



**Electric Automation**  
Automation specialists

Reference: AF190-40-11-12  
Code: 1SFL487102R1211

AF190-40-11-12 Contactor

Buy it at Electric Automation Network



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 48-130 V, 50/60 Hz and DC

### Ordering

EAN:	7320500504246
Minimum Order Quantity:	1 piece
Customs Tariff Number:	85364900

### Dimensions

Product Net Width:	140 mm
Product Net Depth:	152,6 mm
Product Net Height:	195,6 mm
Product Net Weight:	3.37 kg

### Container Information

Package Level 1 Units:	1 piece
Package Level 1 Gross Weight:	3.92 kg

### Technical

Number of Main Contacts NO:	4
Number of Main Contacts NC:	0
Number of Auxiliary Contacts NO:	1
Number of Auxiliary Contacts NC:	1
Rated Operational Voltage:	Main Circuit 1000 V
Rated Frequency (f):	Main Circuit 50 Hz
Conventional Free-air Thermal Current ( $I_{th}$ ):	acc. to IEC 60947-4-1, Open Contactors $q = 40\text{ °C}$ 275 A
Rated Operational Current AC-1 ( $I_e$ ):	(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
Rated Operational Current AC-3 ( $I_e$ ):	(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
Rated Operational Power AC-3 ( $P_e$ ):	(220 / 230 / 240 V) 55 kW (380 / 400 V) 90 kW (440 V) 110 kW (415 V) 90 kW
Rated Breaking Capacity AC-3 acc. to IEC 60947-4-1:	8 x $I_e$ AC-3
Rated Making Capacity AC-3 acc. to IEC 60947-4-1:	10 x $I_e$ AC-3
Short-Circuit Protective Devices:	gG Type Fuses 355 A
Rated Short-time Withstand Current ( $I_{cw}$ ):	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 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 1 s 1900 A at 40 °C Ambient Temp, in Free Air, from a Cold State 1 min 621 A
Maximum Breaking Capacity:	$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100\text{ A}$ ) at 440 V 3300 A
Maximum Electrical Switching Frequency:	AC-1 300 cycles per hour
Rated Insulation Voltage ( $U_i$ ):	acc. to UL/CSA 600 V acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V
Rated Impulse Withstand Voltage ( $U_{imp}$ ):	Main Circuit 8 kV
Mechanical Durability:	5 million
Maximum Mechanical Switching Frequency:	300 cycles per hour
Coil Operating Limits:	(acc. to IEC 60947-4-1) 0.85 x $U_c$ Min. ... 1.1 x $U_c$ Max. (at $\theta \leq 70\text{ °C}$ ) °C
Rated Control Circuit Voltage ( $U_c$ ):	60 Hz 48...130 V 50 Hz 48...130 V DC Operation 48...130 V

Coil Consumption:	Pull-in at Max. Rated Control Circuit Voltage 60 Hz 175 V·A Holding at Max. Rated Control Circuit Voltage DC 2.5 W Holding at Max. Rated Control Circuit Voltage 50 Hz 4 V·A Pull-in at Max. Rated Control Circuit Voltage DC 130 W Pull-in at Max. Rated Control Circuit Voltage 50 Hz 175 V·A Holding at Max. Rated Control Circuit Voltage 60 Hz 4 V·A
Operate Time:	Between Coil Energization and NO Contact Closing 25...60 ms Between Coil De-energization and NO Contact Opening 45...80 ms
Connecting Capacity-Main Circuit:	Rigid Al-Cable 1x95...185 mm <sup>2</sup> Flexible 1x6...120 mm <sup>2</sup> Rigid Cu-Cable 1x6...150 mm <sup>2</sup>
Connecting Capacity-Auxiliary Circuit:	Solid 2x1...4 mm <sup>2</sup> Flexible with Insulated Ferrule 2x0.75...2.5 mm <sup>2</sup> Stranded 1x1...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>
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
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
Maximum Operating Altitude Permissible:	3000 m

## Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Main Circuit 600 V
General Use Rating UL/CSA:	(600 V AC) 250 A

## Classifications

ETIM 5:	EC000066 - Magnet contactor, AC-switching
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