



DOE EPS 2.0 Level VI Power Supply / Charger / AC Adapter, 6W, Available with 5-24VDC output Certified to Medical and ITE Standards

Information

Model Number GTM96060-06VV-Q

Description GTM96060-06VV-Q, Medical/ITE/Household use Power Supply, 60601-1-4th Ed. , Wall Plug-in, Regulated Switchmode AC-DC Power Supply AC Adaptor, , Input Rating: 100-240V~, 50-60 Hz, Blade Options for Q Series Wall Plug-in Power Supplies, Output Rating: 6 Watts, Power rating with convection cooling (W) , 3.3-36V in 0.1V increments, Approvals: CCC FCC CAN ICES-3 IP42 CB 62368 230V CoC Tier 2 ETL CE cETLus cETLus cETLus CB 60601-1 2MOPP CB EN/IEC 60335-1 S-Mark IEC/EN 60601-1 S-Mark cETLus UL1310 CE Double Insulation CE China RoHS Level VI LPS RoHS Ukraine VCCI WEEE CB cETLus 60601-1 3rd RCM PSEPSE PSE PSE

Model Picture



Agency

Documents <http://www.globtek.info/certs/GTM96060/>

CE

EC-Declaration https://www.globtek.com/pdf/ec_declaration/a0Oa000000NrvDbEAJ

RoHS/RoHS2

Declaration https://www.globtek.com/pdf/rohs_cert/a0Oa000000NrvDbEAJ

REACH

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

Conflict

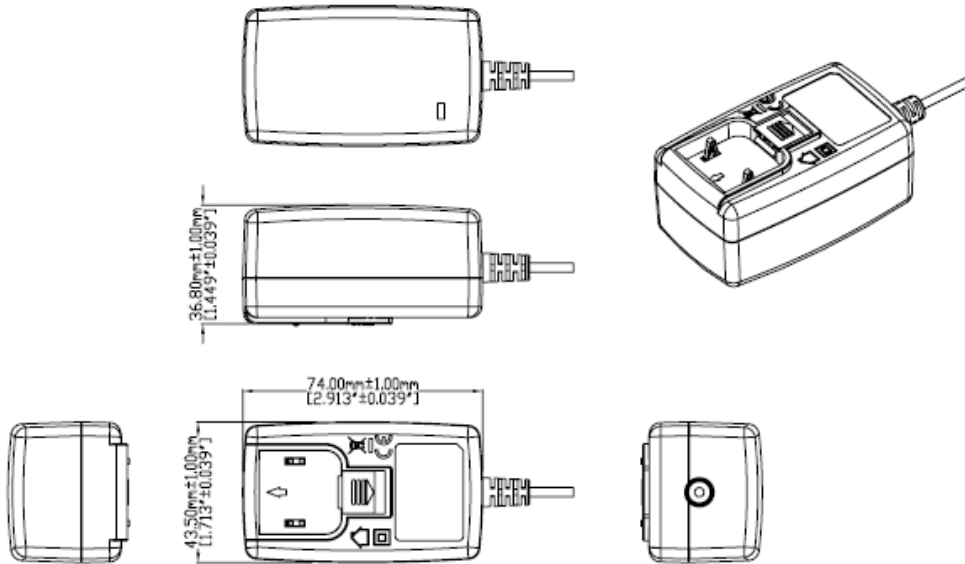
Minerals

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

Model Parameters

| | |
|--------------------|--|
| Type | Wall Plug-in |
| Technology | Regulated Switchmode AC-DC Power Supply AC Adaptor |
| Category | Medical/ITE/Household use Power Supply |
| Input Voltage | 100-240V~, 50-60 Hz |
| I/P Amps (A) | 0.6 A |
| Wattage (W) | 6.0 |
| Vout Range (V) | 3.3-36 |
| Efficiency Level | VI |
| Ingress Protection | IP52 |
| Size (mm) | 43.5*74.0*36.8 |

ENCLOSURE



LED INDICATOR: Green Power ON indicator LED standard. May be ordered without LED as an option, for cost reduction.

