imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Genesys[™]

GENH Series Programmable DC Power Supplies 750W in a 1U half-rack size Built in RS-232 & RS-485 Interface Advanced Parallel Standard

> Optional Interfaces: IEEE488.2 SCPI (GPIB) Isolated Analog Programming LXI Compliant LAN





Genesys[™] GENH750W-1U

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 available: 750W in 1U half-rack size.
- Wide Range Input (85 265Vac Continuous)
- Active Power Factor Correction (0.99 typical)
- Output Voltage up to 600V, Current up to 100A
- · Built-in RS-232/RS-485 Interface
- Front Panel Lockout
- Last-Setting Memory
- 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
- · Global Commands for Serial RS-232/RS-485 Interface

- Independent Remote ON/OFF and Remote Enable/Disable
- External Analog Programming and Monitoring
- Reliable Modular and SMT Design
- 19" Rack Mounted ATE benchtop and OEM applications
- Side-by-side mounting of two units in a 19" rack
- Optional Interfaces
 Isolated Analog Programming and Monitoring Interface (0-5V/0-10V & 4-20mA)

 IEEE 488.2 SCPI (GPIB) Multi-Drop

 Compliant LAN
- LabView[®] and LabWindows[®] drivers
- Five Year Warranty

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



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

1

Applications

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

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.

TDK·Lambda

Current Limit Fold Back assures load is protected from current surges.

Heater Supplies

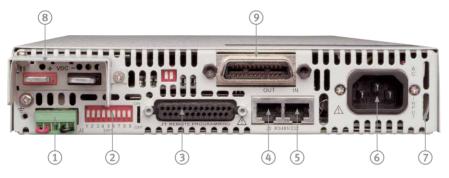
Smooth, reliable encoders enhance front panel control. Remote analog programming is user selectable 0-5V or 0-10V.

RF Amplifiers and Magnets

Robust design assures stable operation under a wide variety of loads.

High linearity in voltage and current mode.

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.
- Wide-Range Input 85-265VAC continuous, 47/63Hz with Active Power Factor Correction (0.99 typical) AC Input Connector: IEC320.
- 7. Exit air assures reliable operation when zero stacked.
- 8. Output Connections: Rugged busbars for 6V up to 60V Output; Connector for Outputs >60V.
- 9. Optional Interface Position for IEEE 488.2 SCPI (shown) or Isolated Analog Interface or LAN Interface.

Genesys ™ GENH750W Specifications

-													
1.0 MODEL	GENH	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
1.Rated output voltage (*1)	V	6	8	12.5	20	30	40	60	80	100	150	300	600
2.Rated Output Current (*2)	Α	100	90	60	38	25	19	12.5	9.5	7.5	5	2.5	1.3
3.Rated Output Power	W	600	720	750	760	750	760	750	760	750	750	750	780
4.Efficiency at 100/200Vac (*3)	%	76/78	78/81	81/84	82/85	82/85	83/87	83/87	83/87	83/87	83/87	83/87	83/87
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	8	10	12	17	32	62
2.Max load regulation (0.01% of Vo+2mV)(4)	mV	2.6	2.8	3.3	4	5	6	8	10	12	17	32	62
3.Ripple and noise p-p 20MHz (*9)	mV	60	60	60	60	60	60	60	80	80	100	150	300
4.Ripple r.m.s 5Hz~1MHz (*9)	mV	8	8	8	8	8	8	8	8	8	10	25	60
5.Remote sense compensation/line	V	1	1	1	1	1.5	2	3	4	5	5	5	5
6.Temp. coefficient	PPM/°C			ed output vo		wing 30 mir	utes warm	ı up					
7.Up-prog. response time, 0~Vo Rated	mS		<u>, N.L/F.L , r</u>	esistive load					150mS,	N.L/F.L, res			250
8.Down-prog response time full-load	mS	10	000	50	000	000	80	1100	1000	1500	150	0500	250
9.Down-prog response time no-load 10.Transient response time (*8)	mS	500	600	700 r modolo un	800	900	1000	1100 or models ab	1200	1500	2000	2500	4000
To. mansient response time (6)		Less ind	II IIII3ec IO	r models up		luuing 100v	. 211158010	JI IIIUUEIS AU	000 1000				
1.2 CONSTANT CURRENT MODE													
1.Max.line regulation (0.01% of lo+ 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
2.Max.load regulation (0.02% of lo+5mA)(*6)	mA	25	23	17	12.6	10	8.8	7.5	6.9	6.5	6.0	5.5	5.26
3.Ripple r.m.s 5Hz~1MHz . (*7) 4.Temp. coefficient	mA PPM/°C	200 100PPM	180 1/°C from ra	120 ted output ci	76 urrent follo	63 owing 30 mi	48 inutes warr	38 m.up	29	23	18	13	8
4. Temp. coefficient		11001110				Jwing 50 m	inutes wan	nup					
1.3 PROTECTIVE FUNCTIONS													
1. OCP			Constant C			,							
2. OCP Foldback								ser selectabl					
3. OVP type								outton or by c			E 4051/	E 0001/	F 0001/
4. OVP trip point 5. Over Temp. Protection				1~15V ched or non		2~36V	2~44V	5~66V	5~88V	5~110V	5~165V	5~330V	5~660V
5. Over temp. Protection			ectable, lat		latoneu								
1.4 ANALOG PROGRAMMING AND MONITORIN	G												
1.Vout Voltage Programming								.5% of rated					
2.lout Voltage Programming								% of rated lo					
3.Vout Resistor Programming								rity:+/-1% of					
4.lout Resistor Programming 5.On/Off control (rear panel)				e: 0~0.6V/2~				rity:+/-1.5% c	of rated lou	ι.			
6.Output Current monitor				curacy:1%, I			sel selecia	Die logic					
7.Output Voltage monitor				uracy:1% ,u									
8.Power Supply OK signal				ail 500ohm									
9. CV/CC indicator							.6V) sink c	current:10mA					
10. Enable/Disable		Dry cont	act. Open:o	ff , Short: on	. Max. vol	age at Ena	ble/Disable	e in: 6V					
11. Local/Remote analog control		By electr	ical signal c	or Open/Sho	rt: 0~0.6V	or short: Re	emote anal	og, 4~5V or	open: Loca	al.			
12. Local/Remote analog control indicator		Open co	llector, Loca	ıl: Open, Rer	note: On. I	Maximum vo	oltage: 30V	, maximum s	ink current	: 5mA.			
1.5 FRONT PANEL 1.Control functions		Vout/ Iou	t manual ac	livet by conc	rato onco	dore (coare	and fine (adjustment s					
				djust by Sepa				aujustmentis	electable)				
							Foldback c	ontrol (CV to	CC) Go t	o local contr	ol		
		Front Pa		<u>, on, no ota</u>	1110000 (0	<u>ato, oato), (</u>			00/, 00 (0 10001 00111	0.		
				/ Voltage (or	current) a	djust encod	ler. Numbe	r of address	es:31				
		RS232/4	85 and IEE	E488.2 selec	ction by IE	EE enable s	switch and	DIP switch					
				1200,2400,4									
2.Display				ccuracy: 0.5									
0 Indiantiana				curacy: 0.5%				Dr. Enant D					
3.Indications		voltage,	ourrent, Ala	um, ⊢ine, Pr	eview, Fol	ораск, Loca	ai, Output (On, Front Pa	nel Lock				
1.6 Interface RS-232&RS-485 or Op	otional	GPIB /	LAN Inte	erface									
Model	V	6	8	12.5	20	30	40	60	80	100	150	300	600
1. Remote Voltage Programming (16 bit)	•	~	<u> </u>	. 210	•								
Resolution (0.012% of Vo Rated)	mV	0.72	0.96	1.50	2.40	3.60	4.80	7.2	9.6	12	18	36	72
Accuracy (0.05%Vo Rated+0.05% of Vo Actual Outp	out) mV	6.0	8.0	12.5	20	30	40	60	80	100	150	300	600
2. Remote Current Programming (16 bit)													
Resolution (0.012% of Io Rated)	mA	12	10.8	7.2	4.56	3.0	2.28	1.50	1.14	0.90	0.60	0.30	0.16
Accuracy (0.1% of Io Rated+0.1% of Io Actual Outp		200	180	120	76	50	38	25	19	15	10	5.0	2.6
2 Roadback Voltage													
3. Readback Voltage Resolution (0.012% of Vo Rated)	mV	0.72	0.96	1.50	2.40	3.60	4.80	7.2	9.6	12	18	36	72
Accuracy (0.1%Vo Rated+0.1% of Vo Actual Output)		12	16	25	40	60	4.80	120	9.6	200	300	600	1200
			.0		.0		50	. 20		200	000	000	.200

