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Model:GT-96180-18VV-T3A-SP

September 19, 2019

## GT-96180-18VV-T3A-SP

### Information

Model Number GT-96180-18VV-T3A-SP

Description GT-96180-18VV-T3A-SP, ITE Power Supply, Desktop/External, Single Port Power Over Ethernet Midspan (IEEE802.3af PoE PSE) , , Input Rating: 100-240V~, 50-60 Hz, IEC 60320/C6 AC Inlet Connector, Class I, Earth Ground ( aka "Mickey Mouse"), Output Rating: 18 Watts, Power rating with convection cooling (W) , 18-56V in 0.1V increments, Approvals: CB 62368; EAC; CE; China RoHS; Class I; Level VI; LPS; RoHS; Ukraine; VCCI; WEEE; cULus; PSE; ETL; S-Mark 60950; Patent US9838207B2; RCM; CB 60335;

Model Picture



Agency Documents <http://www.globtek.info/certs/GT-96180-POE/>  
CE [https://www.globtek.com/pdf/ec\\_declaration/a0Oa000000FiJiyEAF](https://www.globtek.com/pdf/ec_declaration/a0Oa000000FiJiyEAF)  
EC-Declaration  
RoHS/RoHS2 Declaration [https://www.globtek.com/pdf/rohs\\_cert/a0Oa000000FiJiyEAF](https://www.globtek.com/pdf/rohs_cert/a0Oa000000FiJiyEAF)  
REACH Declaration [https://www.globtek.com/pdf/iso\\_certificates/REACH.pdf](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**

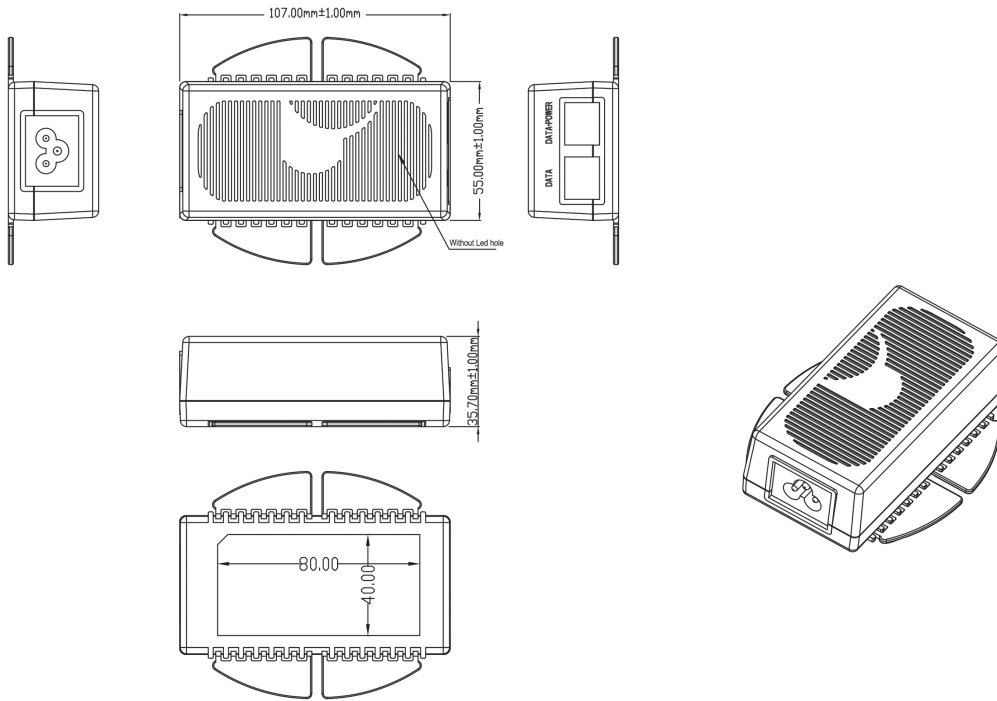
Type	Desktop/External
Technology	Single Port Power Over Ethernet Midspan (IEEE802.3af PoE PSE)
Category	ITE Power Supply
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	0.6A
Wattage (W)	18.0
Vout Range (V)	18-56
Efficiency Level	VI
Ingress Protection	
Size (mm)	107*55*36

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ENCLOSURE



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**RATING TABLE**

Model Number Voltage Amps(A) Watts(W) RFQ

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## SPECIFICATIONS

GlobTek's 18W and 36W Power over Ethernet, Passive Midspan Injectors offers cost effective and reliable solution for remote powering of specialized non-standard Ethernet Powered Devices requiring up to 36 Watts over existing network infrastructure. GlobTek's Passive PoE Midspan injectors are configured to provide 18 or 36 watts of power over two pairs (4,5 + and 7,8 -) per IEEE 802.3 defined wires. When the load device is connected, GlobTek's Passive PoE Midspan will immediately source power to the Powered Device. GlobTek's 56V Passive PoE Midspan are designed to function with and provide power to any IEEE 802.3 PoE device.

