

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

Model:GTM961800PWWWVV.V-T3A

May 20, 2024

GTM961800PWWWVV.V-T3A

Information

Model Number	GTM961800PWWWVV.V-T3A
Description	180 W, DoE Level VI & CoC Tier 2 Efficiency, Three Prong (C6) Inlet, Desktop Adapter, Ac-Dc Power Supply
Model Picture	
Agency Documents	http://www.globtek.info/certs/GTM961800P/
CE EC-Declaration	https://www.globtek.com/pdf/ec_declaration/a0O0c00000Old6wEAB
RoHS/RoHS2 Declaration	https://www.globtek.com/pdf/rohs_cert/a0O0c00000Old6wEAB
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	Regulated Switchmode AC-DC Power Supply AC Adaptor
Category	Medical/ICT/ITE/Household use Power Supply
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	2.2A
Wattage (W)	180.0
Vout Range (V)	12-54
Efficiency Level	USA DOE Level VI / Eco-design Directive 2009/125/EC, (EU) 2019/1782
Ingress Protection	IP41
Size (mm)	176.5*74*40

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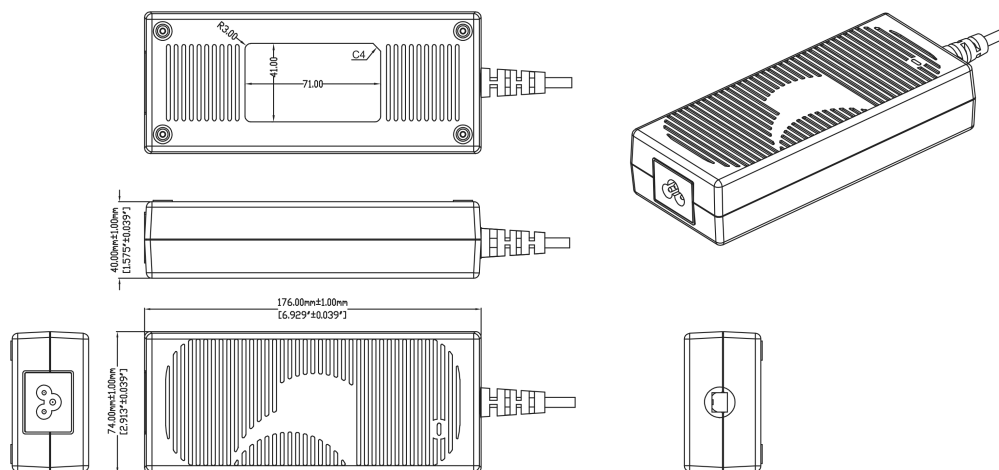
<https://www.globtek.com/ds/Vh8m7rCA8qx/cnA4UjzttNm.html>

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ENCLOSURE



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RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTM961800P17015-T3A	15 V	11.33	169.95	RFQ
GTM961800P18019-T3A	19 V	9.47	179.93	RFQ
GTM961800P18019.5-T3A	19.5 V	9.23	179.99	RFQ
GTM961800P18024-T3A	24 V	7.5	180.00	RFQ
GTM961800P18030-T3A	30 V	6	180.00	RFQ
GTM961800P18036-T3A	36 V	5	180.00	RFQ
GTM961800P18048-T3A	48 V	3.75	180.00	RFQ
GTM961800P18054-T3A	54 V	3.333	179.98	RFQ

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SPECIFICATIONS

Input

Input Voltage:	Specified: 90-264VAC, Nameplate: 100-240VAC 100% rated load current for 90-264VAC 90% rated load current for 85-264VAC
Input Frequency:	Specified: 47-63Hz, Nameplate: 50-60Hz
Power Factor:	0.90 (min.) @ 230VAC, 0.97 (min.) @ 115VAC
No Load Input Power:	<150mW @ 230VAC (EU CoC Tier 2 compliant)
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 typ. @ 115VAC and full load
Output Regulation:	± 4% (measured at output connector)
Line Regulation:	± 0.5% typ. (measured at output connector, full load)
Ripple:	1% or 200mV, whichever is greater (using a 47µF low-ESR cap + 0.1µF ceramic capacitor, measured @ 20MHz BW, at output connector)
Turn-On Overshoot:	5% max.
Transient Response:	5% max. deviation, 1ms recovery time (with 25% to 50% load step)
Hold-up Time:	20ms min.
Switching Frequency:	25 - 125KHz, depending on model and load condition
Power Indicator:	Green LED

