

Genesys

Programmable DC Power Supplies 10/15kW in 3U Built in RS-232 & RS-485 Interface Parallel Current Summing Optional Interfaces: USB [X] Compliant LAN IEEE488.2 SCPI Multi-Drop Isolated Analog Interface



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



www.lambda-hp.com

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

Features include:

- High Power Density 10/15kW in 3U
- High Current up to 1,000ADC
- Wide Range of popular worldwide 3ϕ AC inputs, (208VAC, 400VAC, 480VAC)
- Power Factor 0.88 (Passive Correction on all Inputs)
- Output Voltage up to 600V, Current up to 1,000A
- Built-in RS-232/RS-485 Interface Standard
- 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
- Independent Remote ON/OFF and Remote ENABLE/DISABLE
- Reliable Modular and SMT Design
- 19" Rack Mounted for ATE and OEM Applications, zero stack
- Optional Interfaces
 Isolated Analog Programming and Monitoring
 IEEE Multi-Drop SCPI
 LXI Compliant LAN Interface
 USB Interface
- Labview[™] and LabWindows[™] drivers

Worldwide Safety Agency Approvals; UL Recognized and CE Mark for LVD and EMC Regulation (208VAC and 400VAC Input)

Applications

Genesys[™] power supplies are designed for demanding applications.

Test & Measurement systems using GPIB control save significant costs by incorporating the optional IEEE Multi-Drop Interface (IEMD) in the Master. Then up to 30 Slaves may be equipped with the less expensive Optional RS-485 Multi-Drop (MD) interface.

Automated 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 as well as optional LAN (LXI compliant) or USB Interfaces.

Industrial & Military high power systems can be configured with up to four identical units in parallel, up to 60kW. No space is required above or below each power supply (zero stack). The Master can be configured by the user to report total current of the combination. Applications include Heaters, Magnets and Laser Diodes.

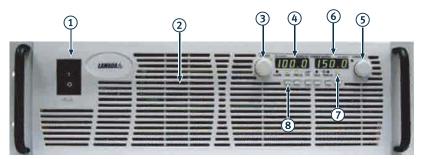
Aerospace & Satellite Testing systems use the complete Genesys[™] Family: 1U 750W Half Rack, 1U 750W or 1500W Full-Rack, 2U 3.3kW and 3U 10/15kW. All are identical in Front Panel, Rear Panel Analog and Digital Interface Commands. A wide variety of outputs allows testing of many different devices.

Component Device Testing is simplified because of the many user-friendly control options in analog and digital interfaces. Lamps, capacitors, motors and actuators are typical devices tested.

Medical Imaging and Treatment systems require reliable power. Modular construction, SMT and thoroughly proven designs assure continuous performance at full rated power.

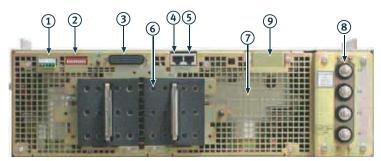
Semiconductor Processing & Burn-in equipment designers appreciate the wide variety of worldwide Inputs and Outputs from which to select depending on application. Selectable Safe and Auto Re-start protects loads and process integrity. Typical applications include Magnets, Filaments and Heaters.

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 Baudrate. Displays total current in Parallel Master/Slave Mode
- 7. Function/Status LEDs:
 - Alarm
- Fine Control
- Preview Settings
- Foldback Mode
 Rer
- 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 Baudrate
 - 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
- Output Connections: Rugged 2 hole busbars (shown) for up to 80V Output, single hole busbars 100 to 300V Output, threaded stud terminals above 300V Output
- 7. Exit air assures reliable operation when zero stacked
- 8. Input Terminals L1, L2, L3, Ground, threaded studs.
- 9. Optional Interfaces Position for IEEE 488.2 (GPIB), Isolated Analog Interface, LAN Interface or USB Interface

