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 **LXI** 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.

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

Heater Supplies

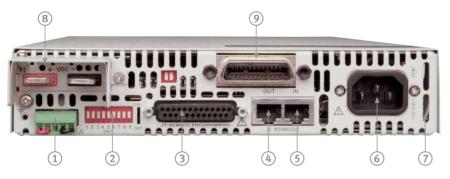
Smooth, reliable encoders enhance front panel control. Remote analog programming is user selectable 0-5V or 0-10V.

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.
- 6. 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)	A	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 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)(*5)	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	100PF	M/°C of rate	ed output vo	ltage,follo	wing 30 mii	nutes warm	n up					
7.Up-prog. response time, 0~Vo Rated	mS	80mS	, N.L/F.L , re	esistive load					150mS ,	N.L/F.L, res	sistive load		250
8.Down-prog response time full-load	mS	10		50			80			-	150		250
9.Down-prog response time no-load	mS	500	600	700	800	900	1000	1100	1200	1500	2000	2500	4000
10.Transient response time (*8)		Less tha	n 1mSec for	r models up	to and inc	luding 100	/. 2msec fo	or models ab	ove 100V				
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
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
3.Ripple r.m.s 5Hz~1MHz . (*7)	mA	200	180	120	76	63	48	38	29	23	18	13	8
4.Temp. coefficient	PPM/°C	100PPN	/°C from ra	ted output c	urrent, foll	owing 30 m	inutes war	m up					
.3 PROTECTIVE FUNCTIONS 1. OCP		0 1050/	Constant C										
2. OCP Foldback						ngo from C		ser selectabl					
3. OVP type								outton or by c		tion port			
4. OVP trip point				1~15V					5~88V		5~165V	5~330V	5~660
5. Over Temp. Protection				ched or non		2~307	2-440	5-007	0-001	10-1101	5-1051	0-000	5-000
		1000.00.	ootable , lat		latoriou								
.4 ANALOG PROGRAMMING AND MONITORING	3												
1.Vout Voltage Programming								0.5% of rated					
2.lout Voltage Programming								% of rated l					
3.Vout Resistor Programming								rity:+/-1% of					
4.lout Resistor Programming								rity:+/-1.5% c	of rated lou	ut.			
5.On/Off control (rear panel)				e: 0~0.6V/2-			ser selecta	ble logic					
6.Output Current monitor				curacy:1%,									
7.Output Voltage monitor 8.Power Supply OK signal				uracy:1% ,u ail 500ohm									
9. CV/CC indicator							1.6V/1.sink(current:10mA					
10. Enable/Disable				off , Short: or					`				
11. Local/Remote analog control						-		log, 4~5V or	onon: Loo				
12. Local/Remote analog control indicator				<u> </u>				, maximum s	·				
		Open co	liector, Loca	a. Open, Rei	note. On.		ullage. So v	, maximum s	IIIK CUITEIII	l. JIIIA.			
1.5 FRONT PANEL													
1.Control functions		Vout/ Iou	t manual ad	djust by sepa	arate enco	ders (coars	e and fine	adjustment s	electable)				
		OVP/UV	L manual ac	djust by Volt.	Adjust en	coder							
		AC on/of	f, Output on	n/off, Re-star	t modes (a	auto, safe),	Foldback of	control (CV to	CC), Go	to local conti	ol		
		Front Pa	nel Lock					-					
								er of address	es:31				
				E488.2 sele				DIP switch					
				1200,2400,4)						
2.Display				ccuracy: 0.5									
				curacy: 0.5									
3.Indications		Voltage,	Current, Ala	arm, Fine, Pr	eview, Fol	dback, Loc	al, Output (On, Front Pa	nel Lock				
I.6 Interface RS-232&RS-485 or Op	tional	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)	-	-	-										
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	ut) 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 lo 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 lo Rated+0.1% of lo Actual Output		200	10.8	120	4.56	<u>3.0</u> 50	38	25	1.14	15	10	5.0	2.6
	ny ma	200	100	120	10	JU	30	20	19	10	10	3.0	2.0
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)	mV	12	16	25	40	60	80	120	160	200	300	600	1200
4. Readback Current													
Resolution (0.012% of lo 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 (0.3% of Io Rated+0.1% of Io Actual Output		400	360	240	152	100	76	50	38	30	20	10	5.2

5. OVP/UVL Programming Resolution (0.1% of Vo Rated) mV Accuracy (1% of Vo Rated) mV

5.2

*1: Minimum voltage is guaranteed to maximum 0.2% of Vo Rated. *2: Minimum current is guaranteed to maximum 0.4% of Io Rated

Accuracy (0.3% of Io Rated+0.1% of Io Actual Output) mA

*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%.

*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™ GENH750W

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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	10.5A / 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	ION
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	S
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: 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 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	۱ <u>ــــــــــــــــــــــــــــــــــــ</u>
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.
	1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -

*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 ±1%	
Power supply Voltage and Current Monitoring Accuracy ±1.5%	
 Current Programming with 4-20mA signal. 	P/N: IS420
Power supply Voltage and Current Programming Accuracy ±1%	
Power supply Voltage and Current Monitoring Accuracy +1.5%	

Power supply Voltage and Current Monitoring Accuracy ±1.5%

LAN Interface

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LXI Compliant to Class C P/N: LAN

Auto-detects LAN Cross-over Cable

- Meets all LXI-C Requirements Address 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

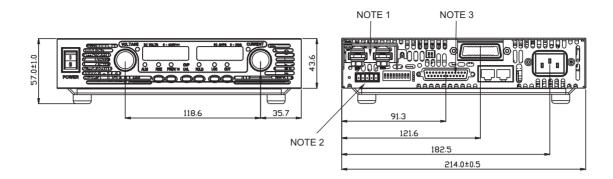
* Included with power supply

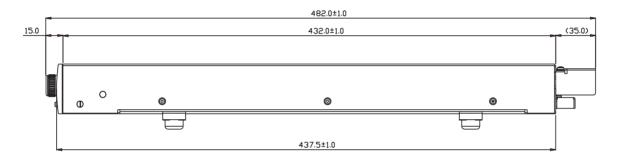


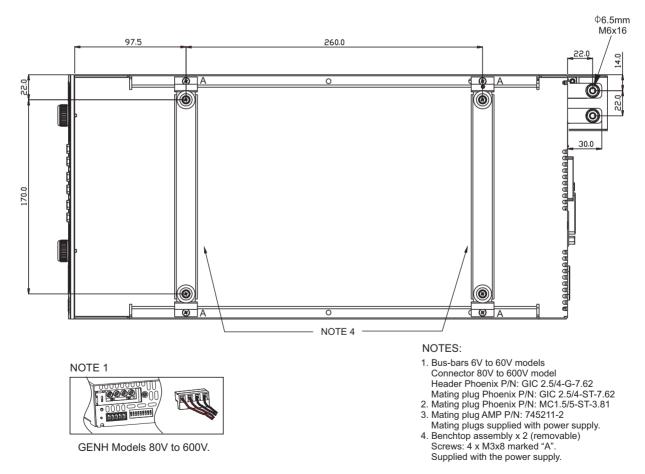




Outline Drawings Genesys[™] GENH 750W







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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	Output Current	Output Power
	VDC	(A)	(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		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

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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

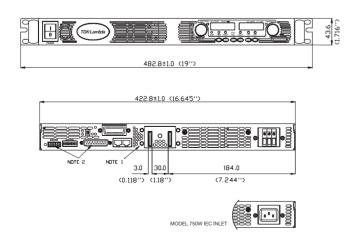
1. Minimum current is guaranteed to maximum 0.2% of to Rated *4.85-132/ac or 170-265/ac, constant load. *6: For load voltage change, equal to the unit voltage rating, constant input voltage.

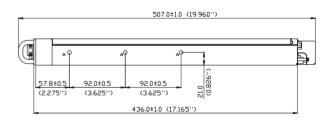
General Specifications Genesys[™] 750W/1500W