Protections

Input Protection:	MOV transient suppressor, dual input line fusing
Over-Current Protection:	105 - 140% of rated output current, auto-restart
Short-Circuit Protection:	Auto-restart
Over-Voltage Protection:	110 - 135% (60V max. for output voltage ≥ 45V), latched off, cycle AC to reset

Environmental

MTBF:	1,500,000 hours @ 25°C ambient, full load (Telcordia SR-332, Issue 3)
Operating Temperature:	-10°C to 40°C (full load)
Storage Temperature:	-30°C to 80°C
Humidity:	0% to 95% relative humidity, non-condensing
Altitude:	5000m
Cooling:	Convection

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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:	Standard models (No suffix): Class I: 20μA max. Class II: 70μA max. Class II with Functional Earth (F2): 20μA max. Low-leakage models (-CF suffix): Class II with Functional Earth (F2): 10μA max.
Note 2:	Standard models are designed for use in Type-B/BF medical applications. Low-leakage models are designed for use in Type-CF medical applications. (See IEC60601-1, Clause 16.6.1)
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, 18KV air discharge
Radiated RF Immunity:	EN61000-4-3, 10V/m 80-2700MHz, 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

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Voltage Dip Immunity: EN61000-4-11

Enclosure

Material/Construction:	High impact plastic, 94V0 polycarbonate, non-vented
Size:	176.5 * 74.0 * 40.0mm (±1.0mm)
AC Input Mechanical Options:	Desktop: C6, C7, C14, or C18 inlet
Markings:	Label and/or pad printed and/or laser-etched into case

Special Options

1. Custom cordsets, cord types, and connector types
2. Custom markings
3. Custom housing and cordset colors
4. Constant current/constant voltage (CC/CV) output behavior, with compliance voltage between (75% * Vout) and (100% * Vout)
5. Short term output surge power capability, for motor applications and short term intermittent high power applications. (Up to 300W for 1 second.)
6. IEC61000-3-2 Class C line harmonics for LED lighting applications
7. "Back EMF" upgrade, for motor loads and other high inductance applications with reverse energy flow requirements
8. Reduced touch/leakage current for IEC60601-1 Type-CF applications. (Available in models with -CF suffix.)
9. High reliability PCB laminate with plated through-holes for IPC610 Class 2 compliance
10. Tightened output voltage tolerance
11. Reduced output ripple level
12. Reduced output power rating
13. Improved ingress protection (IP) rating

Output Connectors

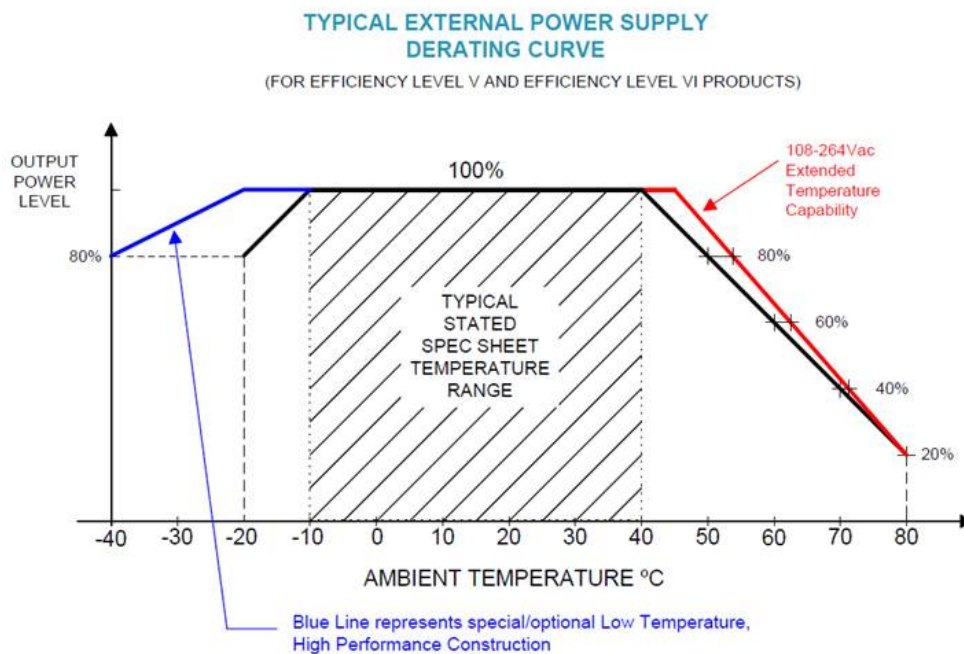
- Several output connector options are available with various output current ratings. GlobTek can supply 10A rated 2.1mm and 2.5mm style DC Power Jacks, to complement our 10A output rated 2.1mm and 2.5mm DC power plugs used on our output cordsets.
- Please visit our real-time listing of mating connector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

