Improved Specifications

GenesysTM

Programmable DC Power Supplies
3.3kW in 2U
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 750/1500/2400W Full Rack GEN2U 3.3/5kW

TDK-Lambda

TDK·Lambda

The Genesys™ 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 3.3kW in 2U
- Wide Range of popular worldwide AC inputs, 1ø (230VAC) & 3ø (208VAC, 400VAC)
- Active Power Factor Correction (Single-Phase & Three-Phase AC Input)
- Output Voltage up to 600V, Current up to 400A
- Built-in RS-232/RS-485 Interface Standard
- Global Commands for Serial RS-232/RS-485 Interface
- Auto-Re-Start / Safe-Start: user selectable
- Last-Setting Memory
- High Resolution 16 bit ADCs & DACs
- Low Ripple & Noise
- Front Panel Lock selectable from Front Panel or Software
- Reliable Encoders for Voltage and Current Adjustment
- Constant Voltage/Constant Current auto-crossover
- Parallel Operation with Active Current Sharing; up to four identical units.
- Advanced Parallel Master / Slave. Total Current is Programmed and Measured via the Master.
- 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 Mount capability for 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

LX Compliant LAN

- LabView® and LabWindows® drivers
- Five Year Warranty

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





Applications

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

Test & Measurement systems, Component Device Testing.

Semiconductor Processing & Burn-In, Aerospace & Satellite Testing, Medical Imaging, Green Technology.

System Designers will appreciate new, standard, remote programming features such as Global commands. Also, new high-speed status monitoring is available for the RS-485 bus.

Test Systems using the IEEE-488 bus may achieve significant cost savings by incorporating the Optional IEEE Multi-Drop Interface for a Master and up to 30 RS-485 Multi-Drop Slaves.

Higher power systems can be configured with up to four 3.3kW modules. Each module is 2U with zero space between them (zero stack).

Flexible configuration is provided by the complete Genesys™ Family: 1U 750W Half-Rack, 1U 750W, 1500W and 2400W Full-Rack. All are identical in Front Panel, Rear Panel Analog, and all Digital Interface Commands.

OEM Designers have a wide variety of Inputs and Outputs from which to select depending on application and location.

Front Panel Description



- 1. ON/OFF Switch
- 2. Air Intake allows zero stacking for maximum system flexibility and power density.
- 3. Reliable encoder controls Output Voltage, Address, OVP and UVL settings.
- 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 Baud rate. Displays total current in Parallel Master/Slave Mode
- 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 Lock
 - Parallel Master/Slave
 - Set OVP and UVL Limits
 - Set Current Foldback Protection
 - Go to Local Mode and select Address and Baud rate
 - Output ON/OFF and Auto-Re-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 (shown) for up to 100V Output; wire clamp connector for Outputs >100V.
- 7. Exit air assures reliable operation when zero stacked.
- 8. Input: 230VAC Single Phase (shown), 208 & 400VAC Three Phase, 50/60 Hz AC Input Connector: PHOENIX CONTACT Power Combicon PC 6/... Series with strain relief.
- 9. Optional Interface Position for IEEE 488.2 SCPI (shown) or Isolated Analog Interface or LAN Interface.

