

# Power Transformers

Class B

UL File: E122529



## Toroidal Mount: World Series™



### :: Description

Triad chassis mount World Series Toroidal transformers are efficient, compact, cool running and cost effective. They are approved to UL 506 and CE IEC 61558-1 and 61558-2-6, and are constructed with a Class B (130C) rated insulation system. These toroidal transformers have minimal stray fields for quiet operation around sensitive circuits. The transformers consist dual primaries and dual secondaries which allows for flexibility in the input and output voltages. The primary and secondary are both electrically isolated from each other and from the core itself. Chassis mount Toroidal World Series transformers are available in sizes ranging from 25 VA to 2,500 VA and are equipped with leads for connections.

### :: Specifications

Primary: 115/230 V, 50/60 Hz | VA Ranges: 25 to 2,500

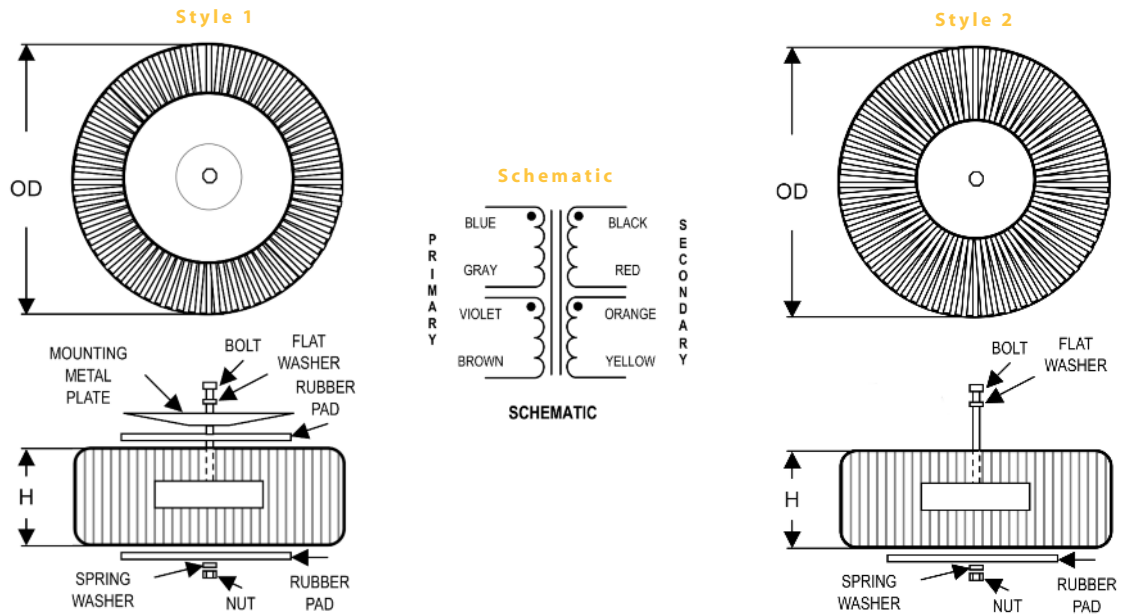
### :: Toroidal Mount: World Series

| Section     | Type No.     | VA          | Secondary        |                | Regulation Typ. | Efficiency Typ. | Temp Rise Typ. degree (C) | Style |
|-------------|--------------|-------------|------------------|----------------|-----------------|-----------------|---------------------------|-------|
|             |              |             | Series           | Parallel       |                 |                 |                           |       |
| A           | VPT12-2080   | 25          | 12V CT @ 2.08A   | 6.0V @ 4.16A   | 12.0%           | 88%             | 30                        | 1     |
|             | VPT18-1390   | 25          | 18V CT @ 1.39A   | 9.0V 2.78A     | 12.0%           | 88%             | 30                        | 1     |
|             | VPT24-1040   | 25          | 24V CT @ 1.04A   | 12V @ 2.08A    | 12.0%           | 88%             | 30                        | 1     |
|             | VPT30-830    | 25          | 30V CT @ 0.83A   | 15V @ 1.66A    | 12.0%           | 88%             | 30                        | 1     |
|             | VPT36-690    | 25          | 36V CT @ 0.69A   | 18V @ 1.38A    | 12.0%           | 88%             | 30                        | 1     |
|             | VPT48-520    | 25          | 48V CT @ 0.52A   | 24V @ 1.04A    | 12.0%           | 88%             | 30                        | 1     |
|             | VPT230-110   | 25          | 230V CT @ 0.11A  | 115V @ .22A    | 12.0%           | 88%             | 30                        | 1     |
| B           | VPT12-4170   | 50          | 12V CT @ 4.17A   | 6.0V @ 8.34A   | 12.0%           | 88%             | 40                        | 1     |
|             | VPT18-2780   | 50          | 18V CT @ 2.78A   | 9.0V 5.56A     | 12.0%           | 88%             | 40                        | 1     |
|             | VPT24-2080   | 50          | 24V CT @ 2.08A   | 12V @ 4.16A    | 12.0%           | 88%             | 40                        | 1     |
|             | VPT30-1670   | 50          | 30V CT @ 1.67A   | 15V @ 3.34A    | 12.0%           | 88%             | 40                        | 1     |
|             | VPT36-1390   | 50          | 36V CT @ 1.39A   | 18V @ 2.78A    | 12.0%           | 88%             | 40                        | 1     |
|             | VPT48-1040   | 50          | 48V CT @ 1.04A   | 24V @ 2.08A    | 12.0%           | 88%             | 40                        | 1     |
|             | VPT230-220   | 50          | 230V CT @ 0.22A  | 115V @ .44A    | 12.0%           | 88%             | 40                        | 1     |
| C           | VPT12-8330   | 100         | 12V CT @ 8.33A   | 6.0V @ 16.66A  | 9.0%            | 89%             | 45                        | 1     |
|             | VPT18-5560   | 100         | 18V CT @ 5.56A   | 9.0V @ 11.12A  | 9.0%            | 89%             | 45                        | 1     |