5-265Vac continuous, 47-63Hz, single phase .99 @ 100/200Vac, rated output power. complies with EN61000-3-2 class A and EN61000-3-3 at 20~100% output power. 50W :10.5A / 5A, 1500W :21A / 11A 50W :Less than 25A, 1500W :Less than 50A fore than 20mS , 100Vac , at 100% load. Ip to 4 units in master/slave mode with single wire current balance connection Ip to 2 units. with external diodes. 600V Max to Chassis ground ~50°C, 100% load. 20-70°C 0-90% RH (non-condensing). 0-95% RH (non-condensing). 1L-810E, method 514.4 , test cond. I-3.3.1. The EUT is fixed to the vibrating surface. ess than 20G , half sine , 11mSec. Unit is unpacked.
complies with EN61000-3-2 class A and EN61000-3-3 at 20~100% output power. 50W :10.5A / 5A, 1500W :21A / 11A 50W :Less than 25A, 1500W :Less than 50A fore than 20mS , 100Vac , at 100% load. lp to 4 units in master/slave mode with single wire current balance connection lp to 2 units. with external diodes. 600V Max to Chassis ground ~50°C, 100% load. 20~70°C 0-90% RH (non-condensing). 0-95% RH (non-condensing). 11L-810E, method 514.4 , test cond. I-3.3.1. The EUT is fixed to the vibrating surface.
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0-95% RH (non-condensing). IIL-810E, method 514.4 , test cond. I-3.3.1. The EUT is fixed to the vibrating surface.
IIL-810E, method 514.4, test cond. I-3.3.1. The EUT is fixed to the vibrating surface.
Operating: 10000ft (3000m), Derat output current by 2%/100m abouve 2000m, Non operating: 40000ft (12000m).
EC1000-4-2. Air-disch8KV, contact disch4KV
EC1000-4-4. 2KV
EC1000-4-5. 1KV line to line, 2KV line to ground
EC1000-4-6, 3V
EC1000-4-3, 3V/m
N55022B,FCC part 15J-B, VCCI-B.
N55022A,FCC part 15-A, VCCI-A.
N61000-4-11
N55022B, FCC part 15-B, VCCI-B.
N55022A, FCC part 15-A, VCCI-A.
E Mark, UL60950,EN60950 listed. Vout<60V:Output is SELV , IEEE/Isolated analog are SELV.
0 <vout<400v: analog="" are="" hazardous,="" ieee="" is="" isolated="" output="" selv.<="" td=""></vout<400v:>
00 <vout<600v:output analog="" are="" hazardous,="" ieee="" is="" isolated="" not="" selv.<="" td=""></vout<600v:output>
out<60V models :Input-Outputs (SELV): 3.0KVrms 1min, Input-Ground: 2.0KVrms 1min.
0 <vout<600v 1min,="" 1min.<="" 2.5kvrms="" 3kvrms="" input-haz.="" input-selv:="" models:="" output:="" td=""></vout<600v>
lazardous OutputSELV: 1.9KVrms 1min, Hazardous Output-Ground:1.9KVrms 1min.
nput-Ground: 2KVrms 1min.
ore than 100Mohm at 25°C , 70% RH, 500Vdc
orced air flow: from front to rear. No ventilation holes at the top or bottom of the chassis; Variable fan speed.
V: 422.8mm, H: 43.6mm, D: 432.8mm (excluding connectors, encoders, handles, etc.)
50W: 7Kg (15 Lbs) 1500W: 8.5Kg (18 Lbs)
50W: IFC320 AC Inlet.
500W: IEC320 AC Iniet. 500W: Screw terminal block, Phoenix P/N: FRONT-4-H-7.62, with strain relief
V to 60V models: Bus-bars (hole Ø 8.5mm). 80V to 600V models: wire clamp connector, Phoenix P/N: FRONT-4-H-7.62
v to ouv models, bus-bars (note 2 6.3mm). ouv to ouv models, whe clamp connector, Privenix P/N; PRON1-4-H-7.62
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

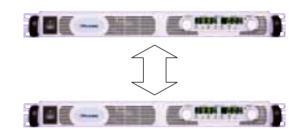
Up to two units may be connected in series to increase the output voltage or to provide bipolar output. (Max 600V to Chassis Ground).



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

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

U - North America

TDK·Lambda 16

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	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
Con	Connector nmunication Cable ver 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
- 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

Ochesys	2.7/// 0													
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)		<u>A</u>	300	240	150	120	80	60	40	30	24	16	8	4
3.Rated Output Power 4.Development Priority		W	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
	-		A	С	В	С	В	В	A	С	С	A	В	A
1.1 CONSTANT VOLTAGE MOD														
1.Max.line regulation (0.01% of		mV	2.8	3	3.6	4	5	6	8	10	12	17	32	62
2.Max load regulation (0.015% of		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 V	8	8	8	8	8	8	8	8	8	25	35	75
5.Remote sense compensation/ 6.Temp. coefficient		V PPM/°C	2	2 C of rated	2	2 tage followi	5 ng 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	·P·		
9.Up-prog. response time, 0~Vo	Bated (*9)	mS	15mS			30mS					60mS		100	mS
10.Down-prog response time	Full-load (*9)	mS	10			30					80			00
1 0 1	No-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	oint: 10-10	00%, local s	ense.	s rated outpu		-		ated output		
1.2 CONSTANT CURRENT MOD	DE													
1.Max.line regulation (0.01% of		mA	32	26	17	14	10	8	6	5	4.4	3.6	2.8	2.4
2.Max.load regulation (0.02% of		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						
5.Temp. stability								minutes wa						
6.Warm-up drift								current over put current o						
1.3 PROTECTIVE FUNCTIONS	i		0.105%	Constant C	urrent									
2. OCP Foldback						supply obc	inde from	OV to CC.	User soloo	table				
3. OVP type								cle or by OU			unication p	ort comme	nd	
4. OVP trip point						1~24V				5~88V			5~330V	5~660V
5. Output Under Voltage Limit								ents from ac				0 1001	0 0001	0 0001
6. Over Temp. Protection				ectable , lat										
1.4 ANALOG PROGRAMMING	AND MONITORING						uracv an	d linearity:±0	0.5% of rate	ed Vout.				
2.lout Voltage Programming (*1	3)							d linearity:±						
3.Vout Resistor Programming	,							acy and line			out.			
4.lout Resistor Programming (*1	3)		0~100%,	0~5/10Koł	nm full sca	le,user sele	ct. Accura	acy and line	arity:±1.5%	of rated lo	out.			
5.On/Off control (rear panel)								t,user selec	table logic.					
6.Output Current monitor (*13)						6, user sele								
7.Output Voltage monitor						,user sele								
8.Power Supply OK signal						500ohm se								
9. CV/CC Indicator								mum voltag		kimum sinł	k current: 1	0mA		
10. Enable/Disable							-	Enable/Disat						
11. Local/Remote analog contro								: Remote, 2						
12. Local/Remote analog contro	I Indicator		Open col	llector, Loca	al: Off, Rer	note: On. N	laximum	voltage: 30	V, maximun	n sink curre	ent: 10mA.			
1.5 FRONT PANEL														
1.Control functions			Vout/ Iou	t manual ad	djust by se	parate enco	ders (co	arse and fin	e adjustme	nt selectat	ole).			
			OVP/UVI	L manual a	djust by Vo	olt. Adjust er	ncoder.	Foldback co				ntrol.		
			Re-start	modes (aut	tomatic res	start, safe m	iode).	coder. Num	ber of addr	esses:31.				
0 Diselas						0,4800,960								
2.Display								oltage ±1 co						
3.Indications								urrent ±1 cou .ocal, Outpu		Panel Las				
1.6 Interface RS-232&	RS-485 or Optic	onal GI				rieview, r c	nuback, L	Local, Outpu		ranei Loc	<u>5K, 07/00.</u>			
Model	•	V	8	10	16	20	30	40	60	80	100	150	300	600
1. Remote Voltage Programmin														
Resolution (0.012% of Vo Rated Accuracy (0.05%Vo Rated+0.05%		mV mV	0.96 8	1.2 10	1.92 16	2.4 20	3.6 30	4.8 40	7.2 60	9.6 80	12 100	18 150	36 300	72 600
2. Remote Current Programmir	ng (16 bit)													
Resolution (0.012% of lo Rated)	3 (10 8.4)	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 Io Actual Output) (*13)	mA	900	720	450	360	240	180	120	90	72	48	24	12
3. Readback Voltage														
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 (0.1%Vo Rated+0.1% o	f Vo Actual Output)	mV	16	20	32	40	60	80	120	160	200	300	600	1200
4. Readback Current														
A. Readback Current Resolution (0.012% of lo 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 lo Rated+0.1%	of In Actual Output) (*13)		1200	960	600	480	320	240	160	120	2.00	64	32	16
1000100y (0.070 01 10 haleu+0.1%		, IIIA	1200	500	000	400	520	240	100	120	30	04	52	10
5. OVP/UVL Programming														
Resolution (0.1% of Vo Rated)		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
	to movimum 0.0% of r							10% or 0.0% 1						