Genesys ™ 3.3kW Specifications

| | .0 MODEL | | | | | | | | | | | | ions in bl | | |
|--|---|--------|-----------|------------|------------|-----------|------------|------------|------------|-------------|--------------|-------------------------|---|-----------|----------------------|
| 2. A | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | 600 |
| 1.1 CONTANT VOLTAGE MODE 1.0 | | | | | | | | | | | | | | | 5.5 3300 |
| | | VV | 3200 | 3300 | 3300 | 3300 | 3300 | 3400 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 |
| 2 Abac based regulation (0.07% of rated Vois-MY/LT) | | mV | 2.8 | 3 | 3.5 | 4 | 5 | 6 | 8 | 10 | 12 | 17 | 22 | 32 | 62 |
| 3 Ripple and noise p-p 20MHz (*8) | | | | | | | | | | | | | | | 95 |
| Semons sense compensation/vie | | | | | | | | | | | | | | | 350 |
| Semp. coefficient PPMC SOPPMC for fared output vehage following 30 minutes warm-up. Constant line, load & temp. Temp. stability 0.01% for fared votore Pibs. Internal following 30 minutes warm-up. Constant line, load & temp. Less than 0.05% of rated output vehage zim/ over 30 minutes following power On. 10.00 minutes property 10.00 m | | | | | | | | | | | | | | 80 | 80 |
| Other of read Vout over 8hrs interval following 30 minutes warm-up. Constant line, load & temporature, sets than 0.05% of read output votates; and more than 10 minutes of 10 minutes | | | | | | | | | | | 5 | 5 | 5 | 5 | 5 |
| Bayering prints | | PPM/°C | | | | | | | | | _ | | 1.0 | | |
| Sub-progressponse time -VP Rated (*9) | | | | | | | | | | | | | d & temp. | | |
| 10.Down-prog response Full-lead (**) m\$ 5 20 100 100 100 150 150 200 300 350 350 11.Transient response time m\$ 500 600 700 800 900 1000 100 1200 1500 2000 3000 3500 11.Transient response time m\$ 500 600 700 800 900 1000 1000 1200 1500 2000 3000 3500 3500 11.Transient response time m\$ 500 500 200 3000 3500 3 | | m.c | Less than | 1 0.05% 0 | | | tage+2m | v over 30 | minutes | | | ر. | 20 | 0 | 250 |
| time | | | 20 | | | 50 | | 160 | | 1: | 50 | 300 | 20 | U | 250 500 |
| Time for output violage to recover within 0.5% offs rated output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load stemperature. Now the load of the load output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and output for a load change 10.90% of rated output current over 20 minutes reliciously and 10.90% of rated output for a load change 10.90% of rated output for a load change 10.90% of rated output for a load c | | | | 600 | | 800 | 900 | | 1100 | 1200 | 1500 | | 3000 | 3500 | 4000 |
| Set-point: 10-100%, local sense. Less than 1mSec for models up to and including 100V. Armec for models about 10 (2016) for faced lo-2 mol/160 mol 42 35 24 18.5 13 10.5 7.5 6.2 5.3 4.2 3.65 3.1 | | | | | | | | | | | | | | | |
| 1.2 CORSTANT CURRENT MODE MAX | 1.Transient response time | mS | set-poin | t: 10-1009 | % local s | ense Les | than 1m | Sec for m | nodels un | to and ir | ncluding | 100-90-7001 100V 2ms | rated outp | dels abov | it. Outpu /e 100V |
| IMASLINE regulation (0.01% of rated lot-2 mAl/1%) mA | 2 CONSTANT CURRENT MODE | | set po | | 0,1000.5 | | | 500.00 | .ouc.s up | | renduning | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| 2 2 2 2 2 3 3 2 7 2 3 6 13 4 11.6 9 4 8 3 7 2 3 6 13.4 11.6 9 4 8 3 7 2 3 6 13.4 11.6 9 4 8 3 7 2 3 6 3 10 4 10.0 6 5 40 3 0 25 15 7 6 6 2 3 0 15 4 13.4 13.6 9 4 8 3 7 2 4 13.4 13.6 9 4 8 3 7 2 4 13.4 13.6 9 4 8 3 7 2 4 4 4 4 5 4 4 5 4 4 | | mA | 42 | 35 | 24 | 18.5 | 13 | 10.5 | 7.5 | 6.2 | 5.3 | 4.2 | 3.65 | 3.1 | 2.6 |
| 3.Ripple pt.m.s 5Hz-1MHz, (*12) | | | | | | | | | | | | | | | 6.1 |
| STEPIN_COEfficient | | mA | 1000 | 650 | 400 | 300 | 250 | 150 | 70 | 60 | 50 | 20 | 30 | 15 | 8 |
| | Load regulation thermal drift | | | | | | | | | | | | | | |
| 2 | | PPM/°C | | | | | | | | | | | | | |
| | .Temp. stability | | | | | | | | | | | | | ature. | |
