

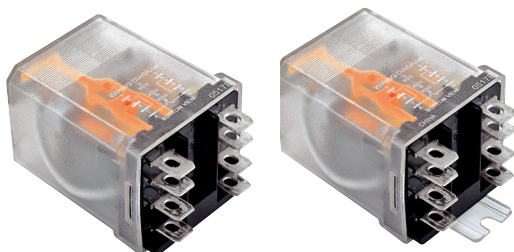
Description

Legacy Power Relays

389F

SPST, 30 A; DPDT, 20–25 A;

SPDT, 25–30 A; 3PDT, 20 A



Plug-In (Socket) Cover

Side Flange Cover

Description

The 389F series power relays offer a broad range of contact ratings along with a variety of mounting options and accessories, making it the ideal solution for a variety of application requirements.

Feature	Benefit
High-power contacts	High contact ratings (up to 30 A, 1.5 hp) and long electrical endurance; suitable for high-power switching applications
Ballast load ratings	Ideal for lighting controls
Multiple contact configurations	Meets a wide variety of applications
Socket mountable (plug-in cover only)	Helps increase design and installation flexibility; allows the use of modules and other accessories
RoHS compliant	Environmentally friendly; complies with the European Restriction of Hazardous Substances directive

Rated Contact Current	Contact Configuration	Coil Voltage	Coil Resistance (Ω)	Cover Style	Standard Part Number
20 A	3PDT	12 Vac	17.7	Side flange	389FXCXC1-12A
		24 Vac	72	Side flange	389FXCXC1-24A
				Plug-in (socket)	389FXCXC-24A
		120 Vac	1700	Plug-in (socket)	389FXCXC1-120A
				Side flange	389FXCXC1-120A
		240 Vac	7200	Plug-in (socket)	389FXCXC-240A
				Side flange	389FXCXC1-240A
		12 Vdc	100	Plug-in (socket)	389FXCXC-12D
25 A	DPDT			Side flange	389FXCXC1-12D
		24 Vdc	400	Plug-in (socket)	389FXCXC-24D
				Side flange	389FXCXC1-24D
		24 Vac	72	Plug-in (socket)	389FXBXC-24A
				Side flange	389FXBXC1-24A
		120 Vac	1700	Plug-in (socket)	389FXBXC1-120A
				Side flange	389FXBXC1-120A
		240 Vac	7200	Plug-in (socket)	389FXBXC-240A
	SPDT			Side flange	389FXBXC1-240A
		12 Vdc	100	Plug-in (socket)	389FXBXC-12D
				Side flange	389FXBXC1-12D
		24 Vdc	400	Plug-in (socket)	389FXBXC-24D
				Side flange	389FXBXC1-24D
		24 Vac	72	Side flange	389FXAXC1-24A
		120 Vac	1700	Side flange	389FXAXC1-120A
		240 Vac	7200	Side flange	389FXAXC1-240A
30 A	SPDT-DM-DB	12 Vdc	100	Side flange	389FXAXC1-12D
		24 Vdc	400	Side flange	389FXAXC1-24D
		24 Vac	72	Side flange	389FXHXC1-24A
		120 Vac	1700	Side flange	389FXHXC1-120A
		240 Vac	7200	Side flange	389FXHXC1-240A
	SPST-NO-DM	12 Vdc	100	Side flange	389FXHXC1-12D
		24 Vdc	400	Side flange	389FXHXC1-24D
		24 Vac	72	Side flange	389FXHXC1-24A
		120 Vac	1700	Side flange	389FXHXC1-120A
		240 Vac	7200	Side flange	389FXHXC1-240A
		12 Vdc	100	Side flange	389FXHXC1-12D
		24 Vdc	400	Side flange	389FXHXC1-24D

