General Purpose Relay

Relay with Plug-in Termination, available in SPDT, DPDT or 3PDT models

- Rugged power driver offers superior 3/16" through-air and 3/8 over-surface spacing
- Interlocked frame and contact block prevent contact misalignment during plug-in
- · Available with dust covers, indicator lamps and push-to-operate buttons
- UL and CSA recognition as motor controllers up to 600 VAC
- Recognized for 1/2 hp motor control applications at 240/ 480/600 VAC (1/3 hp at 120 VAC)







Ordering Information

To Order: Select part number and add the desired coil voltage rating (e.g. MJN1C-AC24).

Item		Model	Model						
Туре	Contact form	Plug-in	Plug-in		Flange				
			LED indicator	1 -					
		10 A version	•	10 A version	20 A version	30 A version			
Standard	SPDT	MJN1C	MJN1C-N	MJN1CF	_	_			
	DPST (NO/NC)	Ī-	_	 -	<u> </u>	MJN1Z-E-RP			
	DPDT	MJN2C	MJN2C-N	MJN2CF	MJN2CE	_			
	3PDT	MJN3C	MJN3C-N	MJN3CF	<u> </u>	_			
Push-to-operate	SPDT	MJN1C-I	MJN1C-IN	<u> </u>	<u> </u>	_			
outton	DPDT	MJN2C-I	MJN2C-IN	<u> </u>	_	_			
	3PDT	MJN3C-I	MJN3C-IN	<u> </u>	_	_			
Latching	DPDT	MJN2CK	_	<u> </u>	_	_			

Specifications

■ Contact Data

Configuration		SPDT, DPDT, 3PDT		
Initial contact resistance		50 m Ω max.		
Materials		3/16" diameter Ag-Alloy		
Contact UL ratings 10 A 20 A 30 A		10 amp @ 28 VDC and 120/240 VAC at 80% pf, 1/3 hp @ 120 VAC, 1/2 hp @ 277/240/480/600 VAC 8.5 FLA - 36 LRA at 18 VDC, 3 amp @ 480/600 VAC at 80% pf, 10 amp @ 277 VAC resistive		
		20 amp @28 VDC and 120/240/277 VAC, 10 amp @ 480/600 VAC, 3/4 hp @ 120 VAC, 1-1/2 hp @ 240 VAC, 17 FLA - 65 LRA at 300VAC		
		30 amp @ 28 VDC, 15 amp @ 480 / 600 VAC, 1hp @ 120 VAC, 1-1/2 hp @ 240 VAC		
UL recognized file nu	ımber	E196745		

■ Coil Data

Non-latching - AC

	Resistance in Ohms ± 10%		Nominal coil power		Coil		Pick up voltage at	
voltage	1 & 2 PDT	3PDT	1 & 2 PDT	3PDT	voltages	resistance	25°C (77°F)	
24 VAC	75	72	1.7 VA	2.0 VA	6 to 240 VAC	,	85% of nominal	
120 VAC	2,250	1,700					min. @ 500 VDC	
240 VAC	9,100	7,200				VDC		

Non-latching - DC

Nominal voltage	Resistance in Ohms ± 10%	Nominal coil power			Pick up voltage at 25°C (77°F)
12 VDC	120	1.2 W	5 to 110 VDC	,	75% of nominal
24 VDC	470			min. @ 500 VDC	
48 VDC	1,800				
110 VDC	10,000				

Latching - AC

Nominal voltage	resistance in	Unlatch coil resistance in Ohms ± 10%	Nominal coil power				Operate voltage (latch/unlatch) at 25°C (77°F) (see note)
24 VAC	88	1,740	1.7 VA	_		1,000 MΩ min. @ 500	85% of nominal
120 VAC	2,090	17,430				VDC	

Note: 120% of nominal or greater (one second duration single pulse) unlatch voltage - - above this the relay latches again. Maximum continuous voltage: 120% of nominal (one coil only).

Latching - DC

Nominal voltage	Latch coil resistance in Ohms ± 10%	Unlatch coil resistance in Ohms ± 10%	Nominal coil power	Coil voltages	Insulation resistance	Operate voltage (latch/unlatch) at 25°C (77°F) (see note)
12 VDC	80	275	1.2 W	5 to 110 VDC	,	75% of nominal
24 VDC	330	1,070			min. @ 500 VDC	
48 VDC	1,290	2,850				
110 VDC	5,125	10,750				

Note: 120% of nominal or greater (one second duration single pulse) unlatch voltage - - above this the relay latches again. Maximum continuous voltage: 120% of nominal (one coil only).