4. Readback Current Resolution (0.012% of lo Rated) Accuracy (0.3% of lo Rated+0.1% of lo Actual Output) mA

5. OVP/UVL Programming

Resolution (0.1% of Vo Rated)

Accuracy (1% of Vo Rated)

*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 current, Output set-point:10~100%.

7.2

240

12

125

4.56

152

20

200

3.0

100

30

300

2.28

76

40

400

1.50

50

60

600

0.90

30

100

1000

1.14

38

80

800

0.60

20

150

1500

0.30

10

300

3000

0.16

5.2

600

6000

10.8

360

8

80

12

400

6

60

*9: For 6V~300V models: measured with JEITA RC-9131A 1:1 probe. For 600V model: measured with 10:1 probe

mA

mV

mV

Accuracy -Values have been calculated at Vo Rated & lo Rated

3

General Specifications Genesys™ GENH750W

TDK·Lambda

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	10.5Å / 5A,
5. Inrush current 100/200Vac	Less than 25A,
6. Hold-up time	More than 20mS, 100Vac, at 100% load.
2.2 POWER SUPPLY CONFIGURAT	
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	3
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-disch8KV, contact disch4KV
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:	CE Mark, UL60950,EN60950 listed. Vout<60V:Output is SELV , IEEE/Isolated analog are SELV.
	60-Vout<400V: Output is hazardous, IEEE/Isolated analog are SELV.
	400 <vout<600v:output analog="" are="" hazardous,="" ieee="" is="" isolated="" not="" selv.<="" td=""></vout<600v:output>
2.Withstand voltage	Vout<60V models :Input-Outputs (SELV): 3.0KVrms 1min, Input-Ground: 2.0KVrms 1min.
, i i i i i i i i i i i i i i i i i i i	60-Vout<600V models: Input-Haz. Output: 2.5KVrms 1min, Input-SELV: 3KVrms 1min.
	Hazardous OutputSELV: 1.9KVrms 1min, Hazardous Output-Ground:1.9KVrms 1min.
	Input-Ground: 2KVrms 1min.
3.Insulation resistance	More than 100Mohm at 25°C, 70% RH, 500Vdc
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: 214.0mm, H: 43.6mm, (57.0mm Benchtop version), D: 437.5mm (excluding connectors, encoders, handles, etc.)
3. Weight	4.5Kg (9.9 Lbs)
4. AC Input connector	IEC320 AC Inlet.
5.Output connectors	6V to 60V models: Bus-bars (hole Ø 6.5mm). 80V to 600V models: Meating plug, Phoenix P/N: GIC 2.5/4-ST-7.62.
2.7 RELIABILITY SPECS	
1. Warranty	5 years.
arrany	l o Jone

*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.

Also available Genesys™ 1U full Rack 750W/1500W & 2U 3300W



Genesys[™] Power Benchtop Parallel and Series Configurations

Benchtop Power Supply

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

- 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

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 ±1%	

LAN Interface

LXI Compliant to Class C P/N: LAN

Auto-detects LAN Cross-over Cable

- Meets all LXI-C RequirementsAddress Viewable on Front Panel
- LAN Fault Indicators

Fast Startup

VISA & SCPI Compatible

- Fixed and Dynamic Addressing
- Compatible with most standard Networks

- Program Current
- Measure Current
- Current Foldback shutdown





P/N: IEEE

Accessories

Rack Mounting applications P/N:GENH/RM

The Rack Mounted kit allows the units to be zero stacking for maximum system flexibility and power density without increasing the 1U height of the units To install one GENH750W unit or two units side-by-side in a standard 19" rack in 1U(1.75") height, use option kit P/N:GENH/RM

Single unit installation

Single GENH750W power supply in a standard 19" rack in 1U(1.75") height,

Dual unit installation

Two GENH750W power supplies side-by-side in a standard 19" rack in 1U(1.75") height,

Benchtop applications P/N:GENH/MO

The benchtop stacking kit allows the units to be Zero stacked for maximum system flexibility and power density without increasing the 1U height of the units. To install a GENH750W two units or three units one on top of the other use option kit P/N:GENH/MO

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 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 FShield Ground L=2m EIA/TIA-568A (RJ-45)
P/N	GEN/485-9	GEN/232-9	GEN/232-25

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

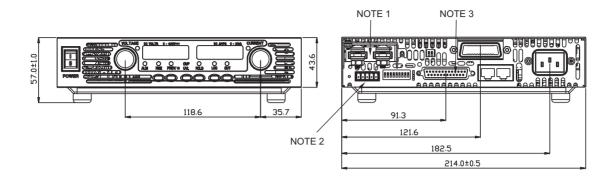
* Included with power supply

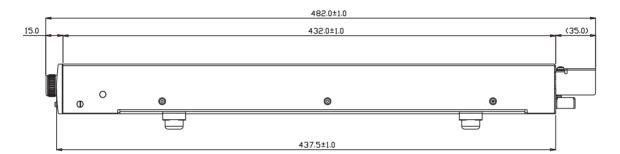


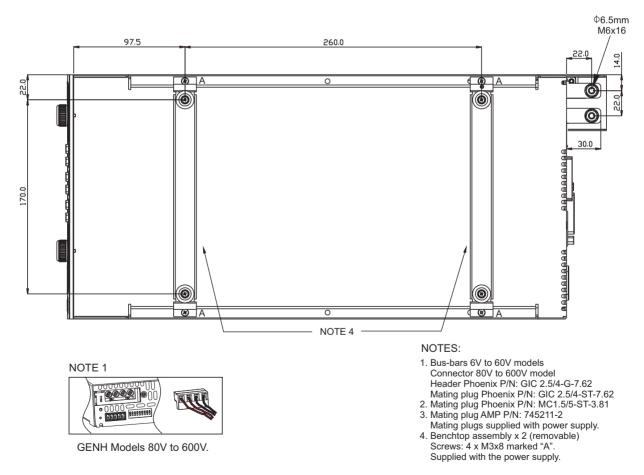




Outline Drawings Genesys[™] GENH 750W







7

TDK·Lambda

Power Supply Identification / Accessories How to order

GENH	60	- 12.5	-
			Factory Options
Series	Output	Output	Option: IEEE
Name	Voltage	Current	IS510
	(0~60V)	(0~12.5A)	IS420
			LAN

AC Cable option Region: E - Europe GB - United Kingdom J - Japan I - Middle East U - North America

Models GENH750W

Model	Output Voltage VDC	Output Current (A)	Output Power (W)
GENH6-100	0~6V	0~100	600
GENH8-90	0~8V	0~90	720
GENH12.5-60	0~12.5V	0~60	750
GENH20-38	0~20V	0~38	760
GENH30-25	0~30V	0~25	750
GENH40-19	0~40V	0~19	760
GENH60-12.5	0~60V	0~12.5	750
GENH80-9.5	0~80V	0~9.5	760
GENH100-7.5	0~100V	0~7.5	750
GENH150-5	0~150V	0~5	750
GENH300-2.5	0~300V	0~2.5	750
GENH600-1.3	0~600V	0~1.3	780

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 LX Class C)	LAN

AC Cords sets

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

P/N



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

TON Lambda

Optional Interfaces: IEEE488.2 SCPI (GPIB) Isolated Analog Programming L∭ Compliant LAN



*The Genesys*TM 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
- 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
- Global Commands for Serial RS-232/RS-485 Interface
- 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

- 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 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.

