

Delivering leading edge, innovative power solutions for more than 30 years....

Model:GTM962253PWWWVV-P3

May 20, 2024

## GTM962253PWWWVV-P3

### Information

|                               |   |
|-------------------------------|---|
| Model Number                  | GTM962253PWWWVV-P3  |
| Description                   | GTM962253PWWWVV-P3, ICT / ITE / Medical Power Supply, 60601-1-4th Ed. , Potted, Regulated Switchmode AC-DC Power Supply AC Adaptor, , Input Rating: 100-240V~, 50-60 Hz, Contact GlobTek for customization requests on any type of cable in any customer specified lengths., Output Rating: 225 Watts, Power rating with convection cooling (W) , 12-54V in 0.1V increments, Approvals: IP68; |
| Model Picture                 |    |
| Agency Documents              | <a href="http://www.globtek.info/certs/GTM96225xP%20/">http://www.globtek.info/certs/GTM96225xP%20/</a>   |
| CE EC-Declaration             | <a href="https://www.globtek.com/pdf/ec_declaration/a0O3a00000MIVt2EAF">https://www.globtek.com/pdf/ec_declaration/a0O3a00000MIVt2EAF</a>   |
| RoHS/RoHS2 Declaration        | <a href="https://www.globtek.com/pdf/rohs_cert/a0O3a00000MIVt2EAF">https://www.globtek.com/pdf/rohs_cert/a0O3a00000MIVt2EAF</a>   |
| REACH Declaration             | <a href="https://www.globtek.com/pdf/iso_certificates/REACH.pdf">https://www.globtek.com/pdf/iso_certificates/REACH.pdf</a>   |
| Conflict Minerals Declaration | <a href="https://www.globtek.com/pdf/conflict-minerals.pdf">https://www.globtek.com/pdf/conflict-minerals.pdf</a>   |

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**MODEL PARAMETERS**

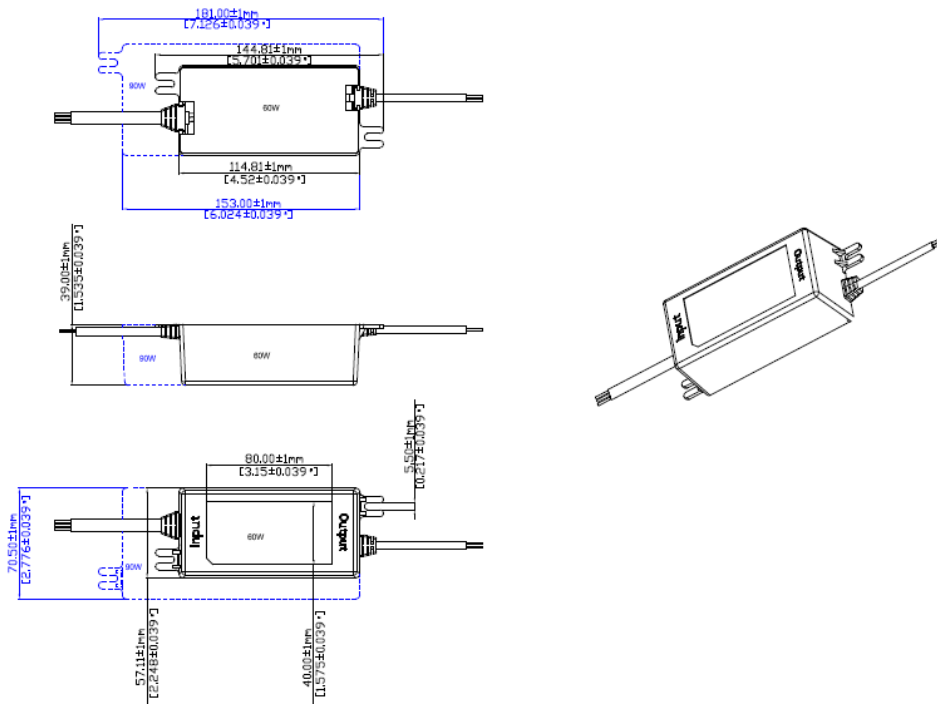
|                    |   |
|--------------------|---|
| Type               | Potted  |
| Technology         | Regulated Switchmode AC-DC Power Supply AC Adaptor                  |
| Category           | ICT / ITE / Medical Power Supply                                    |
| Input Voltage      | 100-240V~, 50-60 Hz   |
| I/P Amps (A)       | 3A  |
| Wattage (W)        | 225.0   |
| Vout Range (V)     | 12-54   |
| Efficiency Level   | USA DOE Level VI / Eco-design Directive 2009/125/EC, (EU) 2019/1782 |
| Ingress Protection | IP68  |
| Size (mm)          | 181.0 (L) x 70.0(W) x 39.0 (H)                                      |

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## ENCLOSURE



The black outlined drawing represents a housing which is being phased out due to end of usable life of the mold used to make it. The blue outlined drawing is the replacement housing. Both may be used interchangeably and mixed within any given lot.

