GlobTek® Inc.
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Exista POWER SUPPLIES
Allmendstrasse 6 Tel. +41 43 204 01 01 sales@exista.ch
CH-8320 Fehraltorf Fax +41 43 204 01 02 www.exista.ch

90W Desktop Power Supply Adapter offering IEC60950, 60601, 62368, UL1310, IEC60335 Certifications and DOE EPS 2.0 Level VI compliant, Class II

Information

Model Number	GTM96900P90VV.V-T2
Description	The 90W Desktop Power Supply family also serves as an LED Driver which meets 61000-3-2 Class C Harmonics and has IEC61347, LPS, and UL1310 (Class 2 Transformer) certification, Class II.
Model Picture	
Agency Documents	http://www.globtek.info/certs/GTM96900P90VV.V/
CE EC-Declaration	https://www.globtek.com/pdf/ec_declaration/a0Oa000000MigSZEAZ
RoHS/RoHS2 Declaration	https://www.globtek.com/pdf/rohs_cert/a0Oa000000MigSZEAZ
REACH Declaration	https://www.globtek.com/pdf/iso_certificates/REACH.pdf
Conflict Minerals Declaration	https://www.globtek.com/pdf/conflict-minerals.pdf

Model Parameters

Type	Desktop/External
Technology	Regulated Switchmode AC-DC Power Supply AC Adaptor
Category	ITE / Medical Power Supply
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	1.5A
Wattage (W)	90.0
Vout Range (V)	12-54
Efficiency Level	VI
Ingress Protection	IP41
Size (mm)	149.38 x 62.6 x 33.5 +/-1.0

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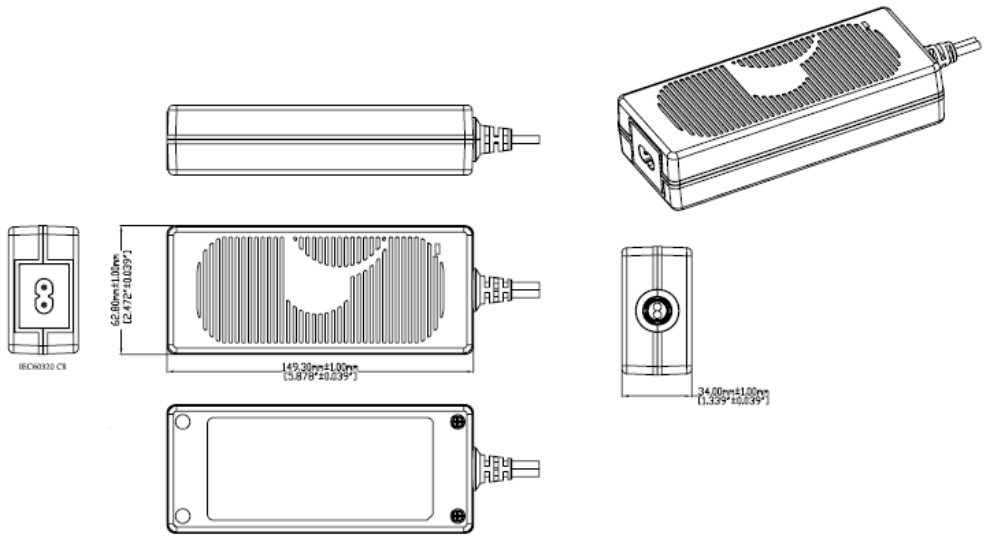
ENCLOSURE



RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTM96900P8512-T2	12 V	7.1	85.20	RFQ
GTM96900P8512-T2Z	12 V	7.1	85.20	RFQ
GTM96900P9015-T2Z	15 V	6	90.00	RFQ
GTM96900P9015-T2	15 V	6	90.00	RFQ
GTM96900P9019-T2Z	19 V	4.73	89.87	RFQ
GTM96900P9019-T2	19 V	4.73	89.87	RFQ
GTM96900P9024-T2Z	24 V	3.75	90.00	RFQ
GTM96900P9024-T2	24 V	3.75	90.00	RFQ
GTM96900P9030-T2Z	30 V	3	90.00	RFQ
GTM96900P9030-T2	30 V	3	90.00	RFQ
GTM96900P9036-T2	36 V	2.5	90.00	RFQ
GTM96900P9036-T2Z	36 V	2.5	90.00	RFQ
GTM96900P9048-T2Z	48 V	1.875	90.00	RFQ
GTM96900P9048-T2	48 V	1.875	90.00	RFQ
GTM96900P9054-T2Z	54 V	1.66	89.64	RFQ
GTM96900P9054-T2	54 V	1.66	89.64	RFQ