|             | VPT24-4170   | 100         | 24V CT @ 4.17A   | 12V @ 8.34A    | 9.0%            | 89%             | 45                        | 1     |
|             | VPT30-3330   | 100         | 30V CT @ 3.33A   | 15V @ 6.66A    | 9.0%            | 89%             | 45                        | 1     |
|             | VPT36-2780   | 100         | 36V CT @ 2.78A   | 18V @ 5.56A    | 9.0%            | 89%             | 45                        | 1     |
|             | VPT48-2080   | 100         | 48V CT @ 2.08A   | 24V @ 4.16A    | 9.0%            | 89%             | 45                        | 1     |
|             | VPT230-430   | 100         | 230V CT @ 0.43A  | 115V @ .86A    | 9.0%            | 89%             | 45                        | 1     |
| D           | VPT12-13300  | 160         | 12V CT @ 13.3A   | 6.0V @ 26.6A   | 8.0%            | 90%             | 50                        | 1     |
|             | VPT18-8800   | 160         | 18V CT @ 8.8A    | 9.0V @ 17.60A  | 8.0%            | 90%             | 50                        | 1     |
|             | VPT24-6670   | 160         | 24V CT @ 6.67A   | 12V @ 13.34A   | 8.0%            | 90%             | 50                        | 1     |
|             | VPT30-5330   | 160         | 30V CT @ 5.33A   | 15V @ 10.66A   | 8.0%            | 90%             | 50                        | 1     |
|             | VPT36-4440   | 160         | 36V CT @ 4.44A   | 18V @ 8.88A    | 8.0%            | 90%             | 50                        | 1     |
|             | VPT48-3300   | 160         | 48V CT @ 3.33A   | 24V @ 6.66A    | 8.0%            | 90%             | 50                        | 1     |
|             | VPT230-700   | 160         | 230V CT @ 0.70A  | 115V @ 1.40A   | 8.0%            | 90%             | 50                        | 1     |
| E           | VPT12-20800  | 250         | 12V CT @ 20.8A   | 6.0V @ 41.60A  | 7.0%            | 92%             | 50                        | 1     |
|             | VPT18-13800  | 250         | 18V CT @ 13.8A   | 9.0V @ 27.60A  | 7.0%            | 92%             | 50                        | 1     |
|             | VPT24-10420  | 250         | 24V CT @ 10.42A  | 12V @ 20.84A   | 7.0%            | 92%             | 50                        | 1     |
|             | VPT36-6940   | 250         | 36V CT @ 6.94A   | 18V @ 13.88A   | 7.0%            | 92%             | 50                        | 1     |
|             | VPT48-5200   | 250         | 48V CT @ 5.20A   | 24V @ 10.4A    | 7.0%            | 92%             | 50                        | 1     |
|             | VPT230-1090  | 250         | 230V CT @ 1.09A  | 115V @ 2.18A   | 7.0%            | 92%             | 50                        | 1     |
|             | F            | VPT48-10400 | 500              | 48V CT @ 10.4A | 24V @ 20.8A     | 5.0%            | 94%                       | 50    |
| VPT100-5000 |              | 500         | 100V CT @ 5.0A   | 50V @ 10.0A    | 5.0%            | 94%             | 50                        | 1     |
| VPT230-2170 |              | 500         | 230V CT @ 2.17A  | 115V @ 4.34A   | 5.0%            | 94%             | 50                        | 1     |
| G           | VPT48-20830  | 1000        | 48V CT @ 20.83A  | 24V @ 41.66A   | 4.0%            | 96%             | 50                        | 1     |
|             | VPT100-10000 | 1000        | 100V CT @ 10.0A  | 50V @ 20.0A    | 4.0%            | 96%             | 50                        | 1     |
|             | VPT230-4350  | 1000        | 230V CT @ 4.35A  | 115V @ 8.70A   | 4.0%            | 96%             | 50                        | 1     |
| H           | VPT100-25000 | 2500        | 100V CT @ 25.0A  | 50V @ 50.0A    | 2.5%            | 97%             | 50                        | 2     |
|             | VPT230-10870 | 2500        | 230V CT @ 10.87A | 115V @ 21.74A  | 2.5%            | 97%             | 50                        | 2     |