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

Genesys™ 10/15kW Specifications

1.0 MODEL	GEN	7.5-1000	10-1000	12.5-800	20-500	25-400	30-333	40-250	50-200	60-167	10kW	15kW
1.Rated output voltage	V	7.5	10	12.5	20	25	30	40	50	60	Х	
2.Rated output current	A	1000	1000	800	500	400	333	250	200	167	X	
3.Rated output power 4.Efficiency (min) at low line, 100% Rated Load	kW %	7.5	10.0	10.0	10.0	10.0	10.0 33	10.0	10.0	10.0	X	
4.Enclency (min) at low line, 100% Rated Load	/0	11					00					
1.0 MODEL										60-250	·	15kW
1.Rated output voltage	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60		X
2.Rated output current 3.Rated output power	A kW									250 15.0		X X
4.Efficiency (min) at low line, 100% Rated Load	%									88		X
		•		. (Contact factor	y for other mo	dels				<u> </u>	
1.1 CONSTANT VOLTAGE MODE												
1. Max. line regulation (0.1% Vo Max =<30V; 0.01%30V)	mV	7.5	10	12.5	20	25	30	4	5	6	x	х
2. Max. load regulation (0.1% Vo Max =<30V; 0.02%30V)	mV	7.5	10	12.5	20	25	30	8	10	12	X	X
3. Ripple r.m.s 5Hz~1MHz c.v (1)	mV	20	20	20	20	20	20	20	20	20	Х	Х
4. Output noise p-p(20MHz) c.v (1)	mV	60	60	60	60	60	60	60	75	75	Х	Х
5. Remote sense compensation/wire	V	1	1	1	1	1	1.5	2 ad & Tempera	3	3	X	X X
6. Temp. drift c.v 7. Stability c.v	PPM/C		Vo Rated Ove		er 30 minute v	varm up, con:	stant Line, Lo	ad & Tempera	ature		X	X
8. Up-prog. response time, 0~Vomax full-load	mS	100	100	100	100	100	100	100	100	100	x	X
	1	50	50	50	I		1	50	50	50	x	x
9. Up-prog. response time, 0~Vomax, no load 10. Transient response time (cv mode) (2)	mS mS	less than 3.	50	50	50	50	50	50	50	50	x	X
ro. Hansient response time (cv mode) (z)	1115	icos titario.									~	
1.2 CONSTANT CURRENT MODE	T -										·	
1. Max. line regulation (0.1% lo Max =333A; 0.05%<333A) 2. Max. load regulation (0.1% lo Max =333A; 0.075%<333A)	mA mA	1000 1000	1000 1000	800 800	500 500	400 400	333 333	125 188	100 150	83.5 125	X	
 Max. Ioad regulation (0.1% IO Max =\$33A; 0.075%<333A) Max. line regulation (0.1% Io Max =\$33A; 0.05%<333A) 	mA	1000	1000	000	500	400	333	100	100	125		х
2. Max. load regulation (0.1% lo Max =333A; 0.075%<333A)	mA									188		X
3. Ripple r.m.s 5Hz~1MHz c.c	mA	5100	5100	2600	2600	1700	1700	100	80	67	Х	
3. Ripple r.m.s 5Hz~1MHz c.c	mA	10.0504 44								100	v	X
4. Temp. drift c.c 5. Stability c.c	PPM/C		lo Rated Over Full Scale)/ De		r 30 minute w	arm up, cons	tant Line, Loa	ad & Tempera	ture		X	X
5. Stability c.c	PPIW/C	300(0.03 /0 1	Full Scale)/ Di	eqree C								
1.3 PROTECTIVE FUNCTIONS												
1. OCP	%	0~100									Х	Х
2. OCP type 3. Foldback protection		Constant current Output shut down, manual reset by front panel OUT button.							X	X		
4. Foldback response time	 S	Less than 1	uown, manua	ITESEL BY ITUN		Julion.					X	x
5. OVP type	S Less than 1 Inverter shut-down, manual reset by On/Off recycle or by OUT button							X	X			
6. OVP programming accuracy	%	5% Full Scal									Х	Х
7. OVP trip point	V		-1.05) x Rate								X	X
8. OVP response time 9. Max. OVP reset time	mS Less than 10mS for Output to begin to drop. S 7 from Turn On.							X	X X			
10. Over temperature protection	S 7 from Turn On. Shut down if internal temperature exceeds safe operating levels. (Latched in Safe Mode/ Unlatched in Auto Mode).							X	X			
11. Phase Loss Protection		Yes									Х	Х
1.4 REMOTE ANALOG CONTROLS & SIGNALS												
1. Vout voltage programming		0~5V or 0~10									X X	X X
2. lout voltage programming											X	
3. Vout resistor programming 4. lout resistor programming		0~5/10kohm 1									X	X X
5. On/Off control (rear panel)		e: 0.6V = Dis									X	X
6. Output current monitor		0~10V, accura									Х	Х
7. Output voltage monitor		0~10V, accura	1 1								х	х
8. Power supply OK signal		high-OK, OV			(0. 0.4) 0. 10	^					X	X
9. CV/CC signal 10. Enable/Disable	CV: TTL high (4-5V) source: 10mA, CC: TTL low (0-04V):10mA Dry contact, Open: Off, Short: On, Max, voltage at Enable/Disable Contacts 6V							X	X X			
11. Remote/Local selection	Selects Remote or Local operation by Voltage: 0~0.6V/2~15V, <0.6V = Local 2-15V = Remote							x	x			
12. Remote/Local signal	Selects Remote of Local operation by Voltage: 0~0.6V/2~15V, <0.6V = Local 2-15V = Remote Signals operating mode in use.							Х	Х			
1.5 FRONT PANEL												
1. Control functions	Vout/ Iou	t manual adjus	t by senarate	encoders Fi	ne and Coars	e selectable					X	х
		manual adjus									X	X
	Address	selection by V	oltage Adjust	encoder. No o	of addresses:	31					Х	Х
		ff, Output On/					to CC), Go to	o Local			X	X
		35 and IEEE4 selection by 0			ble switch an	d DIP Switch					X X	X X
		Aaster Slave:			o four.						X	x
2. Display	Vout: 4 D	igits, Accurac	y: 0.5% +/- 1	Count							Х	Х
		gits, Accuracy						(X	X
3. Indications	1	r is user selec									Х	х
S. Indications	ADDR., C FAIL): RE	OVP/UVL, V/A	A , FOLD, REI	M./LOCAL, O	UT ON/OFF,	LFP/UFP, CC	/CV : GREEN	ILED'S. ALF	RM (OVP,OTF	P,FOLD,AC	x	х
<u>,</u>												
1.6 DIGITAL PROGRAMMING & READBACK												
1. Vout programming accuracy		of rated output									X	X
2. lout programming accuracy		of rated output	current for ur	nits with lo<18	37.5; +/-0.7%	ot rated outpu	ut current for l	lo ≥187.5			X	X
3. Vout programming resolution 4. lout programming resolution	0.02% of 0.04% of										X	X X
5. Vout readback accuracy		% of rated ou	tput voltage								X	X
6. lout readback accuracy	0.1%+0.4	% of rated ou									Х	Х
7. Vout readback resolution	0.02% of										X	X
8. lout readback resolution 9. OV Response time	0.02% of	full scale aximum betwe	on output V r		E Limit and a	upply inhibit t	urning on				X X	X X
10. Other Functions		-Voltage Limit				αρριγ ΠΠΙΝΙΕΙ	arning Off.				X	X