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DERATING CURVE

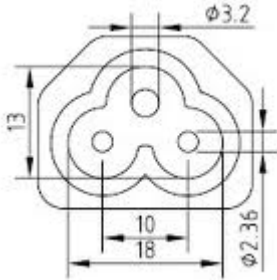


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INPUT CONFIGURATION

Description IEC 60320/C6 AC Inlet Connector, Class I, Earth Ground (aka "Mickey Mouse")



Mates with IEC 60320/C5 Plug

Standard International IEC 320/C5 Cordsets

Below are standard cordsets which are "not included" (unless stated above); these can be purchased separately or package 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.

Part Number / Link	Country	Plug	Connector	Length (mm)	Length (ft)
3021066F712(R)	N. American (Type B)	NEMA 5-15P	IEC 320/C5 1880	6	
1191068F0712(R)	N. American (Type B)	NEMA 5-15P Hospital	IEC 320/C5 2459	8	
2194262M0712(R)	Argentina (Type I)	IRAM 2073	IEC320/C5 2050	6.7	
2064262M0712(R)	Australian (Type I)	AS3112 / 3 PRONG	IEC 320/C5 2000	6.6	
204B4262M0712(R)	Brazil (Type N)	BRAZIL	IEC 320/C5 2000	6.6	
6023592M5712(R)	China (Type I)	CCC GR2099	IEC 320/C5 2500	8	
23144262M0712(R)	Europe (Type E)	CEE 7/7	IEC 320/C5 2050	6.6	
2313K3432M0712(R)	Korea (Type F)	KS C 8305	IEC 320/C5 2000	6.6	
205IN4262M0712(R)	India (Type D)	India IS 1293 (also known as IA16A3 or BS546)	IEC320/C5 2000	6.6	
377C4262M0712(R)	Israel (Type H)	ISL	IEC320/C5 2050	6.7	
23024262M0712(R)	Italy (Type L)	CEI 23-16/VII	IEC 320/C5 2000	6.6	
3003316F0712(R)	Japan (Type B)	JIS 8303 / 3 PINS	IEC 320/C5 1830	6	
	Japan / USA	JIS 8303 / 3 PINS +			

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3021066F0712ULPSE(R)	(Type B)	NEMA 5-15P	IEC 320/C5 1830	6
2054262M0712(R)	S. Africa (Type D)	South Africa SABS164-1 (6A type plug)	IEC320/C5 2050	6.7
2084262M0712(R)	S.Africa (Type M)	South Africa SABS164-1 (16A type plug)	IEC 320/C5 2000	6.6
23214262M0712(R)	Switzerland (Type J)	SEV 1011 (EL 203)	IEC 320/C5 2000	6.6
3003316F0712(R)	Taiwan (Type B) BSMI		IEC 320/C5 2000	6.6
6104262M0712(R)	UK, Hong Kong, Singapore, Gulf States (Type G)	BS1363	IEC 320/C5 2000	6.6