| SPOYS-BOOY INDEX SESSION SESSI | .Warm-up drift | | | | | | | | | | | | | | |
| 1.OCP | • | | 30V~600 | v model | s: Less th | an ±0.259 | % of rated | output | urrent o | ver 30 mi | nutes foll | owing po | wer On. | | |
| 2. OCP Foldback | | | 0~1050/ | Constant | Curront | | | | | | | | | | |
| | | | | | | | nly chan | ge from (| V to CC | l Isar sala | ctable | | | - | |
| 4.0VPtrip point | | | | | | | | | | | | nmunicat | ion port o | nmand | |
| | | | | | | | | | | | | | | | |
| User selectable, latched or non-latched. | | | | | | | | | | | | | | | |
| 1.4 ANALOG PROGRAMMING AND MONITORING | | | | | | | | | | ., | | | | | |
| 2.Tout Voltage Programming (*13) | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | |
| About Resistor Programming (*13) | | | | | | | | | | | | | | | |
| Son/Off control (rear panel) | | | | | | | | | | | | | | | |
| 10-5V or 0-10V Accuracy:±196, user selectable. | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| R.Power Supply OK signal TTL high (4-5V) - OK, OV-Fail 500ohm series resistance. | | | | | | | | | | | | | | | |
| 9. CV/CC Indicator | | | | | | | | | | | | | | | |
| 10. Enable/Disable Dry contact. Open.off, Short: on. Max. voltage at Enable/Disable in: 6V. | | | | | | | | | | · 201/ ma | vimum ci | nk curron | +: 10m A | | |
| Il. Local/Remote analog control By electrical signal or Open/Short: 0~0.6V or short: Remote, 2~15V or open: Local. | | | | | | | | | | | XIIIIUIII SI | nk curren | II: IUIIIA | | |
| 1.2 Local/Remote analog control Indicator Open collector, Local: Off, Remote: On. Maximum voltage: 30V, maximum sink current: 10mA. | | | | | | | | | | | | | | | |
| Vout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable). | | | | | | | | | | | | | nA. | | |
| Nour/ lout manual adjust by separate encoders (coarse and fine adjustment selectable). | | | | , | | | | | 5 / | | | | | | |
| 1.Control functions | | | Vout/Iou | ut manua | l adjust b | y separa | te encode | ers (coars | e and fine | e adjustn | nent selec | table). | | | |
| Address selection by Voltage (or current) adjust encoder. Number of addresses:31. Re-start modes (automatic restart, safe mode). Baud rate selection: 1200,2400,4800,9600 and 19,200. 2.Display | | | | | | | | | | | | • | | | |
| Re-start modes (automatic restart, safe mode). Baud rate selection: 1200,2400,4800,9600 and 19,200. | .Control functions | | | | | | | | | | | | control. | | |
| Baud rate selection: 1200,2400,4800,9600 and 19,200. | | | | | | | | | der. Numl | ber of ad | dresses:3 | 1. | | | |
| Voltage: 4 digits, Accuracy: 0.05% of rated output Voltage ±1 count. | | | | | | | | | | | | | | | |
| Current: 4 digits, Accuracy: 0.2% of rated output current ±1 count. | | | | | | | | | M. Ir | . 1 | | | | | |
| Current: 4 digits, Accuracy: 0.2% of Fated output Corrent Pairs Course. | .Display | | | | | | | | | | it. | | | | |
| 1.6 Interface Specifications for the GENESYS Series with RS-232/RS-485 Or Optional GPIB/LAN Interface Installed 1. Remote Voltage Programming (16 bit) V 8 10 15 20 30 40 60 80 100 150 200 300 Resolution (0.002% of Vo Rated) mV 0.16 0.2 0.3 0.4 0.6 0.8 1.2 1.6 2 3 4 6 Accuracy (0.05% of Vo Rated) (*14) mV 4 5 8 10 15 20 30 40 50 75 100 150 200 300 150 200 200 200 200 200 200 200 200 200 2 | | | | | | | | | | | + Dar -!! | ack CVCC | | | |
| 1. Remote Voltage Programming (16 bit) | | | | | | | | | | | ı ranei Lo | JCK, CVCC | | | |
| Resolution (0.002% of Vo Rated) | · | | | | | | | | | | | | | | |
| Accuracy (0.05% of Vo Rated) (*14) | | | | | | | | | | | | | | | 600 |
| 2. Remote Current Programming (16 bit) Resolution (0.002% of lo Rated) | | | | | | | | | | | | | | | 12 |
| Resolution (0.002% of lo Rated) mA 8 6.6 4.4 3.3 2.2 1.7 1.1 0.84 0.66 0.44 0.33 0.22 Accuracy (0.2% of lo Rated) (2% of lo Rated) mA 1200 990 660 495 330 255 165 126 99 66 49.5 33 3. Readback Voltage Resolution (% of Vo Rated) % 0.002 0.011 0.007 0.006 0.004 0.003 0.002 0.011 0.007 0.006 Resolution (Readback Voltage) mV 0.16 1.10 1.05 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.00 10.50 12.00 | ccuracy (0.05% of Vo Rated) (*14) | mV | 4 | 5 | 8 | 10 | 15 | 20 | 30 | 40 | 50 | 75 | 100 | 150 | 300 |
