Application	Interrupted	Uninterrupted
Thermal Current Rating (I^{t}h)	80A	
Intermittent Current Rating:		
30% Duty	145A	
40% Duty	125A	
50% Duty	115A	
60% Duty	105A	
70% Duty	95A	
Rated Fault Current Breaking Capacity (I^{t}cn) 5ms Time Constant: *(in accordance with UL583*)*		
PC61	400A at 48V D.C.§	
PC61B	400A at 96V D.C.§	
Rated Fault Current Breaking Capacity (I^{t}cn) Resistive Load: *(in accordance with UL508*)*		
PC61	120A at 48V D.C.§	
PC61B	120A at 96V D.C.§	
Maximum Recommended Contact Voltages (U_e):		
PC61	48V D.C.	60V D.C.
PC61B	96V D.C.	120V D.C.
Typical Voltage Drop per pole across New Contacts at 80A	<40mV	
Mechanical M.T.B.F	>3 x 10^6	
Coil Voltage Available (U_s) *(Rectifier board required for A.C.)*	From 6 to 130V D.C.	
Coil Power Dissipation:		
Highly Intermittent Rated Types	14 - 21 Watts	
Intermittently Rated types	10 - 14 Watts	
Prolonged Rated Types	7 - 10 Watts	
Continuously Rated Types	5 - 7 Watts	
Maximum Pull-In Voltage (Coil at 20˚ C) Guideline:		
Highly Intermittent Rated types (Max 25% Duty Cycle)	60% U_s	
Intermittently Rated types (Max 70% Duty Cycle)	60% U_s	
Prolonged Operation (Max 90% Duty Cycle)	60% U_s	
Continuously Rated Types (100% Duty Cycle)	66% U_s	
Drop-Out Voltage Range	10 - 25% U_s	
Typical Pull-In Time	15ms	
Typical Drop-Out Time (N/O Contacts to Open):		
Without Suppression	6ms	
With Diode Suppression	35ms	
With Diode and Resistor *(Subject to resistance value)*	8 - 20ms	
Typical Contact Bounce Period	3ms	
Operating Ambient Temperature	- 40˚C to + 60˚C	
Guideline Contactor Weight:		
PC61	190 gms	
With Auxiliary	+ 20 gms	
With Blowouts	+ 50 gms	
Auxiliary Details		
Auxiliary Thermal Current Rating	5A	
Auxiliary Contact Switching Capabilities (Resistive Load):		
	5A at 24V D.C.	
	1A at 60V D.C.	
	0.5A at 120V D.C.	
	0.25A at 240V D.C.	
Advised Connection Sizes for Maximum Continuous Current		
Circuit Board Tracks	Rated suitable for Application	

Key: = *Interrupted* = *Uninterrupted*

Note: *Where applicable values shown are at 20˚C*

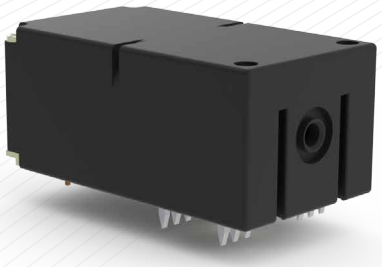
* *Please check our web site for product UL status*

§ *Normally Open contacts only - Normally Closed contacts are not designed to make and break current*

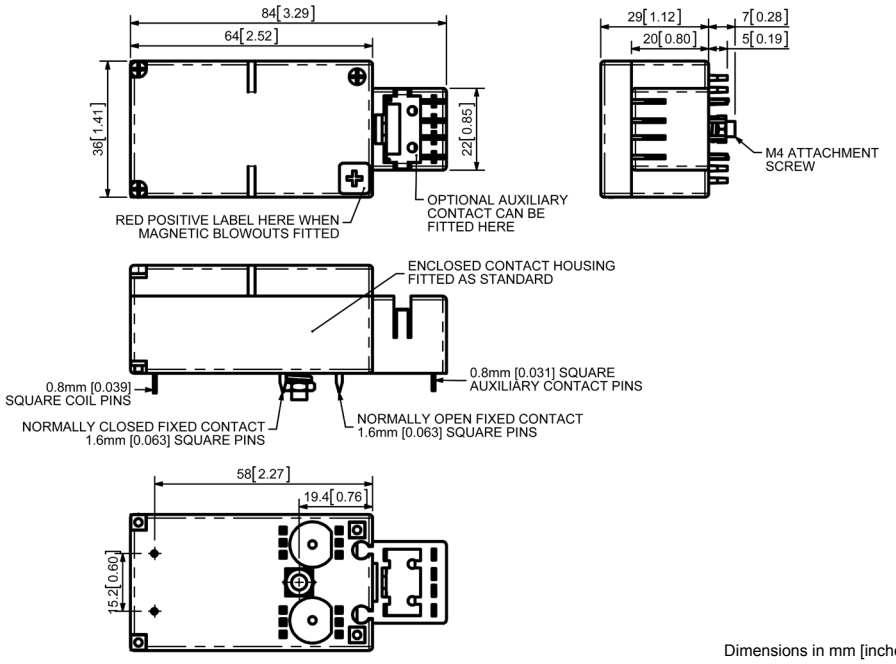
The PC61 is a miniature series single pole double throw contactor designed for printed circuit board mounting. Devised for both interrupted and uninterrupted loads, the PC61 is suitable for switching Resistive, Capacitive and Inductive loads. Typical applications include Telecommunication, UPS and other power conversion systems.