Ripple and Noise at Full Rated Voltage & Load at 25C, Nominal Line. Per EIJ R9002A
 Time for the rated output voltage to recover within 2% for a load change of 50-100% or 100-50% of rated output.

Genesys™ 10/15kW Specifications

1. Rated output voltage V 80 100 125 150 200 250 300 400 500 600 2. Rated output current A 125 100 80 66 50 40 33 25 20 17 3. Rated output power kW 10.0 10.0 9.9 10.0 10.0 10.2 4. Efficiency (min) at low line, 100% Rated Load % 83	0-17 10kW 15kW	500-20	400-25	300-33	250-40	200-50	150-66	125-80	100-100	80-125	GEN	0 MODEL
Silener (min) allow (100) Num Num <td></td> <td>500</td> <td></td> <td>300</td> <td></td> <td>200</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		500		300		200						
Efficiency (min) at low line. 1005. Robel Load y. j. 10 MODEL. No. 107.5 100.155 125.101 150.100 200.2 210.000 200.0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
OND Description (2007) 200-100		10.0	10.0	9.9			9.9	10.0	10.0	10.0		
1 Ratio dragati untage V 100 100 100 200	Х				3	8					%	Efficiency (min) at low line, 100% Rated Load
Closed and unit usings V BD Stor 125 150 200												MODEL
Shale and quadratery A 187.5 150												
Statistics (m) analysis (m): 1050 Relations Variable (m): 1050 Relations </td <td></td>												
A Efficiency Intribution BB Context Tubuy For the models Context Fuckly for the models 11 CONSTANT VOLTAGE MODE Context Fuckly for the models 11 Constant Voltage Model State instantian of State Sta												
Context factory for other models 1 Aloc: Instrum Note: Instrum Aloc: Instrum Aloc: Instrum Aloc: Instrum Aloc: Instrum Aloc: Instrum State of the state	X	10.0	10.0	10.0			10.0	10.0	10.0	10.0		
I. Max. Immergation (3 % Vo Max - GW) 0.01%800/ mV 8 10 12.5 15 20 23 40 50 60 3. Right m.s. bits.10ktr.c.V(1) mV 16 20 25 30 40 50 60				odels			Conta					
I. Max. Inerregulation (0 % to Max - SQV: 0.0758/00V) mV 8 10 12.5 15 20 23 40 50 60 3. Right in Structures (1, 1, 5) (2, 1) (2, 2) (2, 2) (2, 2) (2, 3) (2, 1) (2, 3) (2, 2) (2, 3												
Z Max. Interregulation (0:15: No Max -3304 0.05%307) mV 16 20 25 30 40 50 40 80 100 170 12 Output moles pr2(20M1/2 cv (1) mV 100 101 125												
B Region ms SH2-TMP LC v(1) mV 25 25 25 25 35 40 40 40 40 40 100												
6. Output noise ps220MH2 or (1) mV 100 125 150 175 200 200 300 350 350 6. Timerg diffic v												
S Romine sama comparisation/whe V 4 5 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
6. Tomp, drift c.v												
Stability c.v IPPMC 200 (0.2% Vo Stabil)/Dog or C 0. Upport, response time, 0. Vormas, no kaid ms 50 5	X X											
9 Up org response time (-Vomack no lead ms 50 70 70 70 <td>X X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>PPM/C</td> <td></td>	X X										PPM/C	
9 Up org response time (-Vomack no lead ms 50 70 70 70 <td>100 X X</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>100</td> <td>mS</td> <td>Up-prog. response time, 0~Vomax full-load</td>	100 X X	100	100	100	100	100	100	100	100	100	mS	Up-prog. response time, 0~Vomax full-load
To: Time												
1 Max. Ma		50	50	50	50	50	50	50				
1. Max. line regulation (0.1% to Max. = 333.4. 0.05% - 333.4) mA. 462 50 40 33 25 20 17 13 10 9 2. Max. load regulation (0.1% to Max. = 333.4. 0.05% - 333.4) mA 44 75 60 50 38 30 25 19 15 13 1. Max. load regulation (0.1% to Max. = 334.0. 0.05% - 333.4) mA 44 75 60 50 38 30 25 19 15 13 3. Ripplet m.s. SHz - IMHz c.c. mA 40 40 40 40 22 26 20 16 10 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>5.</td><td>less than</td><td>ms</td><td>. Transient response time (cv mode) (z)</td></td<>									5.	less than	ms	. Transient response time (cv mode) (z)
1. Max. line regulation (0.1% to Max. = 333.4. 0.05% - 333.4) mA. 462 50 40 33 25 20 17 13 10 9 2. Max. load regulation (0.1% to Max. = 333.4. 0.05% - 333.4) mA 44 75 60 50 38 30 25 19 15 13 1. Max. load regulation (0.1% to Max. = 334.0. 0.05% - 333.4) mA 44 75 60 50 38 30 25 19 15 13 3. Ripplet m.s. SHz - IMHz c.c. mA 40 40 40 40 22 26 20 16 10 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2 CONSTANT CURRENT MODE</td></td<>												2 CONSTANT CURRENT MODE
2. Max. inder equation (0.1% to Max +333A, 0.075%+333A) mA 44 75 60 50 38 30 25 19 15 13 1. Max. inter equation (0.1% to Max +33A, 0.075%+333A) mA 44 75 60 50 38 30 25 19 15 13 2. Max. load regulation (0.1% to Max +33A, 0.075%+333A) mA 140 13 26 20 16 13 10 8 7 3. Right cm.s. StH2: 1MH2 c.c. mA 140 100 50 50 20 20 10 <td< td=""><td>9 X</td><td>10</td><td>13</td><td>17</td><td>20</td><td>25</td><td>33</td><td>40</td><td>50</td><td>62.5</td><td>mA</td><td></td></td<>	9 X	10	13	17	20	25	33	40	50	62.5	mA	
