

PCL/PCLH series

3A, 5A, 10A, 15A General Purpose Miniature Relay

Factory Automation, Process Controls, Electrical Panels, etc.

AJ UL File No. E58304

CSA File No. LR48471
CSA FILE NO.

Users should thoroughly review the technical data before selecting a product part number. It is recommended that user also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

Coil Data@ 20°C

PCL AC Coil									
Rated Coil Voltage (VAC)	Coil Resistance (ohms)±10%	Must Operate Voltage (VAC)	Must Release Voltage (VAC)	Nominal Coil Power (VA) abt. 1.4					
6 12 24 48 100 110/120 200 220/240	10 40 600 2,800 3,400 11,000 13,600	80% max.	30% min.						
PCL DC Coil									
Rated Coil Voltage (VDC)	Coil Resistance (ohms)±10%	Must Operate Voltage (VDC)	Must Release Voltage (VDC)	Nominal Coil Power (W)					
6 12 24	40 160 650	80% max.	10% min.	abt. 0.9					
48 100/110	2,600			abt. 1.1					

Operate Data @ 20°C

Must Operate Voltage: AC 80% of nominal voltage or less. DC 80% of nominal voltage or less. Must Release Voltage: AC 30% of nominal voltage or more. DC 10% of nominal voltage or more. Operate Time: AC 20ms max. DC 15ms max Release Time: AC 20ms max. DC 8ms max.

Environmental Data

Temperature Range: Operating: -10°C to +55°C. Humidity: 45 to 85%. (Non-condensing). Vibration, Operational: 10 to 55Hz 1.0mm double amplitude. Mechanical: 10 to 55Hz 1.0mm double amplitude. Shock, Operational: 100m/s² (abt. 10G) Mechanical: 1,000m/s² (abt. 100G)

Mechanical Data

Termination: Plug-in, PCB. Enclosure: Snap-on cover. Weight: 1.26 oz (32g) approximately

Specifications and availability

subject to change.

Features

- Small size, 3A, 5A, 10A and 15A switching capacity
- · Meets UL and CSA requirements.
- 1 pole, 2 poles and 4 poles contact arrangements.
- AC and DC coils with UL Class F (155°C) coil insulation system standard.
- Optional flange mount case.
- · Plug-in terminals or PCB terminals.

Contact Data @ 20°C

Arrangements: 1 Form A (SPST-NO), 1 Form C (SPDT), 2 Form A (DPST-NO), 2 Form C (DPDT), 4 Form A (4PST-NO), 4 Form C (4PDT). Material: Ag, Ag Alloy Max.Switching Rate: 300ops./min.(Mechanical) 30ops./min.(Electrical).

Expected Mechanical Life: 100 million operations (no load). Expected Electrical Life: 100,000 operations (rated load).

Minimum Load: 100mA @ 5VDC.

Initial Contact Resistance: 50milliohms @ DC6V,1A.

Contact Ratings

Ratings:	PCL-4 PCL-2 PCLH-2	3A @ 5A @ 15A @ 10A @	AC250V/DC AC250V/DC P AC120V re AC250V/D	24V resistive. 24V resistive. sistive. C24V resistive.
	PCLH-1	15A @	aC250V/D	C24V resistive.
Max. Switched Curre		rent:	PCL-4	3A.
			PCL-2	5A.
			PCLH-2	15A.
			PCLH-1	15A.
Max. Swite	ched Pow	/er:	PCL-4	660VA, 72W.
			PCL-2	1,100VA, 120W.
			PCLH-2	3,168VA, 240W.
			PCLH-1	3,300VA, 360W.

Initial Dielectric Strength

Between Open Contacts: 1,000VAC 1minute. Between Adjacent Contact Terminals: 1,500VAC 1minute. Between Contacts and Coil: 2,000VAC 1minute. Surge Voltage (Coil-Contact): 3,000V(1.2/50µs).

Initial Insulation Resistance

Between Open Contacts: 1,000Mohms @ 500VDC Between Adjacent Contact Terminals: 1,000Mohms @ 500VDC. Between Contacts and Coil: 1,000Mohms @ 500VDC

Coil Data

Voltage: AC 6 - 240V. DC 6 - 110V Nominal Power: AC abt. 1.4VA/1.2VA (50Hz/60Hz) DC abt. 0.9W. Coil Temperature Rise: AC 60°C max. DC 50°C max. Max. Coil Power: 110% of nominal voltage

Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

<i>Electronics</i>	Catalog 1 Issued 3-03 (PE		OE						
Ordering Information	Typical Part Number	PCL -2 02	A 1	S	,000				
1. Basic Series: PCL = 3A, 5A typePCLH = 10A, 15A type									
2. Number of Poles: 1 = 1 pole (PCLH only) 2 = 2 pole	4 = 4 pole (PCL only)								
3. Coil Voltage: 01A=6VAC 02A=12VAC 03A 05A=100VAC 06A=110/120VAC 07A 01D=6VDC 02D=12VDC 03D	=24VAC 04A=48VAC =200VAC 08A=220/240VAC =24VDC 04D=48VDC	05D=100/110VDC							
4. Contact Material: Blank = Ag (only available on 4 pole model)	1 = Ag Alloy (available with	all versions)							
5. Contact Arrangement: Blank = Form C M = Form A									
6. Case Type: S = Standard (Smoke color) F = Flange mount (Smoke color)									
7. Terminal Type: Blank = Plug-in P = PCB									
8. Indicator Lamp:Blank = NoneL = Indicator Lamp									
9. Option: ,000 = Standard model Other suffix =	- Custom model.								

Our authorized distributors are more likely to stock the following items for immediate delivery.

PCLH-202A1S,000 PCLH-203A1S,000 PCLH-206A1S,000 PCLH-206A1S,000 PCLH-202D1S,000 PCLH-203D1S,000 PCLH-204D1S,000 PCLH-205D1SP,000 PCLH-202D1SP,000 PCLH-203D1SP,000 PCLH-203D1SP,000

Outline Dimsisions



PCL 2c, 2a type (Plug-in Terminal)



Outline Dimensions (continued)



PCL 4c, 4a type (Plug-in Terminal)



PCLH type (PCB Terminal) 1.32 ± .02 (33.6 ± .5) П .177 ± .012 (4.5 ± .3) .02 .02 -02 (.5) (.5) -.02 (.5) .079 (2.0) .079 (2.0) .079 (2.0) NOT PRESENT ON FORM A MODELS 1.08 ± .02 (27.5 ± .5) .132 ± .008 (3.35 ± .2) ¥ (5.6 ± .2) (394 ± .008 (10 ± .2) (10 ± .2) .571 ± .008 (14.5 ± .2) þ .285 (7.25) .518 (13.15) .234

PCLH type (Flange Mount Case)



Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

090 TYP

(2.3)





PC Board Layouts (Bottom Views)









Sockets

For PCL socket information refer to KH series sockets (page 712). For PCLH socket information refer to K10 series sockets (page 722).