

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

Model:GTM96180-18VV-T2

November 28, 2020

GTM96180-18VV-T2

Information

Model Number

GTM96180-18VV-T2

Description

GTM96180-18VV-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~, 50-60 Hz, IEC 60320/C8 AC Inlet connector, Class II, Non-Earth Ground (aka "Figure-8"), Output Rating: 18 Watts, Power rating with convection cooling (W) , 5-48V in 0.1V increments, Approvals: IP42; CB 62368; CB 60950; LPS 62368; 230V CoC Tier 2; EAC; UKCA; NrCAN (9V only); Morocco; cETLus 60601-1 3rd; CE; China RoHS; Level VI; LPS 60950; RoHS; Ukraine; VCCI; WEEE; FCC; CAN ICES-3; CB 61558-2-16; RCM; S-Mark 60950; ETL; Double Insulation; CCC;CE; CB 60335; cETLus UL1310; Fuse 60335; Fuse 60335; PSE; PSE; PSE; CB 60601-1;

Model Picture



Agency Documents

<http://www.globtek.info/certs/GTM96180-TZ/>

CE EC-Declaration

https://www.globtek.com/pdf/ec_declaration/a0Oa000000Oiz12EAD

RoHS/RoHS2 Declaration

https://www.globtek.com/pdf/rohs_cert/a0Oa000000Oiz12EAD

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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November 28, 2020

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~, 50-60 Hz
I/P Amps (A)	0.6 A
Wattage (W)	18.0
Vout Range (V)	5-48
Efficiency Level	USA DOE Level VI / Eco-design Directive 2009/125/EC, (EU) 2019/1782
Ingress Protection	IP42
Size (mm)	(L)87x(W)47x(H)32mm

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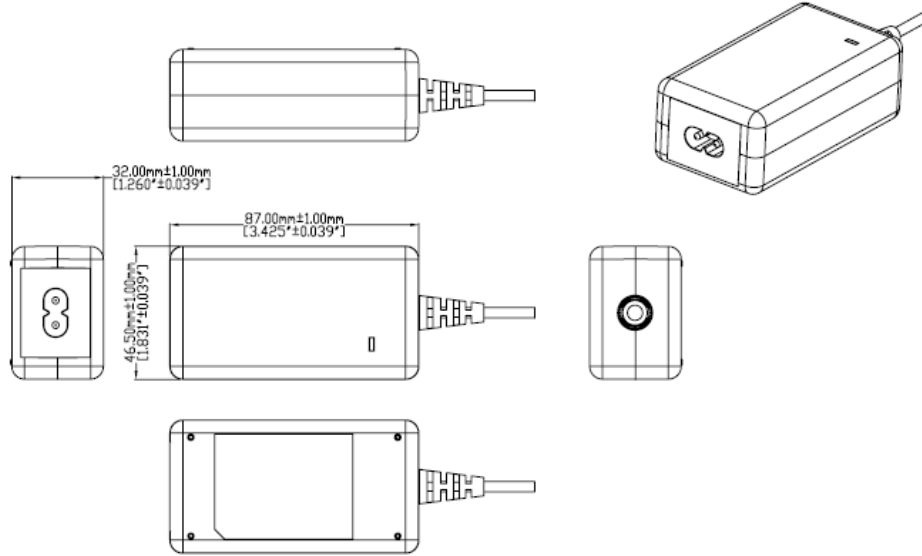
<http://en.globtek.com/datasheet/id/a00a0000001z12>

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Model:GTM96180-18VV-T2

November 28, 2020

ENCLOSURE



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Model:GTM96180-18VV-T2

November 28, 2020

RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTM96180-1607-2.0-T2	5 V	3.2	16.00	RFQ
GTM96180-1007-2.0-T2	5 V	2	10.00	RFQ
GTM96180-1307-2.0-T2	5 V	2.5	12.50	RFQ
GTM96180-1807-1.05-T2	5.95 V	3	17.85	RFQ
GTM96180-1811-2.0-T2	9 V	2	18.00	RFQ
GTM96180-1817.9-7.9-T2	10 V	1.8	18.00	RFQ
GTM96180-1117.9-5.9-T2	12 V	0.916	10.99	RFQ
GTM96180-1817.9-5.9-T2	12 V	1.5	18.00	RFQ
GTM96180-1817.9-2.9-T2	15 V	1.2	18.00	RFQ
GTM96180-1830-12.0-T2	18 V	1	18.00	RFQ
GTM96180-1830-11.0-T2	19 V	0.94	17.86	RFQ
GTM96180-1830-10.0-T2	20 V	0.9	18.00	RFQ
GTM96180-1830-6.0-T2	24 V	0.75	18.00	RFQ
GTM96180-1830-T2	30 V	0.6	18.00	RFQ
GTM96180-1838-5.0-T2	33 V	0.545	17.99	RFQ
GTM96180-1848-T2	48 V	0.375	18.00	RFQ