For specialized applications Globtek can also provide lower output voltage models between 18V and 48V with reduced circuit complexity, these are referred to as our Simple Power over Ethernet Injector products.

## MAIN FEATURES

- Cost Effective Passive PoE, supplies continuous power without requiring handshaking communications
- Output can source up to 18W or 36W at 18V, 24V, 36V, 48V, or 56V
- Withstands high energy EMI Immunity events without going into latched shutdown state
- Short Circuit and Overload Protection protects Ethernet cabling if Splitter has a Short Circuit
- Green LED Indicates Output Power Availability
- Passive PoE models can transfer 10/100/1000 BaseT Data Rates (Gigabit compatible)
- Simple PoE models can transfer 10/100 BaseT Data Rates
- Universal Input Power from 100Vac to 240Vac
- Green Design: Compliant to DoE Efficiency level VI requirement
- Full Protection for Over Voltage and Current
- Compact 104 x 54 x 40 mm (w/o MTG Flange)

## APPLICATIONS

- Custom Ethernet Power Distribution Architecture
- Network Security Cameras
- Point of Sales
- Industrial Controllers
- Electronic Time Card Readers
- Building Security Systems
- Network Camera with Pan, Tilt and Zoom Features
- Electronic Signs
- RFID Readers
- Motion Sensors
- HVAC Controllers
- Magnetic Card Readers
- Digital Time clock

## A) ELECTRICAL SPECIFICATIONS:

### INPUT

Power Inlet available as Class I (3 wire) or Class II (2 wire)

Input Range: 90-264 Vac (85-264Vac @ 85% of rated output power)

Input Line Frequency: 47-63Hz

Input Current:< 1.2A RMS @ 90Vac Full Load for 36W

< 0.6A RMS @ 90Vac Full Load for 18W

Inrush Current: 30/60A max at 115/230Vac

No load Power: < 100mW

Efficiency: > 87.4%, 4 Point Avg efficiency. Typical at Full Load for 36W

> 85.0%, 4 Point Avg efficiency. Typical at Full Load for 18W

## PROPRIETARY INFORMATION

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<http://en.globtek.com/datasheet/id/a00a000000FiJiy>

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Turn on-delay: 1 Second Typical @ 115Vac  
Input Line Protection: MOV Transient protected.  
Hold-up time: 8ms typical at nominal input voltage and full load  
Touch current at output: <100uA  
Earth Leakage current at input: <100uA  
Isolation: Input to Output, 3000 VAC

**OUTPUT**

Power Injection Pins: 4&5 for V+ and 7&8 for Common  
Port Voltage: 18V to 56V  
Port Power: 18W or 36W Max  
Port Voltage Regulation: +/-3%, and less than 57Vdc  
Port Voltage Ripple: 100mVpp max

**B) ENVIRONMENTAL**

Temperature: Operating, 0C to 40C  
Storage, -25C to 65C  
Humidity: Operating, 10% to 90% Relative Humidity, Non Condensing  
Storage, 10% to 65% Relative Humidity, Non Condensing  
Altitude: Operating, Up to 5000M

**C) MECHANICALS**

Dimensions: 104\*54\*40 mm (w/o MTG Flange)  
Weight: 0.35 Lb, 155 gr.  
AC Input Connector: IEC 320 Inlet, C14, C8, C6 or C18 Style  
Data and Data+Power Connector: Fully Shielded RJ45

**D) EMISSIONS and IMMUNITY**

Emission: Meets FCC Class B Part 15, EN55022 Class B  
Immunity: Meets the following;  
EN 61000-4-2 ESD (+/-18KV Air, +/-8KV Contact)  
EN 61000-4-3 Radiated Immunity  
EN 61000-4-4 EFT (+/-4K, performance criteria B)  
EN 61000-4-5 Surge (+/-2KV Line-Line, +/-4KV Line to Gnd)  
EN 61000-4-6 Conducted Susceptibility  
EN 61000-4-11 Voltage Dips and Interrupts  
EN 61000-3-2 Harmonics, Class A

