

GEN750-1500W SERIES

Laboratory Power Supplies: 750 ~ 1500W



Features

- High Power Density 750 / 1500W in 1U Rack
- Wide range input: 85 ~ 264Vac, with Power Factor Correction
- Output voltage up to 600V, current up to 200A
- Built-in RS232 / RS-485 Interface Standard
- Last Setting Memory: Front Panel Lockout
- Parallel Master / Slave Parallel operation, with up to four units. Total current is measured by master.
- Reliable Encoders for Voltage & Current adjustment
- Optional Interfaces :
 - Isolated Analog Programming & Monitoring
 - IEEE Multi-Drop –SCPI (GPIB)
 - LAN
 - Labview & LabWindows drivers

Specifications

Input Voltage	85 ~ 264VAC 1phase
Input Frequency	47 ~ 63Hz
Input Current	750W : 11A @ 110Vac 5A @ 230Vac 1500W: 21A @ 110Vac 11A @ 230Vac
Efficiency	Model dependent , typically 88%
Power Factor	0.99 EN61000-3-2
Hold-up Time	Typically 2ms
Input Protection	Line Fuse
Parallel Operation	Up to four units may be connected in Master / Slave with "Single Wire" connection, refer to manual for further details.
Series Operation	YES, with external diodes
Operating Temp.	0°C to +50°C at full load
Operating Humidity	20 ~ 80% RH Non-condensing
Vibration & Shock	MIL-810E method 514.5 Less than 20G, ½ sine, 11mSec.
Altitude	Operating: Up to 3000m
Audible Noise	65dBA at full load, measured 1m from front panel
ESD	EN61000-4-2
Fast Transients	EN61000-4-4
Surge Immunity	EN61000-4-5
Conducted Immunity	EN61000-4-6
Radiated Immunity	EN61000-4-3
Conducted Emission	EN55022 Lev B
Radiated Emission	EN55022 Lev A

Line Regulation	Model dependent refer to manual
Load Regulation	Model dependent refer to manual
Safety	ULL60960-1, EN60950-1, Units with IEMD or ISOL option are recognized up to 400V output, CE marked
Cooling	Fan driven, airflow front to rear, variable fan speed. Suitable for zero stacking top or bottom.
Input Connectors	750W: IEC320-C14 1500W: Screw terminal block, Phoenix with strain relief
Output Connectors	6 ~ 60V models: Bus-bars 80-600V models: Phoenix clamp connector
Overload Protection	Constant Current with auto recovery
Foldback Protection	Output shutdown, manual reset by front panel OUT button, response time <1sec
Overvoltage Protection	Inverter shut-down, manual reset by ON/OFF recycle or by OUT button. OVP programming accuracy 5% full scale.
Over Temperature Protection	If internal temperature exceeds safe levels. Latched in Safe Mode, Unlatched in Auto Mode.
Remote Analog Controls & Signals	Refer to manual
Digital Programming & Read back	Refer to manual
Dimensions	1U x 19in Rack mounting, slides or rear support required. 482 x 486 x 43.6mm (without connectors) 482 x 575 x 43.6mm with rear connector
Weight	750W: 7kg 1500W: 8.5kg

- **Manual & Full Application details available from our website or contact our office.**

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Model 750W	Output		Power W	Model 1500W	Output		Power W
	V	A			V	A	
GEN6-100	0-6V	0-100A	600W	GEN6-200	0-6V	0-200A	1200W
GEN8-90	0-8V	0-90A	720W	GEN8-180	0-8V	0-180A	1440W
GEN12.5-60	0-12.5V	0-60A	750W	GEN12.5-120	0-12.5V	0-120A	1500W
GEN20-38	0-20V	0-38A	750W	GEN20-76	0-20V	0-76A	1500W
GEN30-25	0-30V	0-25A	750W	GEN30-50	0-30V	0-50A	1500W
GEN40-19	0-40V	0-19A	750W	GEN40-38	0-40V	0-38A	1500W
GEN60-12.5	0-60A	0-12.5A	750W	GEN50-30	0-50V	0-30A	1500W
GEN80-9.5	0-80V	0-9.5A	750W	GEN60-25	0-60A	0-25A	1500W
GEN100-7.5	0-100V	0-7.5A	750W	GEN80-19	0-80V	0-19A	1500W
GEN150-5	0-150V	0-5A	750W	GEN100-15	0-100V	0-15A	1500W
GEN300-2.5	0-300V	0-2.5A	750W	GEN150-10	0-150V	0-10A	1500W
GEN600-1.3	0-600V	0-1.3A	750W	GEN300-5	0-300V	0-5A	1500W
				GEN600-2.6	0-600V	0-2.6A	1500W