Specifications

Part Number	389FXAX, XBX	389FCX	389FXHX, HXX
Contact Characteristics			
Contact Configuration	SPDT, DPDT	3PDT	SPST-NO-DM; SPDT-DM-DB
Contact Material	Silver alloy		
Thermal (Carrying) Current	25 A	20 A	30 A
Maximum Switching Voltage	600 V	300 V	600 V
Rated Switching Current at Voltage (Conforming to IEC AC-1 and DC-1)	NO and NC: 25 A at 250 Vac NO and NC: 15 A at 28 Vdc	NO and NC: 20 A at 250 Vac NO and NC: 15 A at 28 Vdc	NO and NC: 30 A at 250 Vac NO and NC: 30 A at 28 Vdc
Current Ratings at Voltage (Conforming to UL)	Resistive: 25 A at 300 Vac 50/60 Hz; 5 A at 600 Vac 50/60 Hz; 13 A at 28 Vdc, 100,000 cycles Motor: 1.5 hp at 200–240 Vac 50/60 Hz; 1 hp at 120–200 and 480–600 Vac ³ 50/60 Hz, 6,000 cycles Pilot Duty: B600, 6,000 cycles FLA/LRA: 22/98 A at 120 Vac, 6,000 cycles Ballast: 20 A, 277 Vac 50/60 Hz, 6,000 cycles	Resistive: 20 A at 150 Vac 50/60 Hz, 15 A at 250 Vac, 50/60 Hz 13 A at 28 Vdc, 50,000 cycles Motor: 0.5 hp at 120–240 Vac 50/60 Hz; 6,000 cycles Pilot Duty: B300, 6,000 cycles Ballast: 20 A, 150 Vac 50/60 Hz; 6.67 A at 277 Vac, 6,000 cycles	Resistive: 30 A at 300 Vac 50/60 Hz 10 A at 600 Vac 50/60 Hz 30 A at 28 Vdc, 100,000 cycles Motor: 1.5 hp at 200–600 Vac 50/60 Hz; 1 hp at 120–200 Vac 50/60 Hz, 6,000 cycles Pilot Duty: A600, 6,000 cycles FLA/LRA: 22/98 A at 120 Vac, 6,000 cycles; 17/60 A at 300 Vac, 6,000 cycles ³ Ballast: 25 A, 277 Vac 50/60 Hz, 6,000 cycles
Minimum Switching Requirement	100 mA at 5 Vdc		
Coil Characteristics			
Coil Voltage Range ¹	12–240 Vac 50/60 Hz; 12–24 Vdc ¹		
Operating Range (% of Nominal)	85%–110% (AC); 80%–110% (DC)		
Average Consumption	2 VA (AC); 1.5 W (DC)		
Drop-out Voltage Threshold	10% minimum (AC/DC)		
General Characteristics			
Electrical Life at Rated Load ²	100,000 operations for IEC AC-1, 50,000 operations for IEC DC-1		
Mechanical Life at No Load (Unpowered)	5,000,000 operations		
Operate Time at Nominal Coil Voltage	20 ms (maximum)		
Dielectric Strength	Between coil and contact: 2200 Vac; between poles: 2200 Vac; between contacts: 1600 Vac		
Operating Temperature Range	-30 to +55 °C (-22 to +131 °F)		
Storage Temperature Range	-30 to +85 °C (-22 to +185 °F)		
Weight (Average)	84 g (3.0 oz)		
Agency Certifications	UL Listed (E164862), CSA (225619), CE (per IEC 60947-1), RoHS		

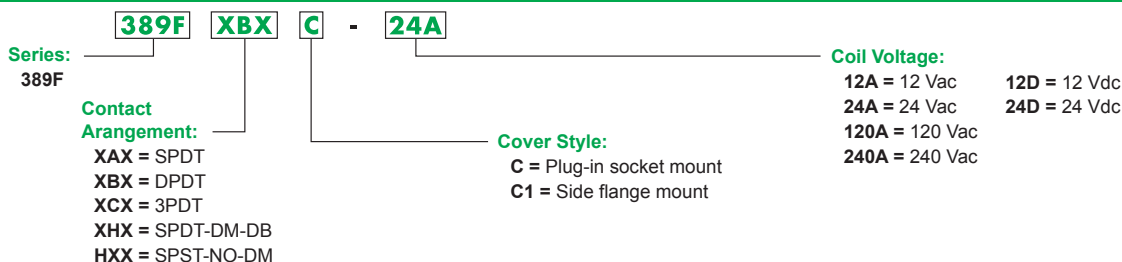
Note: Actual product performance may vary depending on application and environmental conditions.