*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 at 10~100% of 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 CHARACTE	RISTICS	GEN	8-300	10-240	16-150	20-120	30-80	40-60	60-40	80-30	100-24	1 50-16	300-8	600-4
1. Input voltage/freq. (0~265Vac,									
		VAC	3-Phase,			65Vac, 47~1								
2. Maximum Input	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
current at 100% load	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)			<u> </u>			,						output powe		
4. Efficiency (*4) 5. Inrush Current (*5)		%	84 Cingle Dk	84	84 Dhase 000	86 V models:	86	88	88	88	88	88	88	88
6. Hold-up time (Typ)		A mS				3-phase 20			tout power					
o. Hold-up tille (Typ)		1113	TUINSec	ioi Siliyie-r	nase anu	5-priase 20	sv mouels.	naleu ou	ipui power.					
2.2 AUXILIARY OUTPL	ЛТ													
1. 15V output		15V±5%	, 0.2A Ma	x load, Rip	ole & Nois	e 50mVp-p	Reference	ed internall	y to the ne	gative outp	out potentia	l.		
2. 5V output		5V±5%	, 0.2A Ma	x load, Rip	ple & Nois	e 50mVp-p	Reference	ed internal	ly to IF_cor	n potentia	l.			
2.3 POWER SUPPLY C	ONFIGURATION													
1. Parallel Operation		Up to 4 i	dentical ur	nits in mas	ter/slave r	node								
2. Series Operation						des. 600V	Max to Ch	nassis gro	und					
2.4 ENVIRONMENTAL	CONDITIONS													
1. Operating temp	CONDITIONS	0~50°C	100% loa	d										
2. Storage temp		-20~85°		u.										
3. Operating humidity			20~90% RH (non-condensing).											
4. Storage humidity			0~90% RH (non-condensing). 0~95% RH (non-condensing).											
5. Vibration					21	ixed to the	vibrating	urfooo						
6. Shock						it is unpac		sunace.						
7. Altitude								100m obo	vo 0000m	Altornativ	alu darata	maximum	ombiont	
7. Allilude						ating: 400			ve 2000m,	Alternativ	ery, derate	maximum	ampient	emp.
8. RoHS Compliance		Complie	s with the	requireme	nts of Ro	HS directiv	e.							
2.5 EMC														
1.Applicable Standards	6:													
2.ESD		IEC1000)-4-2. Air-d	lisch8KV,	contact d	isch4KV								
3. Fast transients		IEC1000)-4-4. 2KV	,										
4.Surge immunity				line to line	. 2KV line	to around								
5.Conducted immunity		IEC1000			,									
6.Radiated immunity)-4-3, 3V/n	n										
7.Magnetic field immur	nitv		0-4-8, 1A/i											
8. Voltage dips	,	EN6100	,											
9.Conducted emission				art 15-A, \										
10. Radiated emission			· · ·	,										
10. naulateu emission			za, гос р	art 15-A, \	OUI-A.									

2.6 SAFETY

CE Mark, UL60950,EN60950 listed. Vouts40V:Output is SELV , IEEE/Isolated analog are SELV. 40 <vouts400v: analog="" are="" hazardous,="" ieee="" is="" isolated="" output="" selv.<="" th=""></vouts400v:>
400 <vout≤600v:output analog="" are="" hazardous,="" ieee="" is="" isolated="" not="" selv.<="" td=""></vout≤600v: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

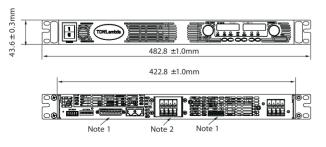
1. Cooling	Forced air flow: from front to rear. No ventilation holes at the top or bottom of the chassis; Variable fan speed.			
2. Dimensions (WxHxD)	W: 423mm, H: 43.6mm, D: 432.8mm (excluding connectors, encoders, handles, etc.)			
3. Weight	10 kg.			
4. AC Input connector (with Protective Cover)	Single 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).			

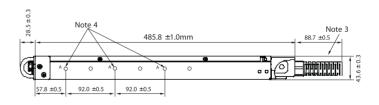
2.8 RELIABILITY SPECS 1. Warranty

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.

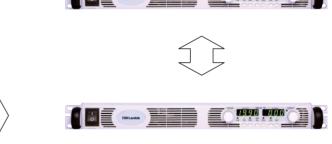
Series operation

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.





1990 0007

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
- LAN Fault Indicators
- Address Viewable on Front Panel Fixed and Dynamic Addressing

5 | GenesysTM 2.4kW-1U

Compatible with most standard Networks

 Program Current Measure Current



Current Foldback shutdown

P/N: IS420

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

P/N: IEEE

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

Outrout

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 LXI 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

40.00 19.00

5000 2600

50.00 55.00

* Included with power supply





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.

Front Panel Description

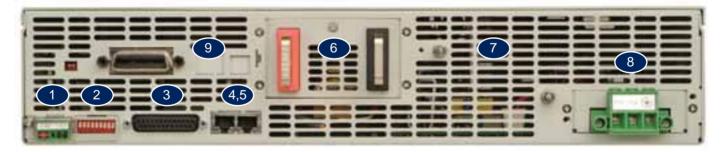


- 1. ON/OFF Switch
- 2. Air Intake allows zero stacking for maximum system flexibility and power density.
- 3. Reliable encoder controls Output Voltage, Address, OVP and UVL settings.
- 4. Volt Display shows Output Voltage and directly displays OVP, UVL and Address settings.
- 5. Reliable encoder controls 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

Foldback Mode

- F
- Fine ControlRemote 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 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.



