

## 389F Power Relays/One, Two or Three Pole 20-30 Amp Rating (DC and AC)



### General Specifications - (UL 508)

| Contact Characteristics                      |                          | 389FHXX, XHX                                     | 389FXAX, BXX, XBX                                | 389FCXX, XCX                                       |
|--|--------------------------|--|--|--|
| Number and type of contacts                  |                          | SPST-NO-DM, SPDT-DM-DB                           | SPST, SPDT, DPST, DPDT                           | 3PST, 3PDT   |
| Contact materials                            |                          | Silver Alloy                                     | Silver Alloy                                     | Silver Alloy                                       |
| Thermal (carrying) current                   |                          | 30 A   | 25 A   | 20 A   |
| Maximum switching voltage                    |                          | 600 V  | 600 V  | 300 V  |
| Switching current @ voltage                  | Resistive                | 30 A @ 300 VAC 50/60Hz<br>30 A @ 28 VDC          | 25 A @ 300 VAC 50/60Hz<br>13 A @ 28 VDC          | 20 A @ 150 VAC 50/60Hz<br>13 A @ 28 VDC            |
|  | Ballast                  | 25 A @ 277 VAC 50/60Hz                           | 20 A @ 277 VAC 50/60Hz                           | 20 A @ 150 VAC 50/60Hz<br>6.67 A @ 277 VAC 50/60Hz |
|  | HP                       | 1.5 @ 200-300 V 50/60Hz<br>1 @ 120-199 V 50/60Hz | 1.5 @ 208-240 V 50/60Hz<br>1 @ 480-600 V 50/60Hz | 0.5 @ 208-240 V 50/60Hz<br>0.5 @ 120 V 50/60Hz     |
|  | Pilot Duty               | A600   | B600   | B300   |
| Minimum switching requirement                |                          | 100 mA @ 5 VDC or 0.5 W                          | 100 mA @ 5 VDC or 0.5 W                          | 100 mA @ 5 VDC or 0.5 W                            |
| Coil Characteristics                         |                          |  |  |  |
| Voltage range                                |                          | 12 to 240 VAC<br>12 to 110 VDC                   | 12 to 240 VAC<br>12 to 110 VDC                   | 12 to 240 VAC<br>12 to 110 VDC                     |
| Operating range (% of nominal)               |                          | 85% to 110% AC<br>80% to 110% DC                 | 85% to 110% AC<br>80% to 110% DC                 | 85% to 110% AC<br>80% to 110% DC                   |
| Average consumption                          |                          | 3.5 VA<br>1.44 W                                 | 3.5 VA<br>1.44 W                                 | 3.5 VA<br>1.44 W                                   |
| Drop-out voltage threshold                   |                          | 10% AC/DC  | 10% AC/DC  | 10% AC/DC  |
| Performance Characteristics                  |                          |  |  |  |
| Electrical life (operations @ rated current) |                          | 100,000 operations                               | 100,000 operations                               | 100,000 operations                                 |
| Mechanical life (unpowered)                  |                          | 5,000,000 operations                             | 5,000,000 operations                             | 5,000,000 operations                               |
| Operating time (response time)               |                          | 20 ms  | 20 ms  | 20 ms  |
| Dielectric strength                          | Between coil and contact | 2000 VAC   | 2000 VAC   | 2000 VAC   |
|  | Between poles            | 2000 VAC   | 2000 VAC   | 2000 VAC   |
|  | Between contacts         | 500 VAC  | 500 VAC  | 500 VAC  |
| Environment                                  |                          |  |  |  |
| Product certifications                       | Standard version         | UL, CE, CSA                                      | UL, CE, CSA                                      | UL, CE, CSA  |
| Ambient air temperature around the device    | Storage                  | -40 to 85 °C                                     | -40 to 85 °C                                     | -40 to 85 °C                                       |
|  | Operation                | -40 to 55 °C                                     | -40 to 55 °C                                     | -40 to 55 °C                                       |
| Weight                                       |                          | 88 g   | 88 g   | 88 g   |