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.



Genesvs ™ 750W/1500W Specifications

							ns								750W	1500
1.0 MODEL	GEN	1		12.5-120		30-50	40-38	50-30	60-25	80-19		150-10		600-2.6		X
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	81/84	83/86	83/86	84/88	84/88	84/88	84/88	84/88	84/88	83/87	83/87	X	Х
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	Х	
2.Rated Output Current (*2)	A	100	90	60	38	25	19		12.5	9.5	7.5	5	2.5	1.3	Х	
3.Rated Output Power	W	600	720	750	760	750	760		750	760	750	750	750	780	X	
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	60	60	60	60	60	60	60	80	80	100	150	300	X	X
4.Ripple r.m.s 5Hz~1MHz (*9)	mV	8	8	8	8	8	8	8	8	8	8	10	25	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			of rated ou							0	0	0		x	X
7.Up-prog. response time, 0~Vo Rated	mS			L , resisti		tugo,ion	owing ot	/	5 wann a		, N.L/F.I	rociet	ive load	250	X	X
8.Down-prog response time full-load	mS	10	, IN.L/I	50	ive load	1		80		1301110	, IN.L/I.I	150	ive ioau	250	x	x
9.Down-prog response time no-load	mS	500	600	700	800	900	1000		1100	1200	1500	2000	2500	4000	X	X
10.Transient response time (*8)	1110			Sec for mo									2300	4000	x	x
		L622 (I	an mi		Jueis up	to and i	liciuulity	100 v. 2	111560 101	models	above i	00 v				
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	200	180	120	76	63	48		38	29	23	18	13	8	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		Х
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		Х
6.Ripple r.m.s 5Hz~1MHz .(*7)	mA	400	360	240	152	125	95	85	75	57	45	35	25	12		Х
7.Temp. coefficient	PPM/°C	100PP	M/°C fro	om rated o	output vo	oltage,fo	llowing 3	0 minute	es warm	up					Х	Х
PROTECTIVE FUNCTIONS																
I. OCP		0~1050	6 Cone	tant Curre	ent										x	x
2. OCP Foldback				wn when		upply of	ange fr	m CV to	CC Llev	er select	able				x	X
3. OVP type				own, mar								nunicatio	on port		x	x
4. OVP trip point				V 1~15V										5~660V		X
5. Over Temp. Protection				e , latched			2.441	5-570	J-00V	J-00V	J-110V	5-1051	J-330V	J-000V	x	X
		1036130	lociable	o, latoriot		atorieu									^	
ANALOG PROGRAMMING AND MONITORIN	IG															
1.Vout Voltage Programming				/ or 0~10											X	Х
2.Iout Voltage Programming				/ or 0~10											X	Х
3.Vout Resistor Programming		0~1009	<u>%, 0~5/</u>	10Kohm f	ull scale	user se,	lect.,Acc	uracy ar	nd linearit	y:+/-1%	of rated	Vout.			Х	Х
4. lout Resistor Programming		0~1009	6, 0~5/	10Kohm f	ull scale	user se,	lect. Acc	uracy ar	nd linearit	y:+/-1.5°	% of rate	d lout.			X	Х
5.On/Off control (rear panel)		By elec	trical. \	/oltage: 0	~0.6V/2	~15V,or	dry conta	act ,user	selectab	le logic					X	х
6.Output Current monitor		0~5V o	r 0~10\	/, accura	cy:1%,	user sel	ectable								Х	Х
7.Output Voltage monitor		0~5V o	r 0~10\	,accurac	y:1% ,u	ser sele	ctable								Х	Х
8.Power Supply OK signal				V) -OK, 0											Х	Х
9. CV/CC indicator		CV: TT	L high (4~5V) so	urce: 10	mA, CC:	TTL low	(0~0.6)	/), sink c	urrent: 1	0mA				X	х
10. Enable/Disable		Dry cor	tact. O	pen:off, S	Short: or	ı. Max. v	oltage a	t Enable	/Disable i	n: 6V					Х	Х
11. Local/Remote analog control		By elec	trical si	gnal or O	pen/Sho	rt: 0~0.6	V or sho	ort: Rem	ote, 4~5\	or oper	n: Local				X	Х
12. Local/Remote analog control indicator		Onon	ollector		pen, Re	mote: O	n. Maxin	num volt	ane: 30V	maxim	um sink (current:	5mA			Х
I E E E E E E E E E E E E E E E E E E E		TOpen C													X	
•		Opend		, Local. O					uge. 00 (maxim	JIII SIIIK C		5110 (.		X	
5 FRONT PANEL													5117 (.			
•		Vout/ lo		iual adjus			coders (coarse a				able)			x	X
5 FRONT PANEL		Vout/ Id	VL mar	iual adjus iual adjus	t by Volt	. Adjust	coders (encoder	coarse a	ind fine a	djustme	nt selecta				X X	X X
5 FRONT PANEL		Vout/ Id OVP/U AC on/	VL mar off, Out	iual adjus iual adjus put on/off	t by Volt , Re-sta	. Adjust rt modes	coders (encoder s (auto, s	coarse a	Ind fine a	djustme	nt selecta	, Go to l		rol	X X X	X X X
5 FRONT PANEL		Vout/ lo OVP/U AC on/ Addres	VL mar off, Out s selec	ual adjus nual adjus put on/off tion by Vo	t by Volt , Re-sta oltage (o	. Adjust rt modes r current	coders (encoder s (auto, s) adjust	coarse a afe), Fo encoder	Ind fine a	djustme ontrol (C	nt selecta V to CC) esses:31	, Go to l		rol	X X X X	X X X X
5 FRONT PANEL		Vout/ lo OVP/U AC on/ Addres RS232	VL mar off, Out s selec 485 an	ual adjus ual adjus put on/off tion by Vo d IEEE48	t by Volt , Re-sta oltage (o 8.2 sele	. Adjust rt modes r current ction by	coders (encoder s (auto, s) adjust IEEE en	coarse a afe), Fo encoder able swi	Ind fine a	djustme ontrol (C	nt selecta V to CC) esses:31	, Go to l		<u>rol</u>	X X X X X	X X X
5 FRONT PANEL		Vout/ lo OVP/U AC on/ Addres RS232 Baudra	VL mar off, Out s selec 485 an te selec	ual adjus nual adjus put on/off tion by Vo d IEEE48 ction: 120	t by Volt , Re-sta oltage (o 8.2 sele 0,2400,4	Adjust rt modes r current ction by 1800,960	coders (encoder s (auto, s) adjust IEEE en 00 and 1	coarse a afe), Fo encoder able swi	Ind fine a	djustme ontrol (C	nt selecta V to CC) esses:31	, Go to l		rol	X X X X	X X X X X
5 FRONT PANEL 1.Control functions		Vout/ lo OVP/U AC on/ Addres RS232 Baudra	VL mar off, Out s selec 485 an te selec	ual adjus ual adjus put on/off tion by Vo d IEEE48	t by Volt , Re-sta oltage (o 8.2 sele 0,2400,4	Adjust rt modes r current ction by 1800,960	coders (encoder s (auto, s) adjust IEEE en 00 and 1	coarse a afe), Fo encoder able swi	Ind fine a	djustme ontrol (C	nt selecta V to CC) esses:31	, Go to l		rol	X X X X X	X X X X X X
5 FRONT PANEL		Vout/ Id OVP/U AC on/ Addres RS232 Baudra Voltage Current	VL mar off, Out s selec 485 an te selec 4 dig 4 dig	nual adjus put adjus put on/off tion by Vo d IEEE48 ction: 120 jits , accur its, accur	t by Volt , Re-sta bltage (o 8.2 sele 0,2400,4 racy: 0.5 acy: 0.5	Adjust rt modes r current ction by 800,960 %+/-1 c %+/-1 cc	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount	coarse a safe), Fo encoder able swi 9,200	Ind fine a Idback co Number tch and I	djustme ontrol (C of addro DIP swite	nt selecta V to CC) esses:31 ch	, Go to l		trol	X X X X X X X X X	X X X X X X X X
5 FRONT PANEL 1.Control functions 2.Display		Vout/ Id OVP/U AC on/ Addres RS232 Baudra Voltage Current	VL mar off, Out s selec 485 an te selec 4 dig 4 dig	ual adjus nual adjus put on/off tion by Vo d IEEE48 ction: 120 its , accu	t by Volt , Re-sta bltage (o 8.2 sele 0,2400,4 racy: 0.5 acy: 0.5	Adjust rt modes r current ction by 800,960 %+/-1 c %+/-1 cc	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount	coarse a safe), Fo encoder able swi 9,200	Ind fine a Idback co Number tch and I	djustme ontrol (C of addro DIP swite	nt selecta V to CC) esses:31 ch	, Go to l			X X X X X X X X	X X X X X X X X X X