1. Max. line regulation (1)% to Max =333A, 0.05%-333A) mA 44 75 60 50 38 30 25 19 15 13 3. Replat rms. SH2: MHY cc. mA 141 113 40 52 26 16 13 100 8 28 28 28 28 28 28 28 28 28 28 28 28 28 10 11 10 <td>13 X</td> <td>15</td> <td>19</td> <td>25</td> <td>30</td> <td>38</td> <td>50</td> <td>60</td> <td>75</td> <td>94</td> <td></td> <td>Max. load regulation (0.1% Io Max =333A; 0.075%<333A)</td>	13 X	15	19	25	30	38	50	60	75	94		Max. load regulation (0.1% Io Max =333A; 0.075%<333A)
3. Rippler.m. SHz-1MHz c.c. mA 50 40 32 20 10 13 10 8 7 A. Topp drift c.c. mA 100 100 50 50 20 20 10<												
3. Ripper rm.s. 5Hz-1MHz c.c. m.A. 100 100 50 20 20 10 10 10 4. Temp. drift.c.												
4 Temp drift c.												
Stability c.c PPMC 300(0.03% Full Scale)/ Degree C 1.3 PROTECTIVE FUNCTIONS	- A	10	10									
1.3 PROTECTIVE FUNCTIONS 1. OCP % 0-100 2. OCP type … Constant current 3. Foldback protection … Output shut down, manual reset by front panel OUT button. 4. Foldback response time S. Less than 1 … 5. OVP type Enverter shut-down, manual reset by On/Off recycle or by OUT button 6. OVP programming accuracy % SK #11 Scale 7. OVP thip point V 0.05 to (1.02-1.05) x Rated Output Voltage 8. OVP response time S. J from Turn On. 0. Over inspreature protection … Structure access safe operating levels. (Latched in Safe Mode/ Unlatched in Auto 11. Phase Loss Protection … Structure access safe operating levels. (Latched vo. 2. lost voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 2. lost voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 3. Volt resistor programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Io. 3. Volt resistor programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Io. 5. OvfOff control (care				istant Line,	irm up, cor	minute wa						
C/CP % 0-100 2: OCP type Constant current 3: Foldback protection Output shut down, manual reset by front panel OUT button. 4: Foldback reports time S Less than 1 5: OVP type Inverter shut down, manual reset by On/Off recycle or by OUT button 6: OVP programming accuracy. % SK Full Scale 7: OVP tipp point V 0.05 to (1.02-1.05) x Rated Output Voltage 8: OVP response time ms Less than 10m5 for Output to begin to drop. 9: Max OVP reset time S T from Turn On. 10: Over temperature protection Shut down if internal temperature exceeds safe operating levels. (Latched in Safe Mode/ Unlatched in Auto 11: Phase Loss Protection Shut down if internal temperature exceeds safe operating levels. (Latched In Auto 11: Vout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 2: Lout voltage programming 0-100%, 0-5V folkom full scale, user selectable. Accuracy & Linearity +/1% of Rated Io. 3: Vout resistor programming 0-100%, 0-5V folkom full scale, user selectable. Accuracy & Linearity +/1% of Rated Io. 4: Lout resistor programming	XX						C	e)/ Degree	% Full Scale	300(0.03	PPIV/C	Stability C.C
C/CP % 0-100 2: OCP type Constant current 3: Foldback protection Output shut down, manual reset by front panel OUT button. 4: Foldback reports time S Less than 1 5: OVP type Inverter shut down, manual reset by On/Off recycle or by OUT button 6: OVP programming accuracy. % SK Full Scale 7: OVP tipp point V 0.05 to (1.02-1.05) x Rated Output Voltage 8: OVP response time ms Less than 10m5 for Output to begin to drop. 9: Max OVP reset time S T from Turn On. 10: Over temperature protection Shut down if internal temperature exceeds safe operating levels. (Latched in Safe Mode/ Unlatched in Auto 11: Phase Loss Protection Shut down if internal temperature exceeds safe operating levels. (Latched In Auto 11: Vout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 2: Lout voltage programming 0-100%, 0-5V folkom full scale, user selectable. Accuracy & Linearity +/1% of Rated Io. 3: Vout resistor programming 0-100%, 0-5V folkom full scale, user selectable. Accuracy & Linearity +/1% of Rated Io. 4: Lout resistor programming												PROTECTIVE FUNCTIONS
2. OCP hype Constant current 3. Foldback response time S Less than 1 6. OWP hype Inverter shut-down, manual reset by forth panel OUT button. 6. OWP programming accuracy % 5% Full Scale 7. OVP trip point V 0.05 to (10.21.05) x Rated Output Voltage 8. OWP response time S 1 Kont for Turn On. 9. Max OVP response time S 7 form Turn On. 10. Over temperature protection Shut down if internal temperature exceeds safe operating levels. (Latched in Safe Mode/ Unlatched in Aulo 11. Phase Loss Protection So V or o -10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 2. Lout voltage programming 0-100%, 0-5V or o -10V, user selectable. Accuracy & Linearity +/1% of Rated to. 3. Vout resistor programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated to. 4. Lout resistor programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated to. 5. Ontol for programming 0-100%, 0-5V or 0-10V, user selectable. 6. Output current monitor 0-5V or 0-10V, accuracy 1%, user selectable. 7. Output voltage monitor 0-5V or 0-10V, accuracy 1%, user sel	X X									0~100	%	