### Part Number Builder

| 389F   | XBX   | C1M   | -120         | A                              |
|--|---|---|--------------|--------------------------------|
| Series   | Configuration   | Options**   | Voltage      | Current Type                   |
| 389F = Standard model equipped with flag indicator | <b>XAX</b> = SPDT<br><b>BXX</b> = DPST-NO<br><b>XBX</b> = DPDT<br><b>CXX</b> = 3PST-NO<br><b>XCX</b> = 3PDT<br><b>HXX</b> = SPST-NO-DM<br><b>XHX</b> = SPDT-DM-DB | <b>B</b> = Mounting base<br><b>C</b> = Plastic dust cover - socket mountable<br><b>C1</b> = Side flange mount cover<br><b>C3</b> = Top flange cover<br><b>L</b> = Indicator lamp across coil<br><b>M</b> = Manual operator button on case<br><b>T</b> = Printed circuit board terminals | Coil Voltage | <b>A</b> = AC<br><b>D</b> = DC |

Note - Not all iterations of option codes are available and some standard parts may use different nomenclature than outlined in part number builder.

\*\*Multiple codes may be used.



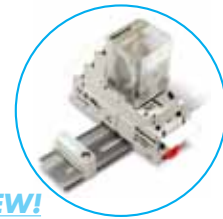
Side Flange Cover Option C1

**NEW!**



Plain Cover Option C

**NEW!**



389 Relay with the 70-788EL11-1 Socket

**Standard Part Numbers**

**BOLD-FACED PART NUMBERS ARE NORMALLY STOCKED**

| Nominal Input Voltage                                    | Coil Resistance | Part Number         | Contact Configuration |
|--|-----------------|---------------------|-----------------------|
| <b>25 Amp, AC Operated Flange Mount with Push Button</b> |                 |                     |                       |
| 220/240 VAC, 50/60 Hz                                    | 7200 Ω          | 389FBXC1M-240A      | DPDT                  |
| 110/120 VAC, 50/60 Hz                                    | 1700 Ω          | 389FBXC1M-120A      | DPDT                  |
| <b>20 Amp, AC Operated Flange Mount with Push Button</b> |                 |                     |                       |
| 220/240 VAC, 50/60 Hz                                    | 4600 Ω          | 389FCXC1M-240A      | 3PDT                  |
| 110/120 VAC, 50/60 Hz                                    | 1200 Ω          | 389FCXC1M-120A      | 3PDT                  |
| <b>25 Amp, DC Operated Flange Mount with Push Button</b> |                 |                     |                       |
| 12 VDC   | 100 Ω           | 389FBXC1M-12D       | DPDT                  |
| 24 VDC   | 400 Ω           | 389FBXC1M-24D       | DPDT                  |
| <b>20 Amp, DC Operated Flange Mount with Push Button</b> |                 |                     |                       |
| 12 VDC   | 100 Ω           | 389FCXC1M-12D       | 3PDT                  |
| 24 VDC   | 400 Ω           | 389FCXC1M-24D       | 3PDT                  |
| <b>30 Amp, AC Operated Flange Mount</b>                  |                 |                     |                       |
| 110/120 VAC 50/60 Hz                                     | 1100 Ω          | 389FHXC1-120A       | SPST-NO-DM            |
| 220/240 VAC 50/60 Hz                                     | 4300 Ω          | 389FHXC1-240A       | SPST-NO-DM            |
| 24 VAC 50/60 Hz  | 44 Ω            | 389FHXC1-24A        | SPDT-DM-DB            |
| 110/120 VAC 50/60 Hz                                     | 1100 Ω          | 389FHXC1-120A       | SPDT-DM-DB            |
| <b>30 Amp, DC Operated Flange Mount</b>                  |                 |                     |                       |
| 12 VDC   | 100 Ω           | 389FHXC1-12D        | SPST-NO-DM            |
| 24 VDC   | 400 Ω           | 389FHXC1-24D        | SPST-NO-DM            |