Genesvs [™] 3.3kW Specifications

1.0 MODEL	GEN	8-400	10-330	15-220	20-165	30-110	40-85	60-55	80-42	100-33	150-22	300-11	600-5.5
1.Rated output voltage(*1)	V	8	10	15	20-103	30	40-03	60	80	100-55	150	300	600
2.Rated Output Current(*2)	А	400	330	220	165	110	85	55	42	33	22	11	5.5
3.Rated Output Power	W	3200	3300	3300	3300	3300	3400	3300	3360	3300	3300	3300	3300
1.1 CONSTANT VOLTAGE MODE													
1.Max.line regulation (0.01% of rated Vo+ 2mV)(*6)	mV	2.8	3	3.5	4	5	6	8	10	12	17	32	62
2.Max load regulation (0.015% of rated Vo+5mV)(*7)	mV	6.2	6.5	7.25	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	500
4.Ripple r.m.s 5Hz~1MHz	mV V	8	8	8	8	8	8	8	8	8	25	35	120
5.Remote sense compensation/wire 6.Temp. coefficient	PPM/°C	2 100PPM	2 C of rated	2 Loutput vo	2 Itage follow	5 ing 30 min	5 utes warm-	5	5	5	5	5	5
7.Temp. stability									nstant line	, load & ten	np.		
8.Warm-up drift			n 0.05% of							,			
9.Up-prog. response time, 0~Vo Rated (*9)	mS				30					150			250
10.Down-prog response time Full-load (*9)	mS	20		100			160			30			500
No-load (*10)	mS	500	600	700	800	900	1000	1100	1200	1500	2000	3500	4000
11.Transient response time	mS	current. C	Dutput volta Dutput set-p 1 1mSec for	point: 10-10	00%, local :	sense.			-	0-90% of ra 0V	ated output		
1.2 CONSTANT CURRENT MODE													
1.Max.line regulation (0.01% of rated lo+ 2mA)(*6)	mA	42	35	24	18.5	13	10.5	7.5	6.2	5.3	4.2	3.1	2.6
2.Max.load regulation (0.02% of rated lo+5mA)(*11)	mA	85	71	49	38	27	22	16	13.4	11.6	9.4	7.2	6.1
3.Ripple r.m.s 5Hz~1MHz . (*12)	mA	1300	660 n 0.1% of ra	440	300	250	200 utos followi	100	120	90	60	50	10
4.Load regulation thermal drift 5.Temp. coefficient	PPM/°C		n 0.1% of ra						ange.				
6.Temp. stability									nstant line.	load & tem	perature.		
7.Warm-up drift		8V~40V r	nodels: Les	ss than 0.5	% of rated	output cur	rent over 3	0 minutes	following p				
1.3 PROTECTIVE FUNCTIONS													
1. OCP			Constant C										
2. OCP Foldback			hut down w										
3. OVP type										unication p			1
4. OVP trip point 5. Output Under Voltage Limit			0.5~12V y front pane		1~24V	2~36V	2~44V		5~88V	5~110V	5~165V	5~330V	5~660V
6. Over Temp. Protection			ectable , lat			IUIL FIEVE	nis nom ac	justing vo	ut below III	m.			
					in latorioa.								
1.4 ANALOG PROGRAMMING AND MONITORING 1.Vout Voltage Programming		0.100%	0~5V or 0-	10\/ usor	soloct Acc	uracy and	linoarity:+(5% of rat	od Vout				
2.lout Voltage Programming (*13)			0~5V or 0-										
3.Vout Resistor Programming			0~5/10Koł							out.			
4.lout Resistor Programming (*13)			0~5/10Koł										
5.On/Off control (rear panel)			ical. Voltag				user selec,	table logic					
6.Output Current monitor (*13)			0~10V, Ac										
7.Output Voltage monitor			0~10V,Acc										
8.Power Supply OK signal 9. CV/CC Indicator			<u>(4~5V) -OI</u> high (4~5V					k current:	10mA				
10. Enable/Disable			act. Open:o						TOINA.				
11. Local/Remote analog control			ical signal of						en: Local.				
12. Local/Remote analog control Indicator			llector, Loca							ent: 10mA.			
1.5 FRONT PANEL		. ·											
1.Control functions		Vout/ Iou	t manual a	diust by so	narate enc	oders (coa	rse and fin	a adjustme	nt solactal	hlo)			
			L manual a					5 dajaotini		0107.			
							Foldback co	ontrol (CV	to CC). Go	to local co	ntrol.		
			selection b										
		Re-start	modes (aut	tomatic res	start, safe n	node).							
			e selection:										
2.Display			4 digits , Ac										
3.Indications			4 digits, Ac Current, Ala						t Panel La				
		I vonaye,	Sunon, Ale	ann, i ine,	I IGVIEW, F	JUDAUR, LU	σσαι, συιρυ						
1.6 Interface RS-232&RS-485 or Optic													
1.6 Interface RS-232&RS-485 or Optio	onal GI	PIB / LA 8	N Inter	face 15	20	30	40	60	80	100	150	300	600
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit)	V	8	10	15									
1.6 Interface RS-232&RS-485 or Optio	V mV	8 0.96	10 1.2	15 1.8	2.40	3.60	4.80	7.2	9.6	12	18	36	72
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05%Vo Rated+0.05% of Vo Actual Output)	V	8	10	15									
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05%Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit)	V mV mV	8 0.96 8	10 1.2 10	15 1.8 15	2.40 20	3.60 30	4.80 40	7.2 60	9.6 80	12 100	18 150	36 300	72 600
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated)	V mV mV mA	8 0.96 8 48	10 1.2 10 39.6	15 1.8 15 26.4	2.40 20 19.8	3.60 30 13.2	4.80 40 10.2	7.2 60 6.6	9.6 80 5.0	12 100 4.0	18 150 2.6	36 300 1.3	72 600 0.7
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05%Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit)	V mV mV mA	8 0.96 8	10 1.2 10	15 1.8 15	2.40 20	3.60 30	4.80 40	7.2 60	9.6 80	12 100	18 150	36 300	72 600
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.2% of Io Rated+0.1% of Io Actual Output) (*13) 3. Readback Voltage	V mV mV mA	8 0.96 8 48	10 1.2 10 39.6	15 1.8 15 26.4	2.40 20 19.8	3.60 30 13.2	4.80 40 10.2	7.2 60 6.6	9.6 80 5.0	12 100 4.0	18 150 2.6	36 300 1.3	72 600 0.7
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.2% of Io Rated+0.1% of Io Actual Output) (*13) 3. Readback Voltage Resolution (0.012% of Vo Rated)	V mV mV mA mA mA	8 0.96 8 48 1200 0.96	10 1.2 10 39.6 990 1.2	15 1.8 15 26.4 660 1.8	2.40 20 19.8 495 2.40	3.60 30 13.2 330 3.60	4.80 40 10.2 255 4.80	7.2 60 6.6 165 7.2	9.6 80 5.0 126 9.6	12 100 4.0 99 12	18 150 2.6 66 18	36 300 1.3 33 36	72 600 0.7 16.5 72
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.2% of Io Rated+0.1% of Io Actual Output) (*13) 3. Readback Voltage	V mV mV mA	8 0.96 8 48 1200	10 1.2 10 39.6 990	15 1.8 15 26.4 660	2.40 20 19.8 495	3.60 30 13.2 330	4.80 40 10.2 255	7.2 60 6.6 165	9.6 80 5.0 126	12 100 4.0 99	18 150 2.6 66	36 300 1.3 33	72 600 0.7 16.5
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.2% of Io Rated+0.1% of Io Actual Output) (*13) 3. Readback Voltage Resolution (0.012% of Vo Rated) Accuracy (0.1% Vo Rated+0.1% of Vo Actual Output)	V mV mV mA mA mA	8 0.96 8 48 1200 0.96	10 1.2 10 39.6 990 1.2	15 1.8 15 26.4 660 1.8	2.40 20 19.8 495 2.40	3.60 30 13.2 330 3.60	4.80 40 10.2 255 4.80	7.2 60 6.6 165 7.2	9.6 80 5.0 126 9.6	12 100 4.0 99 12	18 150 2.6 66 18	36 300 1.3 33 36	72 600 0.7 16.5 72
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.2% of Io Rated+0.1% of Io Actual Output) (*13) 3. Readback Voltage Resolution (0.012% of Vo Rated)	V mV mV mA mA mA	8 0.96 8 48 1200 0.96	10 1.2 10 39.6 990 1.2	15 1.8 15 26.4 660 1.8	2.40 20 19.8 495 2.40	3.60 30 13.2 330 3.60	4.80 40 10.2 255 4.80	7.2 60 6.6 165 7.2	9.6 80 5.0 126 9.6	12 100 4.0 99 12	18 150 2.6 66 18	36 300 1.3 33 36	72 600 0.7 16.5 72
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.2% of Io Rated+0.1% of Io Actual Output) (*13) 3. Readback Voltage Resolution (0.012% of Vo Rated) Accuracy (0.1% Vo Rated+0.1% of Vo Actual Output) 4. Readback Current	V mV mV mA mA mV mV mV	8 0.96 8 48 1200 0.96 16	10 1.2 10 39.6 990 1.2 20	15 1.8 15 26.4 660 1.8 30	2.40 20 19.8 495 2.40 40	3.60 30 13.2 330 3.60 60	4.80 40 10.2 255 4.80 80	7.2 60 6.6 165 7.2 120	9.6 80 5.0 126 9.6 160	12 100 4.0 99 12 200	18 150 2.6 66 18 300	36 300 1.3 33 36 600	72 600 0.7 16.5 72 1200
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.2% of Io Rated+0.1% of Io Actual Output) (*13) 3. Readback Voltage Resolution (0.012% of Vo Rated) Accuracy (0.1%Vo Rated+0.1% of Vo Actual Output) 4. Readback Current Resolution (0.012% of Io Rated) Accuracy (0.3% of Io Rated+0.1% of Io Actual Output) (*13)	V mV mV mA mA mV mV mV	8 0.96 8 48 1200 0.96 16 48	10 1.2 10 39.6 990 1.2 20 39.6	15 1.8 15 26.4 660 1.8 30 26.4	2.40 20 19.8 495 2.40 40 19.8	3.60 30 13.2 330 3.60 60 13.2	4.80 40 10.2 255 4.80 80 10.2	7.2 60 6.6 165 7.2 120 6.6	9.6 80 5.0 126 9.6 160 5.0	12 100 4.0 99 12 200 4.0	18 150 2.6 66 18 300 2.6	36 300 1.3 33 36 600 1.3	72 600 0.7 16.5 72 1200 0.7
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.2% of Io Rated+0.1% of Io Actual Output) (*13) 3. Readback Voltage Resolution (0.012% of Vo Rated) Accuracy (0.1%Vo Rated+0.1% of Vo Actual Output) 4. Readback Current Resolution (0.012% of Io Rated) Accuracy (0.3% of Io Rated+0.1% of Io Actual Output) (*13) 5. OVP/UVL Programming	V mV mV mA mA mV mV mA mA	8 0.96 8 48 1200 0.96 16 48 1600	10 1.2 10 39.6 990 1.2 20 39.6 1320	15 1.8 15 26.4 660 1.8 30 26.4 880	2.40 20 19.8 495 2.40 40 19.8 660	3.60 30 13.2 330 3.60 60 13.2 440	4.80 40 10.2 255 4.80 80 10.2 340	7.2 60 6.6 165 7.2 120 6.6 220	9.6 80 5.0 126 9.6 160 5.0 168	12 100 4.0 99 12 200 4.0 132	18 150 2.6 66 18 300 2.6 88	36 300 1.3 33 36 600 1.3 44	72 600 0.7 16.5 72 1200 0.7 22
1.6 Interface RS-232&RS-485 or Optic Model 1. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual Output) 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.2% of Io Rated+0.1% of Io Actual Output) (*13) 3. Readback Voltage Resolution (0.012% of Vo Rated) Accuracy (0.1%Vo Rated+0.1% of Vo Actual Output) 4. Readback Current Resolution (0.012% of Io Rated) Accuracy (0.3% of Io Rated+0.1% of Io Actual Output) (*13)	V mV mV mA mA mV mV mV	8 0.96 8 48 1200 0.96 16 48	10 1.2 10 39.6 990 1.2 20 39.6	15 1.8 15 26.4 660 1.8 30 26.4	2.40 20 19.8 495 2.40 40 19.8	3.60 30 13.2 330 3.60 60 13.2	4.80 40 10.2 255 4.80 80 10.2	7.2 60 6.6 165 7.2 120 6.6	9.6 80 5.0 126 9.6 160 5.0	12 100 4.0 99 12 200 4.0	18 150 2.6 66 18 300 2.6	36 300 1.3 33 36 600 1.3	72 600 0.7 16.5 72 1200 0.7

*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 380/ac 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 output current.

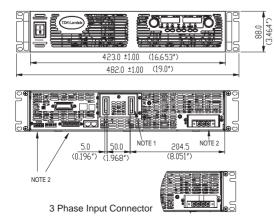
*13: The Constant Current programming readback and monitoring accuracy does not include the warm-up and Load regulation thermal drift.

