

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

Model:GTM96600-60VV.V-T2

May 20, 2019

GTM96600-60VV.V-T2

Information

Model Number GTM96600-60VV.V-T2

Description GTM96600-60VV.V-T2, ITE / Medical Power Supply/Class 2/Household Power Supply, 60601-1-4th Ed. , Desktop/External, Regulated Switchmode AC-DC Power Supply AC Adaptor, , Input Rating: 100-240V~, 50-60Hz, IEC 60320/C8 AC Inlet connector, Class II, Non-Earth Ground (aka "Figure-8"), Output Rating: 60 Watts, Power rating with convection cooling (W) , 5-54V in 0.1V increments, Approvals: CB 60335; Fuse 60335; ETL; EAC; ETL; CB 62368; PSE; PSE; PSE; China RoHS; Level VI; RoHS; Ukraine; VCCI; WEEE; ETL; CE; CB 60950; ETL; S-Mark 60950; Double Insulation; RCM; CB 60601-1; S-Mark IEC/EN 60601-1; EAC; CCC; LPS; South Africa;

Model Picture



Agency

Documents <http://www.globtek.info/certs/GTM96600-TZ/>

CE

EC-Declaration https://www.globtek.com/pdf/ec_declaration/a0Oa000000FjZOaEAN

RoHS/RoHS2

Declaration https://www.globtek.com/pdf/rohs_cert/a0Oa000000FjZOaEAN

REACH

Declaration https://www.globtek.com/pdf/iso_certificates/REACH.pdf

Conflict

Minerals

Declaration <https://www.globtek.com/pdf/conflict-minerals.pdf>

Declaration

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Model Parameters

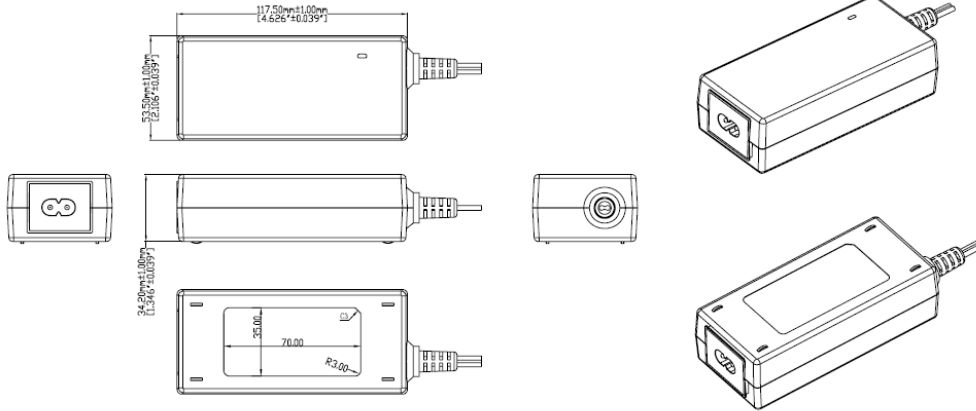
Type	Desktop/External
Technology	Regulated Switchmode AC-DC Power Supply AC Adaptor
Category	ITE / Medical Power Supply/Class 2/Household Power Supply
Input Voltage	100-240V~, 50-60Hz
I/P Amps (A)	1.5A
Wattage (W)	60.0
Vout Range (V)	5-54
Efficiency Level	VI
Ingress Protection	IP41
Size (mm)	117.5*53.5*34.2

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ENCLOSURE



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RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTM96600-3005-T2	5 V	6	30.00	RFQ
GTM96600-4005-T2	5 V	8	40.00	RFQ
GTM96600-6012-T2	12 V	5	60.00	RFQ
GTM96600-6015-1.2-T2	13.8 V	4.34	59.89	RFQ
GTM96600-6015-T2	15 V	4	60.00	RFQ
GTM96600-6018-T2	18 V	3.333	59.99	RFQ
GTM96600-6019-T2	19 V	3.16	60.04	RFQ
GTM96600-4520-T2	20 V	2.25	45.00	RFQ
GTM96600-6024-T2	24 V	2.5	60.00	RFQ
GTM96600-6027-T2	27 V	2.2	59.40	RFQ
GTM96600-6048-T2	48 V	1.25	60.00	RFQ
GTM96600-6054-T2	54 V	1.11	59.94	RFQ

