

## Description

# Magnecraft Power Relays

## 389F

SPST, 30 A; DPDT, 20 to 25 A;

SPDT, 25 to 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 panel, DIN and socket mount 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	24 Vac	72	Plug-in (socket)	389FXCXC-24A
		120 Vac	1700	Plug-in (socket)	389FXCXC-120A
				Side flange	389FXCXC1-120A
		240 Vac	7200	Side flange	389FXCXC1-240A
		12 Vdc	100	Side flange	389FXCXC1-12D
		24 Vdc	400	Side flange	389FXCXC1-12D
25 A	DPDT	24 Vac	72	Plug-in (socket)	389FXBXC-24A
		120 Vac	1700	Plug-in (socket)	389FXBXC-120A
				Side flange	389FXBXC1-120A
		240 Vac	7200	Side flange	389FXBXC1-240A
		12 Vdc	100	Side flange	389FXBXC1-12D
	SPDT	24 Vdc	400	Plug-in (socket)	389FXBXC-24D
				Side flange	389FXBXC1-24D
		120 Vac	1700	Side flange	389FXAXC1-120A
		12 Vdc	100	Side flange	389FXAXC1-12D
		24 Vdc	400	Side flange	389FXAXC1-24D
30 A	SPDT-DM-DB	120 Vac	1700	Side flange	389FXHXC1-120A
		12 Vdc	100	Side flange	389FXHXC1-12D
		24 Vdc	400	Side flange	389FXHXC1-24D
	SPST-NO-DM	120 Vac	1700	Side flange	389FHXXC1-120A
		12 Vdc	100	Side flange	389FHXXC1-12D
		24 Vdc	400	Side flange	389FHXXC1-24D

## Part Number Explanation

Series: **389F** **XBX** **C** - **24A**

Series:  
389F

Contact Arrangement:  
**XAX** = SPDT  
**XBX** = DPDT  
**XCX** = 3PDT  
**XHX** = SPDT-DM-DB  
**HXX** = SPST-NO-DM

Cover Style:  
**C** = Plug-in socket mount  
**C1** = Side flange mount

Coil Voltage:

**12A** = 12 Vac      **12D** = 12 Vdc  
**24A** = 24 Vac      **24D** = 24 Vdc  
**48A** = 48 Vac      **48D** = 48 Vdc  
**120A** = 120 Vac    **110D** = 110 Vdc  
**240A** = 240 Vac

## Magnecraft Power Relays

### 389F

SPST, 30 A; DPDT, 20 to 25 A;

SPDT, 25 to 30 A; 3PDT, 20 A

### Specifications (UL 508)

Part Number	389FXAX, XBX	389FCX	389FXHX, HXX
<b>Contact Characteristics</b>			
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
Current Ratings at Voltage	Resistive: 25 A at 300 Vac 50/60 Hz; 13 A at 28 Vdc, 50,000 cycles  Motor: 1.5 hp at 208–240 Vac 50/60 Hz; 1 hp at 120 and 480–600 Vac 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; 13 A at 28 Vdc, 50,000 cycles  Motor: 0.5 hp at 208–240 Vac 50/60 Hz; 0.5 hp at 120 Vac 50/60 Hz, 6,000 cycles  Pilot Duty: B300, 6,000 cycles  FLA/LRA: 22/98 A at 120 Vac, 6,000 cycles  Ballast: 20 A, 150 Vac 50/60 Hz, 6,000 cycles	Resistive: 30 A at 300 Vac 50/60 Hz; 30 A at 28 Vdc, 50,000 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  Ballast: 25 A, 277 Vac 50/60 Hz, 6,000 cycles
Minimum Switching Requirement	100 mA at 5 Vdc (0.5 W)		
<b>Coil Characteristics</b>			
Coil Voltage Range <sup>1</sup>	12–240 Vac 50/60 Hz; 12–110 Vdc <sup>1</sup>		
Operating Range (% of Nominal)	85%–110% (AC); 80%–110% (DC)		
Average Consumption	2–3.5 VA (AC); 1.5 W (DC)		
Drop-Out Voltage Threshold	10% minimum (AC/DC)		
<b>General Characteristics</b>			
Electrical Life at Rated Load	50,000 operations, per IEC 60947; 6,000 per UL 508		
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 – +55 °C (-22 – +131 °F)		
Storage Temperature Range	-30 – +100 °C (-22 – +212 °F)		
Weight (Average)	95 g (3.3 oz)		
Product Certifications	UL (E43641), CE (per IEC 60947), CSA (168986)		

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

<sup>1</sup> For available standard coil voltages, please refer to the standard part number table on page 14.