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## RATING TABLE

| Model Number       | Voltage | Amps(A) | Watts(W) | RFQ                 |
|--------------------|---------|---------|----------|---------------------|
| GTM962253P22516-P3 | 16 V    | 14.06   | 224.96   | <a href="#">RFQ</a> |
| GTM962253P22518-P3 | 18 V    | 12.5    | 225.00   | <a href="#">RFQ</a> |
| GTM962253P22536-P3 | 36 V    | 6.25    | 225.00   | <a href="#">RFQ</a> |

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## SPECIFICATIONS

### Features

- High power density potted construction
- Low conducted & radiated EMI: Class B without external filters or ferrites (all input configurations, into resistive load)
- Class I, Class II, or Class II with Functional Earth input configurations
- ITE/ICT and medical (2 x MOPP) certified (suitable for Type-B or Type-BF applications)
- Auxiliary +12V output

### Input

|                      |  |
|----------------------|--|
| Input Voltage:       | Specified: 85-264VAC, Nameplate: 100-240VAC        |
| Input Frequency:     | Specified: 47-63Hz, Nameplate: 50-60Hz             |
| Input Current:       | 2.75A typ. @ 85VAC, 1.0A typ. @ 230VAC (full load) |
| No Load Input Power: | <150mW   |
| Inrush Current:      | <75A @ 230VAC (cold start @ 25°C)                  |
| Efficiency:          | 90 - 95% typ. (full load)                          |
| Power Factor:        | >0.90 @ 115VAC, >0.85 @ 230VAC, 140W output        |

### Output

|                                |   |
|--------------------------------|---|
| Output Power:                  | 140W continuous   |
| Turn-on Delay:                 | < 1 second @ 85VAC  |
| Output Voltage Tolerance:      | ± 2.0% (worst case, set point + load/line regulation)   |
| Load Regulation:               | ± 0.5% (measured at connector)  |
| Line Regulation:               | ± 0.2% (measured at connector)  |
| Ripple:                        | 1% pk-pk (using a 47µF low-ESR cap + 0.1µF ceramic capacitor, measured @ 20MHz BW)  |
| Transient Response:            | <5% deviation (with 25% load step), recovery to within 1% in 1ms  |
| Startup Overshoot:             | <5% (full load)   |
| Hold-up Time:                  | 10ms min. (full load)   |
|                                | 12V ± 2V (10V min. / 14V max.), for $0A \leq I_{Aux} \leq 0.8A$   |
| Aux Output Voltage Regulation: | Aux regulation guaranteed when main output power ≥ 25% of 140W rating (~34W).<br><br>For main output power < 25%, aux output voltage may drop to < 50% of nominal rating, depending on aux output load. Please check with your system.<br>For main output = 12V, aux output voltage is same as main output. |
| Aux Output Current:            | 0.8A  |

### Protections

#### PROPRIETARY INFORMATION

PROPRIETARY OF GLOBTEK, INC. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING, IN WHOLE OR IN PART, IS HEREBY PROHIBITED EXCEPT AS SPECIFIED IN WRITING BY GLOBTEK, INC.

<https://www.globtek.com/ds/eCxoKwdohs8/2nWGXgF5Wy8.html>

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|                              |   |
|------------------------------|---|
| Input Protection:            | MOV transient suppressor, dual fuses (line + neutral)   |
| Over-Voltage Protection:     | 110-130%, latched-off, cycle AC to reset  |
| Over-Current Protection:     | 130% typical, auto-recovery   |
| Short Circuit Protection:    | Auto-recovery   |
| Over-Temperature Protection: | NTC temperature sensor embedded in transformer, trip between 115 - 120°, latched-off, cycle AC to reset (auto-recovery available as special option) |

## Environmental

|                        |   |
|------------------------|---|
| MTBF:                  | 1,500,000 hours @ 25°C ambient, full load (Telcordia SR-332, Issue 3) |
| Operating Temperature: | -20°C to 50°C (full output power), -25°C to 80°C (de-rated)           |
| Storage Temperature:   | -30°C to 85°C   |
| Humidity:              | 0% to 95% relative humidity, non-condensing                           |
| Altitude:              | 5000m max.  |
| Vibration:             | Conforms to EN60068-2-6, ISO80601-2, EN1789                           |

