

## General Information

<b>Extended Product Type:</b>	AF190-30-11-11 24-60V 50/60Hz / 20-60V DC
<b>Product ID:</b>	1SFL487002R1111
<b>EAN:</b>	7320500480410
<b>Catalog Description:</b>	AF190-30-11-11 Contactor
<b>Long Description:</b>	A 3-phase Contactor suitable for various applications such as Motor starting, Isolation, Bypass 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

## Categories

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

## Ordering

<b>Minimum Order Quantity:</b>	1 piece
<b>Customs Tariff Number:</b>	85364900
<b>EAN:</b>	7320500480410

## Dimensions

<b>Product Net Depth:</b>	152.0 mm
<b>Product Net Height:</b>	196.0 mm
<b>Product Net Weight:</b>	2.778 kg
<b>Product Net Width:</b>	105.0 mm

## Container Information

<b>Package Level 1 Width:</b>	223 mm
<b>Package Level 1 Length:</b>	133 mm
<b>Package Level 1 Height:</b>	186 mm
<b>Package Level 1 Gross Weight:</b>	3.228 kg
<b>Package Level 1 EAN:</b>	7320500480410
<b>Package Level 1 Units:</b>	1 piece

## Technical

<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 50/60 Hz
<b>Conventional Free-air Thermal Current (I<sub>th</sub>):</b>	acc. to IEC 60947-4-1, Open Contactors q = 40 °C 275 A
<b>Rated Operational Current AC-1 (I<sub>e</sub>):</b>	(690 V) 55 °C 250 A (690 V) 40 °C 275 A (1000 V) 40 °C 250 A (1000 V) 55 °C 225 A (690 V) 70 °C 200 A (1000 V) 70 °C 185 A
<b>Rated Operational Current AC-3 (I<sub>e</sub>):</b>	(1000 V) 55 °C 85 A (415 V) 55 °C 190 A (690 V) 55 °C 135 A (220 / 230 / 240 V) 55 °C 190 A (440 V) 55 °C 190 A (380 / 400 V) 55 °C 190 A (500 V) 55 °C 135 A
<b>Rated Operational Power AC-3 (P<sub>e</sub>):</b>	(500 V) 90 kW (1000 V) 110 kW (220 / 230 / 240 V) 55 kW (690 V) 132 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 30 s 878 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 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 cos phi=0.45 (cos phi=0.35 for I <sub>e</sub> > 100 A) at 690 V 2200 A
<b>Maximum Electrical Switching Frequency:</b>	AC-3 300 cycles per hour AC-1 300 cycles per hour AC-2 / AC-4 150 cycles per hour
<b>Rated Operational Current DC-1 (I<sub>e</sub>):</b>	(110 V) 2 Poles in Series, 40 °C 250 A (220 V) 3 Poles in Series, 40 °C 250 A
<b>Rated Operational Current DC-3 (I<sub>e</sub>):</b>	(110 V) 2 Poles in Series, 40 °C 250 A (220 V) 3 Poles in Series, 40 °C 250 A
<b>Rated Operational Current DC-5 (I<sub>e</sub>):</b>	(110 V) 2 Poles in Series, 40 °C 250 A (220 V) 3 Poles in Series, 40 °C 250 A
<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 Energization and NO Contact Closing 25...55 ms Between Coil De-energization and NO Contact Opening 37...47 ms
<b>Connecting Capacity Main Circuit:</b>	Rigid Al-Cable 1x95...185 mm <sup>2</sup> Flexible 2x50...95 mm <sup>2</sup> Rigid Cu-Cable 2x50...120 mm <sup>2</sup>
<b>Connecting Capacity Auxiliary Circuit:</b>	Solid 2x1...4 mm <sup>2</sup> Flexible with Insulated Ferrule 2x0.75...2.5 mm <sup>2</sup> Stranded 2x1...4 mm <sup>2</sup> Flexible 2x0.75...2.5 mm <sup>2</sup> Flexible with Ferrule 2x0.75...2.5 mm <sup>2</sup>
<b>Degree of Protection:</b>	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>Terminal Type:</b>	Main Circuit: Bars
<b>Number of Main Contacts NO:</b>	3

## Environmental

<b>Maximum Operating Altitude Permissible:</b>	3000 m
<b>RoHS Status:</b>	Following EU Directive 2002/95/EC August 18, 2005 and amendment
<b>Ambient Air Temperature:</b>	Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 U <sub>c</sub> ) -25...+50 °C Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 U <sub>c</sub> ) -40...+70 °C Close to Contactor for Storage -40...+70 °C

## Technical UL/CSA

<b>General Use Rating UL/CSA:</b>	(600 V AC) 250 A
<b>Horsepower Rating UL/CSA:</b>	(208 V AC) Three Phase 50 Hp (440 ... 480 V AC) Three Phase 125 Hp (550 ... 600 V AC) Three Phase 150 Hp (220 ... 240 V AC) Three Phase 60 Hp (200 V AC) Three Phase 50 Hp
<b>Maximum Operating Voltage UL/CSA:</b>	Main Circuit 600 V

## Certificates and Declarations (Document Number)

<b>Instructions and Manuals:</b>	1SFC100008M0201
<b>CB Certificate:</b>	SE-71797M1
<b>Data Sheet, Technical Information:</b>	1SFC101070D0201
<b>Declaration of Conformity - CE:</b>	2CMT004613
<b>RINA Certificate:</b>	ELE060313XG/002
<b>RoHS Information:</b>	1SFC101055D0202

## Classifications

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<b>E-nummer:</b>	3210132
<b>ETIM 4:</b>	EC000066 - Magnet contactor, AC-switching
<b>ETIM 5:</b>	EC000066 - Magnet contactor, AC-switching
<b>UNSPSC:</b>	39121529
<b>Object Classification Code:</b>	Q

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