| Resolution (0.002% of lo Rated) mA 8 6.6 4.4 3.3 2.2 1.7 1.1 0.84 0.66 0.44 0.33 0.22 Accuracy (0.2% of lo Rated) (2% of lo Rated) mA 1200 990 660 495 330 255 165 126 99 66 49.5 33 3. Readback Voltage Resolution (% of Vo Rated) % 0.002 0.011 0.007 0.006 0.004 0.003 0.002 0.011 0.007 0.006 Resolution (Readback Voltage) mV 0.16 1.10 1.05 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.20 1.00 10.50 12.00 | | | | | | | | | | | | | | | |
| 3. Readback Voltage Resolution (% of Vo Rated) | Resolution (0.002% of Io Rated) | | | | | | | | | | | | | | 0.11 |
| Resolution (% of Vo Rated) % 0.002 0.011 0.007 0.006 0.004 0.003 0.002 0.002 0.011 0.007 0.006 0.004 Resolution (Readback Voltage) mV 0.16 1.10 1.05 1.20 1. | ccuracy (0.2% of lo Rated+0.1% of lo Actual Output) (*13) | mA | 1200 | 990 | 660 | 495 | 330 | 255 | 165 | 126 | 99 | 66 | 49.5 | 33 | 16.5 |
| Resolution (% of Vo Rated) % 0.002 0.011 0.007 0.006 0.004 0.003 0.002 0.002 0.011 0.007 0.006 0.004 Resolution (Readback Voltage) mV 0.16 1.10 1.05 1.20 1. | . Readback Voltage | | | | | | | | | | | | | | |
| Resolution (Readback Voltage) mV 0.16 1.10 1.05 1.20 <t< td=""><td></td><td>%</td><td>0.002</td><td>0.011</td><td>0.007</td><td>0.006</td><td>0.004</td><td>0.003</td><td>0.002</td><td>0.002</td><td>0.011</td><td>0.007</td><td>0.006</td><td>0.004</td><td>0.002</td></t<> | | % | 0.002 | 0.011 | 0.007 | 0.006 | 0.004 | 0.003 | 0.002 | 0.002 | 0.011 | 0.007 | 0.006 | 0.004 | 0.002 |
| Accuracy (0.05% of Vo Rated) mV 4 5 8 10 15 20 30 40 50 75 100 150 4. Readback Current | | | | | | | | | | | | | | 12.00 | 12.00 |
| 4. Readback Current Resolution (% of lo Rated) % 0.003 0.004 0.005 0.007 0.01 0.002 0.002 0.003 0.004 0.005 0.001 Resolution (Readback Current) mA 12.00 13.20 11.00 11.55 11.00 1.70 1.10 1.26 1.32 1.10 1.16 0.11 Accuracy (0.3% of lo Rated) (*13) mA 1200 990 660 495 330 255 165 126 99 66 49.5 33.0 5. OVP/UVL Programming Resolution (0.1% of Vo Rated) mV 8 10 15 20 30 40 60 80 100 150 200 300 | ccuracy (0.05% of Vo Rated) | | | | | | | | | | | | | | 300 |
| Resolution (% of lo Rated) % 0.003 0.004 0.005 0.007 0.01 0.002 0.002 0.003 0.004 0.007 0.01 Resolution (Readback Current) mA 12.00 13.20 11.00 11.55 11.00 1.70 1.10 1.26 1.32 1.10 1.16 0.11 Accuracy (0.3% of lo Rated) (*13) mA 1200 990 660 495 330 255 165 126 99 66 49.5 33.0 5. OVP/UVL Programming Resolution (0.1% of Vo Rated) mV 8 10 15 20 30 40 60 80 100 150 200 300 | | | | | | | | | | | | | | | |
| Resolution (Readback Current) mA 12.00 13.20 11.00 11.55 11.00 1.70 1.10 1.26 1.32 1.10 1.16 0.11 Accuracy (0.3% of lo Rated) (*13) mA 1200 990 660 495 330 255 165 126 99 66 49.5 33.0 5. OVP/UVL Programming Resolution (0.1% of Vo Rated) mV 8 10 15 20 30 40 60 80 100 150 200 300 | | % | 0.003 | 0.004 | 0.005 | 0.007 | 0.01 | 0.002 | 0.002 | 0.003 | 0.004 | 0.005 | 0.007 | 0.01 | 0.002 |
| Accuracy (0.3% of lo Rated) (*13) mA 1200 990 660 495 330 255 165 126 99 66 49.5 33.0 5. OVP/UVL Programming Resolution (0.1% of Vo Rated) mV 8 10 15 20 30 40 60 80 100 150 200 300 | | | | | | | | | | | | | | | 0.002 |
| 5. OVP/UVL Programming Resolution (0.1% of Vo Rated) mV 8 10 15 20 30 40 60 80 100 150 200 300 | | | | | | | | | | | | | | | 16.5 |
| Resolution (0.1% of Vo Rated) mV 8 10 15 20 30 40 60 80 100 150 200 300 | | | | | | | | | | | | | | , -5.0 | |
| | | m\/ | 0 | 10 | 15 | 20 | 20 | 40 | 60 | 00 | 100 | 150 | 200 | 200 | 600 |
| [mecaracy (170 of voluted) 1110 00 100 100 200 400 000 000 1000 1000 2000 3000 | | | | | | | | | | | | | | | 6000 |
| | ccuracy (1% of Vo Rated) | | OU | IUU | 130 | 200 | 300 | 400 | UUU | 000 | 1000 | 1000 | 2000 | 1 3000 | 1 0000 |

