

# MODELS PL-22, -23, -24, -42, -43, -44

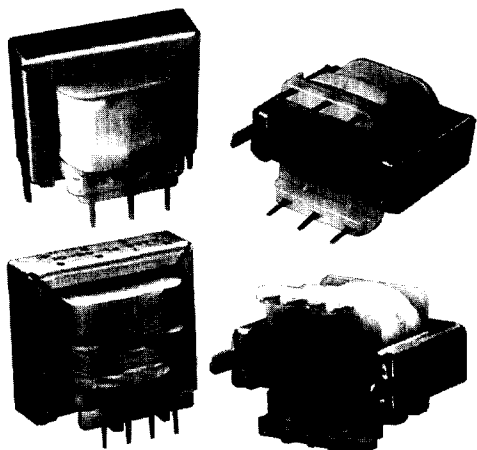
## Low Power Transformers

### Dual Primary - Dual Secondary

### 115/230 Volts



PL-22, PL-23, PL-24



PL-42, PL-43, PL-44

#### FEATURES

- PC pin mounting
- Provides isolation from power line
- Dual Primary for operation at 115 V or 230 V, 50/60 Hz
- Designed to meet UL requirements
- Dual Secondary for **series connection** obtains twice winding voltage with center tap or for **parallel connection** obtains twice winding current rating
- Modification to these standard items are available as specialty products
- Laminated construction for low-cost industrial applications, including power supplies, controls and instrumentation
- Mounting brackets and bobbin standoff are available
- **PL-22, PL-23, PL-24:** Concentric windings for increased coupling, decreased leakage reactance and improved regulation. Recognized under the Component Program of Underwriters Laboratories, Inc. (U.L. File E71961). For General Purpose Transformers (U.L. Standard 506).
- **PL-42, PL-43, PL-44:** Split-section winding for increased dielectric strength between primary and secondary windings plus reduced interwinding capacitance

#### ELECTRICAL SPECIFICATIONS

**Input Voltage:** 115 V 60 Hz or 230 V 50-60 Hz.

#### Output Power Rating:

PL-22, PL-42 = 1.5 VA.

PL-23, PL-43 = 4.5 VA.

PL-24, PL-44 = 10.0 VA.

#### Dielectric Strength:

Between primary windings and secondary windings and core:

PL-22, PL-23, PL-24 = 1500 V.

PL-42, PL-43, PL-44 = 2500 V.

Between secondary windings to core:

All units = 1000 V.

From primary to primary windings:

All units = 500 V.

From secondary to secondary windings:

All Units = 500 V.

#### MECHANICAL SPECIFICATIONS

#### Temperature Class:

PL-22, PL-23, PL-24: Insulation Class A, 105°C.

PL-42, PL-43, PL-44: Insulation Class B, 130°C;

A UL approved Class B Insulation System can be furnished on request.

**Terminals:** Brass, solder coated.

#### Weight: (reference)

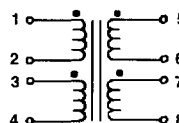
PL-22, PL-42 = 100 grams.

PL-23, PL-43 = 160 grams.

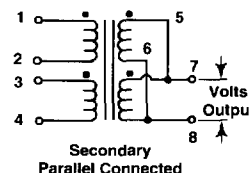
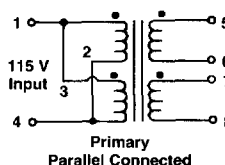
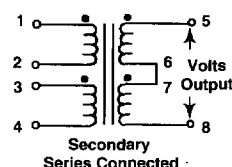
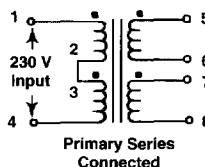
PL-24, PL-44 = 240 grams.