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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
	Taiwan BSMI GTM961200P-T3(A) R37924 GTM961800P (does not apply to -CF models) http://www.bsmi.gov.tw/wSite/ct?xItem=4072&ctNode=816
No Logo Applicable	IEC 60601-1-11:2015
No Logo Applicable	IEC 60601-1: 2005 + C1 + C2 + A1
No Logo Applicable	CB for 60335-1:2010/COR1:2010/COR2:2010 /AMD1:2013/COR1:2014/AMD2:2016/COR1:2016
No Logo Applicable	IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013
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 Certification
	Audio/Video, Information And Communication Technology [UL 62368-1:2014 Ed.2] Audio/Video, Information And Communication Technology [CSA C22.2#62368-1:2014 Ed.2]
Conforms to ANSI/UL Std. 60950-1 Cert. to CAN/CSA Std. C22.2 NO. 60950-1	Conforms to ANSI/UL Std. 60950-1 2nd Edition Cert. to CAN/CSA Std.C22.2 NO.60950-1 2nd Edition

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	cETLus-Cert-4007497 ANSI/AAMI ES60601-1:2005 with A CAN/CSA-C22.2 No. 60601-1 2008 with COR 2:2011+ANS
	cETLus-Cert-60950-1 4007497 Listed
	CHINA SJ/T 11364-2014, China RoHS Chart: http://www.globtek.com/pdf/F-GT-DJD-8.4.1-006%20China
Conforms to UL STD. 62368-1 Certified to CSA STD C22.2 NO.62368-1	Conforms to UL STD. 62368-1 Certified to CSA STD C22.2 NO.62368-1
	Declaration DC № EAЭC N RU Д-US.KA01.B.10453_19 C Kazakhstan http://www.globtek.com/redirect/?loc=gost-cer
No Logo	Greenhouse and Energy Minimum Standards (GEMS) for GTM961600P16012-T3(A)
	Compliance of this power supply with FCC Part 15, Class B output load. The FCC law stipulates that system-level testing with the FCC emission limits with the actual system load.
 L00599A	Hong Kong Safety Mark License IEC62368-1:2018
	Indoor Use Only - Mark is on the label or Molded in the case
 DC-E-G71-007.1 PRECAUCION: PARA USO EN EQUIPOS ELECTRONICOS SOLAMENTE	IRAM certificate DC-E-G71-007.1 to IEC 62368-1:2014

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 직류전원장치 AC/DC ADAPTER KTC HU10499-22053A R-R-GSZ-0006 전기용품안전관리법에 의한 표시 최저소비효율기준 만족 제품 모델명:GTM961800P16012-T3 Mfr. Name: GLOBTEK (SUZHOU) CO.,LTD A/S Center:10-6221-6100	Korea for GTM961800P16012-T3(A) (12-13.5V)
 직류전원장치 AC/DC ADAPTER KTC HU10499-21049A R-R-GSZ-0012 전기용품안전관리법에 의한 표시 모델명:GTM961800P18024-T3 Mfr. Name: GLOBTEK (SUZHOU) CO.,LTD A/S Center:10-6221-6100	Korea KET KC Mark GTM961800P18024-T3 HU10499-21
EFFICIENCY LEVEL 	Efficiency: complies to section 301 of Energy Independence and Security Act of 2005 Energy Star tier 2 (North America), ECP tier 2 (China), MEPS tier 2 (Europe)
	Morocco SDoC declaration http://www.globtek.info/certs/Morocco%20SDoC%20Declaration.pdf
 GlobTek, Inc.	JAPAN TUV Rheinland-PSE GlobTek Inc to J60950-1(H260000) for the procedure listed in the following link for proper import to Japan https://www.globtek.com/r2/Szj4Vb
 SAA-200456-EA	RCM certificate SAA-200456-EA; Australia and New Zealand http://rcm.standards.org.au/rcmfaq/rcmfaq.htm
RoHS	Specifications of directive 2011/65/EU Annex VI (ROHS-2) http://www.ce-mark.com/Rohs%20final.pdf

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	EN 60601-1:2006 + A1:2013 + A12:2014 EN 60601-1-11:2015
	S-Mark Certificate EN 60950-1:2006 + A11:2009 + A1:201 http://www.intertek.com/marks/s/
	UKCA Certification
 10276	Ukraine UKRSepro (Document: www.globtek.com/html/iso)
	Japan: Voluntary Control Council for Interference (VCCI)
	WEEE: Complies with EU 2012/19/EU (http://ec.europa.eu) Mark is on the label or Molded in the case