

Programmable DC Power Supplies 750W /1500W in 1U Built in RS-232 & RS-485 Interface Parallel Current Summing Optional Interfaces: USB Optional Interfaces: USB IEEE488.2 SCPI Multi-Drop Isolated Analog Interface



Genesys[™] Family GEN H 750W Half Rack GEN 1U 750/1500W Full Rack GEN 2U 3.3/5kW GEN 3U 10/15kW

TDK·Lambda

www.us.tdk-lambda.com/hp

The Genesys[™] family of programmable power supplies sets a new standard for flexible, reliable, AC/DC power systems in Test & Measurement, Industrial and Laboratory applications.

Features include:

- High Power Density 750/1500W 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
- Last Setting Memory; Front Panel Lockout
- Advanced Parallel reports total current up to four identical units
- Global Commands for Serial RS-232/RS-485 Interface
- Reliable Encoders for Voltage and Current Adjustment
- Constant Voltage/Constant Current auto-crossover
- Parallel Operation with Active Current Sharing
- Independent Remote ON/OFF and Remote Enable/Disable
- External Analog Programming and Monitoring
- Reliable Modular and SMT Design
- 19" Rack Mounted ATE and OEM applications
- Optional Interfaces

Isolated Analog Programming and Monitoring

IEEE Multi-Drop - SCPI

LXI Compliant LAN Interface

- **USB** Interface
- Five Year Warranty
- Optional Isolated Analog Programming and Monitoring
- Optional IEEE 488.2 SCPI (GPIB) Interface

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



Applications

Genesys[™] power supplies are designed for demanding applications. Common controls are shared across all platforms.

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 outputs allows testing of many different devices.

Semiconductor Processing

Equipment designers appreciate the wide range Input (85-265Vac) and numerous Outputs from which to select depending on application. Selectable Safe and Auto Re-start protects loads and process integrity.

Typical applications include Magnets, Filaments and Heaters.

Aerospace and Satellite Testing

Complex systems use the complete Genesys ™ Family: 1U 750W Half Rack, 1U 750W or 1500W Full-Rack, 2U 3.3kW and 3U 10/15kW. All are identical in Front Panel, Rear Panel Analog and Digital Interface Commands. A wide variety of outputs allows testing of many different devices.

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 with selectable Fine and Coarse adjustment enhance Front Panel Control.

Remote Analog Programming is user selectable 0-5V or 0-10V and optional Isolated Programming/Monitoring Interfaces are also available.

RF Amplifiers and Magnets

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

1 Genesys[™] 750W/1500W-1U



- 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 ModeRemote Mode
- Fine Control
- Preview Settings
 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
 - 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; Terminal block 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).

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9. Optional Interface Position for IEEE488.2 SCPI (shown), Isolated Analog Interface, LAN Interface or USB Interface.