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SPECIFICATIONS

A) ELECTRICAL SPECIFICATIONS:
01. Input Voltage: Specified 90-264 Vac, Nameplate rated: 100-240Vac
90-264Vac range @ 100% of rated load current
85-264 Vac range @ 90% of rated load current
90-370 VDC range @ 100% of rated load current
02. Input Frequency: Specified 47-63 Hz, Nameplate rated 50/60Hz
03. Power Factor: 0.90 minimum @ 230Vac, 0.97 minimum @ 115Vac
04. Output Type: LPS (Limited Power Source), limited to less than 8A and 100W
04. Output Regulation: +/- 4% measured at the output connector
05. Line Voltage Regulation: +/- 0.5% typical measured at full load
06. Green Power On Indicator LED
07. Output Ripple (Vp-p): 1% or 200 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 at nominal line
08. Turn-ON/OFF Overshoot: 5% maximum, 1 mS typical recovery time for 25% to 50% step load
09. Turn-ON Delay: 1 second typical
10. Hold-Up Time: 20 mS minimum
11. Inrush Current: 30A maximum at 115Vac input and 60A maximum at 230 Vac input
12. Switching Frequency: Varies from 25KHz to 125KHz
13. Efficiency: Compliant with Efficiency Level VI Standard and 230 CoC Tier 2 Limits
14. No Load Standby Power: <0.15 W @ 230Vac

B) PROTECTION
01. Input Protection: Input line fusing and 300Vac rated MOV
02. Non-LPS version: Current Limited to 110% to 160% of rated output current
03. LPS version: Short Circuit/Overload limited to less than 8A and 100W (add Z suffix in model #)
04. Over-Temperature : Inherently protected against continuous overload at high temperature
05. Output Over-Voltage: 110% to 135% of nominal output voltage under full load condition, and less than 60V max. Latching protection, cycle AC OFF to reset.

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 < 70uA
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. Primary to Secondary Bridging Capacitance: Two IEC60384-14 certified Y1 type capacitors in series
08. 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

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Voltage Fluctuations/Flicker EN61000-3-3

Immunity, per EN 55024, EN 61000-6-1, EN 61000-6-2
- Static Discharge Immunity EN61000-4-2, 10kV Contact Discharge, 18kV 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. Operating Temperature:
    GTM96900P Family: 0°C to 50°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. Humidity: 0% to 95% relative humidity, non-condensing
04. Storage Temperature: -30°C to 80°C
05. Cooling: Convection
06. ROHS: Compliant with latest regulations, see approvals section below
07. Operational Altitude: 5000M

F) DESKTOP STYLE ENCLOSURE
01. Housing: High impact plastic, 94V0 polycarbonate, non-vented
02. Size: 149.4 x 62.6 x 33.5 +/-1.0 mm
03. Markings: Label or Laser printed
04. AC Input mechanical options: Desktop C6, C8, C14 or C18 IEC Inlet.

G) SPECIAL OPTIONS
01. LPS or non-LPS versions (Z suffix for LPS model)
02. Custom Cordsets, various cordage types, and connector types
03. Custom Markings
04. Short term Output Surge Capability, as a non-LPS version
05. Reduced Leakage Current version, medical CF leakage current compliance
06. Tightened output voltage tolerance
07. Reduced Output Ripple Level
08. Reduced output power Marking/Rating
09. LED Lighting, Class C Line Harmonics per 61000-3-2
    Three Power Ranges available: 27-50W, 40-65W and 57-90W
10. High Rel PCB laminate with Plated through Holes for IPC610 Class 2 Compliance
11. Low Temperature operation, down to -40°C
12. Special Housing Colors and Cordset Colors
13. Epoxy Potted Version, “P2” or “P3” suffix, with flying wires

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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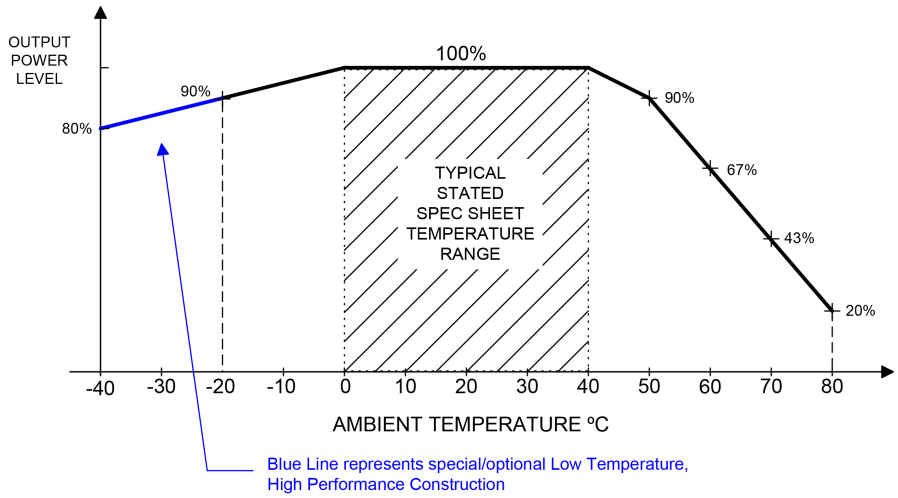
DERATING CURVE

