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

July 16, 2019

## GT-96180-18VV-T3A-PP

### Information

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

Description GT-96180-18VV-T3A-PP, PoE, Passive Power Injector, 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; Patent US9838207B2; EAC; WEEE; VCCI; Ukraine; China RoHS; RoHS; Level VI; CE; Class I; PSE; ETL; S-Mark 60950; RCM; CB 60335;

Model Picture



Agency Documents <http://www.globtek.info/certs/GT-96180-POE/>  
CE [https://www.globtek.com/pdf/ec\\_declaration/a0Oa000000FiJiKEAV](https://www.globtek.com/pdf/ec_declaration/a0Oa000000FiJiKEAV)  
EC-Declaration  
RoHS/RoHS2 [https://www.globtek.com/pdf/rohs\\_cert/a0Oa000000FiJiKEAV](https://www.globtek.com/pdf/rohs_cert/a0Oa000000FiJiKEAV)  
Declaration  
REACH [https://www.globtek.com/pdf/iso\\_certificates/REACH.pdf](https://www.globtek.com/pdf/iso_certificates/REACH.pdf)  
Declaration  
Conflict  
Minerals <https://www.globtek.com/pdf/conflict-minerals.pdf>  
Declaration

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**Model Parameters**

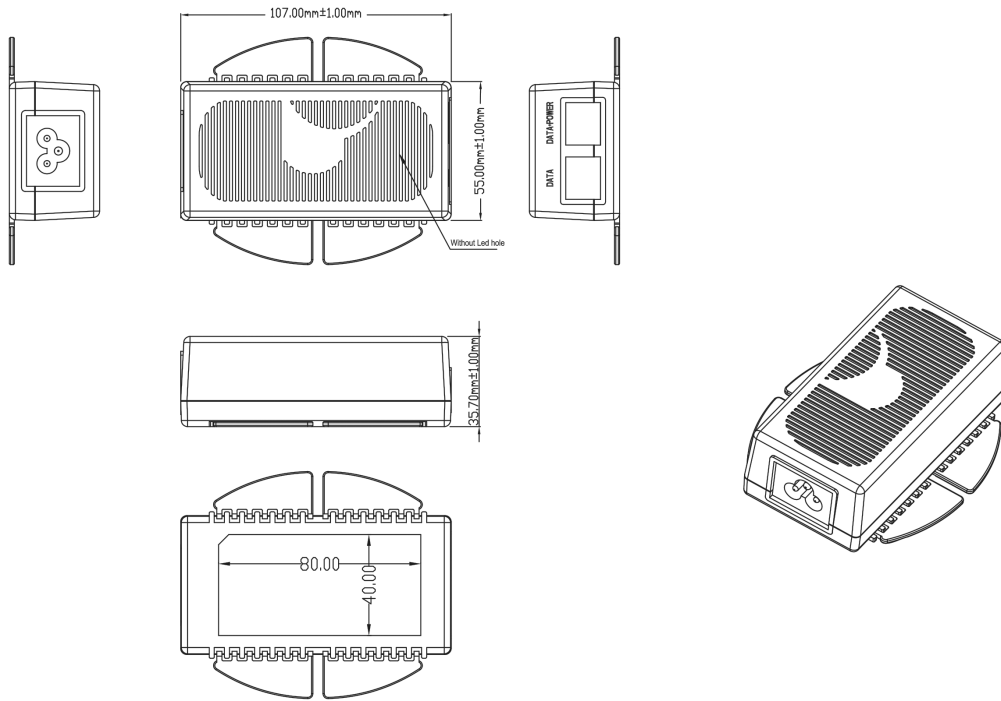
Type	Desktop/External
Technology	Single Port Power Over Ethernet Midspan (IEEE802.3af PoE PSE)
Category	PoE, Passive Power Injector
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	0.6A
Wattage (W)	18.0
Vout Range (V)	18-56
Efficiency Level	VI
Ingress Protection	
Size (mm)	107*55*36

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ENCLOSURE



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**RATING TABLE**

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GT-96180-1836-T3A-PP	36 V	0.5	18.00	<a href="#">RFQ</a>
GT-96180-1848-T3A-PP	48 V	0.375	18.00	<a href="#">RFQ</a>
GT-96180-1856-T3A-PP	56 V	0.321	17.98	<a href="#">RFQ</a>

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## SPECIFICATIONS

GlobTek's 18W and 36W Passive Power over Ethernet 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. These Passive 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 Injector will immediately source power to the Powered Device.

GlobTek's 56V Passive PoE Injectors are designed to function with and provide power to any IEEE 802.3af or 802.3at PoE device.

For specialized applications Globtek can also provide lower output voltage models between 18V and 54V 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, 54V 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, Low Cost 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

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

Input Line Frequency: 47-63Hz

Input Current:< 1A 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

Turn on-delay: 1 Second Typical @ 115Vac

## PROPRIETARY INFORMATION

PROPRIETARY OF GLOBTEK, INC. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING, IN WHOLE OR IN PART, IS HEREBY PROHIBITED EXCEPT AS SPECIFIED IN WRITING BY GLOBTEK, INC.