LAN Interface complies with **LXI** Class C Specification

Genesys™ 750W/1500W Specifications

	CEN	6.200	8-180 1	2 5-120	20.76	30,50	40.39	50.20	60-25	80-19	100-15	150-10	300-5	600-2.6	750W	1500W
1.0 MODEL	GEN	6-200						50-30								<u>х</u> х
1.Rated output voltage(*1)	V	6 200	8 180	12.5 120	20 76	30 50	40 38	50 30	60 25	80 19	100 15	150 10	<u>300</u> 5	600 2.6		<u>x</u> x
2.Rated Output Current(*2)	A															X
3.Rated Output Power 4.Efficiency at 100/200Vac (*3)	W %	1200 77/80	1440 78/81	1500 81/84	1520 83/86	1500 83/86	1520 84/88	1500 84/88	1500 84/88	1520 84/88	1500 84/88	1500 84/88	1500 83/87	1560 83/87	x	X
																^
1.0 MODEL	GEN	6-100		2.5-60			40-19				100-7.5				X	
1.Rated output voltage (*1)	V	6	8	12.5	20	30	40		60	80	100	150	300	600	X	
2.Rated Output Current (*2) 3.Rated Output Power	A	100 600	90 720	60 750	38 760	25 750	19 760		12.5 750	9.5 760	7.5	5 750	2.5 750	1.3 780	X X	
	VV	000	720	750	700	750	700		750	700	750	750	130	780	•	
1 CONSTANT VOLTAGE MODE	1 14							_		10	- 10					
1.Max.line regulation (0.01% of Vo+ 2mV)(*4)		2.6	2.8	3.3	4	5	6	7	8	<u>10</u> 10	12 12	<u>17</u> 17	32 32	62	X	<u>x</u>
2.Max load regulation (0.01% of Vo+2mV)(*5)		2.6	2.8	3.3	4 60	5 60	6 60	7 60	8 60	80	80	100	120	62 300	X	<u>X</u>
3.Ripple and noise p-p 20MHz 4.Ripple r.m.s 5Hz~1MHz	mV mV	60 8	60 8	<u>60</u> 8	8	8	8	8	8	8	8	100	20	<u> </u>	X X	<u> </u>
5.Remote sense compensation/line	V	1	1	1	1	1.5	2	2	3	4	5	5	5	5	x	<u>x</u>
6.Temp. coefficient	PPM/°C		PM/°C of r												X	x
7.Up-prog. response time, 0~Vo Rated	mS		, N.L/F.L			<u> </u>	U =				N.L/F.L,r	esistive l	oad	250	X	X
8.Down-prog response time full-load	mS	10		50			8	30				150		250	Х	х
9.Down-prog response time no-load	mS	500	600	700	800	900	1000	1100	100	1200	1500	2000	2500	4000	Х	Х
10.Transient response time (*8)		Less that	an 1mSec	for mod	els up to	and inc	cluding	100V. 2	msec fo	r model	s above '	100V			X	Х
2 CONSTANT CURRENT MODE																
1.Max.line regulation (0.01% of Io+ 2mA)(*4)	mA	12	11	8.0	5.8	4.5	3.9		3.25	2.95	2.75	2.5	2.25	2.13	x	
2.Max.load regulation (0.02% of lo+5mA)(*6)	mA	25	23	17	12.6	10	8.8		7.5	6.9	6.5	6.0	5.5	5.26	X	
3.Ripple r.m.s 5Hz~1MHz . (*7)	mA	200	180	120	76	63	48		38	29	23	18	13	8	X	
4.Max.line regulation (0.01% of Io+ 2mA)(*4)	mA	22	20	14	9.6	7.0	5.8	5	4.5	3.9	3.5	3.0	2.5	2.26		х
5.Max.load regulation (0.02% of Io+5mA)(*6)	mA	45	41	29	20.2	15	12.6	11	10	8.8	8.0	7.0	6.0	5.52		х
6.Ripple r.m.s 5Hz~1MHz .(*7)	mA	400	360	240	152	125	95	85	75	57	45	35	25	12		х
7.Temp. coefficient	PPM/°C	100PPN	1/°C from r	ated out	tput volta	age,follc	owing 3	0 minute	es warm	up					X	х
3 PROTECTIVE FUNCTIONS																
1. OCP			Constant												X	х
2. OCP Foldback		Output s	shut down	when po	ower sup	ply cha	inge fro	m CV to	CC. Us	er selec	table.				X	Х
3. OVP type		Inverter	shut-dowr	i, manua	al reset b	oy AC ir	nput rec	ycle or l	by OUT	button					X	Х
4. OVP trip point		0.5~7.5	0.5~10V	1~15V	1~24V	2~36V	2~44V	5~57V	5~66V	5~88V	5~110V	5~165V	5~330V	5~660V	X	Х
5. Over Temp. Protection		User sel	ectable , la	atched c	or non lat	tched									X	Х
4 ANALOG PROGRAMMING AND MONITOR	ING															
1.Vout Voltage Programming		0~100%	5, 0~5V or	0~10V.	user sel-	ect. Acc	curacy a	and linea	aritv:+/-0	.5% of r	ated Vou	t.			X	х