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Model:GTM96180-18VV-T2

November 28, 2020

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)
Inrush Current:	30A/60A maximum, cold start @ 115VAC/230VAC input, respectively
Efficiency:	DoE Level VI compliant, EU CoC Tier 2 compliant

Output

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

Protections

Input Protection:	MOV transient suppressor, input line fusing
Over-Voltage Protection:	110-130% of nominal output voltage
Short-Circuit Protection:	Auto-restart
Over-Current Protection:	110-160% of rated output current (Current limit range is determined by normal output power rating, not derated power level)

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) See derating table for output power capability at other temperatures. Extended low temperature range available as a custom option.
Storage Temperature:	-30°C to 80°C
Humidity:	0% to 95% relative humidity, non-condensing
Altitude:	5000m
Ingress protection:	IP40 standard, IP52 available as a special option

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Model:GTM96180-18VV-T2

November 28, 2020

Cooling:	Convection
RoHS:	Complies with EU 2011/65/EU and China SJ/T 11363-2006

Safety

Dielectric Withstand Voltage:	4000VAC or 5656VDC from input to output 3000VAC or 4242VDC from input to earth (Class I models)
Touch Current:	Class I models: < 20uA Class II models: <75uA
Earth Leakage Current:	Class I models: <300uA Class II models: N/A
Isolation Options:	Floating output or Class I earthed output (desktop models)
Earth Continuity Test:	< 0.1 ohm between AC inlet earth pin and PCB termination point
Means of Protection:	2 x MOPP
Compliant Standards:	See listing at the end of this document.

EMC

Applicable Standards:	Medical: EN60601-1-2, 4th edition Emissions: EN55032, EN61000-6-3, EN61000-6-4 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, 8KV 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
AC Input Mechanical Options:	Wall plug-in, changeable blades (Class II only) Desktop housing, extended housing: C6, C8, C14, or C18 IEC inlet (Class I or Class II)
Markings:	Label or laser printed

Special Options

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Model:GTM96180-18VV-T2

November 28, 2020

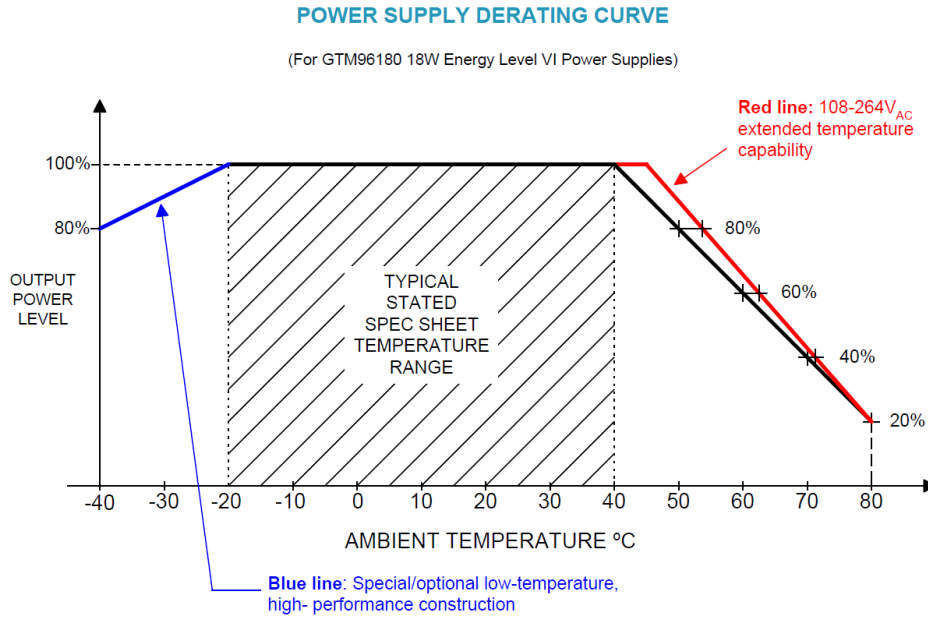
1. Removal of LED (optional)
 2. Custom cord-sets (custom cord and/or connector types). Note: 5VDC USB power supplies with Micro-B or Type-C connectors have a voltage regulation specification of $\pm 8\%$ (4.6V to 5.4V).
 3. Custom markings
 4. Short term output surge capability
 5. Reduced leakage current versions (10uA max) for Type-CF medical applications and/or for AC noise sensitive equipment. (15W or less, 5 to 24V output voltage range.)
 6. Tightened output voltage tolerance
 7. Reduced output voltage ripple
 8. Improved reliability PCB laminate with plated-through-holes for IPC610 Class 2 compliance
 9. Custom housing colors
 10. Quasi constant-current output for SLA (lead-acid) battery charging applications
-

