

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

Model:GTD9X1003-WWWVV-TW

May 9, 2025

GTD9X1003-WWWVV-TW

Information

Model Number	GTD9X1003-WWWVV-TW
Description	GTD9X1003-WWWVV-TW, ICT / ITE / Medical Power Supply/Class 2/Household Power Supply, 60601-1-4th Ed. , Desktop/External, DC-DC, , Input Rating: 12-36V, , Output Rating: 100 Watts, Power rating with convection cooling (W) , 12-54V in 0.1V increments, Approvals: China RoHS; Double Insulation; PSE; RoHS; UKCA; Ukraine; VCCI; WEEE;

Model Picture



Agency Documents

CE EC-Declaration	https://www.globtek.com/pdf/ec_declaration/a0O3a00000MvtUoEAJ
RoHS/RoHS2 Declaration	https://www.globtek.com/pdf/rohs_cert/a0O3a00000MvtUoEAJ
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

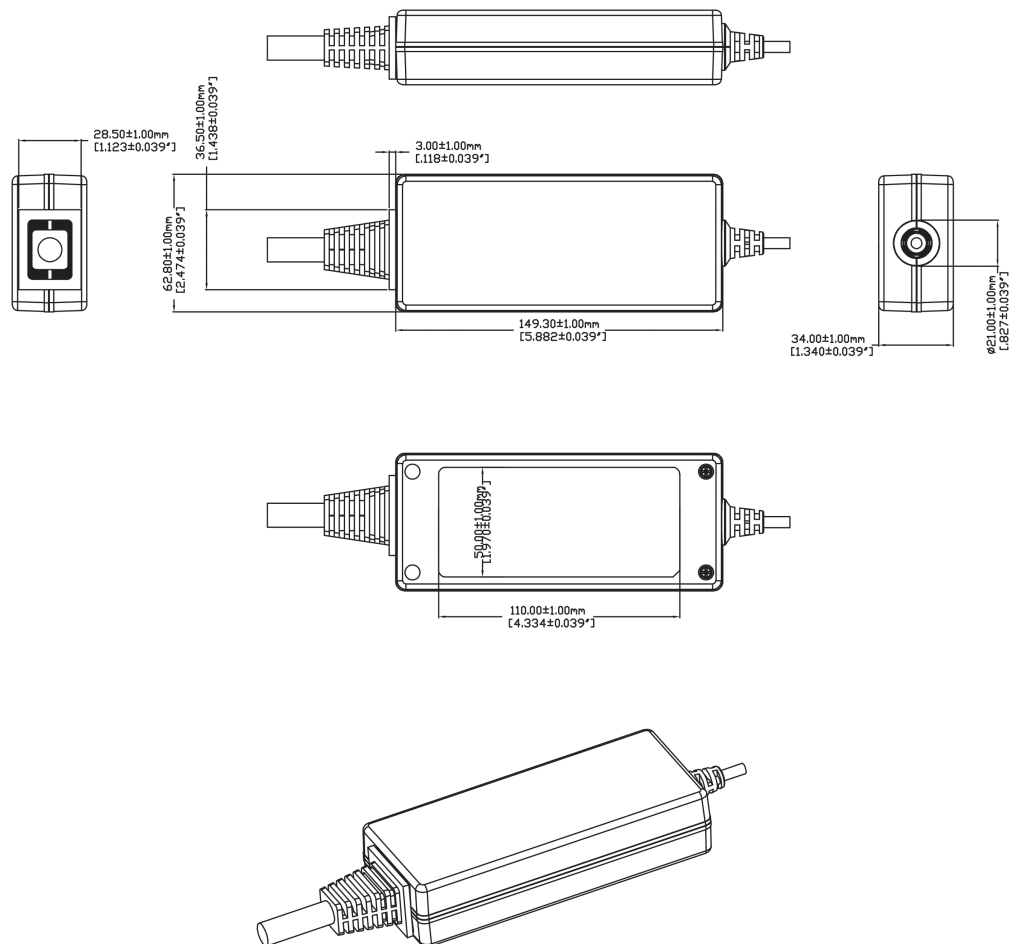
Type	Desktop/External
Technology	DC-DC
Category	ICT / ITE / Medical Power Supply/Class 2/Household Power Supply
Input Voltage	12-36V
I/P Amps (A)	12.0A
Wattage (W)	100.0
Vout Range (V)	12-54
Efficiency Level	
Ingress Protection	IP43
Size (mm)	149.4 x 62.6 x 33.5