5 FRONT PANEL 1.Control functions 2.Display 3.Indications		Vout/ Id OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage	VL mar off, Out s selec 485 an te selec 4 dig 4 dig , Curre	ual adjus put adjus put on/off tion by Vo d IEEE48 ction: 120 jits , accur its , accur nt, Alarm,	t by Volt , Re-sta bltage (o 8.2 sele 0,2400,4 racy: 0.5 acy: 0.5 Fine, Pi	Adjust rt modes r current ction by 8800,960 %+/-1 c %+/-1 co review, F	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount	coarse a safe), Fo encoder able swi 9,200	Ind fine a Idback co Number tch and I	djustme ontrol (C of addro DIP swite	nt selecta V to CC) esses:31 ch	, Go to l			X X X X X X X X X X	X X X X X X X X X X
5 FRONT PANEL 1. Control functions 2. Display 3. Indications .6 Interface RS-232&RS-485 or O	ptiona	Vout/ la OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage	VL mar off, Out s selec 485 an te selec 4 dig 4 dig , Curre B / L	nual adjus put on/off tion by Vo d IEEE48 ction: 120 jits, accur nt, Alarm,	t by Volt , Re-sta bltage (o 8.2 sele 0,2400,4 racy: 0.5 acy: 0.5 Fine, Pi erface	Adjust rt modes r current ction by 800,960 80,960 6%+/-1 co review, F	coders (encoder (auto, s) adjust IEEE en 00 and 1 ount ount foldback	coarse a afe), Fo encoder able swi 9,200 , Local,	Idback cc Number tch and I	djustme ontrol (C of addro DIP switc	nt selecta V to CC) esses:31 ch Panel Lo	, Go to l	ocal cont		X X X X X X X X 750W	X X X X X X X X 1500
5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Model	ptiona	Vout/ Id OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage	VL mar off, Out s selec 485 an te selec 4 dig 4 dig , Curre	ual adjus put adjus put on/off tion by Vo d IEEE48 ction: 120 jits , accur its , accur nt, Alarm,	t by Volt , Re-sta bltage (o 8.2 sele 0,2400,4 racy: 0.5 acy: 0.5 Fine, Pi	Adjust rt modes r current ction by 8800,960 %+/-1 c %+/-1 co review, F	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount	coarse a safe), Fo encoder able swi 9,200	Ind fine a Idback co Number tch and I	djustme ontrol (C of addro DIP swite	nt selecta V to CC) esses:31 ch	, Go to l		trol	X X X X X X X X X X	X X X X X X X X 1500
5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Model . Remote Voltage Programming (16 bit)	V	Vout/ ld OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage I GPII 6	VL mar off, Out s selec 485 an te selec 4 dig 4 dig , Curre 3 / L / 8	uual adjus put on/off tion by Vc d IEEE48 tion: 120 its , accur nt, Alarm, AN Inte 12.5	t by Volt , Re-sta <u>oltage (o</u> 8.2 sele 0,2400,4 racy: 0.5 Fine, Pl erface 20	Adjust rt modes r current ction by 1800,960 i%+/-1 c %+/-1 c review, F 30	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount foldback	coarse a safe), Fo encoder able swi 9,200 , Local, ' 50	Ind fine a Idback cc Number tch and I Output O	djustme ontrol (C of addr DIP switc n, Front 80	nt selecta V to CC) esses:31 ch Panel Lo 100	, Go to l	ocal cont	600	X X X X X X X X 750W X	X X X X X X X X 1500 X
5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Wodel . Remote Voltage Programming (16 bit) tesolution (0.012% of Vo Rated)	V mV	Vout/ la OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage 6 0.72	VL mar off, Out s selec (485 an te selec 4 dig 4 dig , Curre B / L / 8 0.96	ual adjus put on/off tion by Vo d IEEE48 ction: 120 its , accur nt, Alarm, AN Inte 12.5 1.50	t by Volt , Re-sta oltage (o 8.2 sele 0,2400,4 racy: 0.5 Fine, Pi erface 20 2.40	. Adjust rt modes r current ction by 1800,960 i%+/-1 c %+/-1 c review, F 30 3.60	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount foldback 40 4.80	coarse a cafe), Fo encoder able swi 9,200 , Local, ' 50 6	Idback cc Number tch and I Output O 60 7.2	djustme ontrol (C of addr DIP switc n, Front 80 9.6	Nt select: V to CC) esses:31 ch Panel Lo 100	, Go to I	0cal cont 300 36	600	X X X X X X X X X X X X X X X	X X X X X X X X X 1500 X
5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Wodel . Remote Voltage Programming (16 bit) tesolution (0.012% of Vo Rated)	V mV	Vout/ ld OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage I GPII 6	VL mar off, Out s selec 485 an te selec 4 dig 4 dig , Curre 3 / L / 8	uual adjus put on/off tion by Vc d IEEE48 tion: 120 its , accur nt, Alarm, AN Inte 12.5	t by Volt , Re-sta <u>oltage (o</u> 8.2 sele 0,2400,4 racy: 0.5 Fine, Pl erface 20	Adjust rt modes r current ction by 1800,960 i%+/-1 c %+/-1 c review, F 30	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount foldback	coarse a safe), Fo encoder able swi 9,200 , Local, ' 50	Ind fine a Idback cc Number tch and I Output O	djustme ontrol (C of addr DIP switc n, Front 80	nt selecta V to CC) esses:31 ch Panel Lo 100	, Go to l	ocal cont	600	X X X X X X X X 750W X	X X X X X X X X 1500 X X X
5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Model . Remote Voltage Programming (16 bit) tesolution (0.012% of Vo Rated) .ccuracy (0.05%Vo Rated+0.05% of Vo Actual Outp	V mV	Vout/ la OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage 6 0.72	VL mar off, Out s selec (485 an te selec 4 dig 4 dig , Curre B / L / 8 0.96	ual adjus put on/off tion by Vo d IEEE48 ction: 120 its , accur nt, Alarm, AN Inte 12.5 1.50	t by Volt , Re-sta oltage (o 8.2 sele 0,2400,4 racy: 0.5 Fine, Pi erface 20 2.40	. Adjust rt modes r current ction by 1800,960 i%+/-1 c %+/-1 c review, F 30 3.60	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount foldback 40 4.80	coarse a cafe), Fo encoder able swi 9,200 , Local, ' 50 6	Idback cc Number tch and I Output O 60 7.2	djustme ontrol (C of addr DIP switc n, Front 80 9.6	Nt select: V to CC) esses:31 ch Panel Lo 100	, Go to I	0cal cont 300 36	600	X X X X X X X X X X X X X X X	X X X X X X X X 1500 X X X
5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Model . Remote Voltage Programming (16 bit) tesolution (0.012% of Vo Rated) .ccuracy (0.05%Vo Rated+0.05% of Vo Actual Outp . Remote Current Programming (16 bit)	V mV put) mV	Vout/ Id OVP/U AC on/ Address RS232 Baudra Voltage Current Voltage 6 0.72 6.0	VL mar off, Out s selec 485 an te selec 4 dig 4 dig 4 dig 4 dig 7 LL 8 0.96 8.0	ual adjus nual adjus put on/off tion by Vc d IEEE48 ction: 120 ifts, accur ifts, accur ifts, accur nt, Alarm, AN Inte 12.5 1.50 12.5	t by Volt Re-sta bltage (o 8.2 sele 0,2400,4 racy: 0.5 Fine, Pr 20 2.40 20	. Adjust rt modes r current ction by 1800,960 %+/-1 cc %+/-1 cc review, F 30 30 3.60 30	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount Foldback 40 4.80 40	coarse a safe), Fo encoder able swi 9,200 , Local, 50 6 50	Idback cc Number tch and I Output O 60 7.2 60	djustme ontrol (C of addr DIP switc n, Front 80 9.6 80	Nt selects V to CC) esses:31 ch Panel Lo 100 12 100	, Go to k pock 150 18 150	300 300 300	600 72 600	X X X X X X X 750W X X X X X	X X X X X X X 1500 X X