Accessories: RS-232/RS-485 cable is used to connect the power supply to host PC

Mode	RS-485	RS-232	RS-232
PC Connector Communication Cable Power Supply Connector	DB-9F Shield Ground L=2m EIA/TIA-568A (RJ-45)	DB-9F Shield Ground L=2m EIA/TIA-568A (RJ-45)	DB-25F Shield Ground L=2m EIA/TIA-568A (RJ-45)
P/N:	GEN485-9	GEN232-9	GEN232-25
Serial Link Cables	Power Supply Connector	Communication Cable	P/N:
RS-485	EIA / TIA-568A (RJ-45)	Shielded L =50Cm	GEN/RJ45

Programming Codes / Options

RS232 / RS-485 Interface built-in (Standard)
 GPIB (Multi-Drop Master Interface) – **IEEE**
 Voltage Programming Isolated Analogaog Interface – **IS510**
 Current Programming Isolated Analog Interface - **IS420**
 LAN Interface (Complies with **LXI** Class C) - **LAN**

Front Panel Controls

Vout / Iout manual adjust by separate encoders, Fine and Coarse selectable.
 OVP/ UVL manual adjust by Voltage Adjust encoder, Front Panel Lock / Unlock
 Address selection by Voltage Adjust encoder. No of addresses:31
 AC ON / OFF, Output ON * / OFF, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go to Local
 RS232/485 and IEEE488.2 selection by IEEE enable switch and DIP switch
 Baudrate selection by Current adjust encoder.
 Parallel Master Slave: Hx, where x = Slaves 0 up to four.

Front Panel Display

Vout: 4 Digits, Accuracy: 0.5% +/- 1 Count
 Iout: 4 Digits, Accuracy: 0.5% +/- 1 Count
 Voltmeter is user selectable to read either local voltage (at power supply) or remote voltage (at the load).
 ADDR., OVP/UVL , V/A , FOLD, REM ./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM
 (OVP,OTP,FOLD,AC FAIL): RED LED

Remote Analog & Controls

Vout voltage programming 0~1 00%, 0~5V or 0~1 0V, user selectable. Accuracy & Linearity +/-1% of Rated Vo.
 Iout voltage programming 0~1 00%, 0~5V or 0~1 0V, user selectable. Accuracy & Linearity +/-1% of Rated Io.
 Vout resistor programming 0~100%, 0~5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Vo.
 Iout resistor programming 0~100%, 0~5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Io.
 On/Off control (rear panel) By Voltage: 0.6V = Disable, 2-1 5V = enable (default) or dry contact, user selectable logic
 Output current monitor 0~5V or 0~1 0V , accuracy:1 % , user selectable
 Output voltage monitor 0~5V or 0~1 0V , accuracy:1 % , user selectable
 Power supply OK signal Yes. TTL high-OK, 0V (500ohm impedance)-Fail
 CV/CC signal CV: TTL high (4~5V) source: 10mA, CC: TTL low (0~04V):10mA
 Enable/Disable Dry contact. Open: Off , Short: On. Max. voltage at Enable/Disable Contacts 6V
 Remote/Local selection Selects Remote or Local operation by Voltage: 0~0.6V/2~1 5V, <0.6V = Local 2-1 5V = Remote
 Remote/Local signal Signals operating mode in use.

