

FEATURES



COMPLIES WITH REQUIREMENTS OF

- * IEC STANDARDS 947-4-1 AND 947-5-1 LOW VOLTAGE DIRECTIVE
- * IEC = INTERNATIONAL ELECTROTECHNICAL COMMISSION
- * CE TESTING AND EVALUATION PERFORMED BY THE UNDERWRITERS LABORATORIES AS A THIRD PARTY PARTICIPANT

OVERSIZE CURRENT CARRYING PARTS

600 VOLT SPACING

FULL RANGE OF CONTACT RATINGS

BROAD SELECTION OF MOUNTING STYLES & OPTIONS

BENEFITS

RUNS COOLER & LONGER

HANDLES MOST LOAD VOLTAGES

ELIMINATES "GUESS WORK"

CAN BE "CUSTOMIZED" FOR UNIQUE SITUATIONS

DIELECTRIC STRENGTH CHART (V rms)

MANUFACTURED
UNDER
ISO 9002
& QS 9000

CONTACT CONFIGURATION	ACROSS OPEN CONTACTS	COIL TO CONTACTS	POLE TO POLE
SPST	1000	2200	-
DPDT	1000	2200	2200
3PDT	1000	1600	1600
SPDT (DB and DM)	1500	2200	-

STANDARD SIDE FLANGE COVER



389F WITH PUSH BUTTON AND FLAG



OPTIONAL TOP FLANGE COVER

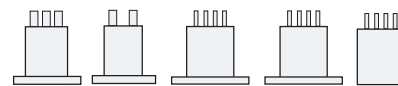


OPTIONAL DIN COVER



GENERAL SPECIFICATIONS (@ 25°C)

COIL		
	UNITS	
Pull-in Voltage AC (50/60 Hz):	% of nominal	85
Pull-in Voltage DC:	% of nominal	80
Dropout Voltage AC (50/60 Hz):	% of nominal	10
Dropout Voltage DC:	% of nominal	10
Maximum Voltage:	% of nominal	110
Resistance:	% ±	10
Coil Power AC (60 Hz):	VA	3.5
Coil Power DC:	W	1.44
Insulation System Per UL Standard 1446:		Class B (130 °C)
Duty:		Continuous
CONTACTS		
Contact Material:		Silver alloy gold flashed
Contact Rating AC Amperes (AC1):	A	20, 25, 30 see load tables
Pilot Duty:		A600, B600
VA Rating Make:	VA	600
VA Rating Break:	VA	60
Minimum Recommended Load:	ma	100 @ 5 VDC or 0.5 W
DIELECTRIC STRENGTH		
Coil to Contacts:	V rms	1600
Across Open Contacts:	V rms	1000
Pole to Pole:	V rms	1600
Contacts to Frame:	V rms	Not applicable
Insulation Resistance:	megohms minimum @VDC	1000 @ 500



TEMPERATURE		
	UNITS	
Operating, AC Lower:	°C	-30
Operating, AC Upper:	°C	+65
Operating, DC Lower:	°C	-30
Operating, DC Upper:	°C	+50
Storage, Lower:	°C	-30
Storage, Upper:	°C	+100
LIFE EXPECTANCY		
Electrical @ Rated Load (AC1):	operations	100,000
Mechanical @ no Load :	operations	5,000,000
MISCELLANEOUS		
Operating Position:		Any
Insulation Material:	94V-0	Molded plastic
Enclosure Material:	94V-0	Polycarbonate
Cover Protection Category:	IP	40
Terminals:	Inch (mm)	0.250, 0.09 x 0.032 (6.35, 2.29 x 0.81)
Weight:	grams	88

