

Model:GTM96600-60VV.V-R2L

May 4, 2024

GTM96600-60VV.V-R2L

Information

Model Number

GTM96600-60VV.V-R2L

Description

GTM96600-60VV.V-R2L, ICT / ITE / Medical Power Supply/Class 2/Household Power Supply, 60601-1-4th Ed. , Wall Plug-in+Desktop Combination, Regulated Switchmode AC-DC Power Supply AC Adaptor , , Input Rating: 100-240V~, 50-60 Hz, IEC 60320/C8 AC Inlet connector, Output Rating: 60 Watts, Power rating with convection cooling (W) , 5-54V in 0.1V increments, Approvals: CB 60335; ETL; ETL; CB 62368; South Africa; Morocco; WEEE; Ukraine; VCCI; China RoHS; RoHS; Level VI; Double Insulation; CE; CCC; CB 60950; RCM; LPS 60950; PSE; PSE; PSE; ETL 60950; CB 60601-1; S-Mark IEC/EN 60601-1; S-Mark 60950; EAC; Fuse 60335;

Model Picture



Agency Documents

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

CE EC-Declaration

https://www.globtek.com/pdf/ec_declaration/a00a0000000jTG0EAN

RoHS/RoHS2 Declaration

https://www.globtek.com/pdf/rohs_cert/a00a0000000jTG0EAN

REACH Declaration

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

Conflict Minerals Declaration

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

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MODEL PARAMETERS

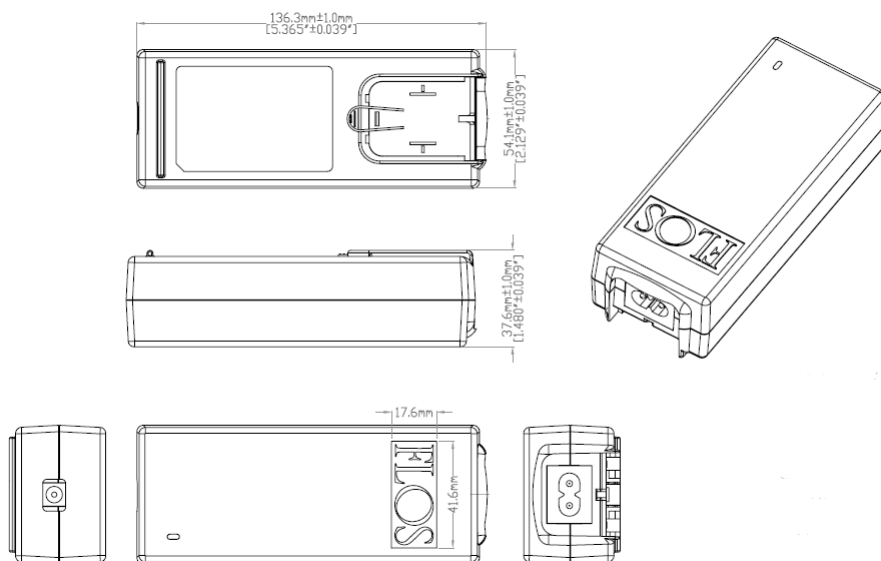
Type	Wall Plug-in+Desktop Combination
Technology	Regulated Switchmode AC-DC Power Supply AC Adaptor
Category	ICT / ITE / Medical Power Supply/Class 2/Household Power Supply
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	1.5 A
Wattage (W)	60.0
Vout Range (V)	5-54
Efficiency Level	USA DOE Level VI / Eco-design Directive 2009/125/EC, (EU) 2019/1782
Ingress Protection	IP40, IP54 Option available
Size (mm)	136.3*54.1*37.6

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ENCLOSURE



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RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTM96600-6048-R2L	48 V	1.25	60.00	RFQ