2.lout Voltage Programming			5, 0~5V or									•			X	X
3.Vout Resistor Programming			, 0~5/10K									Vout.			X	X
4.lout Resistor Programming			, 0~5/10K												X	X
5.On/Off control (rear panel)			rical. Volta												X	X
6.Output Current monitor			0~10V,a												X	X
7.Output Voltage monitor			0~10V ,ac												х	х
8.Power Supply OK signal		TTL Hig	h=OK, 0V-	Fail 500	0ohm im	pedanc	e:								Х	х
9. CV/CC indicator		CV: TTL	. high (4~5	V) sour	ce: 10m/	A, CC: 7	TTL low	(0~0.4)	/):10mA						X	Х
0. Enable/Disable		Dry cont	tact. Open	off , Sh	ort: on. N	Max. vol	Itage at	Enable	Disable	in: 6V					X	Х
5 FRONT PANEL																
1.Control functions		Vout/ Io	ut manual	adjust b	y separa	ate enco	oders (o	coarse a	nd fine a	adjustme	ent select	able)			X	Х
			/L manual							-					х	х
		AC on/c	off, Output	on/off, F	Re-start r	modes ((auto s	afe), Fo	dback c	ontrol (0	CV to CC). Go to I				х
			s selection				(auto, 3						ocal cont	rol	х	
		RS232/4	195 and IE		age (or c						resses:37		ocal cont	trol		Х
			+00 and IE	EE488.2	2 selection	current)	adjust e	encoder.	Numbe	r of add			ocal cont	trol	Х	
		Baudrat	e selection		2 selection	current) ion by IE	adjust e	encoder. able swi	Numbe	r of add				trol	X X	х
2.Display		Voltage	e selection 4 digits ,	n: 1200,2 accurad	2 selectio 2400,480 cy: 0.5%	current) ion by IE 00,9600 5+/-1 cou	adjust e EEE ena and 19 unt	encoder. able swi	Numbe	r of add					X X X	X X X X
		Voltage Current	e selection 4 digits , 4 digits,	n: 1200,2 accurac accurac	2 selectio 2400,480 cy: 0.5% cy: 0.5%+	current) ion by IE 00,9600 5+/-1 cou +/-1 cou	adjust e EEE ena and 19 unt unt	encoder. able swi 9,200	Numbe	r of add DIP swi					X X X X X X	X X X X X
2.Display 3.Indications		Voltage Current	e selection 4 digits ,	n: 1200,2 accurac accurac	2 selectio 2400,480 cy: 0.5% cy: 0.5%+	current) ion by IE 00,9600 5+/-1 cou +/-1 cou	adjust e EEE ena and 19 unt unt	encoder. able swi 9,200	Numbe	r of add DIP swi					X X X X X	X X X X
3.Indications	otional (Voltage Current Voltage,	e selection 4 digits , 4 digits, Current, A	accurac accurac accurac Alarm, Fi	2 selectio 2400,480 cy: 0.5% cy: 0.5%+	current) ion by IE 00,9600 5+/-1 cou +/-1 cou	adjust e EEE ena and 19 unt unt	encoder. able swi 9,200	Numbe	r of add DIP swi					X X X X X X X	X X X X X X X
3.Indications .6 Interface RS232&RS485 or Op	otional C	Voltage Current Voltage,	e selection 4 digits, 4 digits, Current, A terface	n: 1200,2 accurac accurac Marm, Fi	2 selectio 2400,480 cy: 0.5% cy: 0.5%+ ine, Prev	current) : ion by IE 00,9600 5+/-1 cou +/-1 cou view, Fo	adjust e EEE ena and 19 unt unt oldback,	encoder. able swi),200 , Local, (<u>Numbe</u> tch and	r of add DIP swi Dn	ich	1			X X X X X X 750W	X X X X X 1500W
3.Indications		Voltage Current Voltage,	e selection 4 digits , 4 digits, Current, A	accurac accurac accurac Alarm, Fi	2 selectio 2400,480 cy: 0.5% cy: 0.5%+	current) ion by IE 00,9600 5+/-1 cou +/-1 cou	adjust e EEE ena and 19 unt unt	encoder. able swi),200 , Local, (Numbe tch and	r of add DIP swi			<u>ocal cont</u>		X X X X X X X	X X X X X
3.Indications .6 Interface RS232&RS485 or Op Model		Voltage Current Voltage,	e selection 4 digits, 4 digits, Current, A terface	n: 1200,2 accurac accurac Marm, Fi	2 selectio 2400,480 cy: 0.5% cy: 0.5%+ ine, Prev	current) ; ion by IE 00,9600 5+/-1 cou +/-1 cou view, Fo 30	adjust e EE ena and 19 unt int oldback, 40	encoder. able swi),200 , Local, (5	Numbe tch and Dutput C	r of add DIP swi Dn 80	100	1	300	600	X X X X X X 750W X	X X X X X 1500W X
