Improved Specifications

# Genesys™

## Programmable DC Power Supplies
## 750W/1500W in 1U
## Built in RS-232 & RS-485 Interface
## Advanced Parallel Operation

## Optional Interface:
## LXI Compliant LAN
## IEEE488.2 SCPI (GPIB) Multi-drop
## Isolated Analog Programming

## Genesys™ Family
## GenH 750W Half Rack
## Gen1U 750/1500W Full Rack
## Gen2U 3.3/5kW

TDK·Lambda

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The GenesysTM family of programmable power supplies sets a new standard for flexible, reliable, AC/DC power systems in OEM, Industrial and Laboratory applications.

## *Features include:*

- High Power Density: 1500W in 1U
- Wide Range Input (85 - 265Vac Continuous, single phase, 47/63Hz)
- Active Power Factor Correction (0.99 typical)
- Output Voltage up to 600V, Current up to 200A
- Built-in RS-232/RS-485 Interface Standard
- Last-Setting Memory
- Global Commands for Serial RS-232/RS-485 Interface
- Front Panel Lock selectable from Front Panel or Software
- High Resolution 16 bit ADCs & DACs
- Reliable Encoders for Voltage and Current Adjustment
- Constant Voltage/Constant Current auto-crossover
- Advanced Parallel reports total current up to four identical units
- Independent Remote ON/OFF and Remote Enable/Disable
- External Analog Programming and Monitoring (user selectable 0-5V & 0-10V)
- Reliable Modular and SMT Design
- 19" Rack Mounted ATE and OEM applications
- Optional Interfaces
  - Isolated Analog Programming and Monitoring Interface (0-5V/0-10V & 4-20mA)
  - IEEE 488.2 SCPI (GPIB) Multi-Drop
  - LXI Compliant LAN Interface
- LabView® and LabWindows® drivers
- Five Year Warranty

Worldwide Safety Agency Approvals; CE Mark for LVD and EMC Regulation

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## *Applications*

Genesys™ power supplies have been designed to meet the demands of a wide variety of applications.

Common controls are shared all Genesys™ Series.

### Test and Measurement

Last-Setting memory simplifies test design and requires no battery backup.
Built-in RS-232/RS-485 gives maximum system flexibility along with 0-5V and 0-10V, selectable analog programming.
Wide range of available inputs allows testing of many different devices.

### Semiconductor Burn-in

Safe-Start may be ENABLED to re-start at Output OFF to protect load.
Wide range input (85-265Vac) with Active Power Factor correction rides through input transients easily.

### Component Test

High power density, zero stacking and single wire parallel operation give maximum system flexibility.

### Laser Diode

OVP is directly set on Voltage Display, assuring accurate protection settings.
Current Limit Fold Back assures load is protected from current surges.

### Heater Supplies

Smooth, reliable encoders enhance front panel control.
Remote analog programming is user selectable 0-5V or 0-10V.

### RF Amplifiers and Magnets

Robust design assures stable operation under a wide variety of loads.
High linearity in voltage and current mode.



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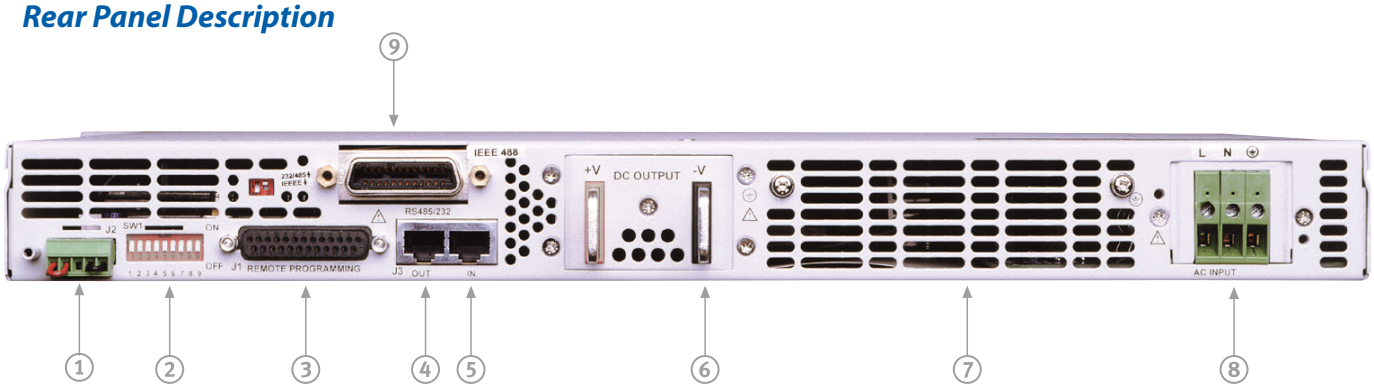
## Front Panel Description