5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Model . Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated-).05% of Vo Actual Outp . Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) (0.5% of Io Rated)	V mV put) mV mA	Vout/ Id OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage 6 0.72 6.0	VL mar off, Out s selec (485 an te selec 4 dig 4 dig , Curre B / L 8 0.96 8.0	aual adjus put on/off tion by Vc d IEEE48 tion: 120 iits , accur nt, Alarm, AN Inte 12.5 1.50 12.5 7.2	t by Volt , Re-sta bltage (o 8.2 sele 0,2400,4 racy: 0.5 Fine, Pr erface 20 2.40 20 4.56	. Adjust rt modes r current ction by 8800,966 i%+/-1 c %+/-1 cc review, F 30 3.60 3.0	coders (encoder (auto, s) adjust IEEE en 00 and 1 oount ount foldback 40 4.80 4.0 2.28	coarse a safe), Fo encoder able swi 9,200 , Local, 50 6 50 	Ind fine a Idback cc Number tch and I Output O 60 7.2 60 1.50	djustme ontrol (C of addro DIP switc n, Front 80 9.6 80 1.14	nt selects V to CC) esses:31 ch Panel Lo 100 12 100 0.90	, Go to k	300 300 36 300 0.30	600 72 600 0.16	X X X X X X X X 750W X X X X X X X	X X X X X X X 1500 X X
5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Model . Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated+0.05% of Vo Actual Outp C. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) C. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) C. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) C. Rated+0.1% of Io Actual Outp	V mV put) mV mA put) mA	Vout/ Id OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage 6 0.72 6.0	VL mar off, Out s selec (485 an te selec 4 dig 4 dig , Curre B / L 8 0.96 8.0 10.8 180	uual adjus put on/off tion by Vc d IEEE48 tion: 120 iits , accur iits , accur nt, Alarm, AN Inte 12.5 1.50 12.5 7.2 120	t by Volt , Re-sta bltage (o 8.2 sele 0,2400,4 racy: 0.5 Fine, Pr erface 20 2.40 20 4.56 76	. Adjust rt modes r current ction by 800,966 i%+/-1 c review, F 30 3.60 3.0 50	coders (encoder (auto, s) adjust IEEE en 00 and 1 ount ount foldback 40 4.80 40 2.28 38	coarse a safe), Fo encoder able swi 9,200 , Local, 1 50 6 50	Idback cc Number tch and I Output O 60 7.2 60 1.50 25	djustme ontrol (C of addro DIP switc n, Front 80 9.6 80 1.14 19	nt selecta V to CC) esses:31 ch Panel Lc 100 12 100 12 100 0.90 15	, Go to k pock 150 18 150 0.60 10	300 36 300 0.30 5.0	600 72 600 0.16 2.6	X X X X X X X 750W X X X X X	X X X X X X X X X X X X X X
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5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Model . Remote Voltage Programming (16 bit) lesolution (0.012% of Vo Rated) ccuracy (0.05%Vo Rated+0.05% of Vo Actual Outp lesolution (0.012% of Io Rated) . Remote Current Programming (16 bit) lesolution (0.012% of Io Rated) Lesolution (0.012% of Io Rated) Lesolution (0.012% of Io Rated)	V mV put) mV mA put) mA mA	Vout/ Id OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage 6 0.72 6.0	VL mar off, Out s selec (485 an te selec 4 dig 4 dig , Curre B / L 8 0.96 8.0 10.8 180	uual adjus put on/off tion by Vc d IEEE48 tion: 120 iits , accur iits , accur nt, Alarm, AN Inte 12.5 1.50 12.5 7.2 120	t by Volt , Re-sta bltage (o 8.2 sele 0,2400,4 racy: 0.5 Fine, Pr erface 20 2.40 20 4.56 76	. Adjust rt modes r current ction by 800,966 i%+/-1 c review, F 30 3.60 3.0 50	coders (encoder (auto, s) adjust IEEE en 00 and 1 ount ount foldback 40 4.80 40 2.28 38	coarse a safe), Fo encoder able swi 9,200 , Local, 1 50 6 50	Idback cc Number tch and I Output O 60 7.2 60 1.50 25	djustme ontrol (C of addro DIP switc n, Front 80 9.6 80 1.14 19	nt selecta V to CC) esses:31 ch Panel Lc 100 12 100 12 100 0.90 15	, Go to k pock 150 18 150 0.60 10	300 36 300 0.30 5.0	600 72 600 0.16 2.6	X X X X X X X X 750W X X X X X X X	X X X X X X X X X X X X X X X X X X X
5 FRONT PANEL 1. Control functions 2. Display 3. Indications 6 Interface RS-232&RS-485 or O Model . Remote Voltage Programming (16 bit) tesolution (0.012% of Vo Rated) .ccuracy (0.05%Vo Rated+0.05% of Vo Actual Outp . Remote Current Programming (16 bit) tesolution (0.012% of Io Rated) .ccuracy (0.1% of Io Rated+0.1% of Io Actual Outp tesolution (0.012% of Io Rated) .ccuracy (0.1% of Io Rated+0.1% of Io Actual Outp tesolution (0.012% of Io Rated) .ccuracy (0.1% of Io Rated+0.1% of Io Actual Outp tesolution (0.012% of Io Rated+0.1% of Io Actual Outp tesolution (0.012% of Io Rated+0.1% of Io Actual Outp	V mV put) mV mA put) mA mA	Vout/ Id OVP/U AC on/ Addres RS232 Baudra Voltage Current Voltage Current Voltage Current Voltage 0.72 6 0.72 6 0.72 200 24	VL mar off, Out s selec 485 an te selec 4 dig 4 dig 4 dig , Curre 3 / L 8 0.96 8.0 10.8 180 21.6	aual adjus put on/off tion by Vc d IEEE48 stion: 120 ifts, accur itts, accur nt, Alarm, AN Inte 12.5 1.50 12.5 7.2 120 14.4	t by Volt , Re-sta oltage (o 8.2 sele 0,2400,4 racy: 0.5 Fine, Pi erface 20 2.40 20 4.56 76 9.12	. Adjust rt modes r current ction by l800,960 %+/-1 c %+/-1 c %-/-1 c %-/-1 c %-/-1 c 30 30 3.60 30 3.60 3.0 50 6.0	coders (encoder s (auto, s) adjust IEEE en 00 and 1 ount ount oldback 40 4.80 40 2.28 38 4.56	coarse a aafe), Fo encoder able swi 9,200 , Local, 4 50 6 50 3.60	and fine a ldback cc . Number tch and I Output O 60 7.2 60 7.2 60 25 3.0	djustme ontrol (C of addr DIP switc n, Front 80 9.6 80 1.14 19 2.28	nt selects V to CC) esses:31 ch Panel Lo 100 12 100 12 100 15 1.80	, Go to l ock 150 18 150 0.60 10 1.20	300 36 300 0.30 5.0 0.60	600 72 600 0.16 2.6 0.32	X X X X X X X X 750W X X X X X X X	X X X X X X X X X X X X X X X X X X X
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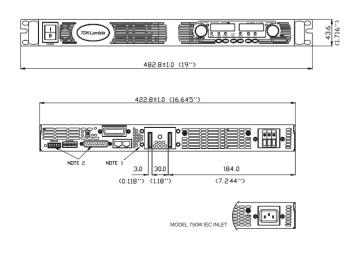
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 S. Animum organised to the Animum organi *7: For 6V models the ripple is measured at 2~6V output voltage and full output current. For other models, the ripple is measured at 1~10~100% output voltage and full output current.
*8: Time for the output 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