389 & 389F FLANGE MOUNT POWER RELAYS



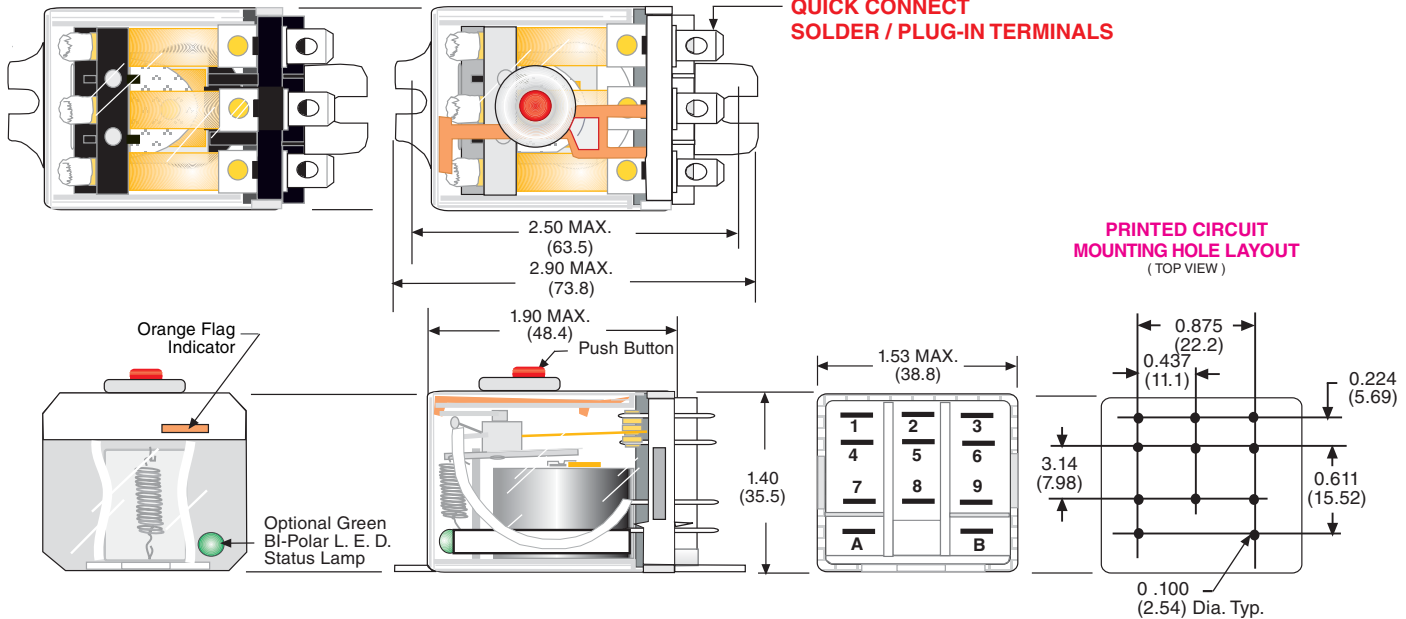
20, 25 & 30 AMPS

OUTLINE DIMENSIONS

DIMENSIONS SHOWN IN INCHES & (MILLIMETERS).

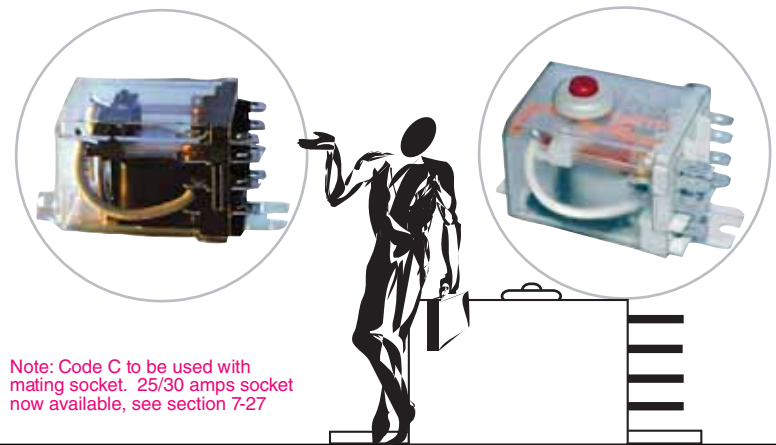
**QUICK CONNECT
SOLDER / PLUG-IN TERMINALS**