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
- Fine Control
- Preview Settings
- Foldback Mode
- Remote Mode
- 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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| | | |
|---|---|---|
| 7.Temp. stability | % | 0.01% of rated Vout over 8hrs interval following 30 minutes warm-up. Constant line, load & temp. |

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## Genesys ™ 750W/1500W Specifications

Specifications in Blue are improved

| 1.0 MODEL | GEN | 6-200 | 8-180 | 12.5-120 | 20-76 | 30-50 | 40-38 | 50-30 | 60-25 | 80-19 | 100-15 | 150-10 | 300-5 | 600-2.6 | 750W | 1500W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Rated output voltage (*1) | V | 6 | 8 | 12.5 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 300 | 600 | | X |
| 2. Rated Output Current (*2) | A | 200 | 180 | 120 | 76 | 50 | 38 | 30 | 25 | 19 | 15 | 10 | 5 | 2.6 | | X |
| 3. Rated Output Power | W | 1200 | 1440 | 1500 | 1520 | 1500 | 1520 | 1500 | 1500 | 1520 | 1500 | 1500 | 1500 | 1560 | | X |
| 4. Efficiency at 100/200Vac (*3) | % | 77/79 | 78/81 | 82/85 | 83/86 | 83/86 | 84/88 | 84/88 | 84/88 | 84/88 | 84/88 | 84/88 | 84/88 | 84/88 | | X |

| 1.0 MODEL | GEN | 6-100 | 8-90 | 12.5-60 | 20-38 | 30-25 | 40-19 | --- | 60-12.5 | 80-9.5 | 100-7.5 | 150-5 | 300-2.5 | 600-1.3 | X | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Rated output voltage (*1) | V | 6 | 8 | 12.5 | 20 | 30 | 40 | --- | 60 | 80 | 100 | 150 | 300 | 600 | X | |
| 2. Rated Output Current (*2) | A | 100 | 90 | 60 | 38 | 25 | 19 | --- | 12.5 | 9.5 | 7.5 | 5 | 2.5 | 1.3 | X | |
| 3. Rated Output Power | W | 600 | 720 | 750 | 760 | 750 | 760 | --- | 750 | 760 | 750 | 750 | 750 | 780 | X | |
| 4. Efficiency at 100/200Vac (*3) | % | 76/78 | 77/80 | 81/84 | 82/85 | 82/85 | 83/87 | --- | 83/87 | 83/87 | 83/87 | 83/87 | 83/87 | 83/87 | X | |

**1.1 CONSTANT VOLTAGE MODE**

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Max.line regulation (0.01% of Vo+ 2mV)(*4) | mV | 2.6 | 2.8 | 3.3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 17 | 32 | 62 | X | X |
| 2. Max load regulation (0.01% of Vo+2mV )(*5) | mV | 2.6 | 2.8 | 3.3 | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 17 | 32 | 62 | X | X |
| 3. Ripple and noise p-p 20MHz (*9) | mV | 60 | 50 | 60 | 60 | 50 | 60 | 40 | 60 | 75 | 75 | 75 | 130 | 300 | X | X |
| 4. Ripple r.m.s 5Hz~1MHz (*9) | mV | 8 | 6 | 7 | 7.5 | 6 | 7 | 5 | 7 | 7 | 8 | 8 | 20 | 60 | X | X |
| 5. Remote sense compensation/line | V | 1 | 1 | 1 | 1 | 1.5 | 2 | 2 | 3 | 4 | 5 | 5 | 5 | 5 | X | X |
| 6. Temp. coefficient | PPM/°C | 50PPM/°C of rated output voltage, following 30 minutes warm up | | | | | | | | | | | | | X | X |
| 7. Temp. stability | % | 0.01% of rated Iout over 8hrs interval following 30 minutes warm-up. Constant line, load & temp. | | | | | | | | | | | | | X | X |
| 8. Up-prog. response time, 0~Vo Rated | mS | 80mS, N.L/F.L, resistive load | | | | | | | | 150mS, N.L/F.L, resistive load | | | | 250 | X | X |
| 9. Down-prog response time full-load | mS | 10 | 50 | | | 80 | | | | 150 | | | | 250 | X | X |
| 10. Down-prog response time No-load | mS | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1100 | 1200 | 1500 | 2000 | 2500 | 4000 | X | X |
| 11. Transient response time (*8) | mS | Less than 1mSec for models up to and including 100V. 2mSec for models above 100V | | | | | | | | | | | | | X | X |
| 12. Temp. drift | % | 0.01% of rated Vout over 8hrs interval following 30 minutes warm up. Constant line, load & temp. | | | | | | | | | | | | | X | X |

