

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

Model:GTD93035L6013.2-F

June 6, 2020

Ruggedized DC/DC converter, 9-60VDC Input and 60W/13.2VDC output. Alternate output voltages available. IEC 60068 Vibration, Shock, Bump, and Salt Mist tested

Information

Model Number	GTD93035L6013.2-F
Description	GTD93035L6013.2-F, ITE Power Supply, Desktop/External, DC-DC, , Input Rating: 9-60 VDC, 3 Positon Terminal Block, Output Rating: 60 Watts, Power rating with convection cooling (W) , 13.2V in 0.1V increments, Approvals: IRAM; WEEE; VCCI; Ukraine; EAC; CB 62368; S-Mark 60950; CE; FCC; IP54; Salt Mist; Vibration Shock Bump; Saudi; South Africa; cETLus; AS/NZS; RCM; SGS (Brazil) 13.2V only; CU Kazakhstan; NOM; CCC; South Africa; Malaysia; CB 60950;

Model Picture


Agency Documents	http://www.globtek.info/certs/GTD93035/
CE EC-Declaration	https://www.globtek.com/pdf/ec_declaration/a0Oa000000C2WkZEAV
RoHS/RoHS2 Declaration	https://www.globtek.com/pdf/rohs_cert/a0Oa000000C2WkZEAV
REACH Declaration	https://www.globtek.com/pdf/iso_certificates/REACH.pdf
Conflict Minerals Declaration	https://www.globtek.com/pdf/conflict-minerals.pdf

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

Model:GTD93035L6013.2-F

June 6, 2020

MODEL PARAMETERS

Type	Desktop/External
Technology	DC-DC
Category	ITE Power Supply
Input Voltage	9-60 VDC
I/P Amps (A)	9.0 A
Wattage (W)	60.0
Vout Range (V)	13.2
Efficiency Level	N/A
Ingress Protection	
Size (mm)	180*95*63

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.

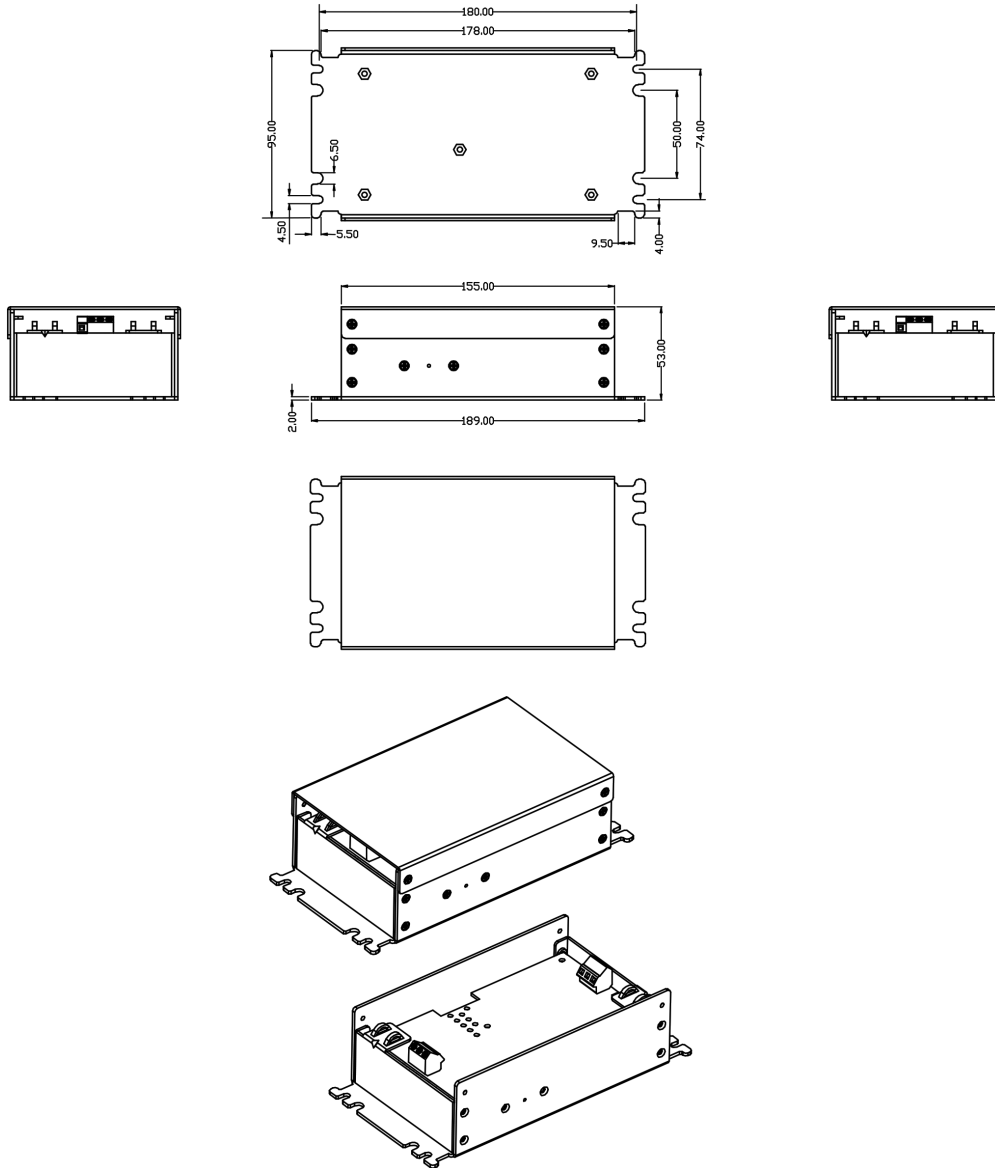
<http://en.globtek.com/datasheet/id/a0Oa000000C2WkZ>