- Interrupted current - opening and closing on load with frequent switching (results in increased contact resistance).
- Uninterrupted current - no or infrequent load switching requirements (maintains a lower contact resistance).

The PC61 features single pole double breaking main contacts with silver alloy tips, which are weld resistant, hard wearing and have excellent conductivity. The PC61 can be secured to the printed circuit board by means of an M4 bolt. **Note:** The PC range now incorporates the mounting board option, previously assigned to the MB range (existing MB part numbers remain valid).

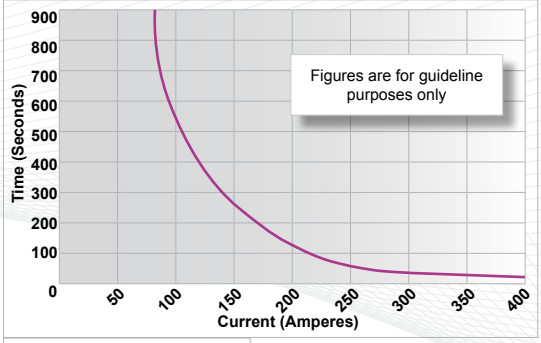


PC61



Dimensions in mm [inches]

PC61 Contactor Performance

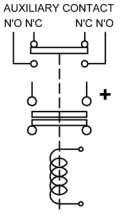


Contact Performance Key:

Interrupted & Uninterrupted Current

Connection Diagram

PC61A



PC61 Available Options		
General		**Suffix**
Auxiliary Contacts	○	A
Auxiliary Contacts - V4	X	
Magnetic Blowouts†	○	B
Magnetic Blowouts - High Powered†	X	
Armature Cap	X	
Mounting Brackets	X	
Magnetic Latching† (Not fail safe)	○	M
Closed Contact Housing‡	○	
Environmentally Protected IP66§	○	P
EE Type (Steel Shroud)	X	
Contacts		
Large Tips	X	
Textured Tips	X	
Silver Plating	X	
Washable	○	W
Coil		
AC Rectifier Board (Fitted)	X	
Coil Suppression†	X	
Flying Leads	X	
Manual Override Operation	X	
M4 Stud Terminals	X	
M5 Terminal Board	X	
Vacuum Impregnation	X	

Key: Optional ○ Standard ● Not Available X

† *Connections become polarity sensitive*

‡ *Enclosed top cover standard when blowouts not fitted*

§ *Not Suitable with Mounting Base*

- **Performance data provided should be used as a guide only. Some de-rating or variation from figures may be necessary according to application.**
- **Thermal current ratings stated are dependant upon the size of conductor being used**
- **For further technical advice email: technical@albrightinternational.com**
- **Albright reserve the right to change data without prior notice**

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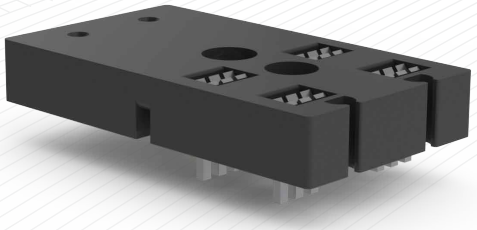
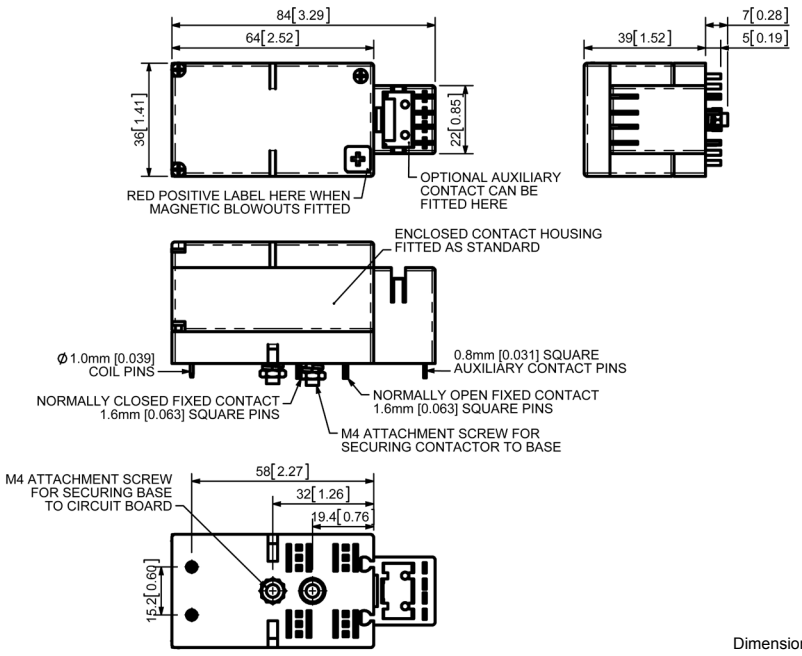
Mounting Boards

