

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

Model:GT-96180-18VV-R2-PP

September 19, 2019

## Passive POE midspan/injector available in 5-54vdc output.

### Information

Model Number GT-96180-18VV-R2-PP

Description GT-96180-18VV-R2-PP, PoE, Passive Power Injector, Wall Plug-in+Desktop Combination, Single Port Passive Power Over Ethernet Midspan (Passive/Dumb PoE PSE) Power Supply AC Adaptor, , Input Rating: 100-240V~, 50-60 Hz, IEC 60320/C8 AC Inlet connector, Output Rating: 18 Watts, Power rating with convection cooling (W) , 18-56V in 0.1V increments, Approvals: CCC; CB 62368; Patent US9838207B2; EAC; WEEE; VCCI; Ukraine; China RoHS; RoHS; Level VI; CE; Double Insulation; cETLus 60950; S-Mark 60950; ETL; CB 60335;

Model Picture



Agency Documents <http://www.globtek.info/certs/GT-96180-POE/>

CE Declaration [https://www.globtek.com/pdf/ec\\_declaration/a0Oa000000Mmd55EAB](https://www.globtek.com/pdf/ec_declaration/a0Oa000000Mmd55EAB)

RoHS/RoHS2 Declaration [https://www.globtek.com/pdf/rohs\\_cert/a0Oa000000Mmd55EAB](https://www.globtek.com/pdf/rohs_cert/a0Oa000000Mmd55EAB)