RATING TABLE

| Model Number | Voltage | Amps(A) | Watts(W) | RFQ |
|---------------------|---------|---------|----------|---------------------|
| GTM96060-0606-1.0 | 5 V | 1.2 | 6.00 | RFQ |
| GTM96060-0606-0.055 | 9.5 V | 1 | 5.95 | RFQ |
| GTM96060-0612-3.0 | 9 V | 0.66 | 5.94 | RFQ |
| GTM96060-0612-2.5 | 9.5 V | 0.63 | 5.99 | RFQ |
| GTM96060-0612 | 12 V | 0.5 | 6.00 | RFQ |
| GTM96060-0615-1.5 | 13.5 V | 0.44 | 5.94 | RFQ |
| GTM96060-0615 | 15 V | 0.4 | 6.00 | RFQ |
| GTM96060-0618 | 18 V | 0.333 | 5.99 | RFQ |
| GTM96060-0624-5.0 | 19 V | 0.316 | 6.00 | RFQ |
| GTM96060-0624-4.0 | 20 V | 0.3 | 6.00 | RFQ |
| GTM96060-0624 | 24 V | 0.25 | 6.00 | RFQ |
| GTM96060-0636-6.0 | 30 V | 0.2 | 6.00 | RFQ |
| GTM96060-0636 | 36 V | 0.166 | 5.98 | RFQ |



SPECIFICATIONS

A) ELECTRICAL SPECIFICATIONS:

01. Input Voltage: Specified 90-264 Vac, Nameplate rated: 100-240Vac
 - 90-264 Vac range @ 100% of rated load current
 - 85-264 Vac range @ 85% of rated load current
 - 110-370 VDC range @ 100% of rated load current
02. Input Frequency: Specified 47-63 Hz, Nameplate rated 50-60Hz
03. Output Regulation: +/- 5% measured at the output connector
04. Line Voltage Regulation: +/- 1% typical measured at full load
05. Green Power On Indicator LED
06. Output Ripple (Vp-p): 0.5% x Vnom or 50 mV pp 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. (< 0.2% x Vnom or 25mVpp option available, for special low ripple applications.)
07. Turn-ON/OFF Overshoot: 5% maximum, 1 mS typical recovery time for 25% to 50% step load
08. Turn-ON Delay: 1 second maximum @ full load, 100Vac input
09. Hold-Up Time: 8 mS min @ 100Vac input voltage and full load
10. Inrush Current: 30A maximum cold start @ 230Vac input
11. Switching Frequency: 65 KHz typical
12. Efficiency: Compliant with Efficiency Level VI and 230 CoC Tier 2 standards, for 5V and > models
13. No Load Standby Power: <0.075 W @ 230Vac

B) PROTECTION

01. Input Protection: Input line fusing and 300Vac rated MOV
02. Output Over-Voltage: 110% to 130% of nominal output voltage

C) CURRENT LIMITING

01. Current Limiting for Standard Constant Voltage Models (non-CC type):
 - Short Circuit and Overload Protected, auto recovery
 - Output Current Limit: 125% to 250% of rated output
 - (upper end of current limit range is determined by normal output power rating, not derated output power level)
02. Current Limiting for Constant Current Models (CC type):
 - +/- 10% of specified nominal Output Current Rating
 - Regulated from Vout nominal to 0.25X Vout Nominal
 - Avg Output current below 0.25X Vout will be reduced, and unit will hiccup cycle

D) SAFETY

01. Dielectric Withstand Voltage: 4000Vac or 5656Vdc from input to output
02. Earth Leakage Current: N/A for Class II units, there is no PE Ground pin, so Earth Leakage current is not measured
03. Touch Current: < 60uA
04. Means of Protection: 2 x MOPP
05. Primary to Secondary Bridging Capacitor: Two 470pF, Y1 type capacitors in series
06. Compliant Standards: See listings at end of this drawing for specifics

E) EMC

- EN 60601-1-2, 4th edition
 Emissions, per EN 55032, EN 61000-6-3, EN61000-6-4, 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


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, 1.5kV 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

F) OTHER:

01. MTBF: 1,000,000 Hours @ 40°C ambient temperature, Full Load

02. Operating Temperature: -10°C to 50°C ambient temperature with 6W load,

See below derating table for output power capability at alternate temperature

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

G) ENCLOSURE

01. Housing: High impact plastic, 94V0 polycarbonate, non-vented

02. Size: 43.5 x 74.0 x 35.3 +/-1.0 mm

03. Markings: Label and/or Pad Printed and/or Molded in the case

H) SPECIAL OPTIONS

01. Cost reduction, removal of LED

02. Custom Cordsets, various cordage types, and connector types

03. Custom Markings

04. Reduced Leakage Current version, medical CF leakage current compliance

05. Tightened output voltage tolerance

06. Reduced output ripple level

07. Constant current battery charger characteristic

08. Reduced output power rating

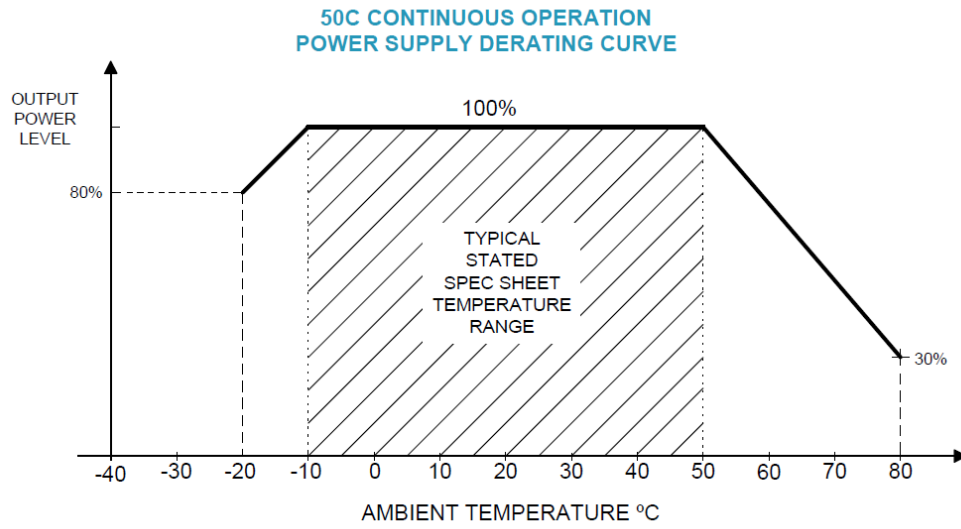
09. High Rel PCB laminate with Plated through Holes for IPC610 Class 2 Compliance

10. Output voltage between 3.3V and 4.9V, but without EL6 and 230 CoC Tier 2

11. Special Housing Colors and Cordset Colors

12. Tamper proof, AC Wall Plug-in blade assembly. Requires a special tool to remove the AC Wall Plug-in blade assembly.

DERATING CURVE



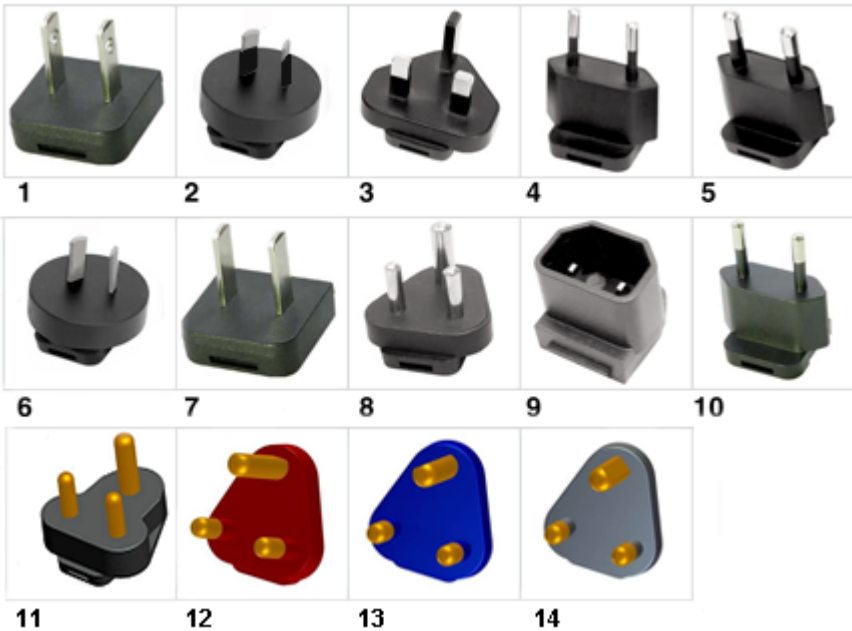
Input Configuration

Description Blade Options for Q Series Wall Plug-in Power Supplies

Data Sheet: <http://en.globtek.com/interchangeable-blades.php>

Insertion Instructions: <http://www.globtek.com/pdf/Instructions-Interchangeable-Blades.pdf>

Video: [Q-Blade Style Instruction Video](#)



INPUT CONNECTOR: Q-Socket (below are available blades configurations which are "not included" (unless stated above); can be purchased separately, package with power supply or as a separate "Q-KIT" if specified

