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Model:GTM96180-18VV-DW

April 5, 2020

## GTM96180-18VV-DW

### Information

Model Number	GTM96180-18VV-DW
Description	GTM96180-18VV-DW, ITE / Medical 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: CB 62368; EAC;
Model Picture	.
Agency Documents	<a href="http://www.globtek.info/certs/GTM96180-TZ/">http://www.globtek.info/certs/GTM96180-TZ/</a>
CE EC-Declaration	<a href="https://www.globtek.com/pdf/ec_declaration/a0Oa000000FIE7OEAV">https://www.globtek.com/pdf/ec_declaration/a0Oa000000FIE7OEAV</a>
RoHS/RoHS2 Declaration	<a href="https://www.globtek.com/pdf/rohs_cert/a0Oa000000FIE7OEAV">https://www.globtek.com/pdf/rohs_cert/a0Oa000000FIE7OEAV</a>
REACH Declaration	<a href="https://www.globtek.com/pdf/iso_certificates/REACH.pdf">https://www.globtek.com/pdf/iso_certificates/REACH.pdf</a>
Conflict Minerals Declaration	<a href="https://www.globtek.com/pdf/conflict-minerals.pdf">https://www.globtek.com/pdf/conflict-minerals.pdf</a>

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April 5, 2020

**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)	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	
Size (mm)	

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April 5, 2020

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**ENCLOSURE**

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Model:GTM96180-18VV-DW

April 5, 2020

**RATING TABLE**

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTM96180-1812-FW (PCB Mounted)	12 V	1.5	18.00	<a href="#">RFQ</a>

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Model:GTM96180-18VV-DW

April 5, 2020

## 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: +/- 0.5% typical measured at full load
05. Green Power On Indicator LED
06. Output Ripple (Vp-p): 1% or 100 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
07. Turn-ON/OFF Overshoot: 5% maximum, 1 mS typical recovery time for 40% to 70% step load
08. Turn-ON Delay: 1 second maximum @ full load, nominal line
09. Hold-Up Time: 8 mS typical @ nominal input voltage and full load
10. Inrush Current: 30A/60A maximum cold start @ 115/230Vac input
11. Efficiency: Compliant with Efficiency Level VI and CoC Tier 2 standards
12. No Load Standby Power: <0.075 W @ 230Vac

### B) PROTECTION

01. Input Protection: Input line fusing and 300Vac MOV
02. Short Circuit/ Overload: Electronically Protected unit will auto recover upon removal of fault
  - Output Current Limit: 110% to 160% of rated output current
  - (upper end of current limit range is determined by normal output power rating, not derated output power level)
03. Output Over-Voltage: 110% to 130% of nominal output voltage

### 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 < 75uA
04. Output Floating or Earthed option for Class I desktop models.
  - See Output Isolation Options for details
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. 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
- 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

## PROPRIETARY INFORMATION

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<http://en.globtek.com/datasheet/id/a0Oa000000FIE70>

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Model:GTM96180-18VV-DW

April 5, 2020

Immunity, per EN 55024, EN 61000-6-1, EN 61000-6-2  
Static Discharge Immunity EN61000-4-2, 10kV 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, Criteria

## E) OTHER:

01. MTBF: 1,000,000 Hours @ 40°C ambient temperature, Full load
02. GTM96180 Family: -20°C to 40°C ambient temperature, 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. Operating Humidity: 0% to 95% relative humidity, non-condensing
04. Storage Temperature: -30°C to 80°C
05. Operating Altitude: 5000 Meters
06. Ingress Protection: IP40 standard, IP52 available as special option
07. ROHS: Compliant with latest regulations, see approvals section below

## F) ENCLOSURE

01. Housing: High impact plastic, 94V0 polycarbonate, non-vented
02. Markings: Label or Laser Printed
03. AC Input mechanical options: Class II Wall Plug-in, Changeable Blades  
Desktop Option, extended housing: C6, C8, C14 or C18 IEC Inlet.