**1.2 CONSTANT CURRENT MODE**

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Max.line regulation (0.01% of Io+ 2mA)(*4) | mA | 12 | 11 | 8.0 | 5.8 | 4.5 | 3.9 | --- | 3.25 | 2.95 | 2.75 | 2.5 | 2.25 | 2.13 | X | |
| 2. Max.load regulation (0.02% of Io+5mA)(*6) | mA | 25 | 23 | 17 | 12.6 | 10 | 8.8 | --- | 7.5 | 6.9 | 6.5 | 6.0 | 5.5 | 5.26 | X | |
| 3. Ripple r.m.s 5Hz~1MHz . (*7) | mA | 190 | 160 | 110 | 50 | 45 | 30 | --- | 15 | 10 | 10 | 8 | 6 | 4 | X | |
| 4. Max.line regulation (0.01% of Io+ 2mA)(*4) | mA | 22 | 20 | 14 | 9.6 | 7.0 | 5.8 | 5 | 4.5 | 3.9 | 3.5 | 3.0 | 2.5 | 2.26 | | X |
| 5. Max.load regulation (0.02% of Io+5mA)(*6) | mA | 45 | 41 | 29 | 20.2 | 15 | 12.6 | 11 | 10 | 8.8 | 8.0 | 7.0 | 6.0 | 5.52 | | X |
| 6. Ripple r.m.s 5Hz~1MHz .(*7) | mA | 350 | 300 | 210 | 120 | 60 | 65 | 60 | 60 | 40 | 20 | 15 | 15 | 7 | | X |
| 7. Temp. coefficient | PPM/°C | 70PPM/°C from rated output voltage, following 30 minutes warm up | | | | | | | | | | | | | X | X |
| 8. Temp. drift | % | 0.01% of rated Vout over 8hrs interval following 30 minutes warm up. Constant line, load & temp. | | | | | | | | | | | | | X | X |
| 9. Warm up drift | % | Less than 0.1% rated output current over 30 min following power on or output voltage / current change | | | | | | | | | | | | | X | X |

**1.3 PROTECTIVE FUNCTIONS**

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. OCP | 0~105% Constant Current | | | | | | | | | | | | | X | X |
| 2. OCP Foldback | Output shut down when power supply change from CV to CC. User selectable. | | | | | | | | | | | | | X | X |
| 3. OVP type | Inverter shut-down, manual reset by AC input recycle or by OUT button or by communication port | | | | | | | | | | | | | X | X |
| 4. OVP trip point | 0.5~7.5V | 0.5~10V | 1~15V | 1~24V | 2~36V | 2~44V | 5~57V | 5~66V | 5~88V | 5~110V | 5~165V | 5~330V | 5~660V | X | X |
| 5. Over Temp Protection | User selectable, latched or non latched | | | | | | | | | | | | | X | X |