4. Foldback response lime S Less than 1 5. OVP type Inverter shut down, manual reset by OnOff recycle or by OUT button 6. OVP programming accuracy % 5% Full Scale 7. OVP trip point V 0.05 to (1.02:1.06) x Rated Output Voltage 8. OVP response lime ms Less than 10ms for Output to begin to drop. 9. Max. OVP response lime S. T from Turn On. 10. Over temperature protection Shut down if internal temperature exceeds safe operating levels. (Latched in Safe Mode/ Unlatched in Auto. 11. Phase Loss Protection New Torn Turn On. 14. REMOTE ANALOG CONTROLS & SIGNALS 1. Vout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 2. lout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 3. Vout resistor programming 0-100%, 0-5T/Okohm full scale, user selectable. Accuracy & Linearity +/1% of Rated Vo. 4. lout resistor programming 0-100%, 0-5T/Okohm full scale, user selectable. 5. ONOT control (rear pane) By Voltage. Oko - Disable. Jist - enable (default) +/1% of Rated Vo. 6. Output current monitor 0-5V or 0	X X								current	Constant (OCP type
S. OVP type	X X				utton.	nel OUT b	by front pa	anual reset	ut down, m	Output sh		
6. OVP programming accuracy 9% 15% Full Scale 7. OVP trippoint V. 0.05 to (1.02.1.05) x Rated Output Voltage 8. OVP response time ms Less than 10m5 for Output to begin to drop. 9. Max. OVP response time S. 7 from Turn On. 10. Over temperature protection	<u> </u>										S	
7. OVP trip point V 0.05 to (1.02-1.05) x Rated Output Voltage 8. OVP response time ms Less than 10ms for Output to begin to drop. 9. Max. OVP reset time S 7 from Turn On. 10. Over temperature protection ms Less than 10ms for Output to begin to drop. 11. Phase Loss Protection ms Shut down if internal temperature exceeds safe operating levels. (Latched in Safe Mode/ Unlatched in Auto 11. Votu voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 2. 2. lout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Io. 3. 3. Vout resistor programming 0-100%, 0-510 kohm full scale, user selectable. Accuracy & Linearity +/1% of Rated Io. 4. 4. lout resistor programming 0-100%, 0-510 kohm full scale, user selectable. Accuracy & Linearity +/1% of Rated Io. 5. 5. Onolf control (rear panel) By Voltage. 0.V = Disable, 2+15V = enable (default) or dry contact, user selectable long: 6. 6. Output voltage monitor 0-5V or 0-10V, accuracy: %, user selectable 7. 7. Output voltage monitor 0-5V or 0-10V, accuracy: %, user selectable 7. 8. Power suppty OK signal Yes. TTL high-OK, OV (5000	<u> </u>	Inverter shut-down, manual reset by On/Off recycle or by OUT button										
B. OVP response time ms. Less than 10m5 for Output to begin to drop. 9. Max. OVP reset time S. 7 from Turn On. Shut down if Internal temperature exceeds safe operating levels. (Latched in Safe Mode/ Unlatched in Auto 11. Phase Loss Protection Yes 14. REMOTE ANALOS CONTROLS & SIGNALS 1. Vout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/-1% of Rated Vo. 2. lout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/-1% of Rated Io. 3. Vout resistor programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Io. 4. lout resistor programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Io. 5. On/OIT control (rear panel) By Voltage: 0.6V = Disable, 2-15V = nable (default) or dry contact, user selectable logic 6. Output current monitor 0-5V or 0-10V, accuracy: 1%, user selectable 7. Output voltage monitor 0-5V or 0-10V, accuracy: 1%, user selectable 8. Prover supply OK signal Yes. TT. high-AC. 9V (Stoobohm impedance)-Fail 9. CVICC signal CV: TT. high-AC. 9V (Stoobohm impedance)-Fail 10. Enable(Disable Div youtract, oper: off. Short: On. Max. voltage at EnableViceshed 11. Remote/Local selection Selects Remote or Local operation by Voltage: 0-0.6V/	<u> </u>							Dete d Outr				
9. Max. OVP reset lime S. 2 // from Turn On. Image: Class Protection Image: Class Proteclass Proteclas Protection Image: Class Protect												