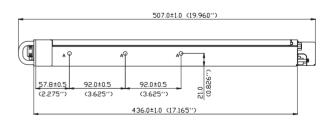
General Specifications Genesys™ 750W/1500W

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 CONFIGURATIO	
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 abouve 2000m, Non operating: 40000ft (12000m).
2.4 EMC	
1.Applicable Standards:	
2.ESD	IEC1000-4-2. Air-disch8KV, contact disch4KV
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	EN6100-4-11
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:	CE Mark, UL60950, EN60950 listed. Vout<60V:Output is SELV, IEEE/Isolated analog are SELV.
	60 <vout<400v: analog="" are="" hazardous,="" ieee="" is="" isolated="" output="" selv.<="" td=""></vout<400v:>
	400 <vout<600v:output analog="" are="" hazardous,="" ieee="" is="" isolated="" not="" selv.<="" td=""></vout<600v:output>
2.Withstand voltage	Vout<60V models :Input-Outputs (SELV): 3.0KVrms 1min, Input-Ground: 2.0KVrms 1min.
	60 <vout<600v 1min,="" 1min.<="" 2.5kvrms="" 3kvrms="" input-haz.="" input-selv:="" models:="" output:="" td=""></vout<600v>
	Hazardous Output-SELV: 1.9KVrms 1min, Hazardous Output-Ground:1.9KVrms 1min.
	Input-Ground: 2KVrms 1 min.
3.Insulation resistance	More than 100Mohm at 25°C , 70% RH, 500Vdc
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.

Outline Drawing Genesys™ 750W/1500W Units





NOTE

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



Genesys[™] Power Parallel and Series Configurations

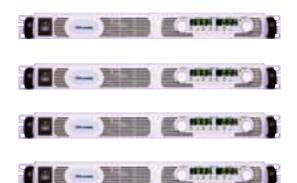
Parallel operation - Master/Slave:

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

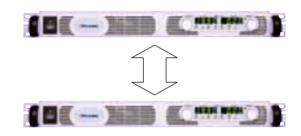
Up to two units may be connected in series to increase the output voltage or to provide bipolar output. (Max 600V to Chassis Ground).



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

- 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

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.
P/N: IS420

Current Programming with 4-20mA signal.
 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

VISA & SCPI Compatible
 LAN Fault Indicators

Program Current

Measure Current

Current Foldback shutdown

- Address Viewable on Front Panel
- Fixed and Dynamic Addressing

Meets all LXI-C Requirements

- Compatible with most standard Networks
- Auto-detects LAN Cross-over Cable
- Fast Startup

P/N: IEEE

5 | Genesys TM 750W/1500W-1U

Power Supply Identification / Accessories How to order

GEN	600 -	2.6 -		-
			Factory Options	AC Cable option is 750W only
Series	Output	Output	Option: IEEE	Region: E - Europe
Name	Voltage	Current	IS510	GB - United Kingdom
	(0~600V)	(0~2.6A)	IS420	J - Japan
			LAN	I - Middle East

Models 750/1500W

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

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

TDK·Lambda16

U - North America

Factory option

RS-232/RS-485 Interface built-in Standard GPIB Interface

Voltage Programming Isolated Analog Interface Current Programming Isolated Analog Interface LAN Interface (Complies with LAT Class C)

AC Cords sets (750W only)

Region	Europe	United Kingdom	Japan	Middle East	North America
Output Power	750W	750W	750W	750W	750W
AC Cords	10A/250Vac L=2m	10A/250Vac L=2m	13A/125Vac L=2m	10A/250Vac L=2m	13A/125Vac L=2m
Wall Plug	INT'L 7/VII	BS1363		SI-32	NEMA 5-15P
Power Supply	IEC320-C13	IEC320-C13	IEC320-C13	IEC320-C13	IEC320-C13
Connector				۲	۲
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 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

* Included with power supply

P/N

IEEE

IS510

IS420

LAN



Programmable DC Power Supplies 2.4KW in 1U Built in RS-232 & RS-485 Interface Advanced Parallel Standard

> Optional Interfaces: LXI Compliant LAN IEEE488.2 SCPI (GPIB) Isolated Analog Programming





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 2.4kW in 1U
- Wide Range of popular worldwide AC inputs, 1ø (230VAC) & 3ø (208VAC)
- Active Power Factor Correction (Single-Phase & Three-Phase AC Input)
- Output Voltage up to 600V, Current up to 300A
- 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

LXI 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.

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 2.4kW modules. Each module is 1U with zero space between them (zero stack).

Flexible configuration is provided by the complete Genesys™ Family: 1U 750W Half-Rack, 1U 750W and 1500W Full-Rack, 2U 3.3kW & 5kW. All are identical in Front Panel, Rear Panel Analog, and all Digital Interface Commands. A wide variety of outputs allows testing of many different devices.

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
- e Output On
- 8. Pushbuttons allow flexible user configuration
 - Coarse and Fine adjustment of Output Voltage/Current and Advanced Parallel Master or Slave select.
 - 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.
- Input: 230VAC Single Phase (shown), 208 VAC Three Phase, 50/60 Hz AC Input Connector: Phoenix P/N: FRONT-4-H-7.62.
- 9. Optional Interface Position for IEEE 488.2 SCPI (shown) or Isolated Analog Interface or LAN Interface.
- 10. Auxiliary Output Voltage.