^{*1:} Minimum voltage is guaranteed to maximum 0.2% of rated output voltage.
*2: Minimum current is guaranteed to maximum 0.4% of rated output current.
*3: For cases where conformance to various safety standards (UL, IEC, etc.) is required, to be described as 190-240Vac (50/60Hz) for single phase and 3-Phase 208V models, and 380~415Vac (50/60Hz) for 3-Phase 400V models.

^{*4:} Single-Phase and 3-Phase 208V models: At 208Vac input voltage, 3-Phase 400V: At 380Vac input voltage. With rated output power.
*5: Not including EMI filter inrush current, less than 0.2mSec.

^{*6:} Single-Phase and 3-Phase 208V models: 170~265Vac, constant load. 3-Phase 400V models: 342~460Vac, constant load.
*7: From No-Load to Full-Load, constant input voltage. Maximum drop in Remote Sense.

^{*8:} For 8V~300V models: Measured with JEITA RC-9131A (1:1) probe.

For 600V model: Measured with 10:1 probe.
*9: From 10% to 90% or 90% to 10% of Rated Output Voltage, with rated, resistive load.

^{*10:}From 90% to 10% of Rated Output Voltage.
*11: For load voltage change, equal to the unit voltage rating, constant input voltage.

^{*12:} For 8V~15V models the ripple is measured from 2V to rated output voltage and rated output current. For other models, the ripple is measured at 10~100% of rated output voltage and rated

^{*13:} The Constant Current programming readback and monitoring accuracy does not include the warm-up and Load regulation thermal drift.
*14: Measured at the sensing point.