## :: Outline Dimensions

### Technical Notes

1. Series Connections: **Input<sup>1</sup>**: Series – BLUE and BROWN, Jumper GRAY to VIOLET  
 Parallel – BLUE and BROWN, Jumper BLUE to VIOLET, GRAY to BROWN  
**Output<sup>1</sup>**: Series – BLACK and YELLOW, Jumper RED to ORANGE  
 Parallel – BLACK and YELLOW, Jumper BLACK to ORANGE, RED to YELLOW



## :: Mechanical Specifications

| VA   | OD (mm) | HT (mm) | Weight (kg) | Mounting Plate (mm Dia.) | Rubber Pads (mm Dia.) | Mounting Hardware |
|------|---------|---------|-------------|--------------------------|-----------------------|-------------------|
| 25   | 71      | 32      | 0.4         | 55                       | 57 & 57               | M5 x 40mm         |
| 50   | 80      | 33      | 0.6         | 55                       | 57 & 57               | M5 x 45mm         |
| 100  | 87      | 47      | 1           | 55                       | 57 & 75               | M6 x 55mm         |
| 160  | 103     | 48      | 1.6         | 75                       | 75 & 75               | M6 x 60mm         |
| 250  | 112     | 54      | 2.2         | 75                       | 75 & 90               | M6 x 65mm         |
| 500  | 140     | 60      | 4.2         | 90                       | 90 & 115              | M8 x 70mm         |
| 1000 | 175     | 68      | 8.2         | 112                      | 115 & 148             | M8 x 80mm         |
| 2500 | 208     | 112     | 19.4        | ---                      | 165                   | M8 x 120mm        |

<sup>1</sup> Primary and secondary windings are designed to be connected in series or parallel. Windings are not intended to be used independently. For additional technical information, please visit [TriadMagnetics.com](http://TriadMagnetics.com).

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