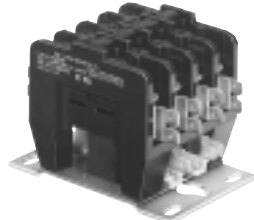


P31



P41

# P31/P41 series

## Definite Purpose Magnetic Contactor

### 16 to 40 Amp Full Load 20 to 50 Amp Resistive

File E25575



P31 No. R 9071107

File LR15734

P41 No. R 9071106

### Features

- 3 phase and single phase switching.
- Integral dual QC terminals.
- Class "B" coil insulation.
- Variety of main terminals.
- Applications include HVAC industrial control.
- Direct activated DC coils.

### Contact Data @ 25°C

**Main Contacts:**

**Arrangements:** 3 Form X (3PST-NO-DM) and 4 Form X (4PST-NO-DM).

**Ratings:** See Main Contact Ratings Table.

**Material:** Silver-cadmium oxide.

**Initial Breakdown Voltage:** 2,200V rms minimum between all elements and between all elements to ground.

**Expected Life:** 200,000 operations at motor load.  
500,000 operations, mechanical.

### Initial Dielectric Strength

**Initial Breakdown Voltage:** 2,200V rms minimum between all elements and between all elements and ground.

### Main Contact Ratings @ 25°C, 60 Hz. AC (Per Pole)

	@ 240VAC		@ 480VAC		@ 600VAC		
	LRA	FLA	LRA	FLA	LRA	FLA	RES
P31C	150	25	125	25	100	25	35
P31E	240	40	200	40	160	40	50
P41B	120	20	100	20	80	20	25
P41C	150	25	125	25	100	25	35

### Coil Data @ 25°C

**Voltage:** 12 and 24V AC, 50/60 Hz. See Coil Data table.

**Power:** 8W.

**Duty Cycle:** Continuous.

**Insulation:** Class B.

**Initial Insulation Resistance:** 100 megohms minimum.

### Coil Data @ +25°C

Code	Nominal Voltage	DC Resistance in Ohms ± 10%	Must Operate Voltage	Nominal Coil Current (mA)
DFO	12DC	21	9	571
DHO	24DC	84	18	286

\*Applicable for vertical or horizontal mounting, but not for upside-down mounting.

Note: Coil suppression is recommended for all units.