¹ For available standard coil voltages, refer to the standard part number table on page 14.

² The NO and NC contacts were tested independently. ³ Break all lines for 1 hp at 600 Vac, 50/60 Hz.

³ For SPST-NO-DM version only.

Part Number Explanation



Legacy Power Relays

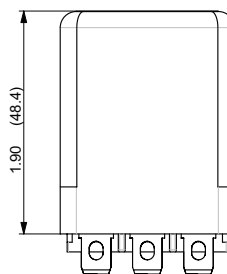
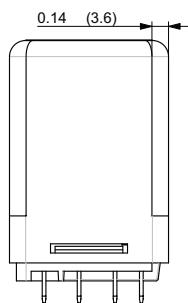
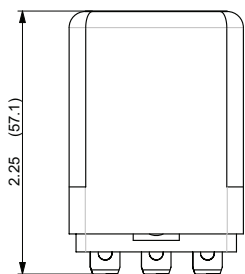
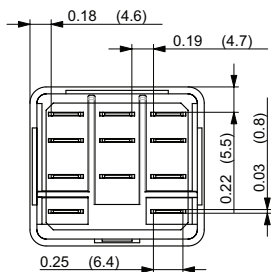
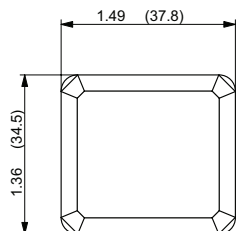
389F

SPST, 30 A; DPDT, 20–25 A;

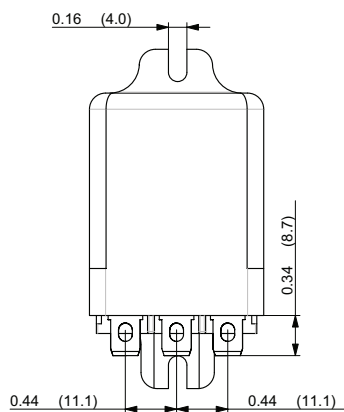
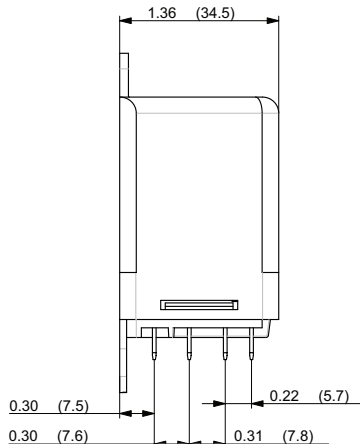
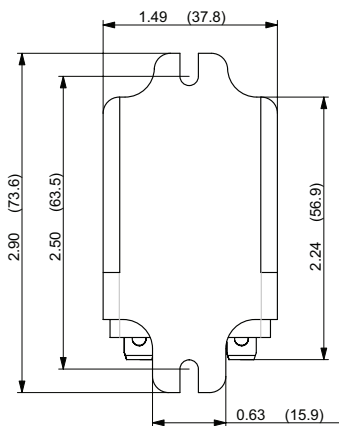
SPDT, 25–30 A; 3PDT, 20 A

Dimensions — inches (millimeters)