# Magnecraft Power Relays

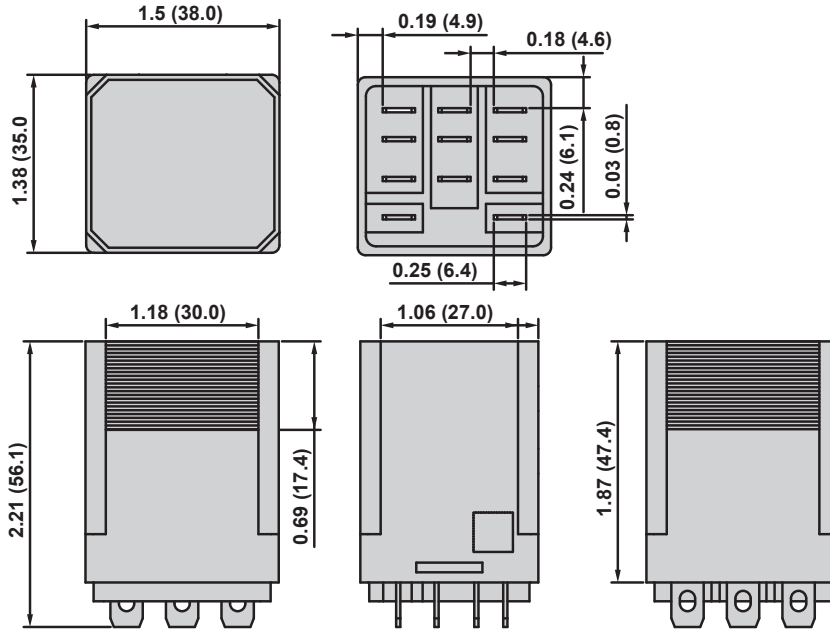
389F

SPST, 30 A; DPDT, 20 to 25 A;