10. Over temperature protection Shut down if internal temperature exceeds safe operating levels. (Latched in Safe Mode/ Unlatched in Auto. 11. Phase Loss Protection Yes 14. REMOTE ANALOG CONTROLS & SIGNALS 1. Vout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 2. lout voltage programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/1% of Rated Io. 3. Vout resistor programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/1% of Rated Io. 5. On/Of control (rear panel) By Voltage: 0.6V = Disable, 2.15V = enable (default) or dry contact, user selectable logic 6. Output current monitor 0-5V or 0-10V, accuracy:1%, user selectable 7. Output voltage monitor 0-5V or 0-10V, accuracy:1%, user selectable 8. Power supply OK signal CY: TTL high (4-5V) source: 10mA, CC: TTL low (0-04V):10mA 10. Enable/Disable Dry contact. Oper: 07, Short: On. Max. voltage af Enable/Disable Contacts 6V 11. Remote/Local signal Signals operating mode in use. 12. Remote/Local signal Signals operating mode in use. 13. FRONT PANEL Vout/ lout manual adjust by separate encoders, Fine and Coarse selectable. 14. Ontrol functions Vout/ lout manual adjust by separate encoders, Fine and Coarse selectable.	x x											
11. Phase Loss Protection Yes 14. REMOTE ANALOG CONTROLS & SIGNALS 1. Vout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/1% of Rated Vo. 2. lout voltage programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/1% of Rated Vo. 3. Vout resistor programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/1% of Rated Vo. 4. lout resistor programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/1% of Rated Io. 5. On/Off control (rear panel) By Voltage: 0.6V = Disable, 2-15V = enable (default) of dry contact, user selectable logic 6. Output current monitor 0-5V or 0-10V, accuracy: %, user selectable 7. Output voltage monitor 0-5V or 0-10V, accuracy: %, user selectable 9. CV/CC signal CV: TTL high (4-SV) source: 10mA, CC: TTL iow (0-04V):10mA 10. Enable/Disable Dry contact. Open: Off , Short: On. Max. voltage at Enable/Disable Contacts 6V 11. Remote/Local signal Signals operating mode in use. 12. Remote/Local signal Signals operating mode in use. 13. Control functions Vout//out manual adjust by voltage adjust encoder. No of addresses:31 AC On/Off. Output On/Off. Accuracy: 0.5% +/1 Count 14. Remote/Local signal Signals operating mode in use. 15. FRONT PANEL												
1. Vout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/-1% of Rated Vo. 2. lout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/-1% of Rated Io. 3. Vout resistor programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Io. 4. lout resistor programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Io. 5. on/Off control (rear panel) By Voltage: 0.6V = Disable, 2-15V = enable (default) or dry contact, user selectable logic 6. Output current monitor 0-5V or 0-10V, accuracy: %, user selectable 7. Output voltage monitor 0-5V or 0-10V, accuracy: %, user selectable 8. Power supply OK signal Yes. TL high-OK, 0V (500ohm impedance)-Fail 9. CV/CC signal CV: TTL high (4-5V) source: 10mA, CC: TTL low (0-04V):10mA 10. Enable/Disable Dry contact. Open: Off, Short: On. Max. voltage at Enable/Disable Contacts 6V 11. Remote/Local signal Signals operating mode in use. 12. Remote/Local signal Signals operating mode in use. 12. Remote/Local signal Signals operating wode in use. 12. Remote/Local selection Signals operating wode in use. 12. Remote/Local signal Signals operating wode in use. 12. Remote/Local signal Signals o	XX											
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2. lout voltage programming 0-100%, 0-5V or 0-10V, user selectable. Accuracy & Linearity +/-1% of Rated Io. 3. Vout resistor programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Io. 4. lout resistor programming 0-100%, 0-5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Io. 5. On/Off control (rear panel) By Voltage: 0.6V = Disable, 2-15V = enable (default) or dry contact, user selectable logic. 6. Output current monitor 0-5V or 0-10V, accuracy: %, user selectable 7. Output voltage monitor 0-5V or 0-10V, accuracy: %, user selectable 8. Power supply OK signal Yes. TTL high-OK, OV (Soodohm impedance)-Fail 9. CV/CC signal CV: TTL high (4-5V) source: 10mA, CC: TTL low (0-04V):10mA 10. Enable/Disable Dry contact. Oper: Off, Short: On. Max. voltage at Enable/Disable Contacts 6V 11. Remote/Local selection Selects Remote or Local operation by Voltage: 0-0.6V/2-15V, <0.6V = Local 2-15V = Remote											-	REMOTE ANALOG CONTROLS & SIGNALS