**1.4 ANALOG PROGRAMMING AND MONITORING**

| | | | |
|---|---|---|---|
| 1. Vout Voltage Programming | 0~100%, 0~5V or 0~10V, user select. Accuracy and linearity: +/-0.5% of rated Vout. | X | X |
| 2. Iout Voltage Programming | 0~100%, 0~5V or 0~10V, user select. Accuracy and linearity: +/-1% of rated Iout. | X | X |
| 3. Vout Resistor Programming | 0~100%, 0~5/10Kohm full scale,user select.,Accuracy and linearity: +/-1% of rated Vout. | X | X |
| 4. Iout Resistor Programming | 0~100%, 0~5/10Kohm full scale,user select. Accuracy and linearity: +/-1.5% of rated Iout. | X | X |
| 5. On/Off control (rear panel) | By electrical. Voltage: 0~0.6V/2~15V, or dry contact, user selectable logic | X | X |
| 6. Output Current monitor | 0~5V or 0~10V, accuracy: 1%, user selectable | X | X |
| 7. Output Voltage monitor | 0~5V or 0~10V, accuracy: 1%, user selectable | X | X |
| 8. Power Supply OK signal | TTL high (4~5V) -OK, 0V-Fail 500ohm series resistance | X | X |
| 9. CV/CC indicator | Open collector, CC mode: On, CV mode: Off, Maximum voltage: 30V, maximum sink current: 10mA | X | X |
| 10. Enable/Disable | Dry contact. Open: off, Short: on. Max. voltage at Enable/Disable in: 6V | X | X |
| 11. Local/Remote analog control | By electrical signal or Open/Short: 0~0.6V or short: Remote, 2~15V or open: Local. | X | X |
| 12. Local/Remote analog control indicator | Open collector, Local: Open, Remote: On. Maximum voltage: 30V, maximum sink current: 5mA. | X | X |

**1.5 FRONT PANEL**

| | | | |
|---|---|---|---|
| 1. Control functions | Vout/Iout manual adjust by separate encoders (coarse and fine adjustment selectable) | X | X |
| | OVP/UVL manual adjust by Volt. Adjust encoder | X | X |
| | AC on/off, Output on/off, Re-start modes (auto, safe), Foldback control (CV to CC), Go to local control | X | X |
| | Address selection by Voltage (or current) adjust encoder. Number of addresses: 31 | X | X |
| | RS232/485 and IEEE488.2 selection by IEEE enable switch and DIP switch | X | X |
| | Baudrate selection: 1200, 2400, 4800, 9600 and 19,200 | X | X |
| 2. Display | Voltage 4 digits, accuracy: 0.05%+/-1 count | X | X |
| | Current 4 digits, accuracy: 0.2%+/-1 count | X | X |
| 3. Indications | Voltage, Current, Alarm, Fine, Preview, Foldback, Local, Output On, Front Panel Lock | X | X |

**1.6 Interface RS-232&RS-485 or Optional GPIB / LAN Interface**

| Model | V | 6 | 8 | 12.5 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 300 | 600 | 750W | 1500W |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1. Remote Voltage Programming (16 bit)** | | | | | | | | | | | | | | | | |
| Resolution (0.02% of Vo Rated) | mV | 0.12 | 0.16 | 0.25 | 0.4 | 0.6 | 0.8 | 1.0 | 1.2 | 1.6 | 2.0 | 3.0 | 6.0 | 12.0 | X | X |
| Accuracy 0.05%Vo Rated Output Voltage (*11) | mV | 3.0 | 4.0 | 6.3 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 75 | 150 | 300 | X | X |
| **2. Remote Current Programming (16 bit)** | | | | | | | | | | | | | | | | |
| Resolution (0.002% of Io Rated) | mA | 2.00 | 1.80 | 1.20 | 0.76 | 0.50 | 0.38 | --- | 0.25 | 0.19 | 0.15 | 0.10 | 0.05 | 0.03 | X | |
| Accuracy (0.1% of Io Rated+0.1% of Io Actual Output)(*10) | mA | 200 | 180 | 120 | 76 | 50 | 38 | --- | 25 | 19 | 15 | 10 | 5.0 | 2.6 | X | |
| Resolution (0.002% of Io Rated) | mA | 4.0 | 3.60 | 2.40 | 1.52 | 1.0 | 0.76 | 0.60 | 0.50 | 0.38 | 0.30 | 0.20 | 0.10 | 0.05 | | X |
| Accuracy (0.1% of Io Rated+0.1% of Io Actual Output)(*10) | mA | 400 | 360 | 240 | 152 | 100 | 76 | 60 | 50 | 38 | 30 | 20 | 10 | 5.2 | | X |
| **3. Readback Voltage** | | | | | | | | | | | | | | | | |
| Resolution of Vo Rated | mV | 0.12 | 0.16 | 1.125 | 1.20 | 1.20 | 1.2 | 1.5 | 1.2 | 1.60 | 11.0 | 10.50 | 12 | 12 | X | X |
| Accuracy 0.05% Vo Rated | mV | 3 | 4 | 6.3 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 75 | 150 | 300 | X | X |
| **4. Readback Current** | | | | | | | | | | | | | | | | |
| Resolution of Io Rated | mA | 11 | 1.80 | 1.20 | 1.14 | 1.25 | 1.14 | --- | 1.13 | 0.19 | 0.15 | 0.15 | 0.13 | 0.12 | X | |
| Accuracy 0.3% of Io Rated (*10) | mA | 300 | 270 | 180 | 114 | 75 | 57 | --- | 37.50 | 28.50 | 22.50 | 15 | 7.50 | 3.90 | X | |
| Resolution of Io Rated output | mA | 12 | 10.80 | 10.80 | 1.52 | 1.50 | 1.14 | 1.20 | 1.25 | 1.14 | 1.05 | 1.10 | 0.15 | 0.10 | | X |
| Accuracy 0.3% of Io Rated (*10) | mA | 600 | 540 | 360 | 228 | 150 | 114 | 90 | 75 | 57 | 45 | 30 | 15 | 7.8 | | X |
| **5. OVP/UVL Programming** | | | | | | | | | | | | | | | | |
| Resolution (0.1% of Vo Rated) | mV | 6 | 8 | 12 | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 300 | 600 | X | X |
| Accuracy (1% of Vo Rated) | mV | 60 | 80 | 125 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | 1500 | 3000 | 6000 | X | X |