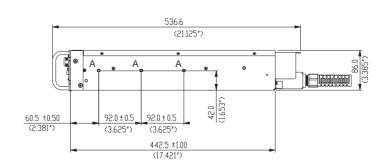
General Specifications Genesys[™] 3.3kW

	GEN	-400 10-330 15-22		30-110	40-85	60-55	80-42	100-33	150-22	300-11	600-
1. Input voltage/freq. (*3)		ngle Phase,230V models:									
	VAC	Phase, 208V models: 170									
2. Maximum Single Phase 230V models:		Phase, 400V models: 342									
loput ourropt	A	24 24 24	24	24	24	23	23	23	23	23	23
at 100% load 3-Flidse, 200V Illouels.	- ^	15 15 15 7.5 7.5 7.5 7.5	<u>15</u> 7.5	<u>15</u> 7.5	<u>15</u> 7.5	14.5 7	14.5 7	14.5 7	14.5	14.5	14
3-Phase, 400V models: 3. Power Factor (Typ)		1.5 7.5 7.5 7.5 7.5								<u> </u>	/
I. Efficiency (*4)	%	82 84 84	86	86	88	88	<u>0.94@200</u> 88	88	88	88	8
5. Inrush Current (*5)	1	ngle-Phase and 3-Phase 2				00	00	00	00	00	0
	A	Phase 400V models: Less									
δ. Hold-up time (Typ)	mS	mSec for Single-Phase ar		3V models,	6mSec for	3-Phase 4	00V model	s. Rated or	utput powe	r.	
2 POWER SUPPLY CONFIGURATION											
I. Parallel Operation		tical units in master/slav									
2. Series Operation	Up to 2	tical units. with external	diodes. 600V	Max to Cl	nassis grou	ind					
3 ENVIRONMENTAL CONDITIONS											
	0.50%0	20/ la a d									
. Operating temp	0~50°C,	J% I0ad.									
2. Storage temp	-30~85°										
B. Operating humidity		(non-condensing).									
I. Storage humidity		(non-condensing).									
5. Vibration	MIL-810	nethod 514.5, The EUT	is fixed to the	vibrating	surface.						
S. Shock	Less that	DG , half sine , 11mSec.	Unit is unpac	ked.							
7. Altitude	Operatir	10000ft (3000m), Derate	output curre	nt by 2%/	100m abov	/e 2000m,	Alternativ	ely, derate	maximun	n ambient	temp.
	by 1ºC/1	n above 2000m. Non op	erating: 4000)0ft (1200	Om).						
3. RoHS Compliance	-	ith the requirements of F	-		,						
······	1.0000										
4 EMC											
.Applicable Standards:											
2.ESD	IEC1000	2. Air-disch8KV, contac	t disch4KV								
B. Fast transients	IEC1000	,									
1. Surge immunity	-	5. 1KV line to line, 2KV li	ne to around								
5. Conducted immunity	IEC1000		no to ground								
S.Radiated immunity	IEC1000	,									
7.Magnetic field immunity	EN6100										
3. Voltage dips	EN6100										
9.Conducted emission		FCC part 15-A, VCCI-A.									
10. Radiated emission	EN5502	FCC part 15-A, VCCI-A.									
.5 SAFETY											
Applicable standards:	CE Mar	L60950,EN60950 listed	Vout-40V/:0	utout is SE		/leolated a	nalog are	SELV			
Applicable statuarus.						isulateu a	nalog ale	SELV.			
		0V: Output is hazardous	,			=1.) /					
		500V:Output is hazardou									
2.Withstand voltage		odels :Input-Outputs (SI	,								
		00V models: Input-Haz.									
		OutputSELV: 1900VDC						ut-Ground:	2828VDC	1min.	
		00V models: Input-Haz.									
	Hazardo	OutputSELV: 3550VDC	1min. Hazar	dous Outp	ut-Ground:	2670VDC	1min. Inp	ut-Ground:	2828VDC	C1min.	
3.Insulation resistance	More that	00Mohm at 25°C , 70%	RH.								
6 MECHANICAL CONSTRUCTION											
. Cooling		ow: from front to rear. No						ariable fan s	speed.		
. Dimensions (WxHxD)	-	H: 88mm, D: 442.5mm	(excluding co	nnectors,	encoders,	handles, e	etc.)				
. Weight	13 kg.										
4. AC Input connector (with Protective Cover)		e,230V models, Power Co									
	3-Phase	3V & 400V models, Power	Combicon PC	6-16/4-GF	-10,16 seri	es, with Sti	rain relief.				
······································	-				0.7			tor Phoeni			7 62
	8V to 10	models: Bus-bars (hole)	ð 10.5mm). 1	50V to 60	uv models	. wire cian	np connec	ioi, i noeni	λ Γ/IN. ΓΓ	UN1-4-D-1	
5.Output connectors	8V to 10	models: Bus-bars (hole (ð 10.5mm). 1	50V to 60	UV models	. wire clan	np connec	tor, i noeni	X F/IN. FIN	UN 1-4-11-1	.02
•	8V to 10	models: Bus-bars (hole s	ð 10.5mm). 1	50V to 60	UV models	. wire cian	np connec	tor, i noeni	α Γ/Ν. ΓΝ	UN1-4-⊓-7	.02

All specifications subject to change without notice.

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



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. P/N: IS420 Power supply Voltage and Current Programming Accuracy ±1%

Power supply Voltage and Current Monitoring Accuracy ±1.5%

LAN Interface

LXI[®] Compliant to Class C P/N: LAN

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

5 | GenesysTM 3.3kW-2U

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

P/N: IEEE

Power Supply Identification / Accessories How to order

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

Models 3.3kW

	Output	Output	Output
Model	Voltage	Current	Power
	VDC	(A)	(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

	Output	Output	Output
Model	Voltage	Current	Power
	VDC	(A)	(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 300-11	0~300V	0~11	3300
GEN 600-5.5	0~600V	0~5.5	3300

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 LXT^M 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	DB-9F Shield Ground L=2m	DB-9F Shield Ground L=2m	DB-25F Shield Ground L=2m
Power Supply Connector	EIA/TIA-568A (RJ-45)	EIA/TIA-568A (RJ-45)	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

Also available, Genesys™ 1U full Rack 750W/1500W & Half Rack 750W



TDK·Lambda/6

P/N

IEEE

IS510

IS420

LAN



Programmable DC Power Supplies 5KW in 2U 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 5kW in 2U
- Wide Range of popular worldwide AC inputs, 3ø (208VAC, 400VAC)
- Active Power Factor Correction (Three-Phase AC Input)
- Output Voltage up to 600V, Current up to 600A
- 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 5kW 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 2U 3.3kW/5kW 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

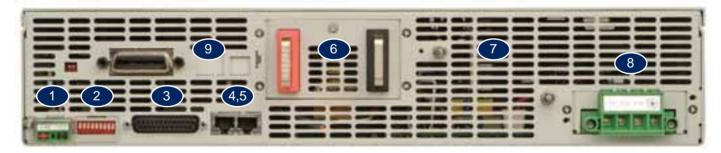


- 1. ON/OFF Switch
- 2. Air Intake allows zero stacking for maximum system flexibility and power density.
- 3. Reliable encoder controls Output Voltage, Address, OVP and UVL settings.
- 4. Volt Display shows Output Voltage and directly displays OVP, UVL and Address settings.
- 5. Reliable encoder controls 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

Foldback Mode

- •
- Fine ControlRemote 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 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: 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 [™] 5kW Specifications