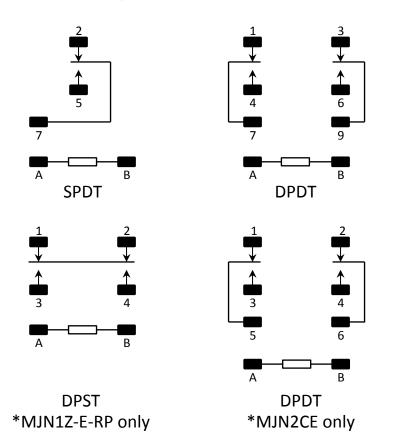
■ Characteristics

Operate time			15 ms nominal; 20 ms maximum				
Release time			6 ms nominal; 10 ms maximum				
Latch time			13 ms nominal with a one second pulse of nominal voltage (See note)				
Unlatch time			13 ms nominal with a one second pulse of nominal unlatch voltage after latching with a one second pulse of nominal latching voltage (See note)				
Operating AC: 1 & 2 pole		Operating	-45° to 60°C (-49° to 140°F)				
ambient temperature		Storage	-65° to 100°C (-85° to 212°F)				
temperature	AC: 3 pole	Operating	-45° to 45°C (-49° to 113°F)				
		Storage	-65° to 100°C (-85° to 212°F)				
	DC: 1, 2 & 3	Operating	-45° to 70°C (-49° to 158°F)				
	pole	Storage	-65° to 100°C (-85° to 212°F)				
Insulation mate	Insulation material		High quality phenolic				
Duty cycle			Rated for continuous duty operation at 25% overvoltage				
Shock			15 g's 11±1 ms (non-operating test, no mechanical damage)				
Vibration			0.1" DA or 10 g's, 10 to 55 Hz (operating test, no contact chatter)				
Life expectancy	у	Electrical at rated load	100,000 operations				
		Mechanical	10,000,000 operations				
Dielectric strength		,	Greater than 750 VAC, RMS 60 Hz across open contacts Greater than 2,500 VAC, RMS 60 Hz all other mutually insulated elements				
Terminals			Quick Connect				
Weight			64 g (2.3 oz) open relay 54 g (3.0 oz) enclosed relay				

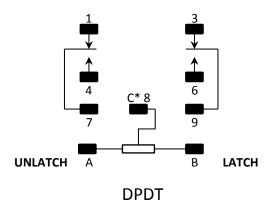
Note: A latch pulse of 50 ms minimum at nominal voltage is recommended to insure positive latching.

3PDT

■ Non-Latching



■ Latching / Unlatching



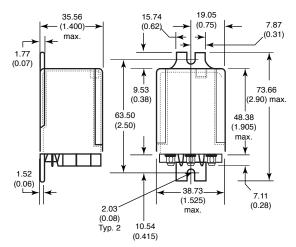
^{*} C denoted COMMON connection.

Dimensions

Unit: mm (inch)

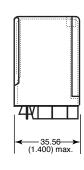
■ Relays

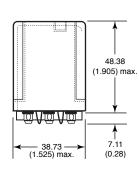
Flanges type MJN CF / MJN1Z-E-RP / MJN2CE



^{*}Regarding terminal arrangement, please see the previous page

Plug-in type **MJN** □ **C**(-**) / **MJN2CK**



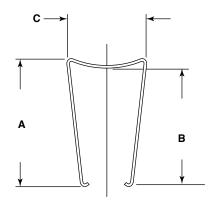


■ Terminal-10 Amp Version

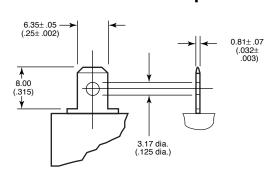
1.98 (0.078) 4.75 – (0.187) 6.35 - 0.51 (0.020) (0.250)-3.18 (0.125) 7.11 (0.280) ref.

Note: Mates with .187" UL standard quick-connect terminals; also suitable for solder connection.