TYPICAL EXTERNAL POWER SUPPLY DERATING CURVE

(GTM96900 LPS PRODUCTS)



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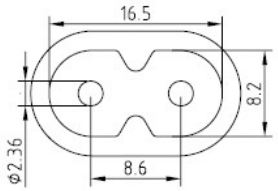
Input Configuration

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



Mates with IEC 60320/C7 Plug

Standard International IEC 320/C7 Cordsets

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	IRAM 2063	IEC 320/C7 20007
5014112M703A(R)	Australian	AS 3112	IEC 320/C7 20007
207B4111M8703(R)	Brazil, Type N	NBR14136	IEC 320/C7 1800 6
4533501M8703(R)	China	GB 2099.1	IEC 320/C7 18306
2074112M703A(R)	European, Type C	CEE 7/16	IEC 320/C7 20007
2084111M8703(R)	India, Type D	BS 546	IEC 320/C7 1800 6
451J3401M8703(R)	Japan	JIS 8303	IEC 320/C7 18306
2044112M703®	Korea	KS C8305	IEC 320/C7 2000 7
4511116F703A(R)	N. American, Type A	NEMA 1-15P	IEC 320/C7 18306
4033401M8703A(R)	Taiwan	CNS690	IEC 320/C7 1830 6
6104112M703A(R)	UK, Type G	BS1363	IEC 320/C7 20007

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
No Logo Applicable	CB for IEC 60601-1:2006/A1:2013+A12:2014 IEC 60601-1-11:2015
No Logo Applicable	CB for IEC 60335-1:2010 (Fifth Edition) incl. Corr. 1:2010 and Corr. 2:2011 + A1:2013
No Logo Applicable	CB for IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
No Logo Applicable	CB for IEC61347-1:2015 + A1:2017 IEC61347-2-13:2014, A1:2016
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
CE	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
Conforms to AAMI STD.ES60601-1,IEC 60601-1-11 Certified to CAN/CSA STD.C22.2 NO.60601-1	Conforms to AAMI STD.ES60601-1,IEC 60601-1-11 Certified to CAN/CSA STD.C22.2 NO.60601-1
Conforms to UL STD. 1310 Certified to CSA STD. C22.2 NO.223	Conforms to UL STD. 1310 Certified to CSA STD. C22.2 NO.223
Conforms to UL STD. 60950-1 Certified to CSA STD C22.2 NO.60950-1	Conforms to UL STD. 60950-1 Certified to CSA STD C22.2 NO.60950-1
EAC	Declaration # ???? N RU ?-US.????.?.01052 Custom Union of Russia, Belarus and Kazakhstan http://www.globtek.com/redirect/?loc=gost-certificate-eac-declaration
RECOGNIZED COMPONENT ETL c US Intertek	Medical Electrical Equipment - Part 1: General Requirements For Basic Safety And Essential Performance (R2012) [AAMI ES60601-1:2005 +C1;A2] [CSA C22.2#60601-1:2014 Ed.3] [AAMI HA60601-1-11:2015 Ed.2]

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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] up to 5A Power Supplies With Extra-Low Voltage Class 2 Outputs [CSA C22.2 No.223:2015 Ed.3]
Class 2 Power Unit	
CAN ICES-3(B)/NMB-3(B)	Compliance of this PSU with Industry Canada, Class B demonstrated with a standard output load. The ICES law stipulates that system-level testing is required to demonstrate compliance with the ICES-3 emission limits with the actual system load.
	Indoor Use Only - Mark is on the label or Molded in the case
IP41	Ingress Protection: ?IP41 to IEC60529:2001 Protection against granular foreign bodies - Protected against vertically falling drops of water
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 if Z suffix on model number
Patent pending	Patent pending
	RCM certificate SAA-170646-EA; 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 + A1:2013 + A12:2014 EN 60601-1-11:2015 (http://www.intertek.com/marks/s/)
Intertek	S-Mark Certificate EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011+A2:2013 (http://www.intertek.com/marks/s/)
10276	Ukraine UKRSepro (Document: www.globtek.com/html/iso_certificates/GT_Ukraine.pdf)
VCCI	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