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Model:GTM96180-18VV-T2

November 28, 2020

DERATING CURVE



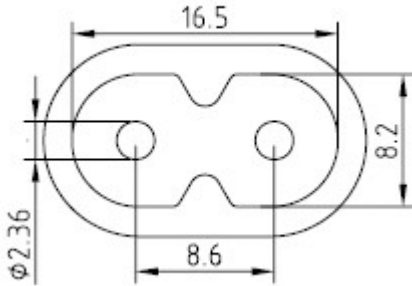
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Model:GTM96180-18VV-T2

November 28, 2020

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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Model:GTM96180-18VV-T2

November 28, 2020

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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November 28, 2020









Approvals

Logo	Description
No Logo Applicable	EU 230V CoC Tier 2, 278/2009, Mar 2014
	Book 60335 up to 36 Volts
No Logo Applicable	IEC 60601-1:2005 (Third Edition) + CORR. 1 (2006) + CORR. 2 (2007) + AM1 (2012) or IEC 60601-1 (2012 reprint) (Ed 3.1)
No Logo Applicable	CB for IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
No Logo Applicable	CB for IEC 62368-1:2014 (Second Edition)
No Logo Applicable	CB report to IEC 61558-2-16_2009 + A1_2013 IEC 61558-1_2005 2nd Edition + A1_2009 EN 61558-1-16_2009 EN 61558-1_2005 + A1_2009.pdf
	CCC to GB4943. 1-2011; GB9254-2008; GB17625. 1-2012 with Tropical and Altitude up to 5000 m approval.
No Logo Applicable	IEC 60335-1:2010 (Fifth Edition) incl. Corr. 1:2010 and Corr. 2:2011 + A1:2013
	CE Mark: tested to comply with EN 55032:2012+AC:2013, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 55024:2010, EN 60601-1-2:2015
	CE Certification CE Mark: tested to comply with EN 55032.2012+AC.2013 EN 61000-3-2.2014 EN 61000-3-3.2013 EN 60601-1-2.2015 EN 55024.2010
	Information Technology Equipment Safety Part 1: General Requirements (UL 60950-1 Issued: 2007/03/27, Ed: 2 Rev: 2014/10/14) Information Technology Equipment Safety Part 1: General Requirements (CSA C22.2 No. 60950-1 Issued: 2007/03/27 Ed: 2 (R2012) Amd.

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November 28, 2020

 Intertek Class 2 Power Unit	cETLus-Cert 4007497 UL1310 Recognized Component up to 36 volts
	AAMI ES60601-1 Issued: 2012/08/20 Medical Electrical Equipment - Part 1: CAN/CSA-C22.2 No.60601-1:14, Third Edition Issued: 2014/03/01 - Medical Electrical Equipment - Part 1: IEC 60601-1-11 Issued: 2015/01/20 Ed. 2 Medical Elec. Equip.- Part 1-11:
	CHINA SJ/T 11364-2014, China RoHS Chart: http://en.globtek.com/globtek-rohs.php
	Declaration ДС № EAЭC N RU Д-US.KA01.B.10453_19 Custom Union of Russia, Belarus and Kazakhstan http://www.globtek.com/redirect/?loc=gost-certificate-eac-declaration
	Compliance of this power supply with FCC Part 15, Class B has been demonstrated with a standard output load. The FCC law stipulates that system-level testing is required to demonstrate compliance with the FCC emission limits with the actual system load.
	Fuse 60335 T1.6A 250VAC Up to 36 volts
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
IP42	Ingress Protection: ?IP42 to IEC60529:2001 Protection against granular foreign bodies - Protected against direct sprays up to 15o from the vertical Optional
 GlobTek, Inc.	JAPAN TUV R-PSE, Cert. No. JD 50471561.pdf, to J62368-1(H30) , J55032(H29), J3000(H25) ,[15V?30V]. Please reference the following website for PSE regulations: http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/

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Model:GTM96180-18VV-T2





November 28, 2020

 GlobTek, Inc.	JAPAN TUV R-PSE, Cert. No. JD 50471561, to J62368-1(H30) , J55032(H29), J3000(H25) ,[30V?60V]. Please reference the following website for 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 50471561, to J62368-1(H30) , J55032(H29), J3000(H25) ,[15V or less]. Please reference the following website for 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 60950
LPS	Limited Power Source 62368
	Morocco SDoC declaration http://www.globtek.info/certs/Morocco%20SDoC%20Declaration/
 Energy Verified Rendement Énergétique Vérifié	Natural Resources Canada (NRCAN): CSA Standard C381.1-08, QSP NRCAN EEV1191; http://shop.csa.ca/en/canada/energy-efficiency/canca-c3811-08/inv/27024802008
	RCM certificate SAA-161679-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 60950-1:2006 + A11:2009 + A1:2010 + A12:2011+A2:2013 http://www.intertek.com/marks/s/

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Model:GTM96180-18VV-T2

November 28, 2020

	UKCA Certification
 10276	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