*1: Minimum voltage is guaranteed to maximum 0.2% of Vo Rated.
*2: Minimum current is guaranteed to maximum 0.4% of Io Rated.
*3: At maximum output power.
*4: 85~132Vac or 170~265Vac, constant load.
*5: From No-load to Full-load, constant input voltage.
*6: For load voltage change, equal to the unit voltage rating, constant input voltage.
*7: For 6V models the ripple is measured at 2~6V output voltage and full output current. For other models, the ripple is measured at 10~100% output voltage and full output current.
*8: Time for the output voltage to recover within 0.5% of its rated for a load change 10~90% of rated output , Output set-point:10~100%.
*9: For 6V~300V models: measured with JEITA RC-9131A 1:1 probe. For 600V model: measured with 10:1 probe Accuracy -Values have been calculated at Vo Rated & Io Rated.
*10: The Constant Current programming readback and monitoring accuracy does not include the warm-up and Load regulation thermal drift.
*11: Measured at the sense point.



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# General Specifications Genesys™ 750W/1500W

| 2.1 INPUT CHARACTERISTICS | |
|---|---|
| 1. Input voltage/freq. (*1) | 85~265Vac continuous, 47~63Hz, single phase |
| 2. Power Factor | 0.99 @100/200Vac, rated output power. |
| 3. EN61000-3-2,3 compliance | Complies with EN61000-3-2 class A and EN61000-3-3 at 20~100% output power. |
| 4. Input current 100/200Vac | 750W :10.5A / 5A, 1500W :21A / 11A |
| 5. Inrush current 100/200Vac | 750W :Less than 25A, 1500W :Less than 50A |
| 6. Hold-up time | More than 20mS, 100Vac, at 100% load. |

| 2.2 POWER SUPPLY CONFIGURATION | |
|---|---|
| 1. Parallel Operation | Up to 4 units in master/slave mode with single wire current balance connection |
| 2. Series Operation | Up to 2 units. with external diodes. 600V Max to Chassis ground |

| 2.3 ENVIRONMENTAL CONDITIONS | |
|---|---|
| 1. Operating temp | 0~50°C, 100% load. |
| 2. Storage temp | -20~70°C |
| 3. Operating humidity | 30~90% RH (non-condensing). |
| 4. Storage humidity | 10~95% RH (non-condensing). |
| 5. Vibration | MIL-810E, method 514.4, test cond. I-3.3.1. The EUT is fixed to the vibrating surface. |
| 6. Shock | Less than 20G, half sine, 11mSec. Unit is unpacked. |
| 7. Altitude | Operating: 10000ft (3000m), Derat output current by 2%/100m above 2000m, Non operating: 40000ft (12000m). |