All configurations of the PC61 can be supplied with an optional separate mounting base which can be soldered to the circuit board. After soldering and washing the printed circuit board, the PC contactor can be plugged into the base and secured by means of an M4 nut on the underside of the board. Removal for servicing or replacement is possible by removal of the nut and unplugging the PC contactor from the base.



PC61 Mounting Base

MB61 Technical Drawing

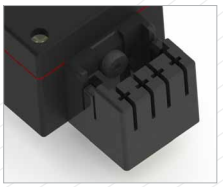


Dimensions in mm [inches]

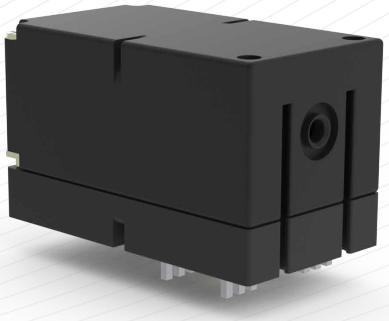
Washable Contactors and Auxiliary Contacts (PC61AW)

Normally the auxiliary contacts are supplied already fitted to the contactor. However, if the printed circuit boards are to be washed after soldering, the auxiliary contact is supplied separately and the contactor is temporarily sealed with a rubber plug. After washing this is removed and the auxiliary contact can then be fitted.

PC61 showing Temporary Rubber Plug



Note: The PC61AW contactors (with or without optional mounting board) are not therefore fully protected against the environment to the same degree as the PC61P.

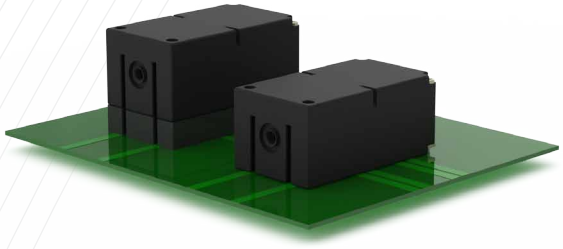


PC61 on Mounting Base

Installation

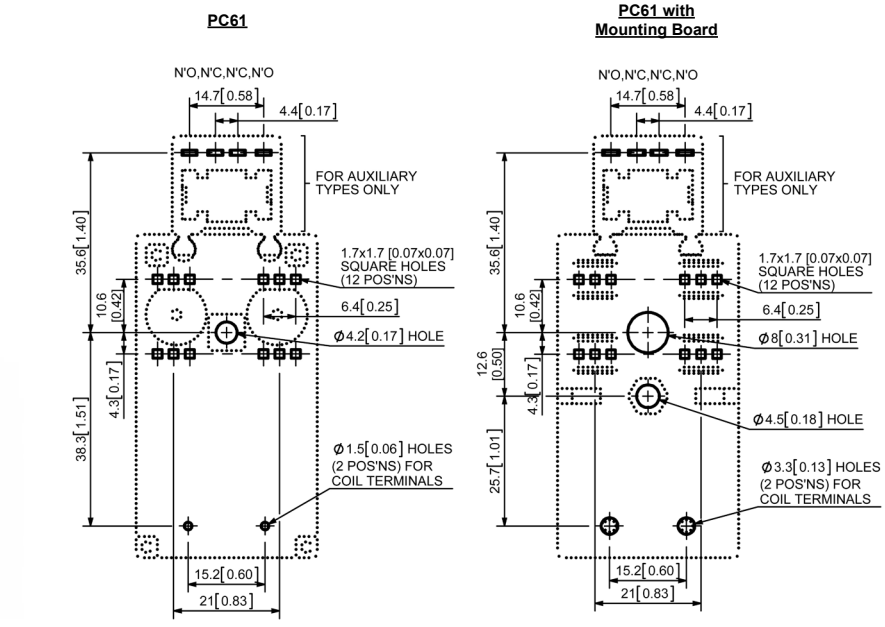
To accomodate the PC Contactors, printed circuit boards should be drilled in accordance with the mounting details opposite. Prior to soldering, the PC61 can be secured to the circuit board by means of a M4 bolt which protrudes from the underside of the contactor.

If the full current ratings of the contactors are to be utilised, circuit board tracks should have the appropriate thickness and width of copper. Conventional hand or wave soldering techniques can be used.



PC61 and MB61 mounted on Printed Circuit Board

Mounting Detail



Dimensions in mm [inches]

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