Genesys ™ 2.4kW Specifications

achesys z		pe		ano	13									
1.0 MODEL		GEN	8-300	10-240	16-150	20-120	30-80	40-60	60-40	80-30	100-24	150-16	300-8	600-4
1.Rated output voltage(*1)		V	8	10	16	20	30	40	60	80	100	150	300	600
2.Rated Output Current(*2)		A	300	240	150	120	80	60	40	30	24	16	8	4
3.Rated Output Power		W	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
4.Development Priority			A	С	В	С	В	В	A	С	С	A	В	A
1.1 CONSTANT VOLTAGE MODE														
1.Max.line regulation (0.01% of rated		mV	2.8	3	3.6	4	5	6	8	10	12	17	32	62
2.Max load regulation (0.015% of rat	ed Vo+5mV)(*7)	mV	6.2	6.5	7.4	8	9.5	11	14	17	20	27.5	50	95
3.Ripple and noise p-p 20MHz (*8)		mV	60	60	60	60	60	60	60	80	80	100	150	300
4.Ripple r.m.s 5Hz~1MHz		mV	8	8	8	8	8	8	8	8	8	25	35	75
5.Remote sense compensation/wire 6.Temp. coefficient		V PPM/°C	2 100PPM	2 /°C of rated	2	2 tage follow	5 ing 30 mi	5 nutes warm	5	5	5	5	5	5
7.Temp. stability) minutes warm		nstant line	load & ten	าก		
8.Warm-up drift								r 30 minutes			, 1000 0 1011	·b.		
9.Up-prog. response time, 0~Vo Rat	ed (*9)	mS	15mS		rated eatp	30mS			, iono innig i		60mS		100	mS
	ull-load (*9)	mS	10			30					80			00
	p-load (*10)	mS	500	600	700	800	900	1000	1100	1200	1500	2500	30	000
11.Transient response time		mS	current. C	Dutput set-p	point: 10-10	00%, local s	sense.	s rated outpu 00V. 2msec		-		ated output		
1.2 CONSTANT CURRENT MODE														
1.Max.line regulation (0.01% of lo ra		mA	32	26	17	14	10	8	6	5	4.4	3.6	2.8	2.4
2.Max.load regulation (0.02% of lo ra	ated+5mA)(*11)	mA	65	53	35	29	21	17	13	11	9.8	8.2	6.6	5.8
3.Ripple r.m.s 5Hz~1MHz. (*12)		mA	1200	960	600	480	220	120	70	50	40	30	15	7
4.Temp. coefficient		PPM/°C) minutes wa		atorst P	leed 0 -			
5.Temp. stability 6.Warm-up drift			8V~20V	models: Le	ss than ±0	.5% of rate	d output o	ominutes wa current over put current o	30 minute	s following	power On.			
1.3 PROTECTIVE FUNCTIONS 1. OCP			0~105%	Constant C	Current									
2. OCP Foldback								n CV to CC.						
3. OVP type								cle or by OU						1 - 1
4. OVP trip point				0.5~12V						5~88V		5~165V	5~330V	5~660\
5. Output Under Voltage Limit							ort. Preve	ents from ac	ajusting Vol	ut below lir	nit.			
6. Over Temp. Protection			User sel	ectable, lat	icnea or no	m-latched.								
1.4 ANALOG PROGRAMMING AND	MONITORING		1											
1.Vout Voltage Programming								d linearity:±0						
2.lout Voltage Programming (*13)								d linearity:±			out			
3.Vout Resistor Programming 4.lout Resistor Programming (*13)								acy and line acy and line						
5.On/Off control (rear panel)								t ,user selec			ουι.			
6.Output Current monitor (*13)				0~10V, Ac				.,0001 00100	abio iogio.					
7.Output Voltage monitor				0~10V,Acc										
8.Power Supply OK signal				(4~5V) -OI				stance.						
9. CV/CC Indicator								mum voltag	e: 30V, ma	ximum sinl	k current: 1	0mA		
10. Enable/Disable								Enable/Disat						
11. Local/Remote analog control							-	: Remote, 2		en: Local.				
12. Local/Remote analog control Ind	icator							voltage: 30			ent: 10mA.			
1.5 FRONT PANEL			•											
1.Control functions			Vout/ lou	t manual or	diust by co	narate enco	dere (co	arse and fin	e adjuetmo	nt selector	nle)			
			OVP/UV On/Off, C Address	L manual a Dutput on/o	djust by Vo ff, Re-start y Voltage (olt. Adjust e modes (au or current)	ncoder. to, safe), adjust en	Foldback co	ontrol (CV t	to CC), Go		ntrol.		
			Baud rate	e selection:	: 1200,240	0,4800,960	0 and 19,							
2.Display								oltage ±1 co						
								urrent ±1 cou						
3.Indications			Voltage,	Current, Ala	arm, Fine,	Preview, Fo	oldback, L	_ocal, Outpu	it On, Fron	t Panel Loo	ск, CV/CC.			
1.6 Interface RS-232&RS Model		v v	PIB / LA 8	N Inter	face 16	20	30	40	60	80	100	150	300	600
1. Remote Voltage Programming (16	6 bit)													
Resolution (0.012% of Vo Rated)		mV	0.96	1.2	1.92	2.4	3.6	4.8	7.2	9.6	12	18	36	72
Accuracy (0.05%Vo Rated+0.05% of V	vo Actual Output)	mV	8	10	16	20	30	40	60	80	100	150	300	600
2. Remote Current Programming (1	6 bit)													
Resolution (0.012% of Io Rated)		mA	36	28.8	18	14.4	9.6	7.2	4.8	3.6	2.88	1.92	0.96	0.48
Accuracy (0.2% of lo Rated+0.1% of lo	Actual Output) (*13)	mA	900	720	450	360	240	180	120	90	72	48	24	12
3. Readback Voltage		w-17	0.07		4.07	~ /	0.5		= -		10	10		=2
Resolution (0.012% of Vo Rated)	Actual Outt	mV	0.96	1.2	1.92	2.4	3.6	4.8	7.2	9.6	12	18	36	72
Accuracy (0.1%Vo Rated+0.1% of Vo	Holdal Output)	mV	16	20	32	40	60	80	120	160	200	300	600	1200
4. Readback Current														
Resolution (0.012% of Io Rated)		mA	36	28.8	18	14.4	9.6	7.2	4.8	3.6	2.88	1.92	0.96	0.48
Accuracy (0.3% of Io Rated+0.1% of Io	Actual Output) (*13)) mA	1200	960	600	480	320	240	160	120	96	64	32	16
5 OVD/UV/ Drog			-			-					-	-		
5. OVP/UVL Programming		m)/	^	10	10	00	00	40	00	00	100	150	000	000
Resolution (0.1% of Vo Rated)		mV mV	8	10	16	20	30	40	60	80	100	150	300	600
Accuracy (1% of Vo Rated)		mV	80	100	160	200	300	400	600	800	1000	1500	3000	6000

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

*6: 3-Phase 208V models: 170~265Vac, 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-16V 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 output current.

*13: The Constant Current programming readback and monitoring accuracy does not include the warm-up and Load regulation thermal drift.