| 2.4 EMC | |
|---|---|
| 1. Applicable Standards: | |
| 2. ESD | IEC1000-4-2. Air-disch. -8KV, contact disch. -4KV |
| 3. Fast transients | IEC1000-4-4. 2KV |
| 4. Surge immunity | IEC1000-4-5. 1KV line to line, 2KV line to ground |
| 5. Conducted immunity | IEC1000-4-6, 3V |
| 6. Radiated immunity | IEC1000-4-3, 3V/m |
| 7. Conducted emission | EN55022B, FCC part 15J-B, VCCI-B. |
| 8. Radiated emission | EN55022A, FCC part 15-A, VCCI-A. |
| 9. Voltage dips | EN61000-4-11 |
| 10. Conducted emission | EN55022B, FCC part 15-B, VCCI-B. |
| 11. Radiated emission | EN55022A, FCC part 15-A, VCCI-A. |

| 2.5 SAFETY | |
|---|---|
| 1.Applicable standards: | UL 60950-1, CSA22.2 No.60950-1, IEC 60950-1, EN 60950-1 |
| 2.Interface classification | Models with Vout 50V: Output is SELV, all communication/control interfaces (RS232/485, IEEE, Isolated Analog, LAN, Sense, Remote Programming and Monitoring) are SELV. |
| | Models with 60V Vout 400V: Output is Hazardous, communication/control interfaces: RS232/485, IEEE, Isolated Analog, LAN, Remote Programing and Monitoring (pins 1-3, pins14-16) are SELV, Sense, Remote Programming and Monitoring (pins 8-13, pins 21-25) are Hazardous. |
| | Models with 400V Vout 600V: Output is Hazardous, all communication/control interfaces (RS232/485, IEEE, Isolated Analog, LAN, Sense, Remote Programming and Monitoring) are Hazardous. |
| 3.Withstand voltage | Vout 50V models : Input-Output (SELV): 4242VDC 1min, Input-communication/control (SELV): 4242VDC 1min, Input-Ground: 2828VDC 1min, |
| | 60V Vout 150V models: Input-Output (Hazardous): 3425VDC 1min, Input-communication/control (SELV): 4242VDC 1min, Output(Hazardous)-SELV: 2307VDC 1min, Output(Hazardous)-Ground: 1414VDC 1min, Input-Ground: 2828VDC 1min. |
| | 300V Vout 600V models: Input-Output(Hazardous): 3490VDC 1min, Input-communication/control (SELV): 4242VDC 1min, Hazardous. Output-communication/control(SELV): 4242VDC 1min, Output(Hazardous)-Ground: 2738VDC 1min, Input-Ground: 2828VDC 1min. |
| 4.Insulation resistance | More than 100Mohm at 25°C , 70% RH. |

| 2.6 MECHANICAL CONSTRUCTION | |
|---|---|
| 1. Cooling | Forced air flow: from front to rear. No ventilation holes at the top or bottom of the chassis; Variable fan speed. |
| 2. Dimensions (WxHxD) | W: 422.8mm, H: 43.6mm, D: 432.8mm (excluding connectors, encoders, handles, etc.) |
| 3. Weight | 750W: 7Kg (15 Lbs) 1500W: 8.5Kg (18 Lbs) |
| 4. AC Input connector | 750W: IEC320 AC Inlet. |
| | 1500W: Screw terminal block, Phoenix P/N: FRONT-4-H-7.62, with strain relief |
| 5. Output connectors | 6V to 60V models: Bus-bars (hole Ø 8.5mm). 80V to 600V models: wire clamp connector, Phoenix P/N: FRONT-4-H-7.62 |

| 2.7 RELIABILITY SPECS | |
|---|---|
| 1. Warranty | 5 years. |

*1: For cases where conformance to various safety standards (UL, IEC etc.) is required, to be described as 100-240Vac (50/60Hz).
All specifications subject to change without notice.



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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 Multi-Drop Interface — P/N: IEEE

- Allows IEEE Master to control up to 30 slaves over RS-485 daisy-chain
- Only the Master needs be equipped with IEEE Interface
- IEEE 488.2 SCPI Compliant
- Program Voltage
- Measure Voltage
- Over Voltage setting and shutdown
- Error and Status Messages
- 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 ±1%
  Power supply Voltage and Current Monitoring Accuracy ±1.5%
- Current Programming with 4-20mA signal. — P/N: IS420
  Power supply Voltage and Current Programming Accuracy ±1%
  Power supply Voltage and Current Monitoring Accuracy ±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