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SPECIFICATIONS**A) ELECTRICAL SPECIFICATIONS:**

01. Input Voltage: Specified 90-264 Vac, Nameplate rated: 100-240Vac
 - 90-264 Vac range @ 100% of rated load current
 - 85-264 Vac range @ 85% of rated load current
 - 110-370 VDC range @ 100% of rated load current
02. Input Frequency: Specified 47-63 Hz, Nameplate rated 50-60Hz
03. Output Regulation: +/- 5% measured at the output connector
04. Line Voltage Regulation: +/- 0.5% typical measured at full load
05. Green Power On Indicator LED
06. Output Ripple (Vp-p): 1% or 100 mV whichever is greater, measured at 20 MHz bandwidth with 0.1 uf ceramic capacitor in parallel with a low impedance 47 uf electrolytic capacitor connected at the end of the output connector
07. Turn-ON/OFF Overshoot: 5% maximum, 1 mS typical recovery time for 40% to 70% step load
08. Turn-ON Delay: 1 second maximum @ full load, nominal line
09. Hold-Up Time: 8 mS typical @ nominal input voltage and full load
10. Inrush Current: 30A/60A maximum cold start @ 115/230Vac input
11. Efficiency: Compliant with Efficiency Level VI and CoC Tier 2 standards
12. No Load Standby Power: <0.075 W @ 230Vac for <= 49W output power rating,
<0.15W @ 230Vac for > 49W output power rating

B) PROTECTION

01. Input Protection: Input line fusing and 300Vac MOV
02. Short Circuit/ Overload: Electronically Protected unit will auto recover upon removal of fault
 - Output Current Limit: 110% to 160% of rated output current
(upper end of current limit range is determined by normal output power rating,
not derated output power level)
03. Output Over-Voltage: 110% to 130% of nominal output voltage

C) SAFETY

01. Dielectric Withstand Voltage: 4000Vac or 5656Vdc from input to output,
On Class I models, 3000Vac or 4242Vdc from input to earth
02. Earth Leakage Current: Class I models < 300uA, N/A for Class II models
03. Touch Current: Class I models < 20uA, Class II models < 85uA, F2 Models < 20uA
04. [Output Isolation Options](#):
 - a) C8 or C18 Inlet, Class II
 - b) C6 or C14 Inlet, Class II FE, Output Isolated from Earth contact
 - c) C6 or C14 Inlet, Class I, Output negative directly attached to Earth contact
05. Earth Continuity Test: < 0.1 Ohm between Earth Pin at AC input and PCB termination point (Class I models only)
06. Means of Protection: 2 x MOPP
07. Compliant Standards: See listings at end of this drawing for specifics

D) EMC

- EN 60601-1-2, 4th edition
- Emissions, per EN 55032, EN 61000-6-3, EN 61000-6-4, CISPR11 and CISPR22
- Conducted Emissions: Class B, FCC Part 15, Class B
 - Radiated Emissions: Class B, FCC Part 15, Class B
- Line Frequency Harmonics EN61000-3-2, Class A
- Voltage Fluctuations/Flicker EN61000-3-3
- Immunity, per EN 55024, EN 61000-6-1, EN 61000-6-2

PROPRIETARY INFORMATION

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<http://en.globtek.com/datasheet/id/a00a000000FjZOa>

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Static Discharge Immunity EN61000-4-2, 10kV Contact Discharge, 20kV air discharge
Radiated RF Immunity EN61000-4-3, 10V/m 80-1000MHz, 3V/m 1-2.7GHz, 80% 1KHz AM.
EFT/Burst Immunity EN61000-4-4, 4kV/100kHz.
Line Surge Immunity EN61000-4-5, 2kV differential, 4kV common-mode
Conducted RF Immunity EN61000-4-6, 3Vrms, 80% 1KHz AM
Power Frequency Magnetic Field Immunity EN61000-4-8, 3A/m
Voltage Dip Immunity EN61000-4-11, Criteria

E) OTHER:

01. MTBF: 1,000,000 Hours @ 40°C ambient temperature, Full Load
02. GTM96600 Family: -20°C to 40°C ambient temperature with full load
Regarding Operating Temperature,
 - a- See below derating table for output power capability at alternate temperature
 - b- Extended low end temperature range available as custom option
03. Operating Humidity: 0% to 95% relative humidity, non-condensing
04. Storage Temperature: -30°C to 80°C
05. Operating Altitude: 5000 Meters
06. ROHS: Compliant with latest regulations, see approvals section below

F) ENCLOSURE

01. Housing: High impact plastic, 94V0 polycarbonate, non-vented
02. Markings: Label or Laser Printed
03. AC Input mechanical options: Desktop C6, C8, C14 or C18 IEC Inlet.
Hybrid option (Desktop or Changeable Blade Wall Plug-in) Class I or Class II input