3. Vout resistor programming 0~100%, 0~5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Vo. 4. lout resistor programming 0~100%, 0~5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Io. 5. OrVOF control (rear panel) By Voltage: 0.6 0/= Disable, 2-15V = enable (default) or dry contact, user selectable logic 6. Output current monitor 0~5V or 0~10V, accuracy:1%, user selectable 7. Output voltage monitor 0~5V or 0~10V, accuracy:1%, user selectable 8. Power supply OK signal Yes. TTL high-OK, 0V (5000hm Impedance)-Fail 9. CV/CC signal CV: TTL high (4-5V) source: 10mA, CC: TTL low (0~04V):10mA 10. Enable/Disable Dry contact. Open: Off, Short: On. Max. voltage at Enable/Disable Contacts 6V 11. Remote/Local signal Signals operating mode in use. 12. Remote/Local signal Signals operating mode in use. 13. Control functions Vout/ lout manual adjust by separate encoders, Fine and Coarse selectable. 0/VP/UVL manual adjust by Voltage Adjust encoder. Forn Panel Lock/Unlock Address selection by Voltage adjust encoder. For Dave Size Size Size Size Size Size Size Siz	x x			ted Vo.	/-1% of Ra	Linearity +	Accuracy &	electable.	0V, user se	~5V or 0~1	0~100%, 0	Vout voltage programming
1. lout resistor programming 0~100%, 0~5/10k0hm full scale, user selectable. Accuracy & Lineartiv +/-1% of Rated Io. 5. On/Off control (rear panel) By Voltage: 0.6V = Disable, 2.15V = enable (default) or dry contact, user selectable logic 6. Output voltage monitor 0~5V or 0~10V, accuracy; 1%, user selectable 7. Output voltage monitor 0~5V or 0~10V, accuracy; 1%, user selectable 8. Power supply OK signal Yes. TTL high (4-5V) source: 10mA, CC; TTL low (0~04V):10mA 10. Enable/Disable Dry contact. Open: 0ff, Short: On. Max. voltage at Enable/Disable Contacts 6V 11. Remote/Local selection Selects Remote or Local operation by Voltage: 0~6.04V2-15V, <0.6V = Local 2-15V = Remote	X X			ted Io.	/-1% of Ra	Linearity +	Accuracy &	electable.	0V, user se	~5V or 0~1	0~100%, 0	lout voltage programming
5. On/Off control (rear panel) By Voltage: 0.6V = Disable, 2-15V = enable (default) or dry contact, user selectable logic. 6. Output current monitor 0-5V or 0-10V, accuracy: 1%, user selectable 7. Output voltage monitor 0-5V or 0-10V, accuracy: 1%, user selectable 8. Power supply OK signal Yes. TTL high-OK, 0V (500ohm impedance)-Fail 9. CV/CC signal CV: TTL, high (4-5V) source: 10mA, CC: TTL low (0-04V):10mA 10. Enable/Disable Dry contact. Open: Off, 5Nort: On. Max, voltage at Enable/Disable Contacts 6V 11. Remote/Local selection Selects Remote or Local operation by Voltage: 0-0.6V/2-15V, <0.6V = Local 2-15V = Remote			Vo.	6 of Rated	earity +/-19	racy & Line	able. Accu	user select	full scale,	~5/10kohm	0~100%, 0	Vout resistor programming
6. Output current monitor 0-5V or 0-10V, accuracy:1%, user selectable 7. Output voltage monitor 0-5V or 0-10V, accuracy:1%, user selectable 8. Power supply OK signal Yes. TTL high-OK, 0V (Stoohom impedance)-Fail 9. CV/CC signal CV: TTL high-OK, 0V (Stoohom impedance)-Fail 10. Enable/Disable Dry contact. Open: Off, Short: On. Max. voltage at Enable/Disable Contacts 6V 11. Remote/Local selection Selects Remote or Local operation by Voltage: 0-0.6V/2-15V, <0.6V = Local 2-15V = Remote	X X		0.	6 of Rated	earity +/-19	iracy & Line	able. Accu	user select	full scale,	~5/10kohm	0~100%, 0	lout resistor programming
7. Output voltage monitor 0-5V or 0-10V, accuracy:1%, user selectable 8. Power supply OK signal Yes. TTL high-OK, 0V (500ohm impedance)-Fail 9. CV/CC signal CV: TTL high-OK, 0V (500ohm impedance)-Fail 10. Enable/Disable Dry contact. Open. Off, Short: On. Max. voltage at Enable/Disable Contacts 6V 11. Remote/Local selection Selects Remote or Local operation by Voltage: 0-0.6V/2-15V, <0.6V = Local 2-15V = Remote	X X		ic	ectable log	ct, user sel	r dry conta						
8. Power supply OK signal Yes. TTL high-OK, OV (500hm impedance)-Fail 9. CV/CC signal CV: TTL high (4-5V) source: 10mA, CC: TTL low (0-04V):10mA 10. Enable/Disable Dry contact. Open: Off, Short: On. Max. voltage: at Enable/Disable Contacts 6V 11. Remote/Local selection Selects Remote or Local operation by Voltage: 0-0.6V/2-15V, <0.6V = Local 2-15V = Remote	<u> </u>											
9. CV/CC signal CV: TTL high (4-5V) source: 10mA, CC: TTL low (0-04V):10mA 10. Enable/Disable Dry contact. Open: Off, Short: On. Max. voltage at Enable/Disable Contacts 6V 11. Remote/Local selection Selects Remote or Local operation by Voltage: 0-0.6V/2-15V, <0.6V = Local 2-15V = Remote	X X											
10. Enable/Disable Dry contact. Open: Off , Short: On. Max. voltage at Enable/Disable Contacts 6V 11. Remote/Local selection Selects Remote or Local operation by Voltage: 0-0.6V/2-15V, <0.6V = Local 2-15V = Remote	x x											
