

# TAMURA Corporation of America

**Model**

# PAM150

150 Watts<sub>max</sub> output power

Power Factor Correction

Single Output

**Switch Mode Power Supply**



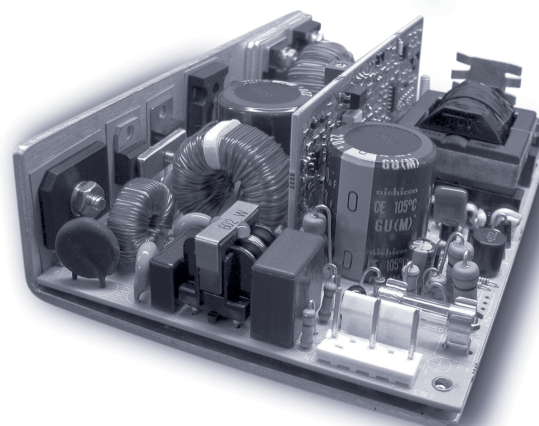
Medical Grade  
Certifications

**H.A.L.T.**  
TESTED

Highly  
Accelerated  
Life  
Testing

## Electrical Specifications

|                      |                                                                    |
|----------------------|--------------------------------------------------------------------|
| Input Voltage:       | 85-132/180-264 VAC, 47-63 Hz, 1 phase                              |
| Input Current:       | <3.2A RMS @ 115 VAC @ full load<br><1.6A RMS @ 230 VAC @ full load |
| Inrush Current:      | <25A, pk @ 132 VAC @ cold start<br><50A, pk @ 265 VAC @ cold start |
| Power Factor:        | Meets Class A requirements                                         |
| Harmonic Distortion: | Meets EN61000-3-2 for Class A                                      |
| EMI Filtering:       | Meets CISPR 11 and 22 and FCC Part 15<br>Class B (conducted)       |
| Input Protection:    | Internal AC line fuse; 250 VAC, 6.3A                               |
| Surge Withstand:     | Meets EN61000-4-5 Level 3                                          |
| Output Power:        | 150W with 15CFM air; 80W Convection                                |
| Line Regulation:     | ± 0.3%                                                             |
| Load Regulation:     | ± 0.5%                                                             |
| PARD:                | <1% or 50mV;<br>20MHz bandwidth                                    |
| Hold-up Time:        | 20 ms @ full load (120 VAC)                                        |
| Output Polarity:     | Output is floating                                                 |
| Minimum Load:        | 0% of rated load                                                   |
| Transient Response:  | 3% for 25% load change @ 1A/μs;<br>50% duty cycle 50/60 Hz         |
| Output Rise Time:    | <100 ms (10% to 90%)                                               |
| Current Limit:       | 105-130% of rated current; Hiccup                                  |
| Remote Sense:        | Compensates for up to 250mV of total cable<br>drop                 |
| Remote On/Off:       | Optional                                                           |
| Leakage Current:     | < 300 μA                                                           |



|                      |                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------|
| Thermal Shutdown     | Standard                                                                                      |
| DC OK:               | Standard; Open Collector                                                                      |
| Turn-on Delay:       | <1 second after application of AC Input                                                       |
| Stability:           | <0.1% for 8 hours<br>after 1/2-hour warm up                                                   |
| Isolation:           | >20 MΩ @ 100 VDC between output<br>terminals and chassis ground                               |
| AC Power Fail:       | TTL <sub>LOW</sub> logic "0" at least 2 ms before<br>output drops 5%; Open Collector          |
| Overvoltage Protect: | Factory set, 125% ±5%,<br>cycle AC to reset                                                   |
| Reverse Voltage:     | Output has reverse voltage protection;<br>Reverse current limited to 100% of output<br>rating |
| Efficiency:          | Up to 85%                                                                                     |
| MTBF:                | MIL-STD-HDBK 217E<br>>200,000 hours @ 25°C<br>Highly Accelerated Life Testing                 |

## Available Voltage Outputs\*

| Voltage<br>Codes | Voltages<br>(Volts) | Continuous<br>Current<br>(Amps) |
|------------------|---------------------|---------------------------------|
| -2               | 3.3                 | 30                              |
| -3               | <b>5.0</b>          | <b>30</b>                       |
| -4               | <b>12.0</b>         | <b>12.5</b>                     |
| -5               | <b>15.0</b>         | <b>10.5</b>                     |
| -6               | <b>24.0</b>         | <b>6.5</b>                      |
| -7               | 28.0                | 5.5                             |
| -8               | 36.0                | 4.5                             |
| -9               | <b>48.0</b>         | <b>3.5</b>                      |

\* Consult factory for other voltages and OEM quantities.

Note: Standard models are shown **bold**

## PART # STRUCTURE:

**MODEL**     -     **VOLTAGE CODE**     -     **OPTION CODES** (See back)

                 -                     **V1**                     -

**PAM150**     -                     **X**                     -                     **ABC....**

Example: Part Number **PAM150-6-CK**= 150W Power Factor Corrected, 24V @ 6.5A with a fan assembly and a Molex connector.