G) SPECIAL OPTIONS

01. Cost reduction, removal of LED
02. Custom Cordsets, various cordage types, and connector types
03. Custom Markings
04. Short term Output Surge Capability for motor loads, and other high peak current loads. Available to 120W for 1 second, and higher levels possible for limited input voltage range, or allowed voltage dip.
05. Reduced Leakage Current versions
06. Tightened output voltage tolerance
07. Reduced output ripple level
08. Reduced output power rating marking
09. High Rel PCB laminate with Plated through Holes for IPC610 Class 2 Compliance
10. Low Temperature operation, down to -40°C
11. Special Housing Colors and Cordset Colors
12. Back EMF applications, custom solutions. For unusual motor load aps and other high inductance reverse energy flow requirements
13. Improved Ingress Protection Rating

H) OUTPUT CONNECTORS

Several output connector options are available with various output current ratings.
GlobTek can supply 10A rated 2.1mm and 2.5mm style DC Power Jacks, to complement our 10A output rated 2.1mm and 2.5mm DC power plugs used on our output cordsets.
Please visit <https://en.globtek.com/news/high-current-coaxial-barrel-plug-jacks-for-high-wattage-power-supplies> for a real time product offering of mating connectors.

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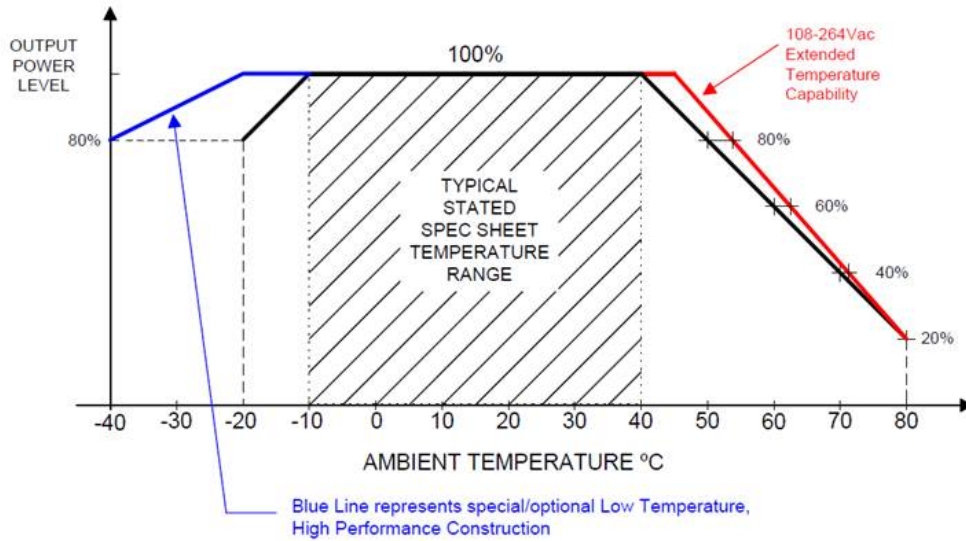
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DERATING CURVE

TYPICAL EXTERNAL POWER SUPPLY DERATING CURVE

(FOR EFFICIENCY LEVEL V AND EFFICIENCY LEVEL VI PRODUCTS)



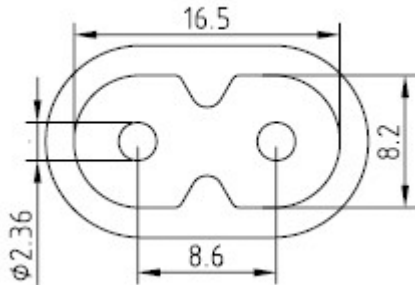
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Input Configuration

Description IEC 60320/C8 AC Inlet connector, Class II, Non-Earth Ground (aka "Figure-8")



Mates with IEC 60320/C7 Plug

Below are standard cordsets which are "not included" (unless stated above); these may be purchased separately or packaged with the power supply. Please contact your Sales Engineer if the style required is not shown below. Many more available in different lengths, colors or cable material.

Standard International IEC 320/C7 Cordsets

2094112M703(R) Argentina (Type I)	IRAM 2063	IEC 320/C7	20007
5014112M703A(R) Australian (Type I)	AS 3112	IEC 320/C7	20007
207B4111M8703(R) Brazil (Type N)	NBR14136	IEC 320/C7	18006
4533501M8703(R) China (Type A)	GB 2099.1	IEC 320/C7	18306
2074112M703A(R) European (Type C)	CEE 7/16	IEC 320/C7	20007
2084111M8703(R) India (Type M)	BS 546	IEC 320/C7	18006
451J3401M8703(R) Japan (Type A)	JIS 8303	IEC 320/C7	18306
2044112M703A(R) Korea (Type C)	KS C8305	IEC 320/C7	20007
4511116F703A(R) N. American (Type A)	NEMA 1-15P	IEC 320/C7	18306
4033401M8703A(R) Taiwan (Type A)	CNS690	IEC 320/C7	18306
6104112M703A(R) UK, Hong Kong, Singapore, Gulf States (Type G)	BS1363	IEC 320/C7	20007