3.Indications .6 Interface RS232&RS485 or Oj Model I. Remote Voltage Programming (16 bit)	V mV	Voltage Current Voltage, SPIB Ir 6	e selection 4 digits , 4 digits, Current, A terface 8	n: 1200,2 accurac accurac Alarm, Fi 12.5	2 selectic 2400,480 cy: 0.5% cy: 0.5% ine, Prev 20	current) ; ion by IE 00,9600 5+/-1 cou +/-1 cou view, Fo 30	adjust e EE ena and 19 unt int oldback, 40	encoder. able swi 9,200 , Local, (5 0 6	<u>Numbe</u> tch and Dutput C 0 60	r of add DIP swir Dn 80 9.6	ich	1 150 18	300 36	600 72	X X X X X X 750W X X	X X X X X 1500W X X
3. Indications .6 Interface RS232&RS485 or Op Model I. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual O	V mV	Voltage Current Voltage, SPIB Ir 6 0.72	e selection 4 digits , 4 digits, Current, A terface 8 0.96	1200,2 accurac accurac Alarm, Fi 12.5	2 selectic 2400,480 cy: 0.5% ine, Prev 20 2.40	<u>surrent)</u> <u>ion by IE</u> <u>00,9600</u> <u>b+/-1 cou</u> <u>+/-1 cou</u> <u>view, Fo</u> <u>30</u> <u>3.60</u>	adjust (<u>EE ena</u> <u>and 19</u> <u>unt</u> <u>unt</u> <u>oldback</u> , 40 <u>40</u>	encoder. able swi 2,200 , Local, (5 0 6	<u>Numbe</u> tch and Dutput C 0 60	r of add DIP swir Dn 80 9.6	100 12	1	300	600 72	X X X X X X 750W X	X X X X X X 1500W X
3.Indications .6 Interface RS232&RS485 or Oj Model I. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual O 2. Remote Current Programming (16 bit)	V mV utput) mV	Voltage Current Voltage, SPIB Ir 6 0.72 6.0	e selection 4 digits , 4 digits, Current, A terface 8 0.96 8.0	1200,2 accurac accurac accurac Narm, Fi 12.5 1.50 12.5	2 selectii 2400,480 cy: 0.5% yy: 0.5% ine, Prev 20 2.40 20	<u>current)</u> ; ion by IE 00,9600 5+/-1 cou +/-1 cou view, Fo 30 30 30 30	adjust (<u>EE ena</u> and 19 unt int oldback, 40 40 40	encoder. able swi 9,200 . Local, (5 0 6 5	Numbe tch and Dutput C 0 60 5 7.2 0 60	r of add DIP swi Dn 80 9.6 80	100 12 100	1 150 18 150	300 36 300	600 72 600	X X X X X X 750W X X X X X	X X X X X 1500W X X
3.Indications .6 Interface RS232&RS485 or Op Model I. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05%Vo Rated+0.05% of Vo Actual O 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated)	V mV utput) mV mA	Voltage Current Voltage, PIB Ir 6 0.72 6.0	e selection 4 digits , 4 digits, Current, A terface 8 0.96 8.0 10.8	a: 1200,2 accurac accurac Alarm, Fi 12.5 1.50 12.5 7.2	2 selectii 2400,48C cy: 0.5% cy: 0.5% ine, Prev 20 2.40 20 4.56	Surrent) Surrent) Surrent) Surrent 00,9600 +/-1 cou	adjust (<u>EE ena</u> and 19 unt int oldback, 40 0 4.80 40 2.23	encoder. able swi 9,200 . Local, (50 60 6 51 51 8 8	Numbe tch and Dutput C 0 60 6 7.2 0 60 - 1.50	r of add DIP swi Dn 80 9.6 80 0 1.14	100 12 100 0.90	1 150 18 150 0.60	300 36 300 0.30	600 72 600	X X X X X X 750W X X X X X X	X X X X X 1500W X X