- 01. United States / Canada / Japan NEMA 1-15P/IEC PLUG A [WORKS IN PLUG B] configuration: NA 2 blades, Class II; US/CA/JP P/N: Q-NA(R)
- 02. Australian AS 3112 configuration: SAA 2 blade/IEC TYPE I, Class II; AU P/N: Q-SAA(R)
- 03. UK BS 1363 configuration: UK 3 blade with dummy Ground/IEC TYPE G, Class II; GB P/N: Q-UK(R)
- 04. European CEE 7/16 configuration: Europlug 2 pins/IEC TYPE C [WORKS IN TYPE E&F], Class II; EU P/N: Q-EU(R)
- 05. Korean KS C8305 configuration: 2 pins/SIMILAR TO IEC TYPE C, Class II; KR P/N: Q-KR(R)
- 06. Argentina IRAM 2073 configuration: 2 blades/SIMILAR TO IEC TYPE I; AR P/N: Class II Q-AR(R)
- 07. China GB 2099 configuration: 2 blades/SIMILAR TO TYPE A, Class II; CN P/N: Q-CN(R)
- 08. India IS 1293 6A/BS546 configuration: 5A, 3 pins with Dummy Ground, Class II/IEC TYPE D; IN P/N: Q-IN(R)
- 09. IEC320/C18 Inlet, Class II; P/N: Q-C18(R)
- 10. Brazilian NBR6147 configuration: 2 pins, Class II; SIMILAR TO IEC TYPE C BR P/N: Q-BR(R)
- 11. South Africa SABS164-1, 3 round prongs, Class II + dummy ground, IEC TYPE M P/N: Q-SANS164-1-16A(R)
- 12. South Africa SABS164-4, 3 round prongs with a notched prong @ 0°, Class II + dummy ground, IEC TYPE M Red, P/N: Q-SANS164-4L-16A(R)

- 13. South Africa SABS164-4, 3 round prongs with a notched prong @ -53°, Class II + dummy ground, Blue, IEC TYPE M, P/N:
Q-SANS164-4C-16A(R)
- 14. South Africa SABS164-4, 3 round prongs with a notched prong @ +53°, Class II + dummy ground, Black, IEC TYPE M P/N:
Q-SANS164-4R-16A(R)

Kits

- 01. Q-KIT: 1,2,3,4 above
- 02. Q-KIT-INTL: 2,3,4 above
- 03. Q-KIT-6: 1,2,3,4,5,6 above
- 04. Q-KIT-7: 1,2,3,4,5,6,7 above
- 05. Q-KIT-8: 1,2,3,4,5,6,7,8 above

Output Configuration

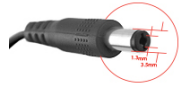
Common output connector options:



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.



Approvals

| Logo | Description |
|--|--|
| No Logo Applicable | EU 230V CoC Tier 2 for 5V and > models, 278/2009, Mar 2014 |
| No Logo Applicable | CB report IEC60601-1 2005 A1+C1+C2 2016-2-4 and or EN 60601-1:2006 3.1rd Edition 2xMOPP |
| No Logo | CB Report IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am 2:2013 (GTM96060-WWXX) |
| No Logo Applicable | CB for IEC 62368-1:2014 (Second Edition) |
| No Logo Applicable | CB to 60335-1:2010 (Fifth Edition) incl. Corr. 1:2010 and Corr. 2:2011 + A1:2013 |
|  | CCC to GB4943.1-2011 GB9254-2008 GB17625.1-2012 |
|  | 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 |
|  | CE Mark: tested to comply with EN61000-3-2, EN61000-3-3 and EN50082-1, including EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN61001-1-2-2007 EMI: Complies with EN55011 CLASS B and FCC Part 15 B |
|  | 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. |
|  | |
|  | cETLus-Cert 4007497 UL1310 Recognized Component up to 36 volts |
| Class 2 Power Unit | |
|  | 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 |
| 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. 60950-1 Certified to CSA STD C22.2 NO.60950-1 | 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. 60950-1 Certified to CSA STD C22.2 NO.60950-1 |



Certification # TC RU AR46.B.69004 Custom Union of Russia, Belarus and Kazakhstan



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.

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



JAPAN TUV R-PSE, Cert. No. JD 50315169, to J60950-1(H26) , J55022(H22),[15V or less]. Please reference the following website for guidelines on PSE regulations:

GlobTek, Inc.

<http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/>



JAPAN TUV R-PSE, Cert. No. JD 50315866, to J60950-1(H26) , J55022(H22),[15V or less]. Please reference the following website for guidelines on PSE regulations:

GlobTek, Inc.

<http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/>



JAPAN TUV R-PSE, Cert. No. JD 50315866, to J60950-1(H26) , J55022(H22),[DC15V?30V]. Please reference the following website for guidelines on PSE regulations:

GlobTek, Inc.

<http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/>



JAPAN TUV R-PSE, Cert. No. JD 50315866, to J60950-1(H26) , J55022(H22),[DC30V?60V]. Please reference the following website for guidelines on PSE regulations:

GlobTek, Inc.

<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) (for 5V and > models)

LPS

Limited Power Source



N136

SAA-152514-EA

RCM certificate SAA-152514-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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Semko S-Mark-Cert-EN60601-1 3.1rd Edition (<http://www.intertek.com/marks/s/>)



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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