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## Power Supply Identification / Accessories How to order

| GEN | 600 | - | 2.6 | - | | - | |
|---|---|---|---|---|---|---|---|
| | | | | Factory Options | | | AC Cable option is 750W only |

| Series Name | Output Voltage (0~600V) | Output Current (0~2.6A) | Option: IEEE<br>IS510<br>IS420<br>LAN | Region: E - Europe<br>GB - United Kingdom<br>J - Japan<br>I - Middle East<br>U- North America |
|---|---|---|---|---|

## Models 750/1500W

| Model | Output Voltage VDC | Output Current ( A ) | Output Power ( W ) |
|---|---|---|---|
| GEN6-100 | 0~6V | 0~100 | 600 |
| GEN6-200 | | 0~200 | 1200 |
| GEN8-90 | 0~8V | 0~90 | 720 |
| GEN8-180 | | 0~180 | 1440 |
| GEN12.5-60 | 0~12.5V | 0~60 | 750 |
| GEN12.5-120 | | 0~120 | 1500 |
| GEN20-38 | 0~20V | 0~38 | 760 |
| GEN20-76 | | 0~76 | 1520 |
| GEN30-25 | 0~30V | 0~25 | 750 |
| GEN30-50 | | 0~50 | 1500 |
| GEN40-19 | 0~40V | 0~19 | 760 |
| GEN40-38 | | 0~38 | 1520 |

| Model | Output Voltage VDC | Output Current ( A ) | Output Power ( W ) |
|---|---|---|---|
| GEN50-30 | 0~50V | 0~30 | 1500 |
| GEN60-12.5 | 0~60V | 0~12.5 | 750 |
| GEN60-25 | | 0~25 | 1500 |
| GEN80-9.5 | 0~80V | 0~9.5 | 760 |
| GEN80-19 | | 0~19 | 1520 |
| GEN100-7.5 | 0~100V | 0~7.5 | 750 |
| GEN100-15 | | 0~15 | 1500 |
| GEN150-5 | 0~150V | 0~5 | 750 |
| GEN150-10 | | 0~10 | 1500 |
| GEN300-2.5 | 0~300V | 0~2.5 | 750 |
| GEN300-5 | | 0~5 | 1500 |
| GEN600-1.3 | 0~600V | 0~1.3 | 780 |
| GEN600-2.6 | | 0~2.6 | 1560 |

## Factory option

| | P/N |
|---|---|
| RS-232/RS-485 Interface built-in Standard | - |
| GPIB Interface | IEEE |
| Voltage Programming Isolated Analog Interface | IS510 |
| Current Programming Isolated Analog Interface | IS420 |
| LAN Interface (Complies with LXI Class C) | LAN |

## AC Cords sets (750W only)

| Region | Europe | United Kingdom | Japan | Middle East | North America |
|---|---|---|---|---|---|
| Output Power<br>AC Cords<br>Wall Plug<br>Power Supply<br>Connector | 750W<br>10A/250Vac L=2m<br>INT'L 7/VII<br>IEC320-C13 | 750W<br>10A/250Vac L=2m<br>BS1363<br>IEC320-C13 | 750W<br>13A/125Vac L=2m<br><br>IEC320-C13 | 750W<br>10A/250Vac L=2m<br>SI-32<br>IEC320-C13 | 750W<br>13A/125Vac L=2m<br>NEMA 5-15P<br>IEC320-C13 |
| Part Number | P/N: GEN/E | P/N: GEN/GB | P/N: GEN/J | P/N: GEN/I | P/N : GEN/U |

## Accessories

### 1. Communication cable

RS-232/RS-485 Cable is used to connect the power supply to the PC Controller.

| Mode | RS-485 | RS-232 | RS-232 |
|---|---|---|---|
| PC Connector<br>Communication Cable<br>Power Supply Connector | DB-9F<br>Shield Ground L=2m<br>EIA/TIA-568A (RJ-45) | DB-9F<br>Shield Ground L=2m<br>EIA/TIA-568A (RJ-45) | DB-25F<br>Shield Ground L=2m<br>EIA/TIA-568A (RJ-45) |
| P/N | GEN/485-9 | GEN/232-9 | GEN/232-25 |

### 2. Serial link cable*

Daisy-chain up to 31 Genesys™ power supplies.

| Mode | Power Supply Connector | Communication Cable | P/N |
|---|---|---|---|
| RS-485 | EIA/TIA-568A (RJ-45) | Shield Ground L=50cm | GEN/RJ45 |