## Safety

|   |  |
|---|--|
| Dielectric Withstand Voltage:           | 4000VAC or 5656VDC from input to output<br>3000VAC or 4242VDC from input to earth        |
| Intended Medical Application:           | Type-B or Type-BF  |
| Touch Current:                          | 3-conductor input - NC: <25µA, SFC: <200µA<br>2-conductor input - NC: <65µA, SFC: <140µA |
| Earth Leakage Current                   | 3-conductor input: <200µA<br>2-conductor input: N/A                                      |
| Means of Protection:                    | 2 x MOPP   |
| Primary-Secondary Bridging Capacitance: | Two IEC60384-14 certified Y1 capacitors in series  |

## EMC

|   |   |
|---|---|
| Applicable Standards:                   | Medical: EN60601-1-2, 4th edition<br>Emissions: EN55032, EN 55011, EN61000-6-3, EN61000-6-4, CISPR11/CISPR22<br>Immunity: EN55024, EN61000-6-1, EN61000-6-2 |
| Conducted Emissions:                    | Class B, FCC Part 15, Class B (with resistive load)   |
| Radiated Emissions:                     | Class B, FCC Part 15, Class B (with resistive load)   |
| Harmonic Current Voltage Distortion:    | EN61000-3-2, Class A  |
| Voltage Fluctuations/Flicker:           | EN61000-3-3   |
| Electrostatic Discharge (ESD) Immunity: | EN61000-4-2, 10KV contact discharge, 20KV air discharge (applied to input or output terminals)  |
| Radiated RF Immunity:                   | EN61000-4-3, 20V/m 80-2700MHz, 80% 1KHz AM, 80% 5Hz AM  |
| EFT/Burst Immunity:                     | EN61000-4-4, 4KV/100kHz.  |
| Line Surge Immunity:                    | EN61000-4-5, 2KV differential, 4KV common-mode  |

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|  |   |
|--|---|
| Conducted RF Immunity:                   | EN61000-4-6, 3VRMS, (6VRMS in ISM/amateur bands), 80% 1KHz AM |
| Power Frequency Magnetic Field Immunity: | EN61000-4-8, 30A/m  |
| Voltage Dip Immunity:                    | EN61000-4-11  |

## Special Options

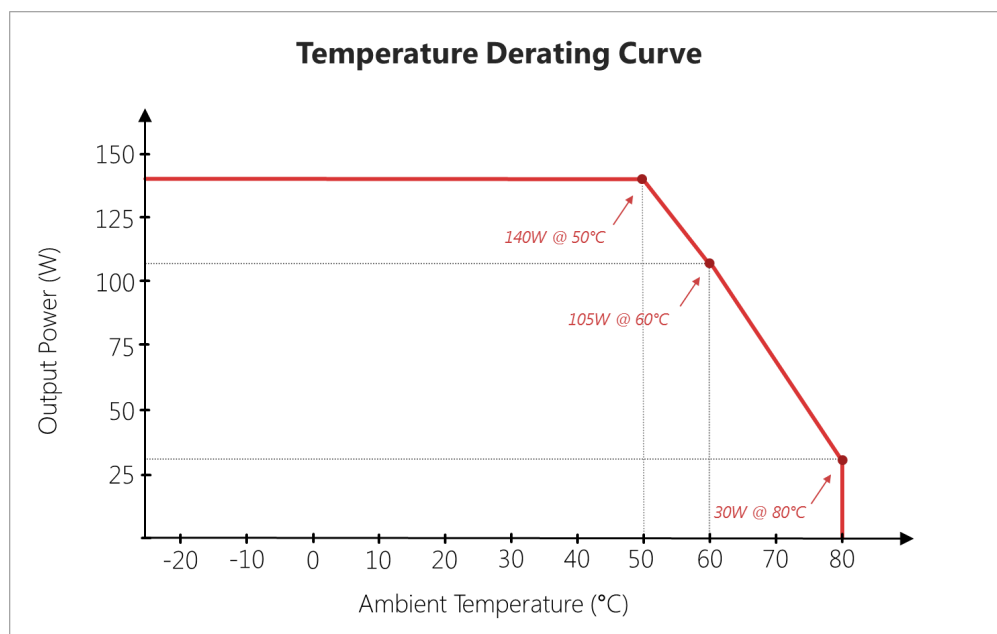
- Custom labels/markings
- Custom input/output cable assemblies
- Short term output surge capability
- Reduced touch current
- Reduced output ripple
- Compliance to IPC-600, IPC-610, IPC-6012 Class 2 or 3
- IEC61000-3-2 Class-C line harmonics for LED lighting applications
- Non-latching (auto-recover) over-temperature protection
- Potentiometer to adjust/trim output voltage
- Custom aux output voltages (5V to 12V), available for main output voltages from 12-24V

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## DERATING CURVE





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**INPUT CONFIGURATION**DescriptionContact GlobTek for customization requests on any type of cable in any customer specified lengths.

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## Approvals

| Logo | Description  |
|------|--|
| IP68 | Ingress Protection: ?IP68 to IEC60529:2001 Totally dust tight and Protected against long periods of immersion under pressure |