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

Model:GTD93035L6013.2-F

June 6, 2020

ENCLOSURE



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

Model:GTD93035L6013.2-F

June 6, 2020

RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
GTD93035L6013.2-F	13.2 V	4.5	59.40	RFQ

SPECIFICATIONS

A) ELECTRICAL SPECIFICATIONS:

1. Input Voltage: 9-60 Vdc
2. Output Regulation: +/- 1% measured at the output connector
3. Line Voltage Regulation: +/- 1% typical measured at full load
4. Output Ripple (Vp-p): 132mV maximum, measured at 20 MHz bandwidth with 0.1 uf ceramic capacitor in parallel with 10 uf electrolytic capacitor connected at the end of the output connector at nominal line
5. Turn-ON/OFF Overshoot: 5% maximum, 500uS typical recovery time for 25% to 50% step load
6. Turn-ON Delay: 3 Seconds, maximum @ full load, nominal line
7. Hold-Up Time: 5mS typical @ nominal input voltage and full load
8. Inrush Current: 60A maximum cold start @ 9Vdc input
9. Switching Frequency: 150 KHz typical
10. Efficiency: >75% at 9Vdc full load
>78% at 12Vdc full load
>80% at 12Vdc-60Vdc full load
11. Transient Response: 200uS to +/-1.5% max value @ 25% load step

B) PROTECTION

1. Over-Voltage: Protected latch type, input recycling required to recover
2. Short Circuit: Hiccup with auto recovery
3. Over-load: Hiccup with auto recovery
4. Input Protection: Input line and neutral fusing
5. Reverse Polarity Protection: Yes

C) SAFETY

1. Dielectric Withstand Voltage: 1600 Vdc from primary to secondary, primary to chassis, secondary to chassis

D) OTHER:

1. MTBF: 200,000 Hours @ 25°C ambient temperature
2. Operating Temperature: -30°C to 50°C ambient temperature
3. Humidity: 5% to 85% relative humidity
4. Storage Temperature: -40°C to 85°C
5. Cooling: Convection

E) ENCLOSURE

1. Housing: Rugged, vehicle mounted. Vibration, shock, contamination, water resistant. Aluminum
2. Size: 189*95*53mm
3. Markings: Label
4. Vibration: IEC 60068-2-64 Fh (Random)
5. Bump: IEC 60068-2-29 Eb
6. Waterproof: Not required. However, it should be water-resistant. Recommended IEC 60068-2-52
7. Contamination: Resistant to chemicals, rust, etc.

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

Model:GTD93035L6013.2-F

June 6, 2020

DERATING CURVE

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

Model:GTD93035L6013.2-F

June 6, 2020

INPUT CONFIGURATION

Description	<u>3 Positon Terminal Block</u>
<u>Shanghai Elinker P/N: LG103-5.0</u>	

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

Model:GTD93035L6013.2-F

June 6, 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.

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

Model:GTD93035L6013.2-F

June 6, 2020








Approvals

Logo	Description
No Logo Applicable	AS/NZS 60950.1:2011
No Logo	CB Certificate IEC 60950-1:2005 2nd Edition + A1:2009 +A2:2013 Report to EN 60950-1:2006 +A11:2009 +A1:2010 + A12:2011 +A2:2013 For 5V-24V only
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 above 2000m approval
	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
 Intertek 4007407	cETLus-Cert-60950-1 4007497 Listed
 адаптер питания	CU Kazakhstan Certificate
	Certification # TC RU AR46.B.75423 Custom Union of Russia, Belarus and Kazakhstan
	FCC PART 15 CLASS B
IP54	Ingress Protection: ?IP54 to IEC60529:2001 Protected against dust - limited ingress (no harmful deposit) and Protected against sprays from all directions - limited ingress permitted

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

Model:GTD93035L6013.2-F

June 6, 2020

 DC-E-G71-004.1 PRECAUCION: PARA USO EN EQUIPOS ELECTRONICOS SOLAMENTE	IRAM certificate DC-E-G71-004.1 to IEC 62368-1:2014
No Logo	Malaysia ST Release Letter GTD93035L6013.2-F GTD93035H6013.2-F IEC60950-1:2005 (ED.2) + A1:2009 No logo
	NOM (Mexico) to NOM-001-SCFI-1993
	RCM N136; Australia and New Zealand Regulatory Compliance, Mark (http://rcm.standards.org.au/rcmfaq/rcmfaq.htm)
	S-Mark Certificate EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 +A2:2013 (http://www.intertek.com/marks/s/)
No LOGO	Salt Mist to IEC 60068-2-52 Environmental testing Part 2: Tests- Test Kb: Salt mist, cyclic (sodium chloride solution)
إمدادات الطاقة	Saudi Arabia approval to IEC 60950
 FONTE DE ALIMENTAÇÃO DE ITE	SGS (Brazil) to IEC 60950-1_2005 + A1_2009 (13.2 Volts)
No Logo	South Africa EMI and EMC approval to CISPR 22 Class B CISPR 24
No Logo	South Africa approval to SANS IEC 60950
	Ukraine UKRSepro (Document: www.globtek.com/html/iso_certificates/GT_Ukraine.pdf)
	Japan: Voluntary Control Council for Interference (VCCI)
No LOGO	Vibration, Shock, Bump to IEC 60068-2-6:2007 -2-64:2008 -2-27:2008 -2-29 ed 2.0 Environmental testing Part 2 Tests

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

Model:GTD93035L6013.2-F

June 6, 2020



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