* Included with power supply



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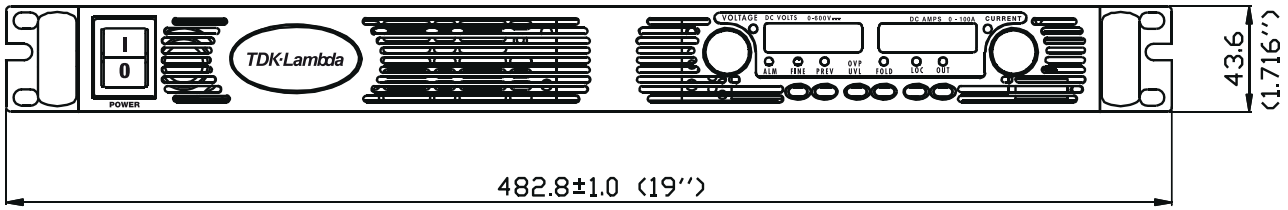
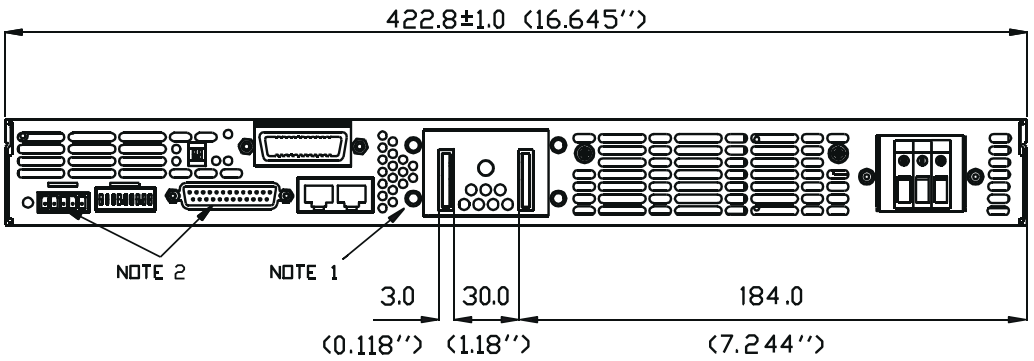
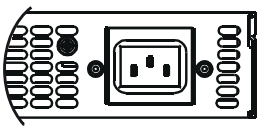
## Outline Drawing Genesys™ 750W/1500W Units



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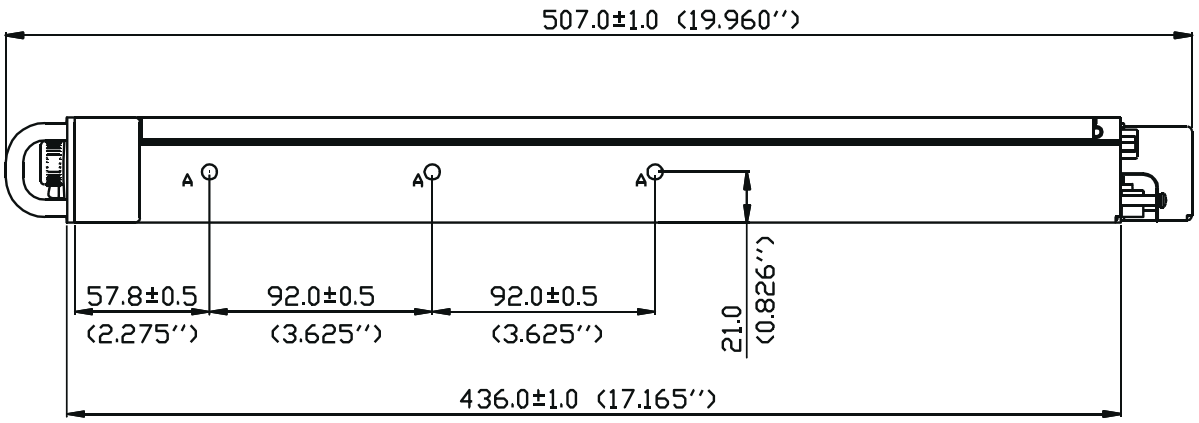


**NOTE**

1. Bus bars for 6v to 60v models (shown)
   Wire clamp connector for 80V to 600V models
2. Plug connectors included with the power supply
3. Chassis slides mounting holes #10-32 marked "A"
   GENERAL DEVICES P/N: C-300-S-116 or equivalent



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