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ENCLOSURE



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<https://www.globtek.com/ds/jpMV5tSBV6F/6L7HL6SmLMR.html#datasheet>

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RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTD9X1003-10012-TW	12 V	8.33	99.96	RFQ
GTD9X1003-6015-TW	15 V	4	60.00	RFQ
GTD9X1003-10015-TW	15 V	6.666	99.99	RFQ
GTD9X1003-10018-TW	18 V	5.55	99.90	RFQ
GTD9X1003-10019-TW	19 V	5.263	100.00	RFQ
GTD9X1003-10022-TW	22 V	4.545	99.99	RFQ
GTD9X1003-10024-TW	24 V	4.16	99.84	RFQ
GTD9X1003-10028-TW	28 V	3.571	99.99	RFQ
GTD9X1003-10030-TW	30 V	3.33	99.90	RFQ
GTD9X1003-10036-TW	36 V	2.77	99.72	RFQ
GTD9X1003-10048-TW	48 V	2.08	99.84	RFQ
GTD9X1003-10054-TW	54 V	1.85	99.90	RFQ

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SPECIFICATIONS

Features

- 2 x MOPP medical isolation
- EMS-ready per IEC60601-1-12
- Wide "universal" DC input range
- 120W short-term power capability (optional)
- Shock & vibration in accordance with IEC60601-1-12 (EMS)

Input

Input Voltage Range:	12 - 36VDC (nameplate, nominal)
	10.2 - 39.6VDC (rated, -15% / +10%)
	Plus short-term capability between 9.0 - 10.2V. (Duration is limited by temperature rise.)
Input Current:	9.5A (typ.) @ 12VDC
	12.0A (max.) @ 10.2VDC
No Load Input Power:	< 0.5W
Efficiency:	87% @ 12VDC, 90% @ 24VDC typ., at a "typical" 60W usage scenario

Output

Turn-on Delay:	< 2 seconds
Output Regulation:	+1.5% / -4% max. (measured at the output connector)
Line Regulation:	± 0.1 % typ. (measured at the output connector)
Ripple:	1% max. (using a 10µF low-ESR electrolytic cap + 0.1µF ceramic cap, measured @ 20MHz BW, at the output connector)
Transient Response (Step Load):	10% max. deviation, 2ms max. recovery time (with 100W load step)
Transient Response (Load Dump):	5% max. deviation, 100ms max. recovery time (with 100W load dump)

Protections

Input Protection:	Input line fusing (high-breaking capacity)
	Reverse polarity protection (up to -36VDC)
Input Under-Voltage Protection:	Shut down @ 7.4V (typ.), Restore @ 9.0V (max.)
Output Over-Voltage Protection:	110 - 130%, Latching, cycle DC input voltage to reset
Output Over-Current Protection:	110 - 150%, Auto-recovery
Output Short-Circuit Protection:	Auto-recovery

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Over-Temperature Protection: Latching, cycle DC input voltage to reset

Environmental

MTBF: > 1,500,000 hours @ 25°C ambient (Telcordia SR-332, Issue 3)

Operating Temperature: -10°C to 40°C (100W)
Check derating curve for T > 40°C.

Storage Temperature: -40°C to 80°C

Humidity: 0% to 95% relative humidity, non-condensing

Altitude: 5000m

Cooling: Natural convection

Shock: End use handling: Half-sine, <3ms duration, 1.65m/s, 3 shocks per face
Transportation simulation: Trapezoid, 60G acceleration, 5.75m/sec, 3 shocks per face
General shock: Half-sine, 100G acceleration, 6ms duration, 3 shocks per face

Vibration: IEC60601-1-12, Section 10.1.3, Clause B

Bump: EN1789, Clause 6.4.1

Drop: EN1789, Clause 6.4.2

Ingress Protection: IP43

RoHS: Complies with EU 2015/863 and China SJ/T 11363-2006

Safety

Compliant Standards: General medical: IEC60601-1
Emergency medical services (EMS): IEC60601-1-12
Information & communications technologies (ICT): IEC62368-1

Dielectric Withstand Voltage (Hi-Pot): 4300VDC from input to output, 1 minute
4300VDC from input to case, 1 minute
500VAC from output to case, 1 minute

Output Leakage Current: NC: 8µA max.
SFC: 40µA max.