			10-500	40.240	00.050	00 470	10 105		80-65	100-50	150-34	200 47	600-8.
.0 MODEL	GEN	8-600		16-310	20-250	30-170	40-125	60-85				300-17	
1.Rated output voltage(*1)	V	8	10	16	20	30	40	60	80	100	150	300	600
2.Rated Output Current(*2)	A	600	500	310	250	170	125	85	65	50	34	17	8.5
3.Rated Output Power 4.Development Priority	W	4800 A	5000 C	4960 B	5000 C	5100 B	5000 B	5100 A	5200 C	5000 C	5100 A	5100 B	5100 A
.1 CONSTANT VOLTAGE MODE		A	U	D	U	D	D	A	C	U	A	D	A
			1.0	4.0			4			10	45	00	00
1.Max.line regulation (0.01% of rated Vo)(*6)	mV mV	0.8	1.0 6.5	1.6 7.4	2 8	3 9.5	4	6 14	8	10 20	15 27.5	30 50	60 95
2.Max load regulation (0.015% of rated Vo+5mV)(*7) 3.Ripple and noise p-p 20MHz (*8)	mV	75	75	7.4	75	9.5	75	75	85	100	120	300	95 500
4.Ripple r.m.s 5Hz~1MHz	mV	10	10	10	10	10	10	10	12	15	25	35	120
5.Remote sense compensation/wire	V	2	2	2	2	5	5	5	5	5	5	5	5
	PPM/°C		/°C of rated						5	5	5	5	5
7.Temp. stability									nstant line	, load & ten	np.		
B.Warm-up drift		Less that	n 0.05% of	rated outp	ut voltage+	2mV over	30 minutes	following p	ower On.				
9.Up-prog. response time, 0~Vo Rated (*9)	mS			30	mS					50mS			100
10.Down-prog response time Full-load (*9)	mS	15		50			80				00		200
No-load (*10)	mS	400	500	600	700	800	900	1000	1200	1500	2000	2500	3000
1.Transient response time	mS	Time for o	output volta Dutput set-p	age to reco	ver within ().5% of its	rated outpu	it for a load	I change 1	0-90% of ra	ated output	İ	
		Less than	n 1mSec fo	r models u	to and inc	sense. cludina 100	OV. 2msec	for models	above 10	0V			
		1											
2 CONSTANT CURRENT MODE	m۸	200	250	166	105	05	60 E	10 E	20 E	25	17	0 E	4.25
I.Max.line regulation (0.05% of lo rated)(*6) 2.Max.load regulation (0.1% of lo rated)(*11)	mA mA	300 600	250 500	155 310	125 250	85 170	62.5 125	42.5 58	32.5 65	25 50	17 34	8.5 17	4.25
3.Ripple r.m.s 5Hz~1MHz. (*12)	mA	1950	1800	1400	1000	460	300	150	120	100	90	30	8.5 15
	PPM/°C		/°C from ra						120	100	30	50	10
5.Temp. stability	0								stant line.	load & terr	perature.		
6.Warm-up drift										power On			
										wing power			
.3 PROTECTIVE FUNCTIONS													
I. OCP		0~105%	Constant C	Current									
2. OCP Foldback		Output s	hut down w	hen power	supply cha	ange from	CV to CC.	User selec	table.				
3. OVP type										unication p	ort comma	nd.	
4. OVP trip point		0.5~10V	0.5~12V	1~19V	1~24V	2~36V	2~44.1V	5~66.15V	5~88.2V	5~110.25V			5~661
5. Output Under Voltage Limit		Preset by	y front pane	el or comm	unication p	ort. Preve	nts from ac	justing Vo	it below lir	nit.			
5. Over Temp. Protection		User sel	ectable, la	tched or no	on-latched.								
4 ANALOG PROGRAMMING AND MONITORING													
		0~100%	0~5V or 0	~10V. user	select. Acc	curacy and	l linearity:+).5% of rate	ed Vout.				
1.Vout Voltage Programming			, 0~5V or 0										
1.Vout Voltage Programming 2.Iout Voltage Programming (*13)		0~100%,	, 0~5V or 0	~10V, user	select. Acc	curacy and	l linearity:±	1% of rated	lout.	out.			
1.Vout Voltage Programming 2.Iout Voltage Programming (*13) 3.Vout Resistor Programming		0~100%, 0~100%,	, 0~5V or 0 , 0~5/10Kol	~10V, user hm full sca	select. Acc le,user sele	curacy and ect.,Accura	l linearity:± acy and line	1% of rated arity: ±1%	lout. of rated Vo				
1.Vout Voltage Programming 2.Iout Voltage Programming (*13) 3.Vout Resistor Programming 4.Iout Resistor Programming (*13)		0~100%, 0~100%, 0~100%,	, 0~5V or 0 , 0~5/10Kol , 0~5/10Kol	~10V, user hm full sca hm full sca	select. Acc le,user sele le,user sele	curacy and ect.,Accura	l linearity:± acy and line acy and line	1% of rated arity: ±1% arity:±1.5%	lout. of rated Vo				
1.Vout Voltage Programming 2.lout Voltage Programming (*13) 3.Vout Resistor Programming 4.lout Resistor Programming (*13) 5.On/Off control (rear panel)		0~100%, 0~100%, 0~100%, By electr	, 0~5V or 0 , 0~5/10Kol	~10V, user hm full sca hm full sca e: 0~0.6V/	select. Acc le,user sele le,user sele 2~15V,or d	curacy and ect.,Accura ect. Accura ry contact	l linearity:± acy and line acy and line	1% of rated arity: ±1% arity:±1.5%	lout. of rated Vo				
1.Vout Voltage Programming 2.lout Voltage Programming (*13) 3.Vout Resistor Programming 4.lout Resistor Programming (*13) 5.On/Of control (rear panel) 6.Output Current monitor (*13)		0~100%, 0~100%, 0~100%, By electr 0~5V or	, 0~5V or 0 , 0~5/10Kol , 0~5/10Kol , 0~5/10Kol	~10V, user hm full sca hm full sca e: 0~0.6V/ curacy:±1%	select. Acc le,user sele le,user sele 2~15V,or d 6 , user sel	curacy and ect.,Accura ect. Accura ry contact ectable.	l linearity:± acy and line acy and line	1% of rated arity: ±1% arity:±1.5%	lout. of rated Vo				
1.Vout Voltage Programming 2.Iout Voltage Programming (*13) 3.Vout Resistor Programming (*13) 5.On/Off control (rear panel) 6.Output Current monitor (*13) 7.Output Voltage monitor		0~100%, 0~100%, 0~100%, By electr 0~5V or 0~5V or TTL high	, 0~5V or 0 , 0~5/10Kol , 0~5/10Kol ical. Voltag 0~10V , Ac 0~10V , Ac (4~5V) -O	~10V, user hm full sca hm full sca e: 0~0.6V/ curacy:±1% curacy:±1% K, 0V-Fail	select. Acc le,user sele le,user sele 2~15V,or d 6, user sele 5,user sele 5000hm se	curacy and ect.,Accura ect. Accura ry contact ectable. ectable. eries resist	I linearity:± acy and line icy and line ,user select ance.	1% of rated arity: ±1% arity:±1.5% table logic.	lout. of rated Vo	out.			
A NACCO Frogramming Alout Voltage Programming Alout Voltage Programming Alout Resistor Programming Alout Resistor Programming Alout Resistor Programming (*13) S.On/Off control (rear panel) 6.Output Current monitor (*13) 7.Output Voltage monitor 8.Power Supply OK signal 9. CV/CC Indicator		0~100%, 0~100%, 0~100%, By electr 0~5V or 0~5V or TTL high	, 0~5V or 0 , 0~5/10Kol , 0~5/10Kol ical. Voltag 0~10V , Ac 0~10V , Ac (4~5V) -O	~10V, user hm full sca hm full sca e: 0~0.6V/ curacy:±1% curacy:±1% K, 0V-Fail	select. Acc le,user sele le,user sele 2~15V,or d 6, user sele 5,user sele 5000hm se	curacy and ect.,Accura ect. Accura ry contact ectable. ectable. eries resist	I linearity:± acy and line icy and line ,user select ance.	1% of rated arity: ±1% arity:±1.5% table logic.	lout. of rated Vo		0mA		
1.Vout Voltage Programming 2.lout Voltage Programming (*13) 3.Vout Resistor Programming (*13) 4.lout Resistor Programming (*13) 5.On/Off control (rear panel) 6.Output Current monitor (*13) 7.Output Voltage monitor 8.Power Supply OK signal 9. CV/CC Indicator		0~100%, 0~100%, 0~100%, By electr 0~5V or 0~5V or TTL high Open co Dry conta	, 0-5V or 0 , 0-5/10Kol , 0-5/10Kol , 0-5/10Kol , 0-10V , Acc 0-10V , Acc (4-5V) -Ol llector, CC act. Open:c	~10V, user hm full sca hm full sca e: 0~0.6V/ curacy:±1% curacy:±1% K, 0V-Fail mode: On, off , Short: c	select. Acc le,user sele le,user sele 2~15V,or d 6, user sele 500ohm se CV mode: on. Max. vc	curacy and ect.,Accura ect. Accura ry contact ectable. ectable. off, Maxin off, Maxin	I linearity:± acy and line icy and line ucy and line ucy and line ucy and line ucy and line ance. num voltag nable/Disal	1% of ratec arity: ±1% arity:±1.5% table logic. e: 30V, ma ole in: 6V.	l lout. of rated Vo o of rated I kimum sinl	out.	0mA		
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Nout Voltage Programming Lout Voltage Programming Nout Resistor Programming Alout Resistor Programming Son/Off control (rear panel) Son/Off control (rear panel) Output Current monitor (*13) Output Voltage monitor S.Power Supply OK signal O. CV/CC Indicator I. Enable/Disable I. Local/Remote analog control		0~100%, 0~100%, 0~100%, By electr 0~5V or 0~5V or TTL high Open co Dry conta By electr	, 0-5V or 0 , 0-5/10Kol , 0-5/10Kol , 0-5/10Kol , 0-10V , Acc 0-10V , Acc (4-5V) -Ol llector, CC act. Open:c	~10V, user hm full sca hm full sca e: 0~0.6V/ curacy:±1% curacy:±1% K, 0V-Fail mode: On, off , Short: co or Open/Sh	select. Acc le,user sele le,user sele 2~15V,or d 6, user sele 500ohm se CV mode: on. Max. vo nort: 0~0.6	curacy and ect.,Accura ect. Accura ry contact ectable. ectable. off, Maxin off, Maxin oltage at E / or short:	I linearity:± acy and line cy and line ,user selec ance. num voltag nable/Disal Remote, 2	1% of ratec arity: ±1% arity:±1.5% table logic. e: 30V, ma ble in: 6V. ~15V or op	l lout. of rated Vo o of rated I kimum sinl en: Local.	out. k current: 1	0mA		