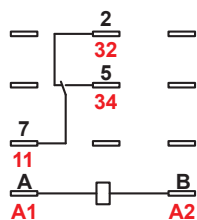
Plug-in Cover Style



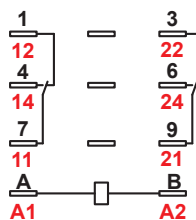
Side Flange Cover Style



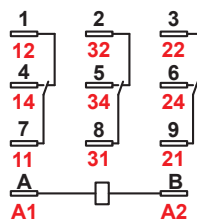
Wiring Diagrams



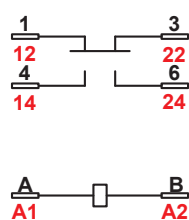
SPDT



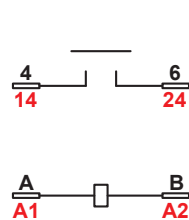
DPDT



3PDT



SPDT-DB-DM



SPST-NO-(DM)

NEMA
IEC

Legacy Power Relays

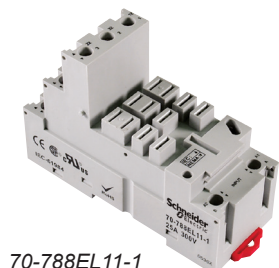
389F

Socket, 70-788EL11-1



Description

The 389F accessories create a complete system solution for all your application needs.



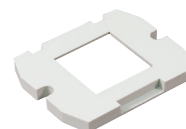
70-788EL11-1



70-ASM



16-750/788FT-1



16-788C1

16-DCLIP-1 and
16-700DIN

Relay Accessories

Description	Function	For Use with Relays	Packaging Minimum	Standard Part Number
Socket	Offers an alternate installation option	389F relays with plug-in (socket) cover	10	70-788EL11-1

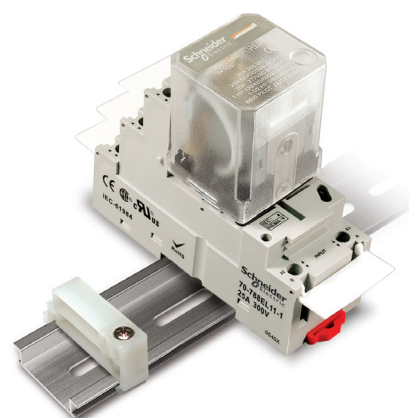
Socket Accessories

Description	Function	Coil Voltage	For Use with Sockets	Packaging Minimum	Standard Part Number
Socket Module*	LED indicator	120/240 Vac/Vdc	70-788EL11-1	10	70-ASMLG-110/240
	MOV suppressor	24 Vac/Vdc	70-788EL11-1	10	70-ASMM-24
		120 Vac/Vdc	70-788EL11-1	10	70-ASMM-120
		240 Vac/Vdc	70-788EL11-1	10	70-ASMM-240
	Protection diode	6–250 Vdc	70-788EL11-1	10	70-ASMD-250
	RC circuit	240 Vac	70-788EL11-1	10	70-ASMR-240
ID Tag/Label*	Identification of circuits in multi-relay applications	N/A	70-788EL11-1	10	16-750/788FT-1
Panel Mount Adapter	Mounting socket to a panel	N/A	70-788EL11-1	10	16-788C1
Metal DIN Rail*	Quick installation and removal of sockets	N/A	70-788EL11-1	20	16-700DIN
DIN Rail Clip*	Holds sockets firmly in place on DIN rail	N/A	70-788EL11-1	10	16-DCLIP-1

* Use of LED or RC socket module may increase coil power draw by up to 10%. See page 30 for more information.

