

# POWER TRANSFORMER CHASSIS MOUNT : TOROIDAL MEDICAL SERIES

Q
8
(M)

# **VPM240-420**

## **Description:**

The toroidal construction inherently reduces stray fields, increases efficiency and minimizes size compared to traditional EI transformers. The addition of a Flux Band further reduces the remaining stray fields. The shield between Primary and Secondary improves safety, reduces common mode signals and minimizes leakage current. Built with a Class F (155°) insulation system. A 140°C self-resetting thermal switch is included in each primary.

# **Electrical Specifications (@25C)**

- 1. Maximum Power: 100VA
- 2. Input Voltages: 100, 120, 220, 240VAC, 50/60Hz
- 3. Output Voltages: 120VAC @0.84A or 240VAC CT @ 0.42A
- 4. Voltage Regulation: 8.4% TYP from full load to no load
- 5. Temperature Rise: 50°C TYP
- 6. Hipot: 4000VAC, Primary to Secondary, Primary & Secondary to Shield & mounting surface
- 7. Efficiency: 91% TYP. @ full load
- 8. Earth Leakage: ≤10µA (See Fig. 1), Patient Leakage: ≤ 25µA (see Fig. 2)

#### Agency File:

UL: File E122529, UL 60601-1/(R) 2012 Medical Electrical Equipment – Part 1 with 2 MOPP CE: ES 60601-1 (IEC 60601-1:2005, MOD) cUL: C22.2 No. 60601-1:14, Medical Electrical Equipment – Part 1



Dimensions: Inches (mm)

O.D.	I.D.	HT.*	*A
3.8 (96)	1.5(37)	2.0(52)	W

\*Add 0.188 (3) to the height for mounting hardware

Weight: 1.3Kg

### **Mounting:**

Transformer is provided with one metal mounting plate, two rubber pads, M6 x 55mm bolt, nut, spring and flat washer.

### **Connections:**

Transformer is provided with 8" (203mm) long, 0.25" (6.35mm) stripped and tinned, stranded UL 1015 lead wire. Primaries are 22AWG, Secondaries are 20AWG, and Shield is 20AWG. The GRN/YEL shield lead is typically grounded. Do not lift transformer by leads!

Input Options:

- **100VAC:** Input to Gray & Blue, jumper White & Brown, jumper Blue & Violet.
- **120VAC:** Input to White & Blue, jumper White & Brown, jumper Blue & Violet.
- 220VAC: Input to Gray & Violet, jumper Blue & Brown
- 240VAC: Input to White and Violet, jumper Blue & Brown

**Output Options:** 

120VAC: Output from Black & Red, jumper Black & Orange, jumper Red to Yellow240VAC: Output from Black & Yellow, jumper Red & Orange

Primary and secondary windings are designed to be connected in series or parallel. Windings are not intended to be used independently.

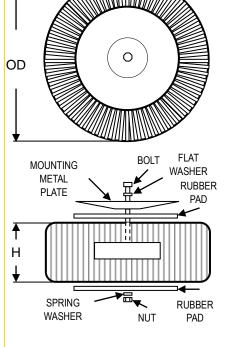
**RoHS Compliance:** As of manufacturing date February 2016, all standard products meet the requirements of 2015/863/EU, known as the RoHS 3 initiative.

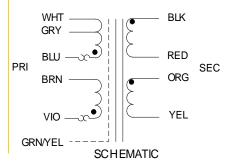
\* At printing, this document is considered "uncontrolled". Contact Triad Magnetics' website for current version

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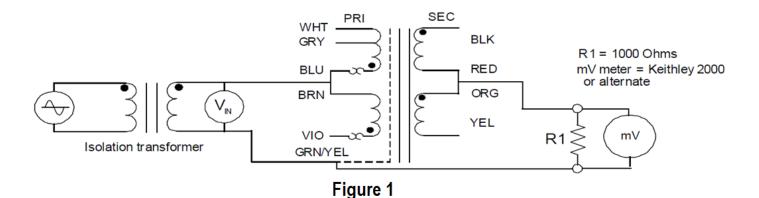


Earth Leakage Current:

Vin: Apply 264VAC @60Hz, BLU & BRN - YEL/GRN

Connect resistor and meter between: RED & ORG - YEL/GRN

Leakage Current = 10 uA MAX



Patient Leakage Current:

V<sub>in</sub>: Apply 264VAC @60Hz, WHT - VIO, (Tie BLU & BRN, Tie RED & ORG) GRN/YEL - BLK = 25 **uARMS MAX** GRN/YEL - Red & ORG = 25 **uARMS MAX** GRN/YEL - YEL = 25 **uARMS MAX** SEC PRI R1 = 1000 Ohms WHT R2 = 10,000 Ohms BLK GRY  $C = 0.015 \mu F$ RED mV meter = Keithley 2000 BLU or alternate Isolation transformer ORG BRN YEL С VIO R2 **R1** mν GRN/YELr Figure 2

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