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1.Vout Voltage Programming 2.lout Voltage Programming (*13) 3.Vout Resistor Programming (*13) 5.On/Off control (rear panel) 6.Output Current monitor (*13) 7.Output Voltage monitor 8.Power Supply OK signal 9. CV/CC Indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control Indicator 5.FRONT PANEL		0-100%, 0-100%, 0-100%, By electr 0-5V or TTL high Open co Dry conta By electr Open co Vout/ lou OVP/UV On/Off, C Address Re-start	0-5V or 0 0-5/10Kol 0-5/10Kol 0-5/10Kol 0-5/10Kol 0-10V, Ac 0-10V, Ac	~10V, user hm full sca hm full sca e: 0~0.6V/ curacy:±1% K, 0V-Fail mode: On, off , Short: or Open/Sf al: Off, Rer djust by se djust by ve fif, Re-start y Voltage (tomatic res	select. Acc le,user selel le,user selel 2-15V,or d 6, user sele 5000hm ss 5000hm ss 5000hm ss 600 hm ss 60	curacy and cat. Accura ry contact ectable. ctable. off, Maxin blage at E v or short: Maximum v oders (coa ncoder. tto, safe), I adjust enc node).	I linearity:± tcy and line cy and line user select ance. num voltag nable/Disal Remote, 2 voltage: 30 ¹ rse and fin Foldback cr coder. Num	1% of ratec arity: ±1% arity:±1.5% table logic. =: 30V, ma. ole in: 6V. =-15V or op /, maximun e adjustme ontrol (CV t	lout. of rated Vo of rated I kimum sinl en: Local. n sink curr nt selectal o CC), Go	out. k current: 1 ent: 10mA. ble).			
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1.Vout Voltage Programming 2.lout Voltage Programming (*13) 3.Vout Resistor Programming (*13) 5.On/Off control (rear panel) 5.Output Current monitor (*13) 7.Output Voltage monitor 3.Power Supply OK signal 3. CV/CC Indicator 10. Enable/Disable 11. Local/Remote analog control 12. Local/Remote analog control Indicator 5.FRONT PANEL 1.Control functions		0-100%, 0-100%, 0-100%, By electr 0-5V or 1 0-5V or 1 0-0V or 1 0-	0-5V or 0 0-5/10Kol 0-5/10Kol 0-cl. Voltag 0-10V, Acc 0-10V, Acc 0-10V, Acc (4-5V)-Ol llector, CC act. Open: cical signal a llector, Loc tt manual a L manual a Dutput on/o selection b modes (aui e selections) 4 digits, Ac	~10V, user hm full sca hm full sca hm full sca is 0~0.6/V, curacy:±19 zuracy:±19 zuracy:±1% K, 0V-Fail mode: On, off , Short: c or Open/Sh al: Off, Rer djust by se djust by vc fif, Re-start y Voltage (tomatic res 1200,240 ccuracy: 0.	select. Acc le,user sele le,user sele 2-15V,or d 6, user sele 5000hm se 5000hm se CV mode: on. Max. vc hort: 0-0.6V note: On. M parate enc. lt. Adjust e modes (a. or current) tart, safe n tart, safe n tart, safe n o,4800,960 5% of rated	curacy and cct. Accura cct. Accura ry contact ectable. ctable. ctable. doff, Maxim doff, Maxim doff, Maxim doff, Maxim dor short: Maximum oders (coa ncoder. tto, safe), I adjust enc node). 0 and 19,2 9 output Ve output Cu	I linearity:± tcy and line tcy and line tcy and line tcy and line tcy and line ance. a	1% of ratec arity: ±1% arity:±1.5% table logic. a: 30V, ma: ble in: 6V. -15V or op /, maximum e adjustme ontrol (CV t ber of addr punt. 	lout. of rated Vo o frated I kimum sinl en: Local. n sink curr nt selectal o CC), Go esses:31.	k current: 1 ent: 10mA. ble).			
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	V mV mV	0-100%, 0-100%, 0-100%, 9x electr 0-5V or 0-5V or TTL high Open co Dry conta By electr Open co Dry conta By electr Open co Vout/ lou OVP/UV On/Off, C Address Re-start Baud ratu Vottage, 8 B- B- B- B- B- B- B- B- B- B- B- B- B-	0-5V or 0 0-5/10Kol 0-5/10Kol ical. Voltag 0-10V, Acc 0-10V, Acc 0-10V, Acc ical. Voltag 10ector, CC act. Open: ical signal al llector, Loc the thread the thread thre	-10V, user hm full sca hm full sca ic 0-0.6V/ curacy:±19 uracy:±1% K, 0V-Fail mode: On, off, Short: c or Open/SI al: Off, Rer djust by se djust by se djust by se djust by ve djust by ve djust by ve djust by ve djust by ve djust by se djust by se	select. Acc le,user sele le,user sele 2-15V,ord d 6, user sele 5000hm se CV mode: on. Max. vc ont: 0-0.6° mote: On. M parate enco lt. Adjust e modes (au or current) tart, safe n 0,4800,96C 5% of rated Preview, Fr 20 2.4 20	curacy and cct. Accura act. Accura act. Accura y contact ectable. aries resist Off, Maxin bitage at El / or short: Maximum V oders (coa ncoder. to, safe), I adjust enc node). d output V output cu oldback, L 30 3.6 3.0	I linearity:± toy and line yard line yard line yard line yard line ance. num voltag nable/Disal Remote, 2 voltage: 30' urse and fin Foldback cr soder. Num 200. oltage ±1 co rrent ±1 co occal, Outpu 40 4.8 40	1% of ratec arity: ±1% arity:±1.5% table logic. e: 30V, ma. ble in: 6V. -15V or op /, maximun e adjustme e adjustme ontrol (CV t ber of addr pount. 	I lout. of rated Vo o frated Vo o frated I en: Local. n sink curr nt selectal o CC), Go esses:31.	out. k current: 1 ent: 10mA. ble). to local co ck, CV/CC. 100 12 100	ntrol. 150 18 150	36 300	72 600
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I. Vout Voltage Programming I. Jout Voltage Programming I. Jout Resistor Programming I. Jout Voltage monitor I. Scott VCC Indicator I. Local/Remote analog control I. Local/Remote analog control Indicator I. Control functions I. Control functions I. Indications I. Indications I. Indications I. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.3% of Io Rated) Accuracy (0.15% of Vo Rated) Accuracy (0.15% of Vo Rated) I. Readback Voltage Resolution (0.012% of Vo Rated) Accuracy (0.15% of Vo Rated) I. Readback Current Resolution (0.012% of Io Rated) Accuracy (0.4% of Io Rated)(*13) I. Accuracy (0.4% of Io Rated)(*13) I. OVP/UVL Programming I. Space Interface Interfac	V mV mV mA mA mV mV mA mA	0-100%, 0-100%, 0-100%, 0-50 or 0-5V or 0-5V or TTL high Open co Dry cont By electr Open co Dry cont By electr Open co DVP/UV On/Off, C Address Re-start Baud rat Voltage: Current: Voltage, PIB / LA 8 0.96 8 72 2400	0-5V or 0 0-5/10Kol 0-5/10Kol 0-5/10Kol ical. Voltaga 0-10V , Ac 0-10V , Ac 0-10V , Ac 0-10V , Ac 0-10V , Ac 100 , A	-10V, user hm full sca hm full sca im full	select. Acc e.user sele ie.user sele ie.user sele 2-15%, or d 6, user sele 5000hm se CV mode: on. Max. vc ion. Max. vc	curacy and cut.Accura act.Accura	I linearity:± toy and line yuser select ance. num voltag nable/Disal Remote, 2 voltage: 300 rrse and fin Foldback cr soder. Num 200.	1% of ratec arity: ±1% arity:±1% arity:±1.5% table logic. e: 30V, ma: be in: 6V. -15V or op /, maximun e adjustme e adjustme e adjustme ontrol (CV f ber of addr ount. int. t On, Front 60 	I lout. of rated V of rated V of rated V of rated V i of rated V i	out. k current: 1 ent: 10mA. ble). to local co ck, CV/CC. 100 12 100 6.0 200 12 150 6.0 200	ntrol. 150 18 150 4.08 136 18 225 4.08 136	36 300 2.04 68 36 450 2.04 68	72 600 1.02 34 72 900 1.02 34
I. Vout Voltage Programming I. Iout Voltage Programming (13) 3. Vout Resistor Programming (13) 5. On/Off control (rear panel) 5. Output Current monitor (*13) 7. Output Voltage monitor 7. Output Voltage Programming (16 bit) 7. Remote Voltage Programming (16 bit) 7. Remote Current Programming (16 bit) 7. Readback Voltage 7. Readback Current 7. Resolution (0.012% of Vo Rated) 7. Readback Current 7.	V mV mV mA mA mV mV mV	0-100%, 0-100%, 0-100%, 0-50 or 0-50 or 0-70 o	0-5V or 0 0-5/10Kol 0-5/10Kol 0-5/10Kol ical. Voltaga 0-10V, Acc 0-10V, Acc 0-10V, Acc (4-5V) -00 itelactor, CC act. Open: ical signal i lilector, CC act. Open: act. Open: ical signal i lilector, CC act. Open: act. Open:	-10V, user hm full sca hm full sca is: 0-0.6V/ curacy:±1% K, 0V-Fail mode: On, off, Short: or or Open/SI al: Off, Rer- djust by se djust by se djust by se djust by vo ff, Re-start y Voltage (tomatic res 1200,240 ccuracy: 0. curacy: 0. face 16 16 1.92 15 37.2 1240	select. Acc e.user sele ie.user sele ie.user sele 2-15%, or d 6, user sele 5000hm se CV mode: on. Max. vc or CV mode: on. Max. vc or current) tart, safe n 0,4800,960 5% of rated Preview, Fr 20 20 2,4 20 30 1000 2,40 30 30	curacy and cut.Accura act.Accura act.Accura y contact ectable. aries resist off, Maxin bitage at Er / or short: Maximum v oders (coa ncoder. (coa nc	I linearity:± toy and line yuser select ance. num voltag nable/Disal Remote, 2 voltage: 300 rse and fin Foldback cr soder. Num 200.	1% of ratec arity: ±1% arity:±1% arity:±1.5% table logic. e: 30V, ma: ble in: 6V. -15V or op /, maximun e adjustme e adjustme e adjustme ontrol (CV f ber of addr ount. unt. t On, Front 60 - 7.2 60 - 10.2 340 - 7.2 90 -	i lout. of rated Vo o frated Vo o frated Vo o frated I en: Local. n sink current nt selectal o CC), Go esses:31. Panel Loo 80 9.6 80 9.6 120 7.8	out. k current: 1 ent: 10mA. ble). to local co ck, CV/CC. 100 12 100 6.0 200 12 150 6.0	ntrol. 150 18 150 4.08 136 18 225 4.08	36 300 2.04 68 36 450 2.04	72 600 1.02 34 72 900 1.02