General Specifications Genesys™ 2.4kW

2.1 INPUT CHARACTEI	RISTICS	GEN	8-300	10-240	16-150	20-120	30-80	40-60	60-40	80-30	100-24	150-16	300-8	600-4
1. Input voltage/freq. (*	(3)					0~265Vac,								
		VAC	3-Phase,			65Vac, 47~6								
 Maximum Input current at 100% load 	Single Phase,230V models:		17	17	17	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3
	3-Phase, 208V models:	A	10.5	10.5	10.5	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
3. Power Factor (Typ) 4. Efficiency (*4)		0/									,	output powe		
5. Inrush Current (*5)		% A	84 Singlo-Pr	84	84 Phase 209	86 V models:	86	88	88	88	88	88	88	88
6. Hold-up time (Typ)		mS				3-phase 20			tout power					
2.2 AUXILIARY OUTPU	т			<u></u>					<u></u>					
1. 15V output	1	151/+5%	0.24 Ma	load Rin		a 50m\/n₌n	Reference	d internal	y to the ne	nativo outr	ut notentia	1		
2. 5V output									ly to IF cor					
2. 5V Output		JV±J/0	, 0.2A Wa	k ibau, hip		e Sonivp-p	nelerence	eu internai		n potentia				
2.3 POWER SUPPLY C	ONFIGURATION													
1. Parallel Operation		Up to 4 i	dentical ur	nits in mas	er/slave n	node								
2. Series Operation		Up to 2 i	dentical u	nits. with e	kternal dic	des. 600V	Max to Ch	nassis gro	und					
2.4 ENVIRONMENTAL	CONDITIONS													
1. Operating temp		0~50°C,	100% loa	d.										
2. Storage temp		-20~85°	0											
3. Operating humidity		20-90% RH (non-condensing).												
4. Storage humidity		10~95%	RH (non-	condensing	q).									
5. Vibration		MIL-810	F, method	514.5 , Th	e EUT is f	ixed to the	vibrating s	surface.						
6. Shock						it is unpac								
7. Altitude						utput curre ating: 4000			ve 2000m,	Alternativ	ely, derate	maximum	ambient	temp.
8. RoHS Compliance		Complie	s with the	requireme	nts of Rol	HS directiv	е.							
2.5 EMC														
1.Applicable Standards	:													
2.ESD		IEC1000	-4-2. Air-c	isch8KV,	contact d	isch4KV								
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)-4-3, 3V/n	า										
7.Magnetic field immun	ity		0-4-8, 1A/I											
8. Voltage dips		EN6100	,											
9. Conducted emission				art 15-A, \	CCI-A.									
10. Radiated emission				art 15-A, \										

2.6 SAFETY

CE Mark, UL60950, EN60950 listed. Vout≤40V:Output is SELV , IEEE/Isolated analog are SELV.						
40 <vouts400v: analog="" are="" hazardous,="" ieee="" is="" isolated="" output="" selv.<="" td=""></vouts400v:>						
400 <vouts600v:output analog="" are="" hazardous,="" ieee="" is="" isolated="" not="" selv.<="" td=""></vouts600v:output>						
Vout≤40V models :Input-Outputs (SELV): 4242VDC 1min, Input-Ground: 2828VDC 1min.						
40 <vouts100v 1min,="" 1min.<="" 2600vdc="" 4242vdc="" input-haz.="" input-selv:="" models:="" output:="" td=""></vouts100v>						
Hazardous OutputSELV: 1900VDC 1min, Hazardous Output-Ground:1200VDC 1min. Input-Ground: 2828VDC 1min.						
100 <vouts600v 1min,="" 1min.<="" 4000vdc="" 4242vdc="" input-haz.="" input-selv:="" models:="" output:="" td=""></vouts600v>						
Hazardous OutputSELV: 3550VDC 1min. Hazardous Output-Ground:2670VDC 1min. Input-Ground: 2828VDC 1min.						
More than 100Mohm at 25°C , 70% RH.						

2.7 MECHANICAL CONSTRUCTION

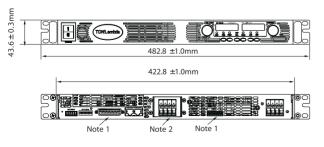
1. Cooling	Forced air flow: from front to rear. No ventilation holes at the top or bottom of the chassis; Variable fan speed.
2. Dimensions (WxHxD)	W: 423mm, H: 43.6mm, D: 432.8mm (excluding connectors, encoders, handles, etc.)
3. Weight	10 kg.
4. AC Input connector (with Protective Cover)	Single Phase,230V models, wire clamp connector, Phoenix P/N: FRONT-4-H-7.62, with Strain relief.
	3-Phase, 208V models, wire clamp connector, Phoenix P/N: FRONT-4-H-7.62, with Strain relief.
5.Output connectors	8V to 100V models: Bus-bars (hole Ø 8.5mm). 150V to 600V models: wire clamp connector, Phoenix P/N: FRONT-4-H-7.62
	Auxiliary autput Header: IMC 1.5/7-G-3.81, Plug: IMC 1.5/7-ST-3.81 (Phoenix Contact).
2.8 RELIABILITY SPECS	

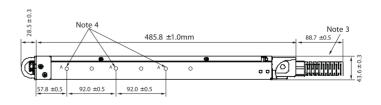
1. Warranty

All specifications subject to change without notice.

Outline Drawing Genesys[™] 2.4kW Units

5 years.





NOTE

1.Mating plug supplied with power supply.

- 2.Bus-bars for 8V to 100V models. See detail.
- 3. AC cable strain relief supplied with power supply.
- 4. Chassis slides mounting holes #10-32 marked "A". GENERAL DEVICES P/N: CC3001-00-S160 or equivalent.



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



 Program Current Measure Current

Current Foldback shutdown

Programming Options (Factory installed)

Digital Programming via IEEE Interface

- 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 daisv-chain
- · Only the Master needs be equipped with IEEE Interface

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. Power supply Voltage and Current Programming Accuracy ±1%

Power supply Voltage and Current Monitoring Accuracy ±1.5%

LAN Interface

LXICompliant to Class C P/N: LAN

- Meets all LXI-C Requirements
- VISA & SCPI Compatible LAN Fault Indicators
- Address Viewable on Front Panel Fixed and Dynamic Addressing

5 | Genesys[™] 2.4kW-1U

- Compatible with most standard Networks
- Auto-detects LAN Cross-over Cable
- Fast Startup



P/N: IEEE

P/N: IS420

Power Supply Identification / Accessories How to order

GEN	8 -	300 -		-
			Factory Options:	Factory AC Input Options:
Series Name	Output Voltage (0~8V)	Output Current (0~300A)	Option: IEEE IS510 IS420 LAN	1P230 (Single Phase 170~265VAC) 3P208 (Three Phase 170~265VAC)

Models 2.4kW

	Output	Output	Output
Model	Voltage	Current	Power
	VDC	(A)	(W)
GEN 8-300	0~8V	0~300	2400
GEN 10-240	0~10V	0~240	2400
GEN 16-150	0~15V	0~150	2400
GEN 20-120	0~20V	0~120	2400
GEN 30-80	0~30V	0~80	2400
GEN 40-60	0~40V	0~60	2400

Output	Output	Output
Voltage	Current	Power
VDC	(A)	(W)
0~60V	0~40	2400
0~80V	0~30	2400
0~100V	0~24	2400
0~150V	0~16	2400
0~300V	0~8	2400
0~600V	0~4	2400
	Voltage VDC 0~60V 0~80V 0~100V 0~150V 0~300V	Voltage Current VDC (A) 0~60V 0~40 0~80V 0~30 0~100V 0~24 0~150V 0~16 0~300V 0~8

Factory option

RS-232/RS-485 Interface built-in Standard GPIB Interface Voltage Programming Isolated Analog Interface Current Programming Isolated Analog Interface

LAN Interface (Complies with LX Class C)

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

P/N

IEEE

IS510

IS420

LAN

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

Also available, Genesys™ 1U Half Rack 750W 1U full Rack 750W/1500W/2400W 2U full Rack 3300W/5000W

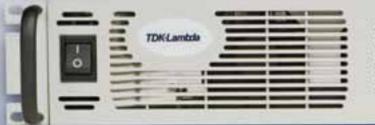




Genesys[™]

Programmable DC Power Supplies 3.3KW in 2U Built in RS-232 & RS-485 Interface Advanced Parallel Standard

> Optional Interfaces: IEEE488.2 SCPI (GPIB) Isolated Analog Programming L∭ Compliant LAN







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

LXI[™] 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.

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 and 1500W 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.