#### SCHEMATICS

##### Basic Style

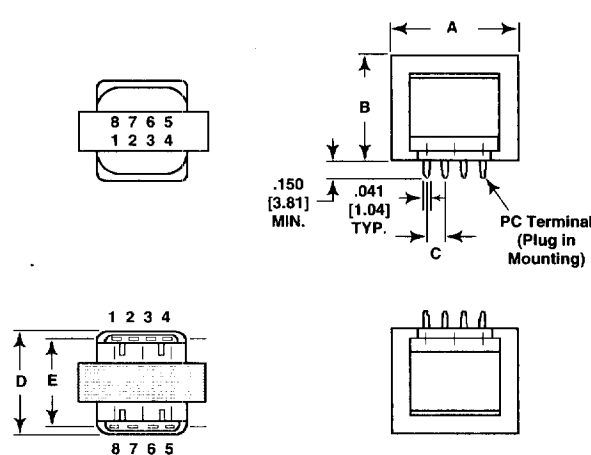
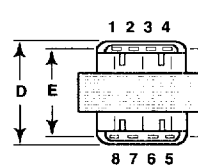
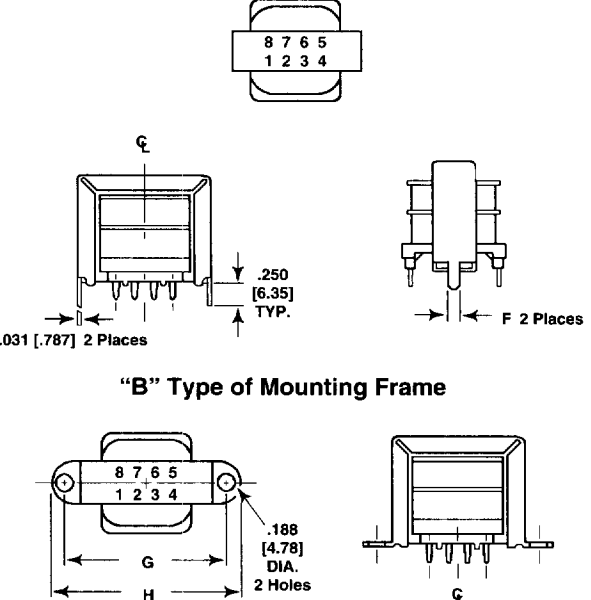


##### Options



# **MODELS PL-22, -23, -24, -42, -43, -44**

| OUTPUT VOLTAGE TABLE |                        |                |          |                     |          |
|----------------------|------------------------|----------------|----------|---------------------|----------|
| MODEL                |                        | OUTPUT VOLTAGE |          | OUTPUT CURRENT (mA) |          |
| CONCENTRIC WINDINGS  | SPLIT-SECTION WINDINGS |                |          |                     |          |
|                      |                        | SERIES         | PARALLEL | SERIES              | PARALLEL |
| PL-22-01             | PL-42-01               | 8 VCT          | 4 V      | 188                 | 376      |
| PL-23-01             | PL-43-01               |                |          | 562                 | 1124     |
| PL-24-01             | PL-44-01               |                |          | 940                 | 1880     |
| PL-22-02             | PL-42-02               | 10 VCT         | 5 V      | 120                 | 240      |
| PL-23-02             | PL-43-02               |                |          | 440                 | 880      |
| PL-24-02             | PL-44-02               |                |          | 1000                | 2000     |
| PL-22-03             | PL-42-03               | 12.6 VCT       | 6.3 V    | 100                 | 200      |
| PL-23-03             | PL-43-03               |                |          | 350                 | 700      |
| PL-24-03             | PL-44-03               |                |          | 800                 | 1600     |
| PL-22-04             | PL-42-04               | 15 VCT         | 7.5 V    | 100                 | 200      |
| PL-23-04             | PL-43-04               |                |          | 300                 | 600      |
| PL-24-04             | PL-44-04               |                |          | 500                 | 1000     |
| PL-22-05             | PL-42-05               | 16 VCT         | 8 V      | 75                  | 150      |
| PL-23-05             | PL-43-05               |                |          | 260                 | 520      |
| PL-24-05             | PL-44-05               |                |          | 640                 | 1280     |
| PL-22-06             | PL-42-06               | 20 VCT         | 10 V     | 60                  | 120      |
| PL-23-06             | PL-43-06               |                |          | 220                 | 440      |
| PL-24-06             | PL-44-06               |                |          | 500                 | 1000     |
| PL-22-07             | PL-42-07               | 24 VCT         | 12 V     | 50                  | 100      |
| PL-23-07             | PL-43-07               |                |          | 180                 | 360      |
| PL-24-07             | PL-44-07               |                |          | 450                 | 900      |
| PL-22-08             | PL-42-08               | 30 VCT         | 15 V     | 50                  | 100      |
| PL-23-08             | PL-43-08               |                |          | 150                 | 300      |
| PL-24-08             | PL-44-08               |                |          | 250                 | 500      |
| PL-22-09             | PL-42-09               | 34 VCT         | 17 V     | 35                  | 70       |
| PL-23-09             | PL-43-09               |                |          | 125                 | 250      |
| PL-24-09             | PL-44-09               |                |          | 300                 | 600      |
| PL-22-10             | PL-42-10               | 40 VCT         | 20 V     | 30                  | 60       |
| PL-23-10             | PL-43-10               |                |          | 110                 | 220      |
| PL-24-10             | PL-44-10               |                |          | 250                 | 500      |
| PL-22-11             | PL-42-11               | 54 VCT         | 27 V     | 28                  | 56       |
| PL-23-11             | PL-43-11               |                |          | 84                  | 168      |
| PL-24-11             | PL-44-11               |                |          | 140                 | 280      |
| PL-22-12             | PL-42-12               | 56 VCT         | 28 V     | 20                  | 40       |
| PL-23-12             | PL-43-12               |                |          | 80                  | 160      |
| PL-24-12             | PL-44-12               |                |          | 180                 | 360      |
| PL-22-13             | PL-42-13               | 76 VCT         | 38 V     | 20                  | 40       |
| PL-23-13             | PL-43-13               |                |          | 60                  | 120      |
| PL-24-13             | PL-44-13               |                |          | 100                 | 200      |
| PL-22-14             | PL-42-14               | 88 VCT         | 44 V     | 15                  | 30       |
| PL-23-14             | PL-43-14               |                |          | 50                  | 100      |
| PL-24-14             | PL-44-14               |                |          | 120                 | 240      |
| PL-22-15             | PL-42-15               | 120 VCT        | 60 V     | 10                  | 20       |
| PL-23-15             | PL-43-15               |                |          | 35                  | 70       |
| PL-24-15             | PL-44-15               |                |          | 85                  | 170      |
| PL-22-16             | PL-42-16               | 180 VCT        | 90 V     | 6                   | 12       |
| PL-23-16             | PL-43-16               |                |          | 24                  | 48       |
| PL-24-16             | PL-44-16               |                |          | 55                  | 110      |
| PL-22-17             | PL-42-17               | 230 VCT        | 115 V    | 5                   | 10       |
| PL-23-17             | PL-43-17               |                |          | 20                  | 40       |
| PL-24-17             | PL-44-17               |                |          | 40                  | 80       |