Socket Specifications (UL 508)

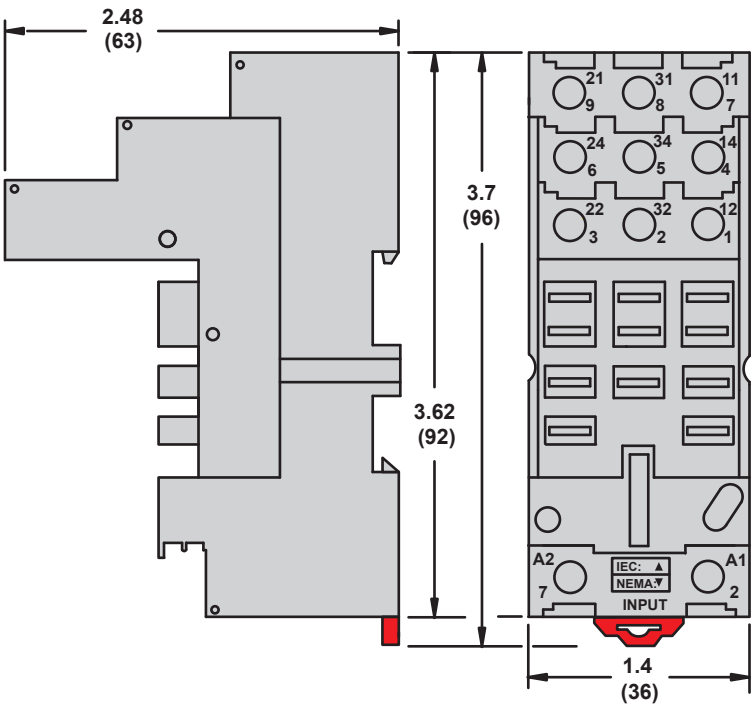
Part Number	70-788EL11-1
Number of Terminals	11
Nominal Voltage Rating	300 V
Nominal Current Rating	25 A
Dielectric Strength	Between adjacent output terminals: 3000 V(rms); Output to input terminals: 3000 V(rms); Terminals to rail/chassis: 3000 V(rms)
Temperature Range	Operation: -40 to +80 °C (-40 to +176 °F); Storage: -40 to +105 °C (-40 to +221 °F)
Protection Category (Fingersafe™)	IP20
Internal Metal Tracks	Copper alloy, Tin plated
Screw Terminals	Steel, Zinc plated combination head
Maximum Screw Torque	9.0 lb-in (1.0 N•m)
Mounting Style	35 mm DIN rail; mounts to panel with 16-788C1 adapter
Wire Connection Method	Elevator terminals
Wire Size	Solid Cu: two 10–12 AWG (4.0–6.0 mm²) Stranded Cu: two 10–12 AWG (4.0–6.0 mm²)
Flammability Rating	94V-0
Weight	3.39 oz (96 g)
Agency Certifications	UL Listed (E70550), CSA (40787), CE (per IEC 61984), RoHS



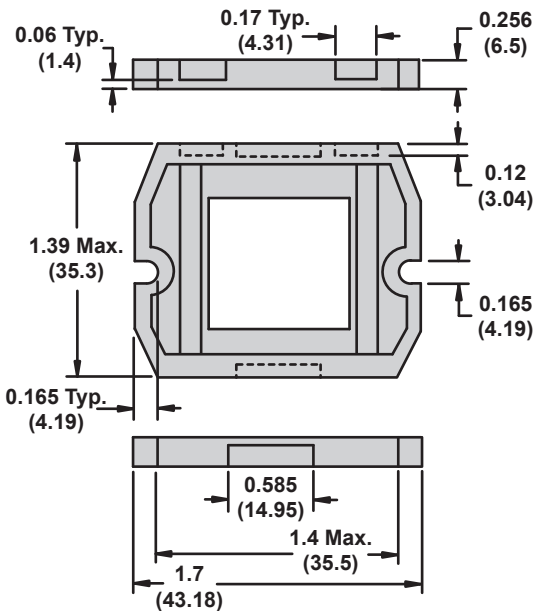
Relay Mounting Example

Dimensions — inches (millimeters)

70-788EL11-1



16-788C1 Panel Mount Adapter for 70-788EL11 socket



Legacy Power Relays

389F
Socket, 70-788EL11-1

Wiring Diagram

70-788EL11-1