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SPECIFICATIONS

Input

Input Voltage:	Specified: 90-264VAC, Nameplate: 100-240VAC 100% rated load current for 90-264VAC 85% rated load current for 85-264VAC 100% rated load current for 110-370VDC
Input Frequency:	Specified: 47-63Hz, Nameplate: 50-60Hz
No Load Input Power:	<75mW @ 230VAC (EU CoC Tier 2 compliant) for ≤ 49W rating <150mW @ 230VAC (EU CoC Tier 2 compliant) for > 49W rating
Inrush Current:	30A/60A max. (cold start @ 115V/230VAC)
Efficiency:	DoE Level VI and EU CoC Tier 2 compliant

Output

Turn-on Delay:	1 second max. @ 115VAC and full load
Output Regulation:	± 5% (measured at output connector)
Line Regulation:	± 0.5% typ. (measured at output connector)
Ripple:	1% or 100mV, whichever is greater (using a 47µF low-ESR cap + 0.1µF ceramic capacitor, measured @ 20MHz BW, at output connector)
Transient Response:	5% max. deviation, 1ms typ. recovery time (with 40% to 70% load step)
Hold-up Time:	8ms typ. (nominal input voltage and full load)
Power Indicator:	Green LED

Protections

Input Protection:	MOV transient suppressor, input line fusing
Over-Current Protection:	110 - 160% of rated output current, auto-restart, current limit range determined by normal output power rating, not de-rated power rating
Short-Circuit Protection:	Auto-restart
Over-Voltage Protection:	110 - 130%, latched off, cycle AC to reset
Over-Temperature Protection:	On-chip temperature sensor (integrated in primary-side switching controller), shut down at T _j = ~140°C, latched off, cycle AC to reset

Environmental

MTBF:	1,500,000 hours @ 25°C ambient, full load (Telcordia SR-332, Issue 3)
Operating Temperature:	-20°C to 40°C (full load)
Storage Temperature:	-30°C to 80°C
Humidity:	0% to 95% relative humidity, non-condensing
Altitude:	5000m

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Cooling:	Convection
RoHS:	Complies with EU 2011/65/EU and China SJ/T 11363-2006
Note 1:	Regarding operating temperature a. See below de-rating table for output power capability at alternate temperature b. Extended low-end temperature range available as a custom option

Safety

Dielectric Withstand Voltage:	4000VAC or 5656VDC from input to output 3000VAC or 4242VDC from input to earth (Class I models only)
Touch Current:	Class I: 20μA max. Class II: 85μA max. Class II F2: 20μA max.
Earth Leakage Current	Class I: 300μA max. Class II: N/A
Means of Protection:	2 x MOPP
Output Isolation Options:	Class I: C6 or C14 inlet (output negative tied to Earth contact) Class II: C8 or C18 inlet Class II FE: C6 or C14 inlet (output isolated from Earth contact) Review isolation options by reading our white paper PSU Isolation and Identity .
Earth Continuity Test:	< 0.1Ω between earth pin (on AC inlet) and PCB termination point (Class I models only)
Compliant Standards:	See listing at end of this datasheet for specific standards

EMC

Applicable Standards:	Medical: EN60601-1-2, 4th edition Emissions: EN55032, EN61000-6-3, EN61000-6-4, CISPR11, CISPR22 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
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

Enclosure

Housing:	High impact plastic, 94V0 polycarbonate, non-vented Desktop: C6, C7, C14, or C18 inlet
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AC Input Mechanical Options:	Hybrid: Desktop inlet or changeable blades for wall-plug-in style, Class I or Class II input
Markings:	Label and/or pad printed and/or laser-etched into case

Special Options

1. Removal of LED (cost reduction or aesthetic purpose)
2. Custom cordsets, various cordage types, and connector types
3. Custom markings
4. Short term output surge capability for motors or other high peak current loads. (Available up to 120W for 1 second at nameplate voltage range. Higher levels possible for limited input voltage range, or larger allowed voltage dip.)
5. Reduced leakage current
6. Tightened output voltage tolerance
7. Reduced output ripple level
8. Reduced output power rating
9. High reliability PCB laminate with plated through-holes for IPC610 Class 2 compliance
10. Low temperature option, down to -40°C
11. Special housing and cordset colors
12. "Back EMF" upgrade, for motor loads and other high inductance applications with reverse energy flow requirements
13. Improved ingress protection (IP) rating