**PRINTED CIRCUIT
MOUNTING HOLE LAYOUT
(TOP VIEW)**



CLASS 389 LOAD RATINGS

CONTACT CONFIGURATION	CURRENT OR HORSE POWER	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD
SPDT	13A	28	DC	RESISTIVE
	20A	15	DC	RESISTIVE
	25A	300	50/60 Hz	RESISTIVE
	5A	600	50/60 Hz	RESISTIVE
	20A	277	50/60 Hz	BALLAST
	1HP	120	50/60 Hz	MOTOR
	1-1/2HP	208/240	50/60 Hz	MOTOR
	1HP	480/600	50/60 Hz	MOTOR
	660VA	120	50/60 Hz	PILOT DUTY
	960VA	240	50/60 Hz	PILOT DUTY
	B600		50/60Hz	PILOT DUTY
	13A	28	DC	RESISTIVE
DPDT	20A	15	DC	RESISTIVE
	25A	300	50/60 Hz	RESISTIVE
	5A	600	50/60 Hz	RESISTIVE
	20A	277	50/60 Hz	BALLAST
	1HP	120	50/60 Hz	MOTOR
	1-1/2HP	208/240	50/60 Hz	MOTOR
	1HP	480/600	50/60 Hz	MOTOR
	660VA	120	50/60 Hz	PILOT DUTY
	960VA	240	50/60Hz	PILOT DUTY
	B600		50/60Hz	PILOT DUTY
	13A	28	DC	RESISTIVE
	15A	28	DC (NO)	RESISTIVE
3PDT	20A	15	DC	RESISTIVE
	20A	150	50/60 Hz	RESISTIVE
	††15A	250	50/60 Hz	RESISTIVE
	†10A	300	50/60 Hz	RESISTIVE
	20A	150	50/60 Hz	BALLAST
	6-2/3A	277	50/60 Hz	BALLAST
	1/2HP	120	50/60Hz	MOTOR
	1/2HP	208/240	50/60 Hz	MOTOR
	1HP	240	50/60 Hz	MOTOR
	3/4HP	120	50/60Hz	MOTOR
	470VA	120/240	50/60Hz	PILOT DUTY
	B300		50/60Hz	PILOT DUTY



Note: Code C to be used with mating socket. 25/30 amps socket now available, see section 7-27

CLASS 389D LOAD RATINGS

CONTACT CONFIGURATION	CURRENT OR HORSE POWER	LOAD VOLTAGE	LOAD VOLTAGE FREQUENCY	TYPE OF LOAD
SPST (NO-DM)	30A	28	DC	RESISTIVE
	30A	300	50/60 Hz	RESISTIVE
	10A	600	50/60 Hz	RESISTIVE
	1HP	120	50/60 Hz	MOTOR
	1-1/2HP	200 thru 600	50/60 Hz	MOTOR
	765VA	120	50/60 Hz	PILOT DUTY
	960VA	240,480,600	50/60 Hz	PILOT DUTY
	A600		50/60 Hz	PILOT DUTY
SPDT (DB and DM)	25 A	277	50/60 Hz	BALLAST

†† UL APPLIANCE RATED. ALL OTHER RATINGS NOT SO MARKED ARE INDUSTRIAL RATED
† CSA RATING ONLY, NOT UL



389 & 389F FLANGE MOUNT POWER RELAYS



20, 25 & 30 AMPS

WIRING DIAGRAM
(VIEWED FROM PIN END)

ORDERING CODE

389F **XCX** **C1** **M** **-120A**

CLASS:

FLAG INDICATOR
STANDARD FEATURE

CONTACT CONFIGURATION:

DPDT: **XBX**, 3PDT: **XCX**

OPTIONAL:

MAGNETIC BLOWOUT:
CODE 69 (XBX ONLY)

CONSTRUCTION STYLE:

* ENCLOSED, PLAIN COVER: CODE C
ENCLOSED, FLANGE COVER: CODE C1
ENCLOSED TOP FLANGE MOUNT: CODE C3
ENCLOSED DIN MOUNT: CODE C4

TERMINAL STYLE:

0.250 QUICK CONNECT
SOLDER TERMINALS: NO CODE
PRINTED CIRCUIT TERMINALS: CODE T

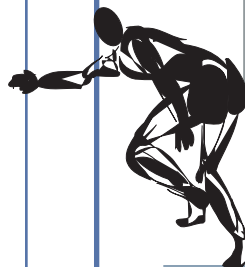
OPTIONS:

BI - POLAR L.E.D. STATUS LAMP: CODE L
PUSH BUTTON: CODE M

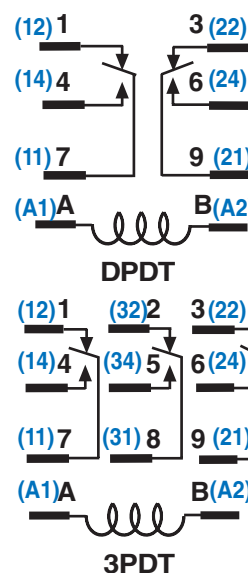
COIL VOLTAGE:

6, 12, 24, 120, 240 ADD "A" FOR AC COILS
6, 12, 24, 48, 110 ADD "D" FOR DC COILS

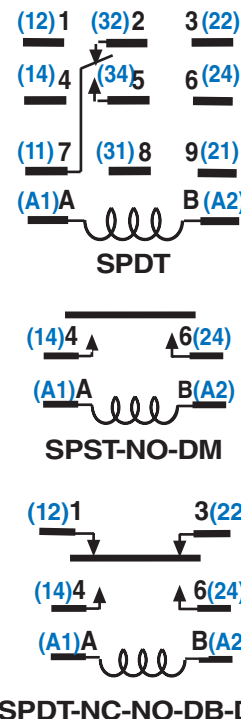
* Note: Code C to be used with mating socket. 25/30 amps socket now available, see section 7-27



389



ALTERNATE NEMA
OR IEC () NUMBERS
VIEWED FROM
PIN SIDE



SPDT-NC-NO-DB-DM



389F

STANDARD PART NUMBERS	CONTACT CONFIGU- RATION	COIL MEASURED @ 25 °C	
		NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
AC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 25 AMP			
389FXBXC1M-240A	DPDT	220/240 VAC, 50/60Hz	7200 Ω
389FXBXC1M-120A	DPDT	110/120 VAC,50/60Hz	1700 Ω
AC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 20 AMP			
389FXCXC1M-240A	3PDT	220/240 VAC, 50/60Hz	4600 Ω
389FXCXC1M-120A	3PDT	110/120 VAC, 50/60Hz	1200 Ω
DC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 25 AMP			
389FXBXC1M-12D	DPDT	12 VDC	100 Ω
389FXBXC1M-24D	DPDT	24 VDC	400 Ω
DC OPERATED FLANGE MOUNT WITH PUSH BUTTON, 20 AMP			
389FXCXC1M-12D	3PDT	12 VDC	100 Ω
389FXCXC1M-24D	3PDT	24 VDC	400 Ω

RETROFITS SCHRACK RM.
SEE END OF SECTION 1 FOR CROSS REFERENCE

STANDARD PART NUMBERS	CONTACT CONFIGU- RATION	COIL MEASURED @ 25 °C	
		NOMINAL INPUT VOLTAGE	NOMINAL RESISTANCE (OHMS)
AC OPERATED FLANGE MOUNT, 30 AMP			
W389ADCX-4	SPST-NO (DM)	110/120 VAC,50/60Hz	1100 Ω
W389ADCX-5	SPST-NO (DM)	220/240 VAC,50/60Hz	4300 Ω
W389ADZCX-3	SPDT-NO-NC (DB-DM)	24 VAC,50/60Hz	44 Ω
W389ADZCX-4	SPDT-NO-NC (DB-DM)	110/120 VAC,50/60Hz	1100 Ω
DC OPERATED FLANGE MOUNT, 30 AMP			
W389DCX-2	SPST-NO (DM)	12 VDC	100 Ω
W389DCX-3	SPST-NO (DM)	24 VDC	400 Ω
W389DZCX-2	SPST-NO-NC (DB-DM)	12 VDC	100 Ω
W389DZCX-3	SPST-NO-NC (DB-DM)	24VDC	400 Ω
AC OPERATED FLANGE MOUNT, 25 AMP			
W389ACX-4	SPDT	110/120 VAC,50/60Hz	1700 Ω
W389ACX-8	DPDT	24 VAC,50/60Hz	72 Ω
W389ACX-9	DPDT	110/120 VAC,50/60Hz	1700 Ω
W389ACX-10	DPDT	220/240 VAC,50/60Hz	7200 Ω
AC OPERATED FLANGE MOUNT, 20 AMP			
W389ACX-14	3PDT	110/120 VAC,50/60Hz	1200 Ω
W389ACX-15	3PDT	220/240 VAC,50/60Hz	4600 Ω
DC OPERATED FLANGE MOUNT, 25 AMP			
W389CX-2	SPDT	12 VDC	100 Ω
W389CX-3	SPDT	24VDC	400 Ω
W389CX-7	DPDT	12 VDC	100 Ω
W389CX-8	DPDT	24VDC	400 Ω
DC OPERATED FLANGE MOUNT, 20 AMP			
W389CX-12	3PDT	12 VDC	100 Ω
W389CX-13	3PDT	24VDC	400 Ω

RETROFITS POTTER & BRUMFIELD KUMP & KUHP.
SEE END OF SECTION 1 FOR CROSS REFERENCE