3.Indications .6 Interface RS232&RS485 or Op Model . Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05%Vo Rated+0.05% of Vo Actual O 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Ou	V mV utput) mV mA itput) mA	Voltage Current Voltage, SPIB Ir 6 0.72 6.0 12 200	e selection 4 digits, 4 digits, Current, A terface 8 0.96 8.0 10.8 180	a: 1200,2 accurac accurac Alarm, Fi 12.5 1.50 12.5 7.2 120	2 selectii 2400,48C cy: 0.5% cy: 0.5% ine, Prev 20 2.40 20 4.56 76	Surrent) Surrent) Surrent) Surrent 00,9600 +/-1 cou	adjust (EE ena and 19 unt int oldback, 40 2.22 38	encoder. able swi 9,200 . Local, (50 60 6 51 51 51 51 51 51 51 51 51 51 51 51 51	Numbe tch and Dutput C 0 60 6 7.2 0 60 - 1.50 - 25	r of add DIP swi Dn 80 9.6 80 0 1.14 19	100 12 100 0.90 15	1 150 18 150 0.60 10	300 36 300 0.30 5.0	600 72 600 0.16 2.6	X X X X X X 750W X X X X X	X X X X X 1500W X X X
3. Indications .6 Interface RS232&RS485 or Op Model I. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual O 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Ou Resolution (0.012% of Io Rated)	V mV utput) mV mA tput) mA mA	Voltage Current Voltage, SPIB Ir 6 0.72 6.0 12 200 24	e selection 4 digits , 4 digits, Current, A terface 8 0.96 8.0 10.8 180 21.6	1200,2 accurac accurac accurac accurac 12.5 1.50 12.5 7.2 120 14.4	2 selectii 2400,480 cy: 0.5% yy: 0.5%+ ine, Prev 20 2.40 20 4.56 76 9.12	<u>current)</u> ion by IE 00,9600 +/-1 cou +/-1 cou view, Fo 30 30 30 30 30 50 50 2 6.0	adjust (EE ena and 19 unt int oldback, 40 40 2.22 38 4.50	encoder. able swi 3,200 , Local, (50 6 51 51 51 51 51 51 51 51 51 51 51 51 51	Numbe tch and Dutput C 0 60 5 7.2 0 60 - 1.5(- 25 60 3.0	r of add DIP swi Dn 80 9.6 80 0 1.14 19 2.28	100 12 100 0.90 15 1.80	1 150 18 150 0.60 10 1.20	300 36 300 0.30 5.0 0.60	600 72 600 0.16 2.6 0.32	X X X X X X 750W X X X X X X	X X X X X 1500W X X X X X
3.Indications .6 Interface RS232&RS485 or Op Model . Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05%Vo Rated+0.05% of Vo Actual O 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Ou	V mV utput) mV mA itput) mA mA	Voltage Current Voltage, SPIB Ir 6 0.72 6.0 12 200	e selection 4 digits, 4 digits, Current, A terface 8 0.96 8.0 10.8 180	a: 1200,2 accurac accurac Alarm, Fi 12.5 12.5 1.50 12.5 7.2 120	2 selectii 2400,48C cy: 0.5% cy: 0.5% ine, Prev 20 2.40 20 4.56 76	<u>current)</u> ion by IE 00,9600 +/-1 cou +/-1 cou view, Fo 30 30 30 30 30 50 50 2 6.0	adjust (EE ena and 19 unt int oldback, 40 2.22 38	encoder. able swi 3,200 , Local, (50 6 50 6 3.6	Numbe tch and Dutput C 0 60 5 7.2 0 60 - 1.5(- 25 60 3.0	r of add DIP swi 0n 9.6 80 0 1.14 19 2.28	100 12 100 0.90 15	1 150 18 150 0.60 10	300 36 300 0.30 5.0	600 72 600 0.16 2.6	X X X X X X 750W X X X X X X	X X X X X 1500W X X X
3. Indications .6 Interface RS232&RS485 or Op Model I. Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05% Vo Rated+0.05% of Vo Actual O 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Ou Resolution (0.012% of Io Rated)	V mV utput) mV mA tput) mA mA	Voltage Current Voltage, SPIB Ir 6 0.72 6.0 12 200 24	e selection 4 digits , 4 digits, Current, A terface 8 0.96 8.0 10.8 180 21.6	1200,2 accurac accurac accurac accurac 12.5 1.50 12.5 7.2 120 14.4	2 selectii 2400,480 cy: 0.5% yy: 0.5%+ ine, Prev 20 2.40 20 4.56 76 9.12	<u>current)</u> ion by IE 00,9600 +/-1 cou +/-1 cou view, Fo 30 30 30 30 30 50 50 2 6.0	adjust (EE ena and 19 unt int oldback, 40 40 2.22 38 4.50	encoder. able swi 3,200 , Local, (50 6 51 51 51 51 51 51 51 51 51 51 51 51 51	Numbe tch and Dutput C 0 60 5 7.2 0 60 - 1.5(- 25 60 3.0	r of add DIP swi Dn 80 9.6 80 0 1.14 19 2.28	100 12 100 0.90 15 1.80	1 150 18 150 0.60 10 1.20	300 36 300 0.30 5.0 0.60	600 72 600 0.16 2.6 0.32	X X X X X X 750W X X X X X X	X X X X X 1500W X X X X X