### Operate Data @ 25°C

**Must-Operate Voltage:** See Coil Data Table.

### Environmental Data

**Temperature Range:** -55°C to +65°C.

### Mechanical Data

**Mounting:** Universal mounting bracket. See Outline Drawings.

**Termination:**

**Contacts:** Dual .250" (6.35mm) quick connect with or without binder head screw or box lug.

**Coil:** Dual .250" (6.35mm) quick connect.

**Weight:** 18 oz. (510g) approximately.

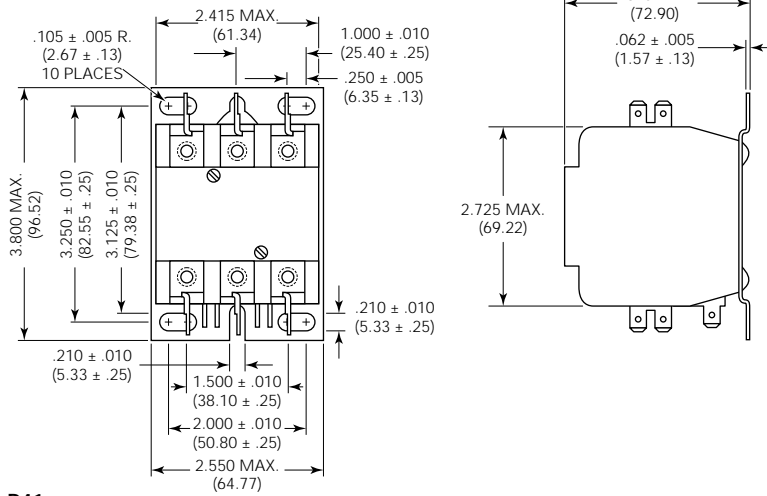
### Ordering Information

Typical Part No. ▶	P41	C	47	D	HO	1	03
<b>1. Type:</b> P31 = 3 Pole P41 = 4 Pole							
<b>2. Contact Rating</b> C = 25 Amp E = 40 Amp							
<b>3. Contact Arrangement:</b> 42 = 3 Form X (3PST-NO-DM) 47 = 4 Form X (4PST-NO-DM) P41 only							
<b>4. Coil Input:</b> D = Direct Current (Direct Operated)							
<b>5. Coil Voltage:</b> FO = 12VDC, with coil cover HO = 24VDC, with coil cover							
<b>6. Coil Terminal Location And Marking (See Terminal Location and Marking Diagram):</b> 1 = Dual .250" (6.35mm) quick connect							
<b>7. Contact Terminals (See Contact Terminal Options Diagram):</b> 03 = Dual .250" (6.35mm) quick connect turned up per Figure 03 (25 amps, Max.) 05 = #10-32 binder head screw with dual .250" (6.35mm) quick connect per Figure 05 08 = Aluminum box lug (for #4-#14 copper wire) with dual .250" (6.35mm) quick connect per Figure 08							

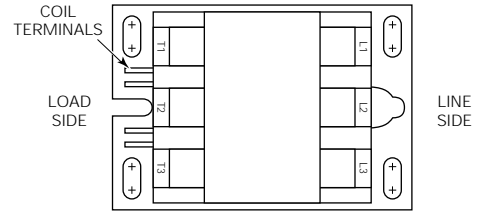
### Stock Items – The following items are normally maintained in stock for immediate delivery.

At present, no models in the P31/P41 series are maintained in stock.

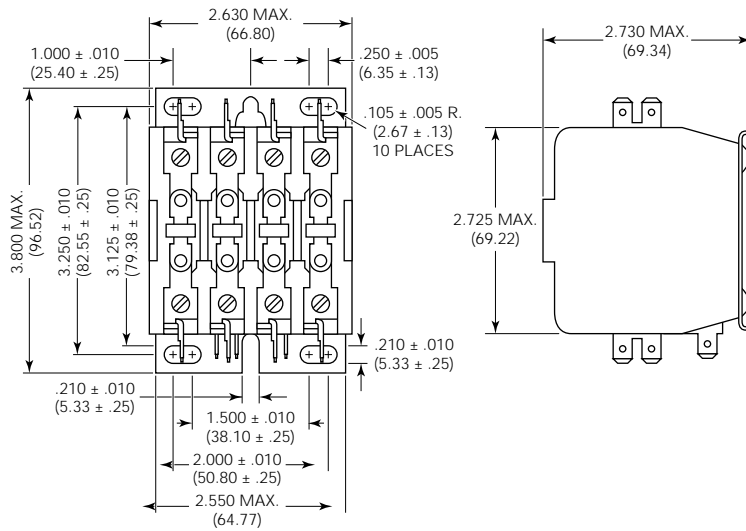
**P31**



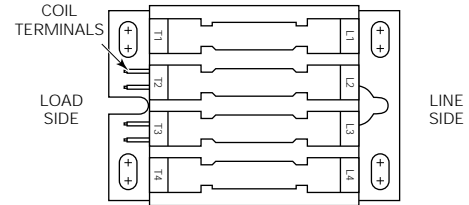
**Top View**



**P41**

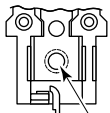


**Top View**



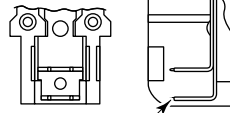
**Contact Terminal Options**

**Figure 02**



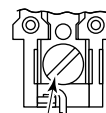
#10-32 UNF-2B Tapped Hole

**Figure 03**



.250" (6.35mm) Quick Connect Turned Up

**Figure 05**



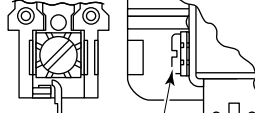
#10-32 UNF-2A X .375" (9.525mm) Binder Head Screw

**Figure 06**



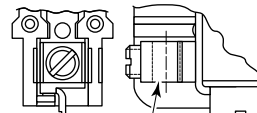
#10-32 UNF-2A X .375" (9.525mm) Screw With #12 Binder Head

**Figure 07**



#10-32 UNF-2A X .500" (12.7mm) Screw With Captive Pressure Plate

**Figure 08**



Box Lug Connector