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Front Panel Description



1. AC ON/OFF Switch
2. Air Intake allows zero stacking for maximum system flexibility and power density.
3. Reliable encoder controls Output Voltage and sets Address.
4. Volt Display shows Output Voltage and directly displays OVP, UVL and Address settings.
5. Reliable encoder controls Output Current, sets baudrate and Advanced Parallel mode.
6. Current Display shows Output Current and displays baudrate.
7. Function/Status LEDs:
 - Alarm
 - Foldback Mode
 - Fine Control
 - Remote Mode
 - Preview Settings
 - Output On
8. Pushbuttons allow flexible user configuration
 - Coarse and Fine adjustment of Output Voltage/Current and Advanced Parallel Master or Slave
 - Preview settings and set Voltage/Current with Output OFF, Front Panel Lockout
 - Set OVP and UVL Limits
 - Set Current Foldback
 - Local/Remote Mode and select Address and Baudrate
 - Output ON/OFF and Auto-Start/Safe-Start Mode

Rear Panel Description



1. Remote/Local Output Voltage Sense Connections.
2. DIP Switches select 0-5V or 0-10V Programming and other functions.
3. DB25 (Female) connector allows (Non-isolated) Analog Program and Monitor and other functions.
4. RS-485 OUT to other Genesys™ Power Supplies.
5. RS-232/RS-485 IN Remote Serial Programming.
6. Output Connections: Rugged busbars for up to 60V Output; wire clamp connector for Outputs >60V.
7. Exit air assures reliable operation when zero stacked.
8. Wide-Range Input 85-265VAC continuous, 47/63Hz with Active Power Factor Correction (0.99 typical).
AC Input Connector: **750W (IEC320)**, 1500W (screw terminal-shown).
9. Optional Interface Position for IEEE 488.2 SCPI (shown) or Isolated Analog Interface or LAN Interface.

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Genesys™ Power Parallel and Series Configurations

Parallel operation - Master/Slave:

Active current sharing allows up to four identical units to be connected in an auto-parallel configuration for four times the output power.

In Advanced Parallel Master/Slave Mode, total current is programmed and reported by the Master, Up to four supplies act as one.

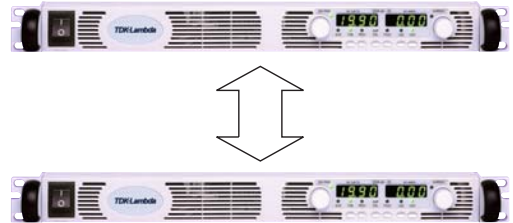
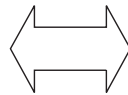


Series operation

Up to two units may be connected in series to increase the output voltage or to provide bipolar output. (Max 600V to Chassis Ground).

Remote Programming via RS-232 & RS-485 Interface

Standard Serial Interface allows chain control of up to 31 power supplies on the same bus with built-in RS-232 & RS-485 Interface.



Programming Options (Factory installed)

Digital Programming via IEEE Interface

P/N: IEEE

- IEEE 488.2 SCPI Compliant
- Program Voltage
- Measure Voltage
- Over Voltage setting and shutdown
- Error and Status Messages
- **New! Multi-Drop**
 - Allows IEEE Master to control up to 31 slaves over RS-485 daisy-chain
 - Only the Master needs be equipped with IEEE Interface
- Program Current
- Measure Current
- Current Foldback shutdown

Isolated Analog Programming

Four Channels to Program and Monitor Voltage and Current. Isolation allows operation with floating references in harsh electrical environments. Choose between programming with Voltage or Current. Connection via removable terminal block: Phoenix MC1,5/8-ST-3.81.

- Voltage Programming, user-selectable 0-5V or 0-10V signal. P/N: IS510
 - Power supply Voltage and Current Programming Accuracy $\pm 1\%$
 - Power supply Voltage and Current Monitoring Accuracy $\pm 1.5\%$
- Current Programming with 4-20mA signal. P/N: IS420
 - Power supply Voltage and Current Programming Accuracy $\pm 1\%$
 - Power supply Voltage and Current Monitoring Accuracy $\pm 1.5\%$

LAN Interface

LXI Compliant to Class C

P/N: LAN

- Meets all LXI-C Requirements
- Address Viewable on Front Panel
- Fixed and Dynamic Addressing
- Compatible with most standard Networks
- VISA & SCPI Compatible
- LAN Fault Indicators
- Auto-detects LAN Cross-over Cable
- Fast Startup