3.Indications .6 Interface RS232&RS485 or Oj Model . Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05%VO Rated+0.05% of Vo Actual O 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Ou Resolution (0.012% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Ou	V mV utput) mV mA tput) mA mA	Voltage Current Voltage, SPIB Ir 6 0.72 6.0 12 200 24	e selection 4 digits , 4 digits, Current, A terface 8 0.96 8.0 10.8 180 21.6	1200,2 accurac accurac accurac accurac 12.5 1.50 12.5 7.2 120 14.4	2 selectii 2400,480 cy: 0.5% yy: 0.5%+ ine, Prev 20 2.40 20 4.56 76 9.12	30 30 30 30 30 30 30 30 30 30 30 30 30 3	adjust (EE ena and 19 unt int int int 40 0 4.88 40 0 4.88 40 2.22 38 4.51 76	encoder. able swi 9,200 . Local, (5, 0 6 5, 5, 5, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6,	Numbe tch and Dutput C 0 60 i 7.2 0 60 - 1.50 - 2.5 60 3.0 0 50	r of add DIP swi On 9.6 80 9.6 80 0 1.14 19 2.28 38	100 12 100 0.90 15 1.80	1 150 18 150 0.60 10 1.20	300 36 300 0.30 5.0 0.60	600 72 600 0.16 2.6 0.32	X X X X X X 750W X X X X X X	X X X X X 1500W X X X X X
3. Indications .6 Interface RS232&RS485 or Op Model . Remote Voltage Programming (16 bit) Resolution (0.012% of Vo Rated) Accuracy (0.05%Vo Rated+0.05% of Vo Actual Op 2. Remote Current Programming (16 bit) Resolution (0.012% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Op Resolution (0.012% of Io Rated) Accuracy (0.1% of Io Rated+0.1% of Io Actual Op Accuracy (0.1% of Io Rated+0.1% of Io Actual Op 3. Readback Voltage	V mV utput) mV mA mA mA tput) mA mA mV	Voltage Current Voltage, SPIB Ir 6 0.72 6.0 12 200 24 400	<u>e selectior</u> <u>4 digits</u> , <u>4 digits</u> , <u>Current</u> , <u>A</u> tterface <u>8</u> 0.96 8.0 10.8 180 21.6 360	1200,2 accurac accurac accurac larm, Fi 12.5 1.50 12.5 7.2 120 14.4 240	2 selectii 2400,488 cy: 0.5% cy: 0.5% ine, Prev 20 2.40 20 4.56 76 9.12 152	surrent): ion by IE 00,9600 +/-1 cout +/-1 cout view, Fo 30 3.60 30 5.3.60 50 50 100	adjust (EE ena and 19 unt int int int 40 0 4.88 40 0 4.88 40 2.22 38 4.51 76	encoder. able swi 9,200 . Local, (. Local, (Numbe tch and Dutput C 0 60 i 7.2 0 60 - 1.56 - 25 60 3.0 0 50 0 50 0 50 0 50 0 7.2	r of add DIP swi Dn 9.6 80 9.6 80 9.6 9.6	100 12 100 0.90 15 1.80 30	1 150 18 150 0.60 10 1.20 20	300 36 300 0.30 5.0 0.60 10	600 72 600 0.16 2.6 0.32 5.2 72	X X X X X X X X X X X X X X	X X X X X X X X X X X X X X
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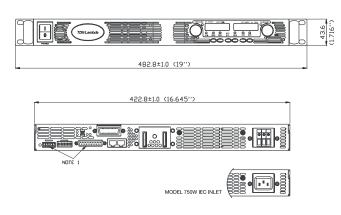
*1: Minimum voltage is guaranteed to maximum 0.2% of Vo Rated.
*2: Minimum current is guaranteed to maximum 0.4% of Io Rated
*3: At maximum output power.
*4: 85~132Vac or 170~265Vac, constant load.
*5: From No-load to Full-load, constant input voltage.
*6: For load voltage change, equal to the unit voltage rating, constant input voltage.
*7: For 6V models the ripple is measured at 2~6V output voltage and full output current. For other models, the ripple is measured at 10~100% output voltage and full output current.
*8: Time for the output voltage to recover within 0.5% of its rated for a load change 10~90% of rated output , Output set-point: 10~100%.
Accuracy -Values have been calculated at Vo Rated & Io Rated