Means of Protection (Primary-to-Secondary): 2 x MOPP

Protection Class: Class II (reinforced insulation)

EMC

Compliant Standards: Medical: IEC60601-1-2
Aftermarket automotive: EN50498

Conducted Emissions: CISPR25, Class 3
(measured with resistive load)

Radiated Emissions: CISPR25, Class 3
EN50498
(measured with resistive load)

ISO7637-2 (Test conditions for 12V nom. / 24V nom. systems, respectively)
Test Pulse 1: - 100V / -600V (5,000 pulses)

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Electrical Transient Conduction Along Supply Lines:	Test Pulse 2a: + 50V / + 50V (5,000 pulses)
	Test Pulse 2b: + 10V / + 20V (10 pulses)
	Test Pulse 3a: -150V / - 200V (1 hour)
	Test Pulse 3b: +100V / + 200V (1 hour)
	Test Pulse 4: -6V / -12V (1 pulse)
ISO16750-2 Load Dump:	
12V nom. system: Test Pulse B : $U_s^* = 35V$, $R_i = 2\Omega$, $t_d = 400ms$	
24V nom. system: Test Pulse B: $U_s^* = 65V$, $R_i = 2\Omega$, $t_d = 350ms$	
Electrostatic Discharge (ESD) Immunity:	EN61000-4-2, 10KV contact discharge, 18KV air discharge, Criterion A
Radiated RF Immunity:	EN61000-4-3, 20V/m @ 80MHz - 2.7GHz, 80% 1KHz AM, 80% 5Hz AM, Criterion A
Conducted RF Immunity:	EN61000-4-6, 3VRMS & 6VRMS (ISM & Amateur bands), 80% 1KHz AM, Criterion A

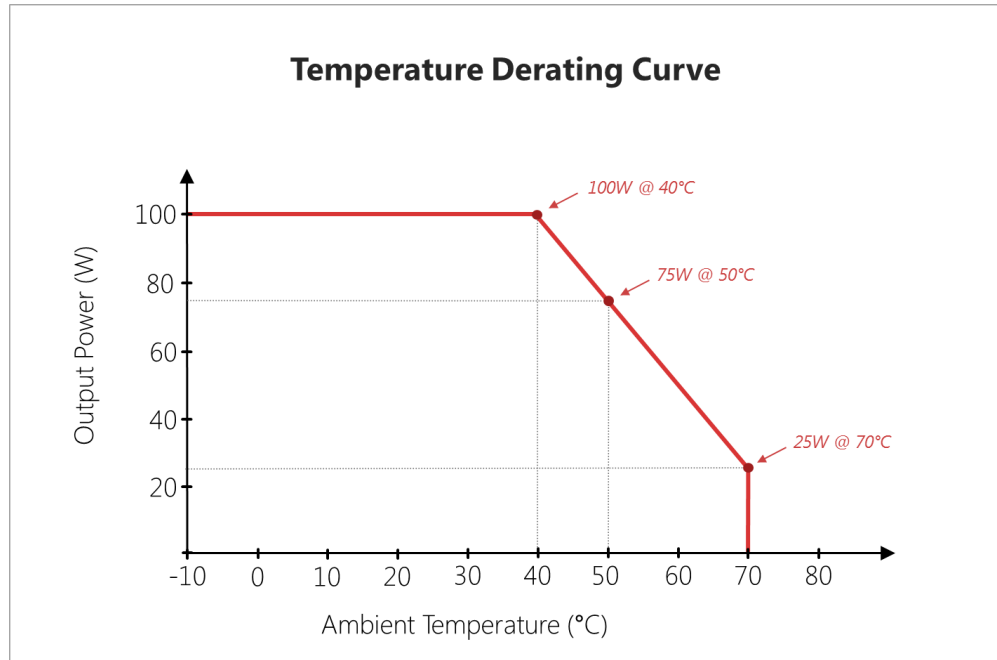
Enclosure

Housing:	High impact plastic, 94V0 polycarbonate, non-vented
Markings:	Adhesive backed label or laser engraving

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DERATING CURVE



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INPUT CONFIGURATION**PROPRIETARY INFORMATION**

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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
	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
	
	Indoor Use Only - Mark is on the label or Molded in the case
 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
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
	UKCA Certification
	Ukraine UKRSepro (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