Edition 2024](#)

### Data Sheet, Technical Information (Part 2):

[Contactors and Overload relays guide](#)

### Instructions and Manuals:

[Operating instruction, Contactor, AF\(S\)116, AF140, AF\(S\)146](#)

### CAD Dimensional Drawing:

[Information - 2D and 3D files for CAD systems](#)

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## Dimensions

### Product Net Width:

120 mm

### Product Net Depth / Length:

128 mm

### Product Net Height:

150 mm

### Product Net Weight:

1.95 kg

### Dimension Diagram:

[Dimension Drawing, Contactor, AF116, AF140, AF146](#)

 diagram

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## 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

**Number of Poles:**

4P

**Rated Operational Voltage:**

Main Circuit 690 V

**Rated Frequency (f):**

Main Circuit 60 Hz

Main Circuit 50 / 60 Hz

**Conventional Free-air Thermal Current ( $I_{th}$ ):**

acc. to IEC 60947-4-1, Open Contactors  $\Theta = 40\text{ °C}$  200 A

**Rated Operational Current AC-1 ( $I_e$ ):**

(690 V) 40 °C 200 A

(690 V) 60 °C 175 A

(690 V) 70 °C 160 A

**Rated Operational Current AC-3 ( $I_e$ ):**

(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

**Rated Operational Power AC-3 ( $P_e$ ):**

(415 V) 75 kW

(440 V) 90 kW

(380 / 400 V) 75 kW

(220 / 230 / 240 V) 37 kW

**Rated Breaking Capacity AC-3:**

8 x  $I_e$  AC-3

**Rated Breaking Capacity AC-3e:**

8.5 x  $I_e$  AC-3e

**Rated Making Capacity AC-3:**

10 x  $I_e$  AC-3

**Rated Making Capacity AC-3e:**

12 x  $I_e$  AC-3e

**Short-Circuit Protective Devices:**

gG Type Fuses 250 A

**Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ ):**

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

**Maximum Breaking Capacity:**

$\cos \phi = 0.45$  ( $\cos \phi = 0.35$  for  $I_e > 100$  A) at 440 V 3000 A

**Rated Insulation Voltage ( $U_i$ ):**

acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V

acc. to UL/CSA 600 V

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**Rated Impulse Withstand Voltage ( $U_{imp}$ ):**

Main Circuit 8 kV

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**Maximum Electrical Switching Frequency:**

(AC-1) 300 cycles per hour  
(AC-3) 300 cycles per hour

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**Mechanical Durability:**

5 million

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**Maximum Mechanical Switching Frequency:**

300 cycles per hour

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**Coil Operating Limits:**

(acc. to IEC 60947-4-1)  $0.85 \times U_c \text{ Min.} \dots 1.1 \times U_c \text{ Max.}$  (at  $\theta \leq 70 \text{ }^\circ\text{C}$ )

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**Rated Control Circuit Voltage ( $U_c$ ):**

50 Hz 48 ... 130 V  
60 Hz 48 ... 130 V  
DC Operation 48 ... 130 V

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**Coil Consumption:**

Holding at Max. Rated Control Circuit Voltage 50 Hz 15.1 V·A  
Holding at Max. Rated Control Circuit Voltage 60 Hz 15.1 V·A  
Holding at Max. Rated Control Circuit Voltage DC 2.4 V·A  
Holding at Max. Rated Control Circuit Voltage DC 2.4 W  
Pull-in at Max. Rated Control Circuit Voltage 50 Hz 320 V·A  
Pull-in at Max. Rated Control Circuit Voltage 60 Hz 320 V·A  
Pull-in at Max. Rated Control Circuit Voltage DC 435 V·A  
Pull-in at Max. Rated Control Circuit Voltage DC 435 W

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**Power Loss:**

18 W  
at Rated Operating Conditions per Pole 18 W

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**Operate Time:**

Between Coil De-energization and NO Contact Opening 40 ... 70 ms  
Between Coil Energization and NO Contact Closing 20 ... 55 ms

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**Connecting Capacity Main Circuit:**

Flexible 1 x 10 ... 70 mm<sup>2</sup>  
Flexible 2 x 10 ... 70 mm<sup>2</sup>  
Rigid Cu-Cable 2 x 10 ... 95 mm<sup>2</sup>

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**Connecting Capacity Auxiliary Circuit:**

Flexible with Ferrule 1x 0.75 ... 2.5 mm<sup>2</sup>  
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 2 x 1 ... 4 mm<sup>2</sup>  
Stranded 1 x 1 ... 4 mm<sup>2</sup>  
Stranded 2 x 1 ... 4 mm<sup>2</sup>

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**Connecting Capacity:**

Flexible 2 x 10 ... 70 mm<sup>2</sup>  
Rigid Cu-Cable 2 x 10 ... 95 mm<sup>2</sup>

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**Degree of Protection:**

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

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**Tightening Torque:**

Cable Lug 9 N·m  
Main Circuit 8 N·m

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**Terminal Type:**

Main Circuit: Bars

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**Product Name:**

Block Contactor

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**Technical UL/CSA****NEMA Size:**

4

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**Horsepower Rating NEMA:**

(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

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**Maximum Operating Voltage UL/CSA:**