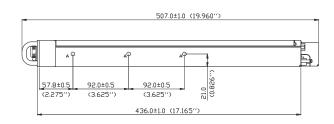
General Specifications Genesys™ 750W/1500W

1. Input voltage/freq. (*1)	85~265Vac continuous, 47~63Hz, single phase
2. Power Factor	0.99 @100/200Vac, rated output power.
3. EN61000-3-2,3 compliance	Complies with EN61000-3-2 class A and EN61000-3-3 at 20~100% output power.
4. Input current 100/200Vac	750W :10.5A / 5A, 1500W :21A / 11A
5. Inrush current 100/200Vac	750W :Less than 25A, 1500W :Less than 50A
6. Hold-up time	More than 20mS , 100Vac , at 100% load.
2.2 POWER SUPPLY CONFIGURAT	
1. Parallel Operation	Up to 4 identical units in master/slave mode with parallel current summing (Advanced Parallel)
2. Series Operation	Up to 2 units. with external diodes. 600V Max to Chassis ground
2.3 ENVIRONMENTAL CONDITION	ŝ
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), 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-2
8.Radiated emission	EN55022A,FCC part 15-A,VCCI-1
9. Voltage dips	EN6100-4-11
10. Conducted emission	EN55022B, FCC part 15-B, VCCI-2.
11. Radiated emission	EN55022A, FCC part 15-A, VCCI-1.
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.
2. Williotana Voltage	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 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: 16.64in, H: 1.72in, D: 17.04in (excluding connectors, encoders, handles, etc.)
3. Weight	750W: 7Kg (15 Lbs) 1500W: 8.5Kg (18 Lbs)
4. AC Input connector	750W: IEC320 AC Inlet.
	1500W: Screw terminal block, Phoenix P/N: FRONT-4-H-7.62, with strain relief
5.Output connectors	6V to 60V models: Bus-bars (hole Ø 8.5mm). 80V to 600V models: Terminal block, Phoenix P/N: FRONT-4-H-7.62
•	
2.7 RELIABILITY SPECS	E
1. Warranty	5 years.