General Specifications Genesys™ 3.3kW

| • | | | | | | | | | | | | | | |
|--|----------|--|---------------------------------------|--------------|------------|------------|------------|-----------------------|----------------------------|-----------------------|------------------------|----------------------------|---------------------------|------------------------|
| 2.1 INPUT CHARACTERISTICS | GEN | 8-400 | | 15-220 | | | 40-85 | 60-55 | 80-42 | 100-33 | 150-22 | 200-16.5 | 300-11 | 600-5.5 |
| | | | nase,230V | | | | Hz | | | | | | | |
| 1. Input voltage/freq. (*3) | VAC | 3-Phase, 208V models: 170~265Vac, 47~63Hz 3-Phase, 400V models: 342~460Vac, 47~63Hz | | | | | | | | | | | | |
| | | | 1 | | | 1 | | | | | 1 | | _ | |
| 2. Maximum Input current 3-Phase, 208V models: | ļ | 24 | 24 | 24 | 24 | 23 | 24 | 23 | 23.5 | 23 | 23 | 23 | 23 | 23 |
| | Α | 14.5 | 14.5 | 14.5 | 14.5 | 14 | 14.5 | 13.6 | 14 | 13.7 | 13.7 | 13.7 | 13.8 | 13.9 |
| at 100% load 3-Phase, 400V models: | | 7.2 | 7.2 | 7.2 | 7.2 | 7.0 | 7.2 | 6.8 | 7.0 | 6.8 | 6.8 | 6.8 | 6.9 | 7.0 |
| 3. Power Factor (Typ) | | Single Phase models: 0.99@230Vac, rated output power. 3-Phase models: 0.94@208/380Vac, rated output power. | | | | | | | | | | | | |
| 4. Efficiency (*4) | % | % 82 83 83 83 86 86 88 88 88 87 87 87 87 Single-Phase and 3-Phase 208V models: Less than 50A | | | | | | | | | | | | |
| 5. Inrush Current (*5) | Α | 3-Phase | 400V mod | lels: Less t | han 20A | | | | | | | | | |
| 6. Hold-up time (Typ) | mS | 10mSec | for Single- | Phase an | d 3-phase | 208V mc | dels, 6mS | ec for 3-P | hase 400\ | / models. | Rated ou | tput powe | er. | |
| 2.2 POWER SUPPLY CONFIGURATION | | | | | | | | | | | | | | |
| 1. Parallel Operation | | Up to 4 i | dentical u | nits in ma | ster/slave | mode | | | | | | | | |
| 2. Series Operation | | Up to 2 i | dentical u | nits. with | external o | diodes. 60 | 00V Max to | Chassis of | ground | | | | | |
| 2.3 ENVIRONMENTAL CONDITIONS | | | | | | | | | | | | | | |
| 1. Operating temp | | 0~50°C, | 100% load | ł. | | | | | | | | | | |
| 2. Storage temp | | -20~85°0 | | | | | | | | | | | | |
| 3. Operating humidity | | 20~90% | RH (non-o | ondensin | ıg). | | | | | | | | | |
| 4. Storage humidity | | | RH (non-c | | J, | | | | | | | | | |
| 5. Vibration | | | , method | | | | | surface. | | | | | | |
| 6. Shock | | | n 20G , hal | | | | | | | | | | | |
| 7. Altitude | | | ng: 10000f 00m abov | . ,, | | | | | ove 2000i | m, Alterna | atively, de | rate maxir | mum ambi | ent temp |
| 8. RoHS Compliance | | Complie | s with the | requirem | ents of Ro | HS direct | tive. | | | | | | | |
| 2.4 EMC | | | | | | | | | | | | | | |
| 1.Applicable Standards: | | | | | | | | | | | | | | |
| 2.ESD | | IEC1000- | -4-2. Air-d | isch8KV, | contact d | lisch4KV | , | | | | | | | |
| 3.Fast transients | | | -4-4. 2KV | , | | | | | | | | | | |
| 4.Surge immunity | | IEC1000- | -4-5. 1KV li | ine to line | , 2KV line | to groun | d | | | | | | | |
| 5.Conducted immunity | | IEC1000- | | | , | | | | | | | | | |
| 6.Radiated immunity | | | -4-3, 3V/m | | | | | | | | | | | |
| 7.Magnetic field immunity | | |)-4-8, 1A/r | | | | | | | | | | | |
| 8.Voltage dips | | EN61000 | | | | | | | | | | | | |
| 9.Conducted emission | | | A, FCC pa | rt 15-A, V0 | CCI-A. | | | | | | | | | |
| 10. Radiated emission | | | A, FCC pa | | | | | | | | | | | |
| 2.5 SAFETY | | | , | , | | | | | | | | | | |
| 1. Applicable standards: | | UL 60950 | 0-1, CSA 22 | 2.2 No. 60 | 950-1,IEC | 60950-1, | EN 60950 | -1 | | | | | | |
| | | | with Vout Programm | | | | | n/contro | l interface | s (RS232/ | 485, IEEE, | Isolated A | Analog, LA | N, Sense |
| 2. Interface classification | | Models v Remote | with 60V V | out 400V: | Output is | Hazardo | us, comm | unication are SELV | /control ii /, Sense, R | nterfaces emote Pr | : RS232/48 ogrammii | 35, IEEE, Iso ng and Mo | olated Ana onitoring (| llog, LAN pins 8-13 |
| | | | with 400V | | | | | | | trol inter | faces (RS2 | 32/485, IE | EE, Isolate | d Analog |
| | | | V model ound: 282 | | | (SELV): | 4242VDC | 1min, Ir | nput-com | municat | ion/cont | rol (SELV | ′): 4242V[| OC 1mir |
| 3. With stand voltage | | 60V <vout (hazardous):="" (selv):="" 100v="" 1200vdc="" 1900vdc="" 1min,="" 1min.<="" 2600vdc="" 2828vdc="" 4242vdc="" control="" input-communication="" input-ground:="" input-output="" models:="" output(hazardous)-ground:="" output(hazardous)-selv:="" td=""></vout> | | | | | | | | | | | | |
| | | 4242VD0 | out 600V r I 1min, Ha Hazardous | zardous. (| Dutput-co | mmunica | ation/conf | rol(SELV): | 4242VDC | ommunio 1min, | cation/cor | ntrol (SELV | '): | |
| 3.Insulation resistance | | | an 100Mol | | | | | | | | | | | |
| 2.6 MECHANICAL CONSTRUCTION | | | | | | | | | | | | | | |
| 1. Cooling | | Forced a | ir flow: fro | m front to | rear. No | ventilatio | n holes a | t the top o | or bottom | of the ch | assis; Varia | able fan sp | oeed. | |
| 2. Dimensions (WxHxD) | | | m, H: 88m | | | | | | | | | | | |
| 3. Weight | | 13 kg. | , | , | ,,,,, | | | | | | | | | |
| | | | hase,230V | models. F | Power Cor | nbicon Po | C 6-16/3-0 | F-10.16 se | eries, with | Strain rel | lief. | | | |
| 4. AC Input connector (with Protective Cove | er) | | 208V & 40 | | | | | | | | | | | |
| 5.Output connectors | | | | | | | | | | | | enix P/N· | FRONT-4-I | H-7.62 |
| 2.7 RELIABILITY SPECS | | 1-1.10.00 | | | , | | | | | 201711 | | | | |
| 1. Warranty | | 5 years. | | | | | | | | | | | | - |
| All specifications subject to change withou | t notice | | | | | | | | - | | | | | |