Main Circuit 600 V

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**General Use Rating UL/CSA:**

(600 V AC) 200 A

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**Horsepower Rating UL/CSA:**

(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

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**Environmental****Ambient Air Temperature:**

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

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**Maximum Operating Altitude Permissible:**

Without Derating 3000 m

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**Material Compliance****Conflict Minerals Reporting Template (CMRT):**

[CMRT - Conflict Minerals Reporting Template](#)

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**REACH Declaration:**

[REACH - Letter of Confirmation for block contactors, contactor relays, installation contactors, mini contactors, mini contactor relays, thermal overload relays, electronic overload relays and related accessories](#)

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**RoHS Declaration:**

[RoHS II declaration for block contactors, installation contactors, mini contactors, mini contactor relays, thermal overload relays, electronic overload relays and related accessories](#)

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**RoHS Information:**

Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

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**Toxic Substances Control Act - TSCA:**

[Toxic Substances Control Act \(TSCA\) declaration for Contactors](#)

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**WEEE B2C / B2B:**

Business To Business

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**WEEE Category:**

## **ABB EcoSolutions**

### **ABB EcoSolutions:**

Yes

### **ABB Site Meeting 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

### **End Of Life Disassembling Instructions:**

End-of-life instruction - AF(S)116(B)-\*\*(RT) to AF(S)205(B)-\*\*(RT).

### **Environmental Product Declaration - EPD:**

Environmental Product Declaration, AF(S)116-AF(S)146 (SE) Contactors

### **Improved Energy Efficiency for Customers:**

Product Efficiency - Product requires less energy to operate compared to similar product on market or older products from the same line

### **Recyclability Rate of the Product acc. to EN45555:**

Design for Closing Resource Loops - Standard EN45555 - 87.8 %

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## **Certificates and Declarations**

### **ABS Certificate:**

ABS Approval, Contactor, AF116 ... AF370 (Sweden)

ABS Approval, Contactor, AF116 ... AF370 (China)

### **BV Certificate:**

BV Certificate, Contactor, AF116-30 ... AF370-30...AF116-40...AF370-40

### **CB Certificate:**

SEMKO SE-77317

### **CQC Certificate:**

CQC Certificate, AC Contactor, AF116-\*\*-\*, AF140-\*\*-\*, AF146-\*\*-\*, AF116B-\*\*-\*, AF140B-\*\*-\*, AF146B-\*\*-\*, AFS116-30-\*\*-\*, AFS140-30-\*\*-\*, AFS146-30-\*\*-\*, Made in Sweden

### **Declaration of Conformity - CCC:**

CCC Declaration of Conformity, AC Contactor, AF116-\*\*-\*, AF140-\*\*-\*, AF146-\*\*-\*, AF116B-\*\*-\*, AF140B-\*\*-\*, AF146B-\*\*-\*, AFS116-30-\*\*-\*, AFS140-30-\*\*-\*, AFS146-30-\*\*-\*, Made in Sweden

### **Declaration of Conformity - CE:**

CE Declaration of Conformity - Contactor - AF116B...RT to AF370B...RT

### **Declaration of Conformity - UKCA:**

UK Declaration of Conformity - Contactors >100A

### **DNV GL Certificate:**

DNV-certificate, Contactors, AF116-30...AF370-30 and AF116-40...AF370-40

### **KC Certificate:**

KC Safety Certificate, Contactor, AF116-40...AF140-40 (Sweden)

### **LR Certificate:**

Lloyds register Certificate, Contactor, AF116...AF2850

### **PRS Certificate:**

PRS Certificate - AF116...AF1650

### **RINA Certificate:**

RINA Certificate, AF95, AF110, AF145, AF185, AF210, AF260, AF300, AF400, AF460, AF580, AF750, AF1250, AF1350, AF1650, AF2050, AF2650, AF116, AF140, AF146, AF190, AF205, AF265, AF305, AF370

### **RMRS Certificate:**

9AKK107045A6978

### **UL Certificate:**

cULus Certificate, Contactor, AF116-40, AF140-40 (4-pole)

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## Container Information

**Package Level 1 Units:**

box 1 piece

**Package Level 1 Width:**

147 mm

**Package Level 1 Depth / Length:**

197 mm

**Package Level 1 Height:**

155 mm

**Package Level 1 Gross Weight:**

2.15 kg

**Package Level 1 EAN:**

7320500505229

## External Classifications and Standards

**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):**

3706098

## Accessories

**Filters**

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12 Products

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Identifier	Description	Type	Qty	Unit Of Measure	Actions
<a href="#">15FN010820R1011</a>	CAL19-11 Auxiliary Contact Block	CAL19-11	1	piece	
<a href="#">15FN010820R3311</a>	CAL19-11B Auxiliary Contact Block	CAL19-11B	1	piece	
<a href="#">15FN010832R1001</a>	CEL19-01 Auxiliary Contact Block	CEL19-01	1	piece	
<a href="#">15FN010832R1010</a>	CEL19-10 Auxiliary Contact Block	CEL19-10	1	piece	

Identifier	Description	Type	Qty	Unit Of Measure	Actions
<a href="#">1SFN074208R2000</a>	LD146-40 Connection Module	LD146-40	1	piece	



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