| 12 VDC   | 100 Ω           | 389FHXC1-12D        | SPDT-DM-DB            |
| 24 VDC   | 400 Ω           | 389FHXC1-24D        | SPDT-DM-DB            |
| <b>25 Amp, AC Operated Flange Mount</b>                  |                 |                     |                       |
| 110/120 VAC 50/60 Hz                                     | 1700 Ω          | 389FXAXC1-120A      | SPDT                  |
| 24 VAC 50/60 Hz  | 72 Ω            | 389FBXC1-24A        | DPDT                  |
| 110/120 VAC 50/60 Hz                                     | 1700 Ω          | 389FBXC1-120A       | DPDT                  |
| 220/240 VAC 50/60 Hz                                     | 7200 Ω          | 389FBXC1-240A       | DPDT                  |
| <b>20 Amp, AC Operated Flange Mount</b>                  |                 |                     |                       |
| 110/120 VAC 50/60 Hz                                     | 1200 Ω          | 389FCXC1-120A       | 3PDT                  |
| 220/240 VAC 50/60 Hz                                     | 4600 Ω          | 389FCXC1-240A       | 3PDT                  |
| <b>25 Amp, DC Operated Flange Mount</b>                  |                 |                     |                       |
| 12 VDC   | 100 Ω           | 389FXAXC1-12D       | SPDT                  |
| 24 VDC   | 400 Ω           | 389FXAXC1-24D       | SPDT                  |
| 12 VDC   | 100 Ω           | 389FBXC1-12D        | DPDT                  |
| 24 VDC   | 400 Ω           | 389FBXC1-24D        | DPDT                  |
| <b>20 Amp, DC Operated Flange Mount</b>                  |                 |                     |                       |
| 12 VDC   | 100 Ω           | 389FCXC1-12D        | DPDT                  |
| 24 VDC   | 400 Ω           | 389FCXC1-24D        | DPDT                  |
| <b>25 Amp, AC Operated Socket Compatible</b>             |                 |                     |                       |
| 220 / 240 VAC 50/60 Hz                                   | 7200 Ω          | <b>389FBXC-240A</b> | DPDT                  |
| 110 / 120 VAC 50/60 Hz                                   | 1700 Ω          | <b>389FBXC-120A</b> | DPDT                  |
| 24 VAC 50/60 Hz  | 72 Ω            | <b>389FBXC-24A</b>  | DPDT                  |
| <b>25 Amp, DC Operated Socket Compatible</b>             |                 |                     |                       |
| 110/125 VDC  | 8000 Ω          | 389FBXC-110/125D    | DPDT                  |
| 24 VDC   | 400 Ω           | <b>389FBXC-24D</b>  | DPDT                  |
| <b>20 Amp, AC Operated Socket Compatible</b>             |                 |                     |                       |
| 220/240 VAC 50/60 Hz                                     | 4600 Ω          | 389FCXC-240A        | DPDT                  |
| 110/120 VAC 50/60 Hz                                     | 1200 Ω          | <b>389FCXC-120A</b> | DPDT                  |
| 24 VAC 50/60 Hz  | 46 Ω            | <b>389FCXC-24A</b>  | DPDT                  |
| <b>20 Amp, DC Operated Socket Compatible</b>             |                 |                     |                       |
| 110/125 VDC  | 8000 Ω          | 389FCXC-110/125D    | DPDT                  |
| 24 VDC   | 400 Ω           | <b>389FCXC-24D</b>  | DPDT                  |

# 389F Power Relays/One, Two or Three Pole 20-30 Amp Rating (DC and AC) *continued*



**NEW!**



## WIRING DIAGRAMS BOTTOM VIEW

## NEMA IEC



**PLAIN/PUSH BUTTON COVER STYLE**

**Option C**



**TOP FLANGE COVER STYLE**

**Option C3**



**SIDE FLANGE COVER STYLE**

**Option C1**

