

# AF190-40-11-11



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

## General Information

<b>Extended Product Type:</b>	AF190-40-11-11
<b>Product ID:</b>	1SFL487102R1111
<b>EAN:</b>	7320500504215
<b>Catalog Description:</b>	AF190-40-11-11 Contactor
<b>Long Description:</b>	A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, By-pass and Distribution application up to max 1000 V. Operated with wide control voltage range 24-60 V, 50 and 60 Hz, 20-60 V DC

## Ordering

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

## Dimensions

<b>Product Net Width:</b>	140 mm
<b>Product Net Depth / Length:</b>	152,6 mm
<b>Product Net Height:</b>	195,6 mm
<b>Product Net Weight:</b>	3.37 kg

## Technical

<b>Number of Main Contacts NO:</b>	4
<b>Number of Main Contacts NC:</b>	0
<b>Number of Auxiliary Contacts NO:</b>	1
<b>Number of Auxiliary Contacts NC:</b>	1
<b>Rated Operational Voltage:</b>	Main Circuit 1000 V
<b>Rated Frequency (f):</b>	Main Circuit 50 Hz
<b>Conventional Free-air Thermal Current (<math>I_{th}</math>):</b>	acc. to IEC 60947-4-1, Open Contactors $q = 40$ °C 275 A
<b>Rated Operational Current AC-1 (<math>I_e</math>):</b>	(690 V) 40 °C 275 A (1000 V) 40 °C 250 A (690 V) 70 °C 200 A (690 V) 60 °C 250 A (1000 V) 60 °C 225 A (1000 V) 70 °C 185 A
<b>Rated Operational Current AC-3 (<math>I_e</math>):</b>	(415 V) 55 °C 190 A (220 / 230 / 240 V) 55 °C 190 A (440 V) 55 °C 190 A (380 / 400 V) 55 °C 190 A

<b>Rated Operational Power AC-3 (P<sub>e</sub>):</b>	(220 / 230 / 240 V) 55 kW (380 / 400 V) 90 kW (440 V) 110 kW (415 V) 90 kW
<b>Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1:</b>	8 x I <sub>e</sub> AC-3
<b>Rated Making Capacity AC-3 acc. to IEC 60947-4-1:</b>	10 x I <sub>e</sub> AC-3
<b>Short-Circuit Protective Devices:</b>	gG Type Fuses 355 A
<b>Rated Short-time Withstand Current (I<sub>cw</sub>):</b>	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 10 s 1520 A at 40 °C Ambient Temp, in Free Air, from a Cold State 30 s 878 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 1 min 621 A
<b>Maximum Breaking Capacity:</b>	cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 440 V 3300 A
<b>Maximum Electrical Switching Frequency:</b>	AC-1 300 cycles per hour
<b>Rated Insulation Voltage (U<sub>i</sub>):</b>	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V
<b>Rated Impulse Withstand Voltage (U<sub>imp</sub>):</b>	Main Circuit 8 kV
<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 <sub>c</sub> Min. ... 1.1 x U <sub>c</sub> Max. (at θ ≤ 70 °C) °C
<b>Rated Control Circuit Voltage (U<sub>c</sub>):</b>	60 Hz 24 ... 60 V 50 Hz 24 ... 60 V DC Operation 20 ... 60 V
<b>Coil Consumption:</b>	Pull-in at Max. Rated Control Circuit Voltage 60 Hz 165 V·A Holding at Max. Rated Control Circuit Voltage DC 2.5 W Holding at Max. Rated Control Circuit Voltage 50 Hz 6 V·A Pull-in at Max. Rated Control Circuit Voltage DC 205 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 165 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 6 V·A
<b>Operate Time:</b>	Between Coil De-energization and NO Contact Opening 45 ... 80 ms Between Coil Energization and NO Contact Closing 25 ... 60 ms
<b>Connecting Capacity Main Circuit:</b>	Rigid Al-Cable 1 x 95 ... 185 mm <sup>2</sup> Rigid Cu-Cable 2 x 50 ... 120 mm <sup>2</sup> Flexible 2 x 50 ... 95 mm <sup>2</sup>
<b>Connecting Capacity Auxiliary Circuit:</b>	Solid 2 x 1 ... 4 mm <sup>2</sup> Flexible with Insulated Ferrule 2 x 0.75 ... 2.5 mm <sup>2</sup> Stranded 2 x 1 ... 4 mm <sup>2</sup> Flexible 2x0.75 ... 2.5 mm <sup>2</sup> Flexible with Ferrule 2 x 0.75 ... 2.5 mm <sup>2</sup>

**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 IP00

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**Terminal Type:** Main Circuit: Bars

## Environmental

**Ambient Air Temperature:** Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... +50 °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:** 3000 m

## Technical UL/CSA

**Maximum Operating Voltage UL/CSA:** Main Circuit 600 V

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**General Use Rating UL/CSA:** (600 V AC) 250 A

## Certificates and Declarations (Document Number)

**CB Certificate:** SEMKO\_SE-77322

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**CCC Certificate:** CQC\_2014010304676685

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**cUL Certificate:** 20140925-E73397

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**DNV GL Certificate:** DNV\_E-14043

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**LR Certificate:** LR\_14\_70011(E1)

## Container Information

**Package Level 1 Units:** 1 piece

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**Package Level 1 Gross Weight:** 3.92 kg

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**Package Level 1 EAN:** 7320500504215

## Classifications

**Object Classification Code:** Q

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**E-number:** 3210325

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**ETIM 4:** EC000066 - Magnet contactor, AC-switching

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**ETIM 5:** EC000066 - Magnet contactor, AC-switching

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**ETIM 6:** EC000066 - Power contactor, AC switching