<http://en.globtek.com/datasheet/id/a00a000000FiJK>

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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: 56V standard, 18V to 54V optional  
Port Power: 18W or 36W Max  
Port Voltage Regulation: +/-3%, and less than 57Vdc  
Port Voltage Ripple: 100mVpp max

#### B) ENVIRONMENTAL

Temperature: Operating, -10C to 40C  
Storage, -30C to 80C  
Humidity: 0% to 95% Relative Humidity, Non-Condensing  
Altitude: Operating, Up to 5000M

#### C) MECHANICALS / ENCLOSURE

Housing: High impact plastic, 94V0 polycarbonate, non-vented  
Markings: Label and/or Pad Printed and/or Molded in the case  
Dimensions: 104\*54\*40 mm (w/o MTG Flange)  
Weight: 0.35 Lb, 155 gr.  
AC Input mechanical options: Desktop C6, C8, C14 or C18 IEC Inlet.  
Hybrid option (Desktop or Changeable Blade Wall Plug-in) Class I or Class II input  
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;  
EN610000-6-2 (Industrial Level Immunity Compliance, extended levels shown in parenthesis)  
EN 61000-4-2 ESD (+/-18KV Air, +/-8KV Contact, criteria A) (+/-20KV Air, +/-10KV Contact, criteria B)  
EN 61000-4-3 Radiated Immunity  
EN 61000-4-4 EFT (+/-2.5KV, criteria A) (+/-4KV, criteria B)  
EN 61000-4-5 Surge (+/-2KV Line-Line, +/-4KV Line to Gnd, criteria A)  
EN 61000-4-6 Conducted Susceptibility  
EN 61000-4-11 Voltage Dips and Interrupts  
EN 61000-3-2 Harmonics, Class A

#### E) SAFETY APPROVALS

Compliant Safety Standards: See listings at end of this drawing for specifics

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) SPECIAL OPTIONS

1. Custom Markings
2. High Rel PCB laminate with Plated through Holes for IPC610 Class 2 Compliance
3. Special Housing Color

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**4. Reduced Output Voltage, 18V to 54V**
**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	
PowerDSIne PD-AS-701/12	12V, at type	24W	14W
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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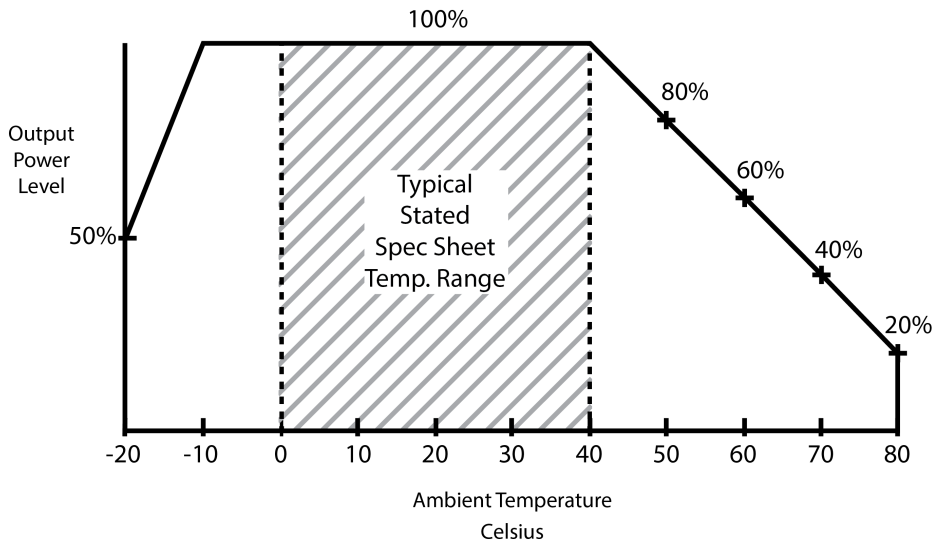
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**DERATING CURVE**

**Typical External  
Power Supply Derating Curve**

(For Efficiency Level V and Efficiency Level VI Products)





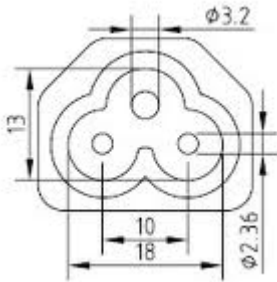
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**Input Configuration**

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="#">2064262M0712(R)</a>	Australian (Type I)	AS3112 / 3 PRONG	IEC 320/C5	2050	7
<a href="#">204B4262M0712(R)</a>	Brazil (Type N)	BRAZIL	IEC 320/C5	2050	7
<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	7
<a href="#">2084262M0712(R)</a>	S.Africa (Type M)	S.Africa	IEC 320/C5	2050	7
<a href="#">23024262M0712(R)</a>	Italy (Type L)	CEI 23-16/VII	IEC 320/C5	2050	7
<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="#">23214262M0712(R)</a>	Switzerland (Type J)	SEV 1011 ( EL 203)	IEC 320/C5	2050	7
<a href="#">6104262M0712(R)</a>	UK, Hong Kong, Singapore, Gulf States (Type G)	BS1363	IEC 320/C5	2050	7

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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 Certification
	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>
	Declaration # EA3C N RU Д-US.АД75.B.01052 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>
<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)
Patent US9838207B2	Protected by US and international patents, US patent number US9838207B2
 GlobTek, Inc.	JAPAN TUV Rheinland-PSE GlobTek Inc to J60950-1(H26) , J55022(H22),J3000(H25).Please follow the procedure listed in the following link for proper import to Japan: <a href="http://en.globtek.com/importing-to-japan.php">http://en.globtek.com/importing-to-japan.php</a> .
	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>
 Intertek	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> )
 10276	Ukraine UKRSepr (Document: <a href="http://www.globtek.com/html/iso_certificates/GT_Ukraine.pdf">www.globtek.com/html/iso_certificates/GT_Ukraine.pdf</a> )
	Japan: Voluntary Control Council for Interference (VCCI)
	WEEE: Complies with EU 2012/19/EU ( <a href="http://ec.europa.eu/environment/waste/weee/index_en.htm">http://ec.europa.eu/environment/waste/weee/index_en.htm</a> ) Mark is on the label or Molded in the case