*1: For cases where conformance to various safety standards (UL, IEC etc.) is required, to be described as 100-240Vac (50/60Hz).

Outline Drawing Genesys™ 750W/1500W Units





NOTE

1. PLUG CONNECTORS INCLUDED WITH THE POWER SUPPLY

2. CHASSIS SLIDES MOUNTING HOLES #10-32 MARKED "A"

GENERAL DEVICES P/N: CC301-00-S160 OR EQUIVALENT

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Genesys[™] Power Parallel and Series Configurations

Parallel operation - Master/Slave:

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

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

Series operation

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

Remote Programming via RS-232 & RS-485 Interface

Standard Serial Interface allows daisy-chain control of up to 31 power supplies on the same communication bus with built-in RS-232 & RS-485 Interface with or without Multi-Drop option.





Programming Options (Factory installed)

New IEEE Multi-Drop Interface

Allows IEEE Master to control up to 30 (Multi-Drop equipped) slaves over RS-485 daisy-chain

Program Current

Measure Current

Current Foldback shutdown

- Only the Master needs be equipped with IEEE Interface
- IEEE 488.2 SCPI Compliant
- Program Voltage
- Measure Voltage
- Over Voltage setting and shutdown
- Error and Status Messages

New Multi-Drop Slave Option

· Slaves need to be equipped with the MD Slave (RS-485) option

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 Power supply Voltage and Curre	nt Programming Accuracy ±1%	P/N: IS510
Power supply Voltage and Curre • Current Programming with 4-20mA sig Power supply Voltage and Curre Power supply Voltage and Curre	nal. nt Programming Accuracy ±1%	P/N: IS420
LAN Interface	Compliant to Class C	P/N: LAN
 Meets all LXI-C Requirements Address Viewable on Front Panel Fixed and Dynamic Addressing Fast Startup 	 VISA & SCPI Compatible LAN Fault Indicators Auto-detects LAN Cross-over Cable Compatible with most standard Networks 	

USB Interface

Allows Serial Connection to USB Port on computer

· Serial commands same as (standard) RS-232/RS-485 Interface

ompatible with most standard Networks

P/N: USB

P/N: MD



ILTRO DRIER

LING DRAD

ILDIG DRUDG



5 Genesys[™] 750W/1500W-1U www.valuetronics.com

Power Supply Identification / Accessories How to order

GEN	600 -	2.6 -	-	
Series Name	Output Voltage (0~600V)	Output Current (0~2.6A)	Factory Options Option: IEMD MD IS510 IS420 LAN USB	AC Cable option is 750W only Region: E - Europe J - Japan I - Middle East U - North America
			000	

Models 750/1500W

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

TDK·Lambda 6

Factory option

RS-232/RS-485 Interface built-in Standard GPIB (Multi-Drop Master) Interface Multi-Drop Slave Interface Voltage Programming Isolated Analog Interface Current Programming Isolated Analog Interface LAN Interface (Complies with LX Class C) USB Interface

P	1	N	

IEMD MD IS510 IS420 LAN USB

AC Cords sets (750W only)

Region	Europe	Japan	Middle East	North America
Output Power	750W	750W	750W	750W
AC Cords	10A/250 Vac L=2m	13A/125 Vac L=2m	10A/250 Vac L=2m	13A/125 Vac L=2m
Wall Plug	INT'L 7/VII	IEC320-C13	SI-32	NEMA 5-15P
Power Supply	IEC320-C13		IEC320-C13	IEC320-C13
Connector		Ø	1	
Part Number	P/N: GEN/E	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	RS485	RS232	RS232
PC Connector	DB-9F	DB-9F	DB-25F
Communication Cable	Shield Ground L=2m	Shield Ground L=2m	FShield 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
 Installed and solition according to second but 			

* Included with power supply

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