**CLICK HERE TO SEE THE PAM150 CODE TABLE AND AVAILABLE OPTIONS.**

## Model

# PAM150

## Options (code)

12V@0.5A Aux./Fan Drive (A) Droop Current Share  $\pm 10\%$  (B)  
 Fan Assembly (C) DC OK Invert (E)  
 PF Invert (F) Field-Configurable (G)  
 Single Wire Current Share  $\pm 5\%$  (I) Square Current Limit (J)  
 Molex Connector (K) Metric Mounting (M)  
 OR-ing Diode (O) Remote On/Off (R)  
 Remote On/Off Invert (S)

## Certifications

NRTL\*\*\* Recognition to UL60601-1  
 CSA C22.2 No. 601.1  
 BAUART Certification to EN60601-1  
 CB Test Report in Accordance with IEC60601-1  
 CE Declaration to Low Voltage Directive 2006/95/EC

\*\*\* Nationally Recognized Test Laboratory

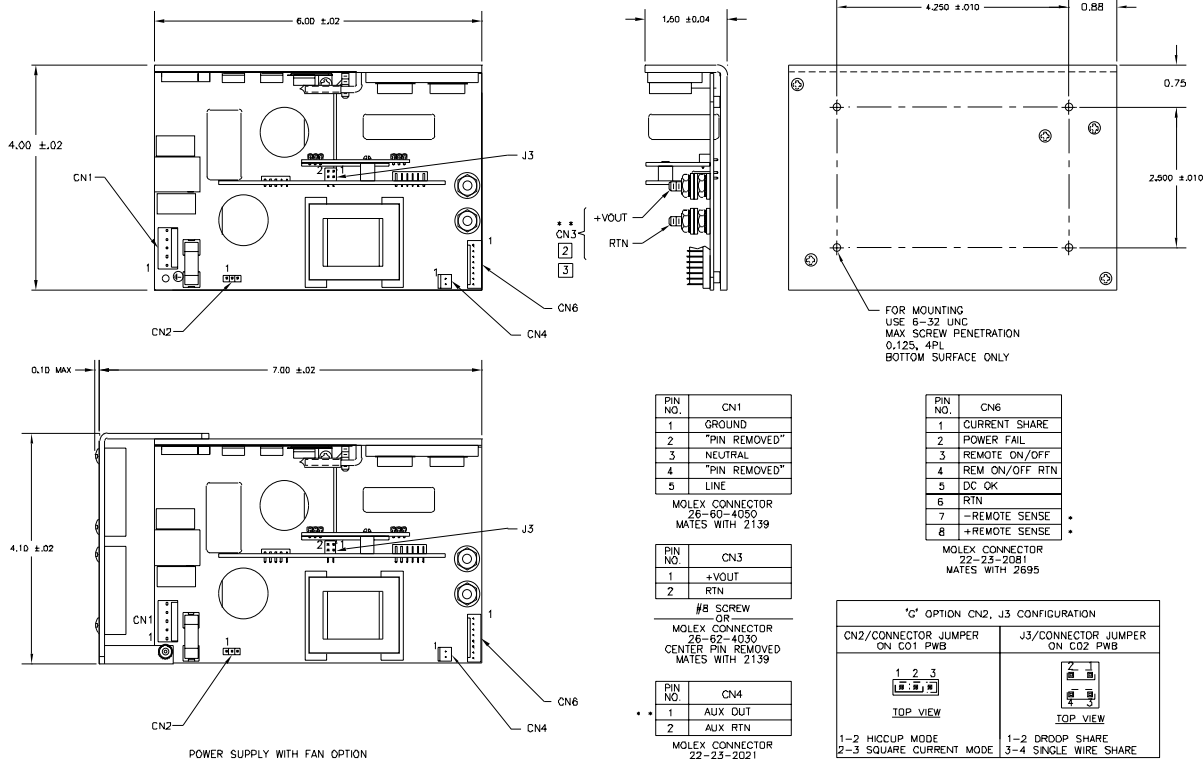


## Compliance

EN61000-4-5 Level 3 EN61000-4-2 Level 2  
 EN61000-3-2 for Class A EN61000-4-2 Level 3 (Air Only)  
 EN61000-4-4 Level 3 EN61000-4-11  
 CISPR 11 and 22 FCC Part 15 Class B (conducted)

## Physical Specifications

Dimensions: (HxWxL) 1.5" x 4.0" x 6"  
 Operating Temp: 0 to 70°C; rated power to 50°C  
 derate linearly to 50% at 70°C.  
 Relative Humidity: 5% to 90%, non-condensing  
 Storage: -50 to 85°C/20-90% RH  
 Altitude: 6531  
 40,000' storage



- [3] OPTIONAL- MOLEX CONNECTOR (OPTION 'K'-LIMITED TO 7A) MAY BE SPECIFIED FOR CN3 INSTEAD OF STANDARD OUTPUT STUDS.  
 [2] DO NOT EXCEED 17 INCH-LBS (MAX TORQUE) WHEN TIGHTENING TOP NUTS ON OUTPUT STUDS.  
 1. FOR CLARITY NOT ALL ITEMS ARE SHOWN IN EACH VIEW.  
 NOTES: UNLESS OTHERWISE SPECIFIED

- \* **WARNING:** DAMAGE WILL OCCUR IF REMOTE SENSE LEADS (CN6-7 & CN6-8) ARE REVERSED OR USED WITH LOAD DISCONNECTED FROM OUTPUT (CN3).  
 \* **NOTE:** FOR PROPER REGULATION OF AUX OUTPUT, APPLY AT LEAST 10% OF RATED LOAD TO VOUT.

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