## G) SPECIAL OPTIONS

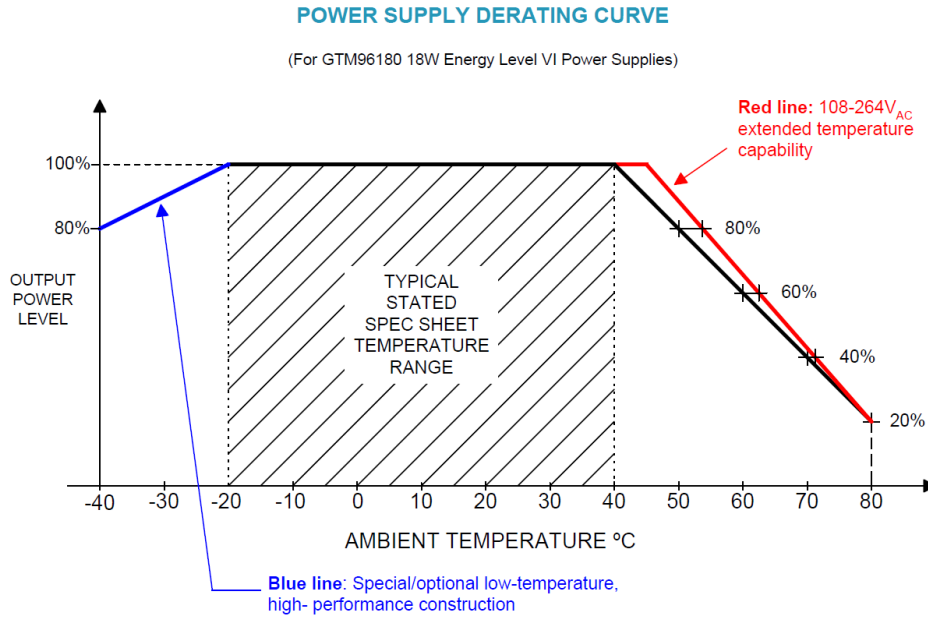
01. Cost reduction, removal of LED
  02. Custom Cordsets, various cordage types, and connector types\*
  03. Custom Markings
  04. Short term Output Surge Capability
  05. Reduced Leakage Current versions (10uA max), for CF medical applications, and AC noise sensitive equipment, 15W or less, 5V to 24V output voltage range.
  06. Tightened output voltage tolerance
  07. Reduced output ripple level
  08. Reduced output power rating marking
  09. High Rel PCB laminate with Plated through Holes for IPC610 Class 2 Compliance
  10. Special Housing Colors and Cordset Colors
  11. Quasi Constant Current Output, for Lead-Acid Battery Charger Applications
- \* 5Vdc USB output connector power supplies, which use the Micro-B or C-type style connector, have a max output voltage regulation specification of +/-8% (4.6V to 5.4V range).

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April 5, 2020

# DERATING CURVE



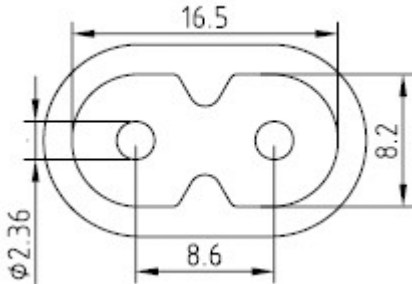
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Model:GTM96180-18VV-DW

April 5, 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

<a href="#">2094112M703(R)</a>	Argentina (Type I)	IRAM 2063	IEC 320/C7 <sup>20007</sup>
<a href="#">5014112M703A(R)</a>	Australian (Type I)	AS 3112	IEC 320/C7 <sup>20007</sup>
<a href="#">207B4111M8703(R)</a>	Brazil (Type N)	NBR14136	IEC 320/C7 <sup>18006</sup>
<a href="#">4533501M8703(R)</a>	China (Type A)	GB 2099.1	IEC 320/C7 <sup>18306</sup>
<a href="#">2074112M703A(R)</a>	European (Type C)	CEE 7/16	IEC 320/C7 <sup>20007</sup>
<a href="#">2084111M8703(R)</a>	India (Type M)	BS 546	IEC 320/C7 <sup>18006</sup>
<a href="#">451J3401M8703(R)</a>	Japan (Type A)	JIS 8303	IEC 320/C7 <sup>18306</sup>
<a href="#">2044112M703A(R)</a>	Korea (Type C)	KS C8305	IEC 320/C7 <sup>20007</sup>
<a href="#">4511116F703A(R)</a>	N. American (Type A)	NEMA 1-15P	IEC 320/C7 <sup>18306</sup>
<a href="#">4033401M8703A(R)</a>	Taiwan (Type A)	CNS690	IEC 320/C7 <sup>18306</sup>
<a href="#">6104112M703A(R)</a>	UK, Hong Kong, Singapore, Gulf States (Type G)	BS1363	IEC 320/C7 <sup>20007</sup>



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April 5, 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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April 5, 2020

## Approvals

Logo	Description
No Logo Applicable	CB for IEC 62368-1:2014 (Second Edition)
	Declaration ДС № ЕАЭС N RU Д-US.KA01.B.10453_19 Custom Union of Russia, Belarus and Kazakhstan <a href="http://www.globtek.com/redirect/?loc=gost-certificate-eac-declaration">http://www.globtek.com/redirect/?loc=gost-certificate-eac-declaration</a>
	Morocco SDoC declaration <a href="http://www.globtek.info/certs/Morocco%20SDoC%20Declaration/">http://www.globtek.info/certs/Morocco%20SDoC%20Declaration/</a>