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:GT-96180-18VV-R2-PP

September 19, 2019

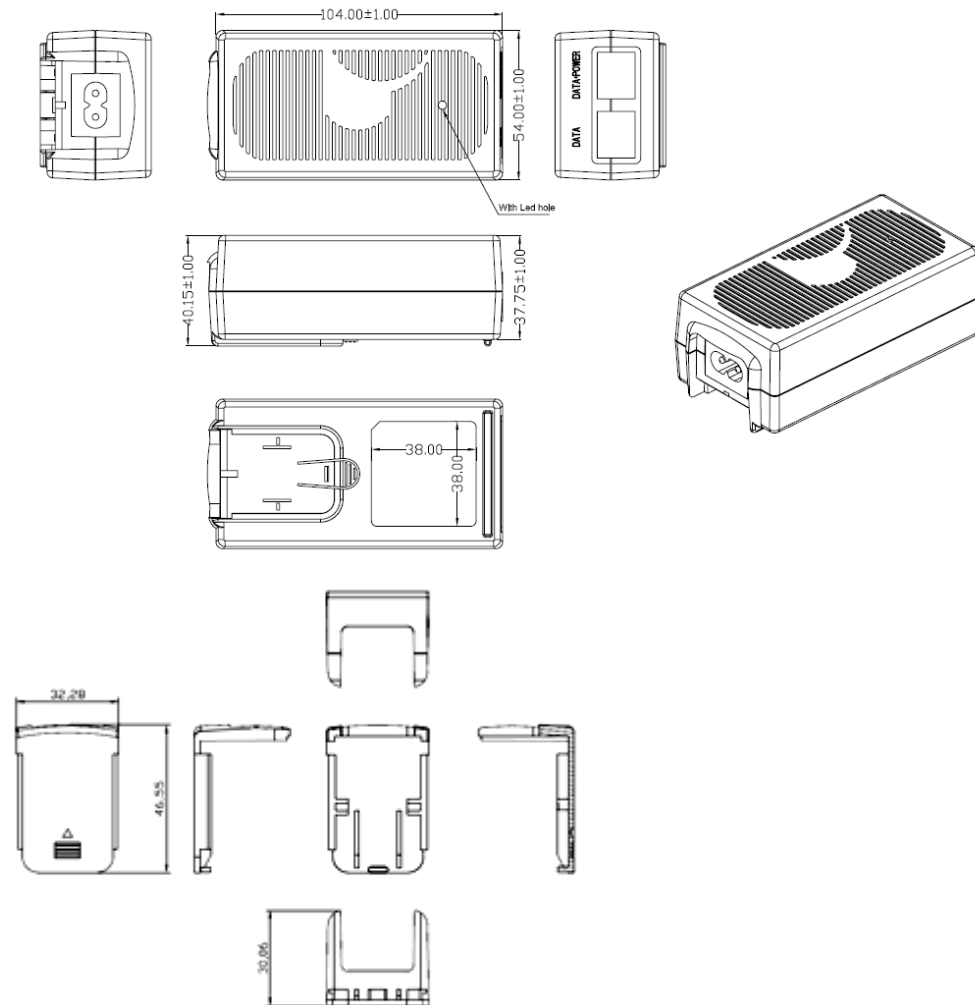
**Model Parameters**

Type	Wall Plug-in+Desktop Combination
Technology	Single Port Passive Power Over Ethernet Midspan (Passive/Dumb PoE PSE) Power Supply AC Adaptor
Category	PoE, Passive Power Injector
Input Voltage	100-240V~, 50-60 Hz
I/P Amps (A)	2.0A
Wattage (W)	18.0
Vout Range (V)	18-56
Efficiency Level	VI
Ingress Protection	
Size (mm)	

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September 19, 2019

**ENCLOSURE**


Units shipped without an installed input plug have a "desktop insert" installed.

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Model:GT-96180-18VV-R2-PP

September 19, 2019

**RATING TABLE**

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GT-96180-1836-R2-PP	36 V	0.5	18.00	<a href="#">RFQ</a>
GT-96180-1848-R2-PP	48 V	0.375	18.00	<a href="#">RFQ</a>
GT-96180-1856-R2-PP	56 V	0.321	17.98	<a href="#">RFQ</a>

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Model:GT-96180-18VV-R2-PP

September 19, 2019

## 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

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Model:GT-96180-18VV-R2-PP

September 19, 2019

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;  
EN61000-6-2 (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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Model:GT-96180-18VV-R2-PP

September 19, 2019

**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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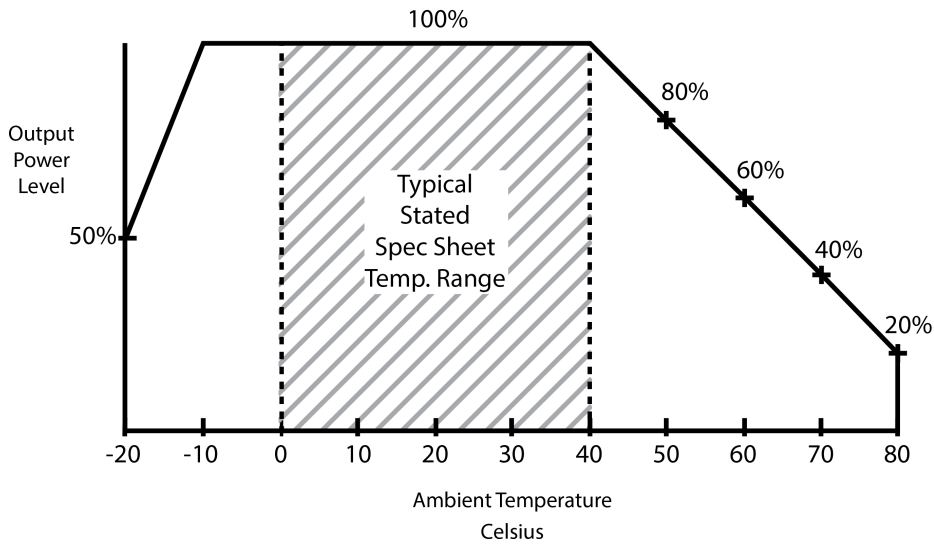
Model:GT-96180-18VV-R2-PP

September 19, 2019

**DERATING CURVE**

**Typical External  
Power Supply Derating Curve**

(For Efficiency Level V and Efficiency Level VI Products)





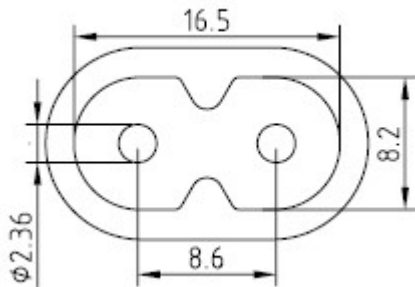
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Model:GT-96180-18VV-R2-PP

September 19, 2019

### Input Configuration

Description IEC 60320/C8 AC Inlet connector

[Blade Insertion Instructions](#)
[R-Blade Style Instruction Video](#)


Mates with IEC 60320/C8 Plug

This series of Interchangeable Blade products may be used with Proprietary Interchangeable Blades as described below or with standard international power cords.