**E) SAFETY APPROVALS**

Safety UL/cUL 60950-1, EN 60950-1, CE

**F) INTEROPERABILITY:** Passive and Simple 48V and 56V models work with all types of AF and AT Splitters and PoE appliances with appropriate input power requirements

**G) ENCLOSURE**

Housing: High impact plastic, 94V0 polycarbonate, non-vented  
Markings: Label and/or Pad Printed and/or Molded in the case

**H) SPECIAL OPTIONS**

Custom Markings

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Direct Wall Plug-in Housing Style (Hybrid Option)

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

Special Housing Colors

### 18W PoE Injector, Ethernet InterOperability and Compatibility Testing

 Injector tested: *Model GT-96180-1856*, rated 18W output, 56Vdc, IEEE802.3-2003 af Compliant

*Note, assuming 80% eff splitter, max Pout = 14.4W (14.4/18 = 0.8)*

Splitter Model Used	Splitter Description	Splitter O/P Power Rating	Splitter Load During Testing
GlobTek GT-91087	5V, af type	8W	7.5W
PowerDSine PD-AS-601/5	5V, af type	10W	
Linksys POEES5	5V, af type	10W	
Axis 5008-001-02	5V, af type	10W	14W
PowerDSine PD-AS-701/12	12V, at type	24W	
Phihong POE21-120-R	12V, at type	21W	
Cisco 7970 Series Phone	IP Phone, af type	Input to Phone rating 48V, 0.38A	

### 100BaseT/1000 Base T network digital transmission testing

*(During testing ethernet communications is passed thru Injector and then Splitter and then to a computer)*

 Injector tested: *Model GT-96180-1856*, rated 18W output, 56Vdc, IEEE802.3-2003 af Compliant

*Injector is Gigabit designed and tested, to 100 Base T and 1000 Base T*

Splitter Model Used	Splitter Description	P/F	Notes:
Axis 5008-001-02	100 Base T rating	P	Limited bandwidth splitter
PowerDSine PD-AS-701/12	1000 Base T rating	P	Full bandwidth splitter

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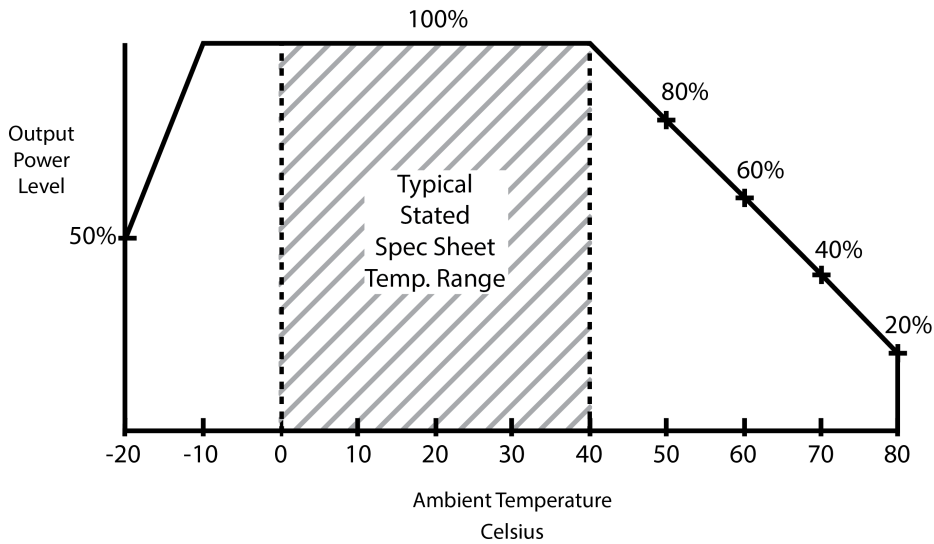
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DERATING CURVE

**Typical External  
Power Supply Derating Curve**

(For Efficiency Level V and Efficiency Level VI Products)





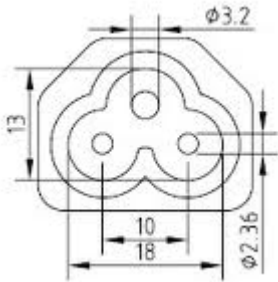
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**Input Configuration**