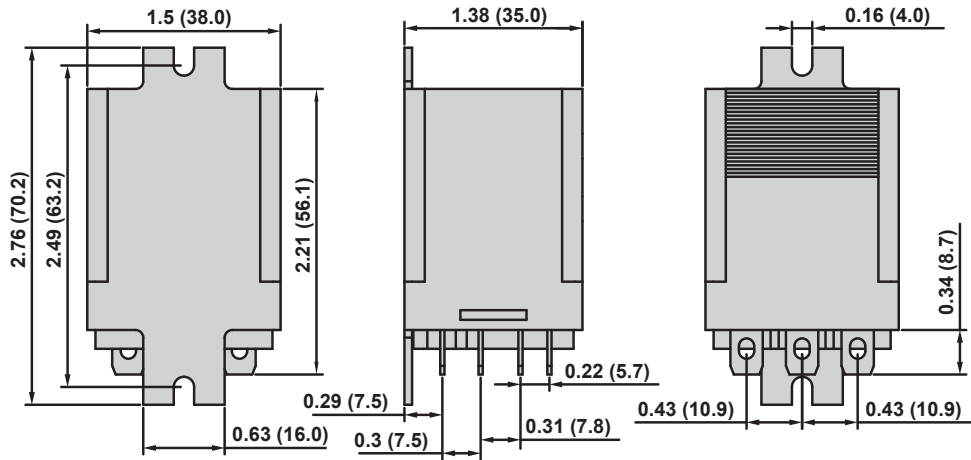
SPDT, 25 to 30 A; 3PDT, 20 A

## Dimensions — inches (millimeters)

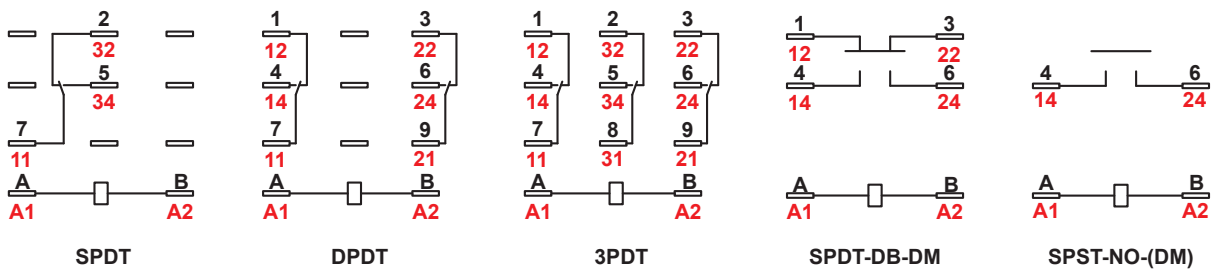
### Plug-in Cover Style



### Side Flange Cover Style



## Wiring Diagrams



NEMA  
IEC

# Magnecraft Power Relays

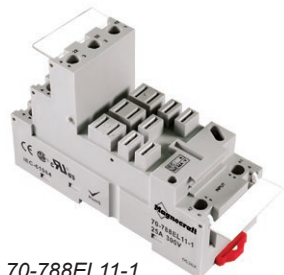
389F

Socket, 70-788EL11-1



## Description

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



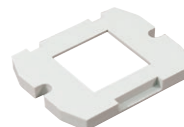
70-788EL11-1



70-ASM



16-750/788FT-1



16-788C1



16-DCLIP-1 & 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

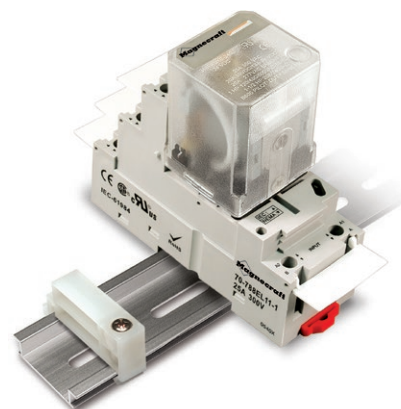
## Socket Accessories

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)

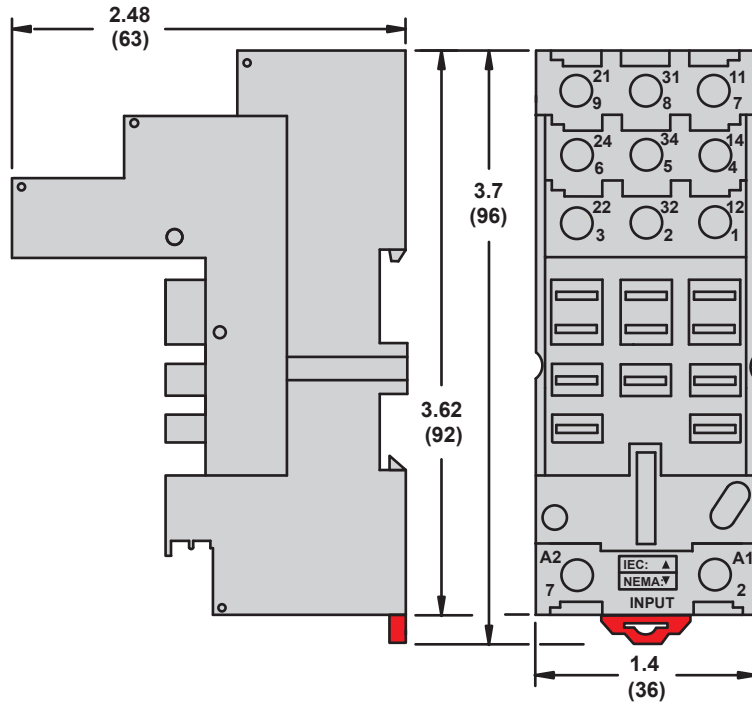
Part Number	70-788EL11-1
Number of Terminals	11
Nominal Voltage Rating	300 V
Nominal Current Rating	25 A
Dielectric Strength	Between adjacent output terminals: 3000 V(rms); Output to input terminals: 3000 V(rms); Terminals to rail/chassis: 3000 V(rms)
Temperature Range	Operation: -40 – +80 °C (-40 – +176 °F); Storage: -40 – +105 °C (-40 – +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 (2): 10/12 AWG; 6.0/4.0 mm <sup>2</sup> ; Stranded Cu (2): 10/12 AWG; 6.0/4.0 mm <sup>2</sup>
Flammability Rating	94V-0
Weight	3.39 oz (96 g)
Product Certifications	UL (E70550), CSA (40787), CE (per IEC 61984), RoHS



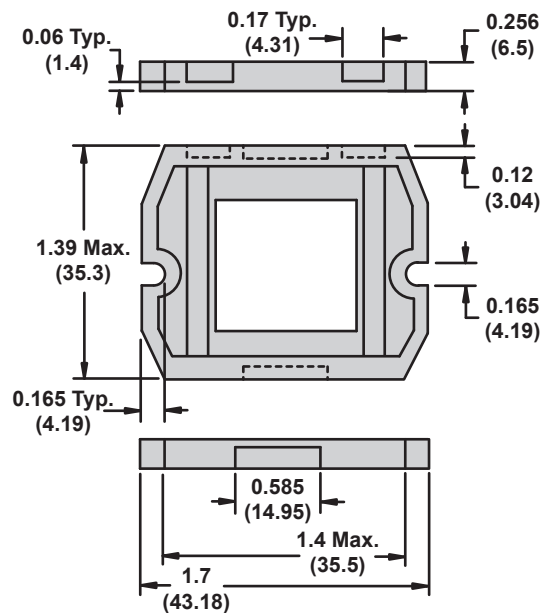
Relay Mounting Example

## Dimensions — inches (millimeters)

70-788EL11-1



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



## Wiring Diagram

70-788EL11-1