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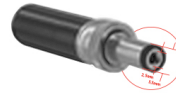
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Output Configuration

Common output connector options:


 L Type (Coaxial
5.5x2.5mm plug)

 C Type (Coaxial
5.5x2.1mm plug)

 K Type (Coaxial
3.5x1.3mm plug)

 LL Type (5.5x2.5mm
Locking 760k type)

 CL Type (5.5x2.1mm
Locking S761k type)

 ML2 Type (Molex
housing 43025-0200)


YL3 Type (KPPX-3P)



YL4 Type (KPPX-4P)


 EJ1/2/3/4/5 (EIAJ
RC-5320A type
connectors)


MSB Type (Micro USB)


 USBC Type (USB Type
C)

 Inquire for custom
design

 For a comprehensive list of options, [click here](#)

Contact GlobTek for your specific requirements or custom solutions.

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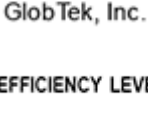







Approvals

Logo	Description
	Book 60335 up to 36 Volts
No Logo Applicable	CB for IEC 60335-1:2010+A1
No Logo Applicable	IEC 60601-1:2005+A1 IEC 60601-1-11:2015
No Logo Applicable	CB for IEC 60950-1:2005+A1+A2
No Logo Applicable	CB for IEC 62368-1:2014 (Second Edition)
	CCC Altitude up to 5000 m GB17625.1-2012, GB4943.1-2011, GB/T9254-2008
	Test standard: EN 55032:2012+AC:2013 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55024:2010 EN 60601-1-2:2015
	CHINA SJ/T 11364-2014, China RoHS Chart: http://en.globtek.com/globtek-rohs.php
	Certification # TC RU C-US.AR46.B.79113 Custom Union of Russia, Belarus and Kazakhstan
	Declaration # EAЭC N RU Д-US.АД75.B.01052 Custom Union of Russia, Belarus and Kazakhstan http://www.globtek.com/redirect/?loc=gost-certificate-eac-declaration
 Intertek	Medical Electrical Equipment - Part 1: General Requirements For Basic Safety And Essential Performance [AAMI ES60601-1:2005 +A1]
 Intertek	Information Technology Equipment Safety Part 1: General Requirements >Valid without technical revision:01Jan2022< [UL 60950-1:2007 Ed.2 +R:14Oct2014

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	Class 2 Power Units [UL 1310:2011 Ed.6 +R:12Dec2014] Power Supplies With Extra-Low Voltage Class 2 Outputs [CSA C22.2 No.223:2015 Ed.3]
	Class 2 Power Units [UL 1310:2011 Ed.6 +R:12Dec2014] Power Supplies With Extra-Low Voltage Class 2 Outputs [CSA C22.2 No.223:2015 Ed.3]
Class 2 Power Unit	Indoor Use Only - Mark is on the label or Molded in the case
 GlobTek, Inc.	JAPAN TUV R-PSE, Cert. No. JD 50313287, to J60950-1(H26) , J55022(H22),J3000(H25)[15V or less]. Please reference the following website for guidelines on PSE regulations: http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/
 GlobTek, Inc.	JAPAN TUV R-PSE, Cert. No. JD 50313287, to J60950-1(H26) , J55022(H22),J3000(H25)[DC15?30V]. Please reference the following website for guidelines on PSE regulations: http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/
 GlobTek, Inc.	JAPAN TUV R-PSE, Cert. No. JD 50313287, to J60950-1(H26) , J55022(H22),J3000(H25)[DC30?60V]. Please reference the following website for guidelines on PSE regulations: http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/
EFFICIENCY LEVEL VI	Efficiency: complies to section 301 of Energy Independence and Security Act (EISA) complies with Energy Star tier 2 (North America), ECP tier 2 (China), MEPS tier 2 (Australia), Code of Conduct (Europe)
LPS 	Limited Power Source RCM certificate ; Australia and New Zealand Regulatory Compliance, Mark (http://rcm.standards.org.au/rcmfaq/rcmfaq.htm)
RoHS 	Specifications of directive 2011/65/EU Annex VI (ROHS-2) with amendment 2015/863-EU (ROHS-3) http://www.ce-mark.com/Rohs%20final.pdf
	S-Mark Certificate EN 60601-1:2006+A1+A12, EN 60601-1-11:2015
	S-Mark Certificate EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011+A2:2013 (http://www.intertek.com/marks/s/)
No Logo	South Africa approval to SANS IEC 60950
	Ukraine UKRSepr (Document: www.globtek.com/html/iso_certificates/GT_Ukraine.pdf)
	Japan: Voluntary Control Council for Interference (VCCI)
	WEEE: Complies with EU 2012/19/EU (http://ec.europa.eu/environment/waste/weee/index_en.htm) Mark is on the label or Molded in the case