| DIMENSIONAL CONFIGURATIONS (Reference)                                              |              |              |             |              |              |             |              |
|-------------------------------------------------------------------------------------|--------------|--------------|-------------|--------------|--------------|-------------|--------------|
| Basic Style                                                                         |              |              |             |              |              |             |              |
|   |              |              |             |              |              |             |              |
|   |              |              |             |              |              |             |              |
|  |              |              |             |              |              |             |              |
| [Numbers in brackets indicate millimeters]                                          |              |              |             |              |              |             |              |
| MODEL                                                                               | A            | B            | C           | D            | E            | F           | H            |
| PL-22                                                                               | 1.43 [36.32] | 1.20 [30.48] | .200 [5.08] | 1.19 [30.23] | 1.0 [25.40]  | .125 [3.18] | 1.75 [44.45] |
| PL-42                                                                               |              |              |             |              |              |             | 2.12 [53.85] |
| PL-23                                                                               | 1.68 [42.67] | 1.38 [35.05] | .250 [6.35] | 1.30 [33.02] | 1.10 [27.94] | .125 [3.18] | 2.0 [50.80]  |
| PL-43                                                                               |              |              |             |              |              |             | 2.44 [61.98] |
| PL-24                                                                               | 1.93 [49.02] | 1.64 [41.66] | .250 [6.35] | 1.48 [37.59] | 1.30 [33.02] | .188 [4.78] | 2.38 [60.45] |
| PL-44                                                                               |              |              |             |              |              |             | 2.88 [73.15] |

| PART MARKING |
|--------------|
| — Dale       |
| — Model      |
| — Date code  |

| HOW TO ORDER                                     |                               |                                                   |                                                        |
|--------------------------------------------------|-------------------------------|---------------------------------------------------|--------------------------------------------------------|
| <u>PL-22</u>                                     | <u>-01</u>                    | <u>A</u>                                          | <u>B</u>                                               |
| MODEL                                            | OUTPUT VOLTAGE<br>AND CURRENT | MOUNTING FRAME<br>(If not required, leave blank.) | FOR BOBBIN STANDOFF<br>(If not required, leave blank.) |
|                                                  |                               |                                                   | <div>.063 [1.60]<br/>Bobbin Standoff</div>             |
| Special design not listed, available on request. |                               |                                                   |                                                        |