*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,

and 380~415Vac (50/60Hz) for 3-Phase 400V models. *4: 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: 3-Phase 208V models: 170~265Vac, constant load. 3-Phase 400V models: 342~460Vac, constant load.

*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.

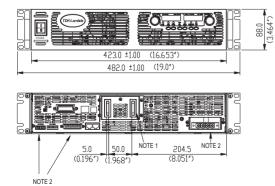
*13: The Constant Current programming readback and monitoring accuracy does not include the warm-up and Load regulation thermal drift.

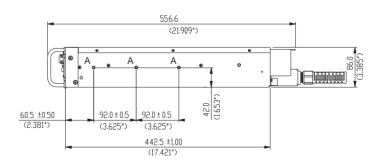
General Specifications Genesys[™] 5kW

2.1 INPUT CHARACTERIST	169	GEN	8-600	10-500	16-310	20-250	30-170	40-125	60-85	80-65	100-50	150-34	300-17	600-8.
1. Input voltage/freq. (*3)								0~265Vrms	, 47~63Hz					
		VAC	3-Phase,	400V moa	els: 342~46	ouvac, 47~	o3HZ							
2. MaximumInput 3	-Phase, 170V models:		21	22	22	22	22	22	22	22	22	22	22	22
	-Phase, 342V models:	(A)	10.5	11	11	11	11	11	11	11	11	11	11	11
3. Power Factor (Typ)			0.94 AT 10	00% LOAD	AND 208V	//380V/400	V/415V							
4. INRUSH PEAK CURRENT		A	3-Phase 2	200V: 50A,	3-Phase 4	00V: 20A.	Not includi	ng the EMI	filter inrush	current, le	ess than 0.2	mSec.		
5. EFFICIENCY AT 200V AND 3	380V (A)	%	83	84	84	86	86	88	90	88	88	88	88	88
6. EFFICIENCY AT 170V AND 3	342V (A)	%	83	84	84	86	86	88	90	88	88	88	88	88
7. HOLD UP TIME (CV MODE)		mS	5mS Typic	cal										
8. PHASE IMBALANCE		%	≤5%											
9. LEAKAGE CURRENT			LESS TH	AN 3mA										
2.2 POWER SUPPLY CONFI	IGURATION													
1. Parallel Operation		Up to 4 id	dentical ur	nits in mas	ter/slave n	node								
2. Series Operation							Max to C	hassis gro	und					
•			Jeniicai ui	III.S. WIIII C		ues. 000 v	IVIAN LO C	nassis gro	unu					
2.3 ENVIRONMENTAL CON	DITIONS													
1. Operating temp			100% load	d.										
2. Storage temp		-20~85°C	2											
Operating humidity		20~90%	RH (non-o	condensing	g).									
4. Storage humidity		10~95%	RH (non-o	condensin	g).									
5. Vibration		MIL-810F	, method	514.5 , Th	e EUT is f	ixed to the	vibrating	surface.						
6. Shock		Less that	n 20G . ha	alf sine . 11	mSec. Un	it is unpac	ked.							
7. Altitude		Operatin	g: 10000f		Derate ou			100m abo	ve 2000m,					
8. RoHS Compliance		<u> </u>		· ·	ents of Rol	-IS directiv	e.							
1.Applicable Standards:		1												
2.ESD		IEC1000	1.2 Aird	icob OKV	contact di	cob 4KV								
				1501101.1	contact u	50114r(v								
3.Fast transients			-4-4. 2KV	P	01011	1								
4.Surge immunity				line to line	e, 2KV line	to ground								
5.Conducted immunity		IEC1000												
6.Radiated immunity			-4-3, 3V/m											
7.Magnetic field immunity)-4-8, 1A/r	n										
8.Voltage dips		EN61000												
9.Conducted emission		EN55022	2A, FCC p	art 15-A, \	/CCI-A.									
10. Radiated emission		EN55022	2A, FCC p	art 15-A, \	/CCI-A.									
.5 SAFETY														
1.Applicable standards:		CE Mark	, UL6095	0,EN6095	D listed. V	out≤40V:C	utput is S	ELV , IEEE	/Isolated a	analog are	SELV.			
		40 <vout< td=""><td>≤400V: Ou</td><td>tput is haz</td><td>zardous, IE</td><td>EE/Isolate</td><td>ed analog</td><td>are SELV.</td><td></td><td></td><td></td><td></td><td></td><td></td></vout<>	≤400V: Ou	tput is haz	zardous, IE	EE/Isolate	ed analog	are SELV.						
								are not SI	ELV.					
2.Withstand voltage								nput-Grour		DC 1min.				
2. Williotana Voltago								Input-SEL						
											out-Ground:	2020//00	1 min	
								n, Input-SE			ut-Ground.	2020VDC	imin.	
											out-Ground:	2020\/DC	1min	
3.Insulation resistance					, 70% RH		uous Ouip	Jul-Ground	.2070700	, 111011. 111p	ut-Ground.	2020 VDC	1111111.	
		1			,									
6 MECHANICAL CONSTR	UCTION	[Fact 1	in flaur fr			addad 1	las et il	4444 4 1 1 1 1 1		-	adable fr			
1. Cooling										,	ariable fan s	speea.		
2. Dimensions (WxHxD)		-	nm, H: 88n	nm, D: 442	2.5mm (e>	cluding co	nnectors,	encoders,	handles, e	etc.)				
3. Weight		16 kg.												
AC Input connector (with I	Protective Cover)							F-10,16 ser						
5.Output connectors		8V to 100	OV models	: Bus-bar	s (hole Ø 1	0.5mm). 1	50V to 60	00V models	: wire clar	mp connec	tor, Phoeni	x P/N: FR	ONT-4-H-7	7.62
.7 RELIABILITY SPECS														
1. Warranty		5 years.												
		0,0013.												

All specifications subject to change without notice.

Outline Drawing Genesys[™] 5kW 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



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.



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 ±1% Power supply Voltage and Current Monitoring Accuracy ±1.5% • Current Programming with 4-20mA signal. P/N: IS420 Power supply Voltage and Current Programming Accuracy ±1% Power supply Voltage and Current Monitoring Accuracy ±1.5%

LAN Interface

LXI Compliant to Class C P/N: LAN

• Meets all LXI-C Requirements

Fixed and Dynamic Addressing

- LAN Fault Indicators
- Auto-detects LAN Cross-over Cable

 Program Current Measure Current

Current Foldback shutdown

Fast Startup



P/N: IEEE

- 5 | GenesysTM 5kW-2U
- VISA & SCPI Compatible
- Address Viewable on Front Panel

Compatible with most standard Networks

Power Supply Identification / Accessories How to order

GEN	8 -	600 -		-
			Factory Options:	Factory AC Input Options:
Series Name	Output Voltage (0~8V)	Output Current (0~600A)	Option: IEEE IS510 IS420 LAN	3P208 (Three Phase 170~265VAC) 3P400 (Three Phase 342~460VAC)

Models 5kW

	Output	Output	Output
Model	Voltage	Current	Power
	VDC	(A)	(W)
GEN 8-600	0~8V	0~600	4800
GEN 10-500	0~10V	0~500	5000
GEN 16-310	0~16V	0~310	4960
GEN 20-250	0~20V	0~250	5000
GEN 30-170	0~30V	0~170	5100
GEN 40-125	0~40V	0~125	5000

	Output	Output	Output
Model	Voltage	Current	Power
	VDC	(A)	(W)
GEN 60-85	0~60V	0~85	5100
GEN 80-65	0~80V	0~65	5200
GEN 100-50	0~100V	0~50	5000
GEN 150-34	0~150V	0~34	5100
GEN 300-17	0~300V	0~17	5100
GEN 600-8.5	0~600V	0~8.5	5100

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	DB-9F Shield Ground L=2m	DB-9F Shield Ground L=2m	DB-25F Shield Ground L=2m
Power Supply Connector	EIA/TIA-568A (RJ-45)	EIA/TIA-568A (RJ-45)	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 2U full Rack 3300W