Output Connectors

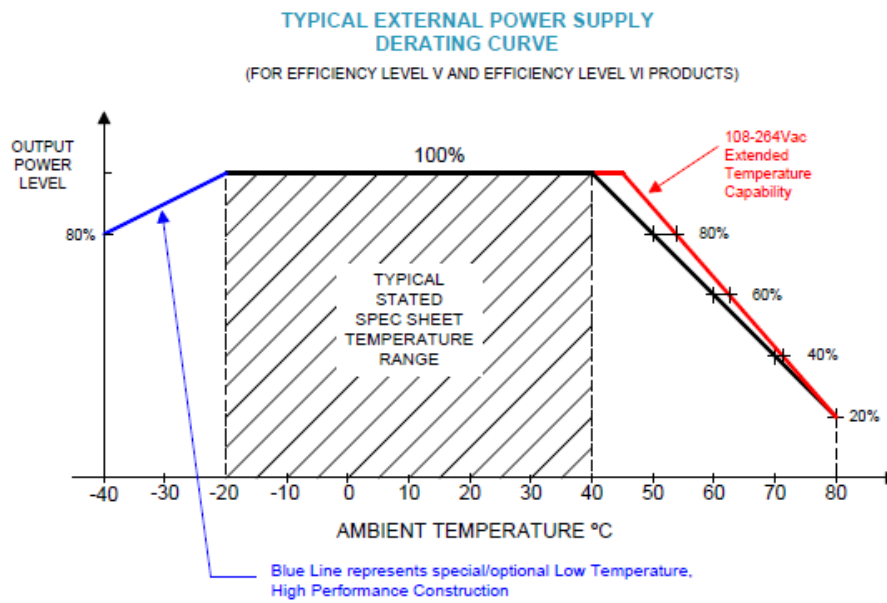
- Several output connector options are available with various output current ratings. GlobTek can supply 10A rated 2.1mm and 2.5mm style DC Power Jacks, to complement our 10A output rated 2.1mm and 2.5mm DC power plugs used on our output cordsets.
- Please visit our real-time listing of mating connector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

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DERATING CURVE

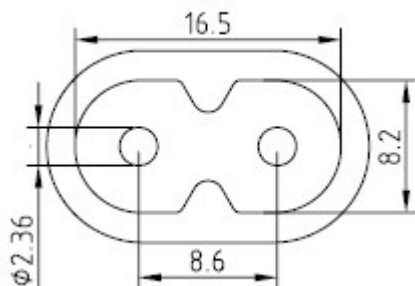


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INPUT CONFIGURATION

Description IEC 60320/C8 AC Inlet connector

[Blade Insertion Instructions](#)
[R-Blade Style Instruction Video](#)


Mates with IEC 60320/C8 Plug

This series of Interchangeable Blade products may be used with Proprietary Interchangeable Blades as described below or with standard international power cords.

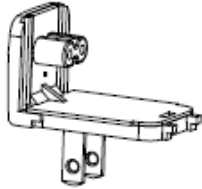
Optional INPUT BLADES: R-Socket: below are available blades configurations which are "not included" (unless stated above); may be purchased separately, packaged with power supply, or as a separate "R-KIT" if specified

# Part Number	Main Country/Region	Plug	IECEE Type
1 R-NA-2(R)	North America, Japan	Nema 1-15P	Type A
2 R-SAA-2(R)	Australia/New Zealand	AS/NZ 3112	Type I
3 R-UK-2(R)	United Kingdom/Ireland	UK, Hong Kong, Singapore, Gulf States	Type G
4 R-EU-2(R)	Europe	CEE 7/16	Type C
5 R-CN-2(R)	China	GB 2099	Type A
6 461-03030003(R)	N/A	R-DI(R) Desktop Insert for use with a cord	N/A
7 R-KIT-2(R)	prepackaged kit	1,2,3,4 above	N/A
8 R-KIT-2-INTL(R)	prepackaged kit	2,3,4 above	N/A