All specifications subject to change without notice.

TDK·Lambda

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

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

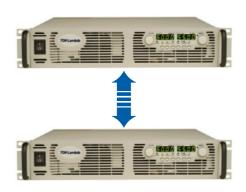


Series operation

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



P/N:IEEE

Programming Options (Factory installed)

Digital Programming via IEEE Multi-Drop Interface

- 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.
 Power supply Voltage and Current Programming Accuracy ±1%
 Power supply Voltage and Current Monitoring Accuracy ±1.5%

Current Programming with 4-20mA signal.
 Power supply Voltage and Current Programming Accuracy ±1%
 Power supply Voltage and Current Monitoring Accuracy ±1.5%

P/N: IS510

P/N: IS420

LAN Interface Compliant to Class C

- Meets all LXI-C Requirements
- · Address Viewable on Front Panel
- Fixed and Dynamic Addressing
- Compatible with most standard Networks
- TCP / UDP Socket Programming

P/N: LAN

- VISA & SCPI Compatible
- LAN Fault Indicators
- Auto-detects LAN Cross-over Cable
- Fast Startup

Power Supply Identification / Accessories How to order

| GEN | 8 | 400 | <u></u> | <u>-</u> |
|--------|---------|----------|------------------|---------------------------------|
| | | | Factory Options: | Factory AC Input Options: |
| Series | Output | Output | Option: IEEE | 1P230 (Single Phase 170~265VAC) |
| Name | Voltage | Current | IS510 | 3P208 (Three Phase 170~265VAC) |
| | (0~8V | (0~400A) | IS420 | 3P400 (Three Phase 342~460VAC) |
| | | | LAN | |