Optional INPUT BLADES: R-Socket: below are available blades configurations which are "not included" (unless stated above); may be purchased separately, packaged with power supply, or as a separate "R-KIT" if specified

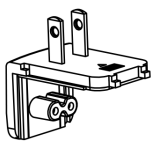
1. Class II model NEMA 1-15P AC power plug with 2 prongs, R-NA-2(R)
2. Australian AS 3112 configuration: SAA 2 pins Class II, R-SAA-2(R)
3. UK BS 1363 configuration: UK 2 pins (dummy Ground) Class II, R-UK-2(R)
4. European CEE 7/16 configuration: Europlug 2 PINS, Class II, R-EU-2(R)
5. China GB 2099 configuration: 2 blades, Class II; CN P/N:R-CN-2(R)

6. Desktop Insert

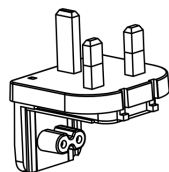
Kits

05. R-KIT: 1,2,3,4 above

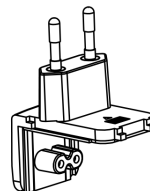
06. R-KIT-INTL: 2,3,4 above



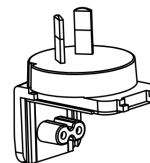
#### UL 2P

 P/N: R-NA-2(R)  
 NORTH AMERICA  
 JAPAN


#### UK 2P

 P/N: R-UK-2(R)  
 UNITED KINGDOM  
 HONG KONG  
 SINGAPORE


#### EU 2P

 P/N: R-EU-2(R)  
 EUROPE  
 SOUTH AMERICA


#### AUS 2P

 P/N: R-SAA-2(R)  
 AUSTRALIA

Standard Cordsets

Below are standard cordsets which are "not included" (unless stated above); these may be purchased separately or packaged with the pow

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Model:GT-96180-18VV-R2-PP

September 19, 2019

supply. 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](#)













Part Number	Country	Plug	Connector	Length (mm)	Length (feet)
<u><a href="#">2094112M703(R)</a></u>	Argentina (Type I)	IRAM 2063	IEC 320/C7	2000	7
<u><a href="#">5014112M703A(R)</a></u>	Australian (Type I)	AS 3112	IEC 320/C7	2000	7
<u><a href="#">207B4111M8703(R)</a></u>	Brazil (Type N)	NBR14136	IEC 320/C7	1800	6
<u><a href="#">4533501M8703(R)</a></u>	China (Type A)	GB 2099.1	IEC 320/C7	1830	6
<u><a href="#">2074112M703A(R)</a></u>	European (Type C)	CEE 7/16	IEC 320/C7	2000	7
<u><a href="#">2084111M8703(R)</a></u>	India (Type M)	BS 546	IEC 320/C7	1800	6
<u><a href="#">451J3401M8703(R)</a></u>	Japan (Type A)	JIS 8303	IEC 320/C7	1830	6
<u><a href="#">2044112M703A(R)</a></u>	Korea (Type C)	KS C8305	IEC 320/C7	2000	7
<u><a href="#">4511116F703A(R)</a></u>	N. American (Type A)	NEMA 1-15P	IEC 320/C7	1830	6
<u><a href="#">4033401M8703A(R)</a></u>	Taiwan (Type A)	CNS690	IEC 320/C7	1830	6
<u><a href="#">6104112M703A(R)</a></u>	UK, Hong Kong, Singapore, Gulf States (Type G)	BS1363	IEC 320/C7	2000	7

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September 19, 2019

## 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)
	CCC to GB4943. 1-2011; GB9254-2008; GB17625. 1-2012 with Tropical and Altitude up to 5000 m approval.
	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.
	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. 1
	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 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>
<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
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> )
	Ukraine UKRSeprо (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

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