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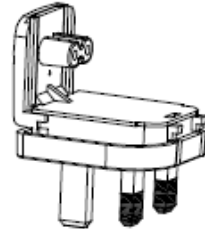
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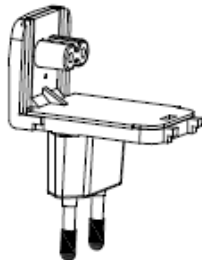
UL 2P

P/N: R-NA-2(R)
NORTH AMERICA
JAPAN


AUS 2P

P/N: R-SAA-2(R)
AUSTRALIA


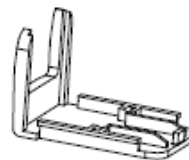
UK 2P

P/N: R-UK-2(R)
UNITED KINGDOM
HONG KONG
SINGAPORE


EU 2P

P/N: R-EU-2(R)
EUROPE
SOUTH AMERICA


CN 2P

P/N: R-CN-2(R)
CHINA


R-DI

P/N: R-DI
DESKTOP INSERT

Standard Cordsets

Below are standard cordsets which are "not included" (unless stated above); these may be purchased separately or packaged with the power supply. 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](#)

Part Number	Country	Plug	Connector	Length (mm)	Length (feet)
<u>2094112M703(R)</u>	Argentina (Type I)	IRAM 2063	IEC 320/C7	2000	7
<u>5014112M703A(R)</u>	Australian (Type I)	AS 3112	IEC 320/C7	2000	7

PROPRIETARY INFORMATION

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<https://www.globtek.com/ds/hJPjweAUBKp/qJp2uJQLpHw.html>

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207B4111M8703(R)	Brazil (Type N)	NBR14136	IEC 320/C7	1800	6
4533501M8703(R)	China (Type A)	GB 2099.1	IEC 320/C7	1830	6
2074112M703A(R)	European (Type C)	CEE 7/16	IEC 320/C7	2000	7
2084111M8703(R)	South Africa (Type M)	BS 546	IEC 320/C7	1800	6
2084111M8703B(R)	India (Type D)	ISI:1293	IEC 320/C7	1800	6
2714111M8703A(R)	India (Type C)	ISI:1293	IEC 320/C7	1800	6
451J3401M8703(R)	Japan (Type A)	JIS 8303	IEC 320/C7	1830	6
2044112M703A(R)	Korea (Type C)	KS C8305	IEC 320/C7	2000	7
4511116F703A(R)	N. American (Type A)	NEMA 1-15P	IEC 320/C7	1830	6
4033401M8703A(R)	Taiwan (Type A)	CNS690	IEC 320/C7	1830	6
6104112M703A(R)	UK, Hong Kong, Singapore, Gulf States (Type G)	BS1363	IEC 320/C7	2000	7

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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)
 2000	CCC to GB4943.1-2011 GB9254-2008 GB17625.1-2012
	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://www.globtek.com/pdf/F-GT-DJD-8.4.1-006%20China%20RoHS%20Declaration%205-20-22.pdf
No Logo - Molded in Case	Double Insulation - Mark is on the label or Molded in the case
	Certification # TC RU C-US.AR46.B.79113 Custom Union of Russia, Belarus and Kazakhstan

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	Information Technology Equipment Safety Part 1: General Requirements >Valid without technical revision:01Jan2022< [UL 60950-1:2007 Ed.2 +R:14Oct2014]
	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	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] up to 5A
	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)[DC15?30V]. Please reference the following website for guidelines on PSE regulations: https://www.globtek.com/r2/Szj4Vb
 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: https://www.globtek.com/r2/Szj4Vb
 GlobTek, Inc.	JAPAN TUV R-PSE, Cert. No. JD 50469658, to J62368-1(H30) , J55032(H29),J3000(H25)[15V or less]. Please reference the following website for guidelines on PSE regulations: https://www.globtek.com/r2/Szj4Vb
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 60950

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	Morocco SDoC declaration http://www.globtek.info/certs/Morocco%20SDoC%20Declaration/
 GMA-512684-EA	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
 intertek	S-Mark Certificate EN 60601-1:2006+A1+A12, EN 60601-1-11:2015
 intertek	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
 10276	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