Models 3.3kW

| Model | Output Voltage VDC | Output Current (A) | Output Power (W) |
|------------|--------------------------|----------------------------|------------------------|
| GEN 8-400 | 0~8V | 0~400 | 3200 |
| GEN 10-330 | 0~10V | 0~330 | 3300 |
| GEN 15-220 | 0~15V | 0~220 | 3300 |
| GEN 20-165 | 0~20V | 0~165 | 3300 |
| GEN 30-110 | 0~30V | 0~110 | 3300 |
| GEN 40-85 | 0~40V | 0~85 | 3400 |

| Model | Output Voltage VDC | Output Current (A) | Output Power (W) |
|--------------|--------------------------|----------------------------|--------------------------|
| GEN 60-55 | 0~60V | 0~55 | 3300 |
| GEN 80-42 | 0~80V | 0~42 | 3360 |
| GEN 100-33 | 0~100V | 0~33 | 3300 |
| GEN 150-22 | 0~150V | 0~22 | 3300 |
| GEN 200-16.5 | 0~200V | 0~16.5 | 3300 |
| GEN 300-11 | 0~300V | 0~11 | 3300 |
| GEN 600-5.5 | 0~600V | 0~5.5 | 3300 |

P/N **Factory option**

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 LAN Class C) LAN

Accessories

1. Serial Communication cable

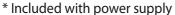
RS-232/RS-485 cable is used to connect the power supply to the Host PC.

| 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 | GEN/485-9 | GEN/232-9 | GEN/232-25 |

2. Serial link cable*

Daisy-chain up to 31 Genesys[™] power supplies.

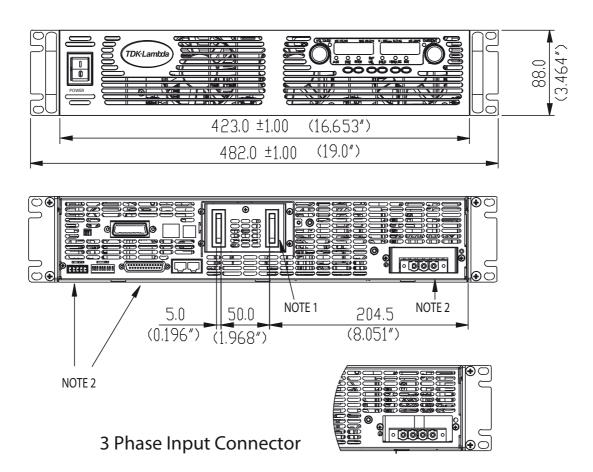
| Mode | Power Supply Connector | Communication Cable | P/N |
|--------|------------------------|----------------------|----------|
| RS-485 | EIA/TIA-568A (RJ-45) | Shield Ground L=50cm | GEN/RJ45 |

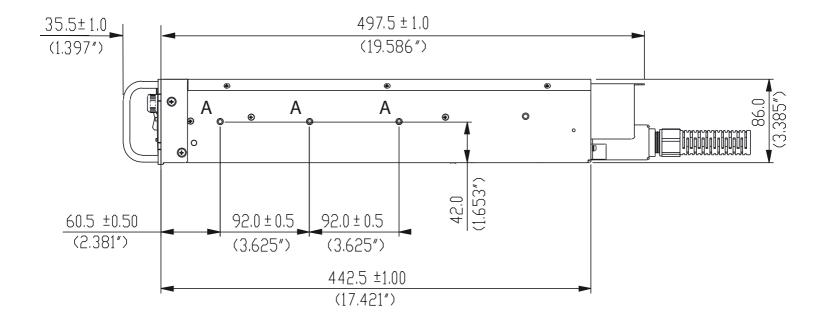




Also available, Genesys™ 1U Half Rack 750W 1U full Rack 750W/1500W/2400W **2U full Rack 5000W**

Outline Drawing Genesys™ 3.3kW Units





NOTE

- 1. Bus bars for 8V to 100V models (shown) Wire clamp connector for 150V 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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