■ Hold Down Springs



■ Terminal-20 and 30 Amp Versions

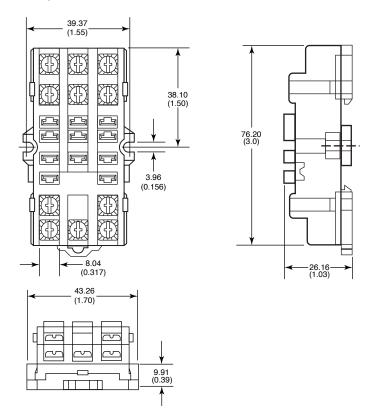


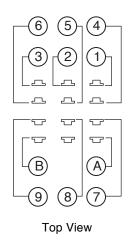
Hold Down Springs Dimensional Reference chart

Part number	Reference dimension	Actual dimension
	Α	58.67 (2.31)
PYMJN-PCB	В	53.82 (2.12)
	С	37.08 (1.46)
	Α	58.67 (2.31)
PYMJN-S	В	53.59 (2.11)
	С	40.26 (1.59)

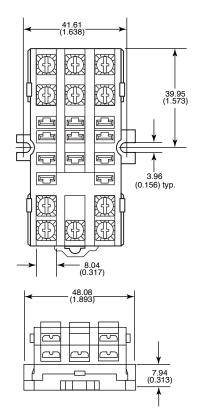
■ Sockets (for use with 10 Amp, non-flange mount versions)

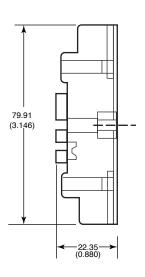
PTF11PC

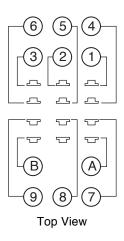




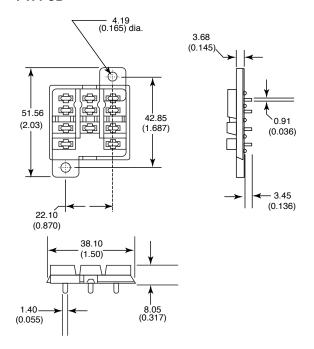
PTF21PC

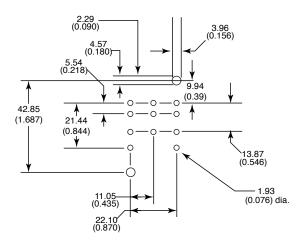




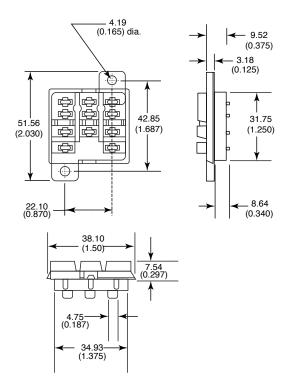


PTFPCB



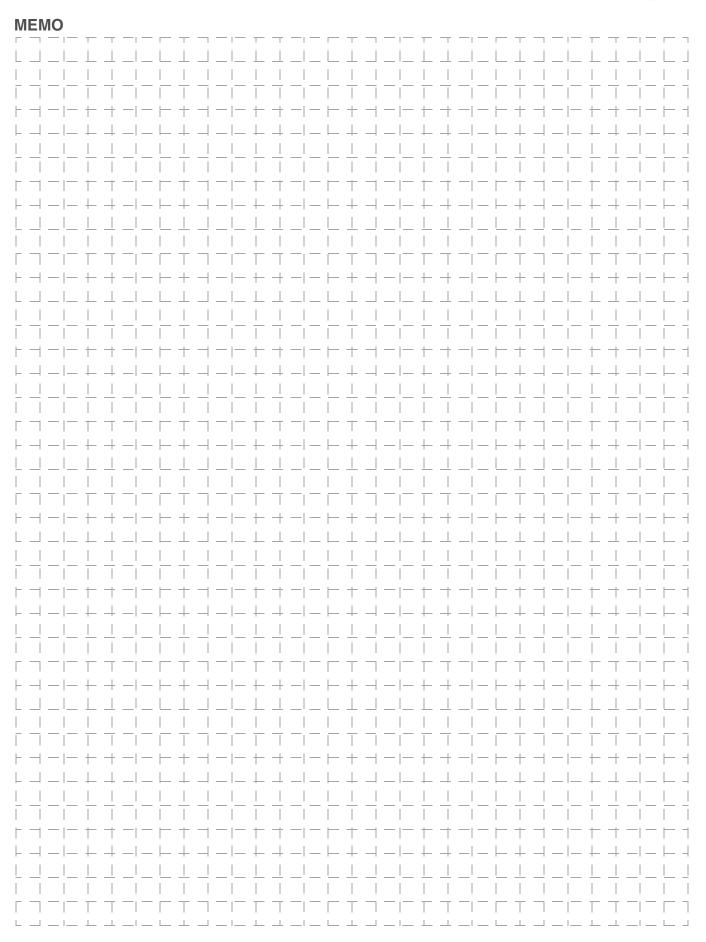


PTF11QDC



ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.





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