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)
<a href="#">3021066F712(R)</a>	N. American (Type B)	NEMA 5-15P	IEC 320/C5	1880	6
<a href="#">1191068F0712(R)</a>	N. American (Type B)	NEMA 5-15P Hospital	IEC 320/C5	2459	8
<a href="#">2194262M0712(R)</a>	Argentina (Type I)	IRAM 2073	IEC320/C5	2050	6.7
<a href="#">2064262M0712(R)</a>	Australian (Type I)	AS3112 / 3 PRONG	IEC 320/C5	2000	6.6
<a href="#">204B4262M0712(R)</a>	Brazil (Type N)	BRAZIL	IEC 320/C5	2000	6.6
<a href="#">6023592M5712(R)</a>	China (Type I)	CCC GR2099	IEC 320/C5	2500	8
<a href="#">23144262M0712(R)</a>	Europe (Type E)	CEE 7/7	IEC 320/C5	2050	6.6
<a href="#">2313K3432M0712(R)</a>	Korea (Type F)	KS C 8305	IEC 320/C5	2000	6.6
<a href="#">205IN4262M0712(R)</a>	India (Type D)	India IS 1293 (also known as IA16A3 or BS546)	IEC320/C5	2000	6.6

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<a href="#">377C4262M0712(R)</a>	Israel (Type H)	ISL	IEC320/C5 2050	6.7
<a href="#">23024262M0712(R)</a>	Italy (Type L)	CEI 23-16/VII	IEC 320/C5 2000	6.6
<a href="#">3003316F0712(R)</a>	Japan (Type B)	JIS 8303 / 3 PINS	IEC 320/C5 1830	6
<a href="#">3021066F0712ULPSE(R)</a>	Japan / USA (Type B)	JIS 8303 / 3 PINS + NEMA 5-15P	IEC 320/C5 1830	6
<a href="#">2054262M0712(R)</a>	S. Africa (Type D)	South Africa SABS164-1 (6A type plug)	IEC320/C5 2050	6.7
<a href="#">2084262M0712(R)</a>	S.Africa (Type M)	South Africa SABS164-1 (16A type plug)	IEC 320/C5 2000	6.6
<a href="#">23214262M0712(R)</a>	Switzerland (Type J)	SEV 1011 ( EL 203)	IEC 320/C5 2000	6.6
<a href="#">3003316F0712(R)</a>	Taiwan (Type B)	BSMI	IEC 320/C5 2000	6.6
<a href="#">6104262M0712(R)</a>	UK, Hong Kong, Singapore, Gulf States (Type G)	BS1363	IEC 320/C5 2000	6.6

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## Approvals

Logo	Description
No Logo Applicable	IEC 60335-1:2010 (Fifth Edition) incl. Corr. 1:2010 and Corr. 2:2011 + A1:2013
No Logo Applicable	CB for IEC 62368-1:2014 (Second Edition)
	CE Mark: tested to comply with EN55022:2006/A1:2007 Class B, EN610003-2, EN610003-3 including EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6N EN61000-4-11; EMI: Complies with EN55011 CLASS B and FCC Part 15B - On label or Molded in case
	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.
	CHINA SJ/T 11364-2014, China RoHS Chart: <a href="http://en.globtek.com/globtek-rohs.php">http://en.globtek.com/globtek-rohs.php</a>
	UL60950-1, cULus to UL 60950-1 E170507
	Declaration ДС № EAЭC 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>
	Indoor Use Only - Mark is on the label or Molded in the case
	JAPAN TUV R-PSE, Cert. No. JD 50314327, to J60950-1(H26) , J55022(H22),J3000(H25)[DC15?30V]. Please reference the following website for guidelines on PSE regulations: <a href="http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/">http://en.globtek.com/importing-ite-and-medical-power-supplies-ac-adaptors-to-japan/</a>
	
<b>EFFICIENCY LEVEL VI</b>	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
Patent US9838207B2	Protected by US and international patents, US patent number US9838207B2
	RCM certificate SAA-161679-EA; Australia and New Zealand Regulatory Compliance, Mark ( <a href="http://rcm.standards.org.au/rcmfaq/rcmfaq.htm">http://rcm.standards.org.au/rcmfaq/rcmfaq.htm</a>
RoHS	Specifications of directive 2011/65/EU Annex VI (ROHS-2) with amendment 2015/863-EU (ROHS-3) <a href="http://www.ce-mark.com/Rohs%20final.pdf">http://www.ce-mark.com/Rohs%20final.pdf</a>
	S-Mark Certificate EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011+A2:2013 ( <a href="http://www.intertek.com/marks/s/">http://www.intertek.com/marks/s/</a> )
	

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Ukraine UKRSepr (Document: [www.globtek.com/html/iso\\_certificates/GT\\_Ukraine.pdf](http://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](http://ec.europa.eu/environment/waste/weee/index_en.htm))

Mark is on the label or Molded in the case