11. Remote/Local selection Selects Remote or Local operation by Voltage: 0-0.6V/2-15V, <0.6V = Local 2-15V = Remote	<u> </u>											
12. Remote/Local signal Signals operating mode in use. 1.5 FRONT PANEL 1. Control functions Vout/ lout manual adjust by separate encoders, Fine and Coarse selectable. OVP/UVL manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock Address selection by Voltage adjust encoder, Front Panel Lock/Unlock Address selection by Voltage adjust encoder. No of addresses:31 AC On/Off, Output On/Off, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go to Local RS232/485 and IEEE488.2 selection by IEEE enable switch and DIP switch Baud rate selection by Current adjust encoder. 2. Display Vout: 4 Digits, Accuracy: 0.5% +/- 1 Count Iou: 4 Digits, Accuracy: 0.5% +/- 1 Count Vout: 4 Digits, Accuracy: 0.5% +/- 1 Count Iou: 4 Digits, Accuracy: 0.5% +/- 1 Count Vouter is user selectable to read either local voltage (at power supply) or remote voltage (at the load). 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP, OTP, FOLD, AC FAIL): RED LED	<u> </u>											
1.5 FRONT PANEL 1. Control functions Vout/ lout manual adjust by separate encoders, Fine and Coarse selectable. OVP/UVL manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock Address selection by Voltage adjust encoder. No of addresses:31 AC On/Off, Output On/Off, Restart Modes (AutOSafe), Foldback Control (CV to CC), Go to Local RS232/485 and IEEE488.2 selection by IEEE enable switch and DIP switch Baud rate selection by Current adjust encoder. Parallel Master Slave: Number adjust encoder. 2. Display Vout: 4 Digits, Accuracy: 0.5% +/- 1 Count Iou: 4 Digits, Accuracy: 0.5% +/- 1 Count Vout: 4 Digits, Accuracy: 0.5% +/- 1 Count 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP, OTP, FOLD, AC FAIL): RED LED 1.6 DIGITAL PROGRAMMING & READBACK EAddback												
1. Control functions Vout/ lout manual adjust by separate encoders, Fine and Coarse selectable. OVP/UVL manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock Address selection by Voltage adjust encoder, Non's adjust encoder, Front Panel Lock/Unlock Address selection by Voltage adjust encoder, Non's Acuracy: 0.5% +/. 1 Count 2. Display Vout: 4 Digits, Accuracy: 0.5% +/. 1 Count 1. duications Vout: 4 Digits, Accuracy: 0.5% +/. 1 Count 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP, OTP, FOLD, AC FAIL): RED LED 1.6 DIGITAL PROGRAMMING & READBACK EADBACK										- any no	i signais op	
OVP/UVL manual adust by Voltage Adjust encoder, Front Panel Lock/Unlock Address selection by Voltage adjust encoder. No of addresses:31 AC On/Off, Output On/Off, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go to Local RS232/485 and IEEE488.2 selection by IEEE enable switch and DIP switch Baud rate selection by Current adjust encoder. Parallel Master Slave: Alw, where x = Slaves 0 up to four. 2. Display Vout: 4 Digits, Accuracy: 0.5% +/- 1 Count Iou: 4 Digits, Accuracy: 0.5% +/- 1 Count Iout: 4 Digits, Accuracy: 0.5% +/- 1 Count 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED'S. ALRM (OVP, OTP, FOLD, AC FAIL): RED LED 16 DIGITAL PROGRAMMING & READBACK EADBACK												FRONT PANEL
Address selection by Voltage adjust encoder. No of addresses:31 AC On/Off, Output On/Off, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go to Local RS232/485 and IEEE488.2 selection by UEEE enable switch and DIP switch Baud rate selection by UEEE enable switch and DIP switch Baud rate selection by Current adjust encoder. Parallel Master Slave:Hx, where x = Slaves 0 up to four. Volt: 4 Digits, Accuracy: 0.5% +/- 1 Count Iou: 4 Digits, Accuracy: 0.5% +/- 1 Count Volt: 4 Digits, Accuracy: 0.5% +/- 1 Count Voltmeter is user selectable to read either local voltage (at power supply) or remote voltage (at the load). 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP, OTP, FOLD, AC FAIL): RED LED 16 DIGITAL PROGRAMMING & READBACK EADBACK	<u> </u>											Control functions
AC On/Off, Output On/Off, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go to Local RS232/485 and IEEE488,2 selection by IEEE enable switch and DIP switch Baud rate selection by Current adjust encoder. Parallel Master Slave:Hx, where x = Slaves 0 up to four. Vout: 4 Digits, Accuracy: 0.5% +/. 1 Count Iout: 4 Digits, Accuracy: 0.5% +/. 1 Count Volt: 4 Digits, Accuracy: 0.5% +/. 1 Count Iout: 4 Digits, Accuracy: 0.5% +/. 1 Count Volterer is user selectable to read either local voltage (at power supply) or remote voltage (at the load). 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP, OTP, FOLD, AC FAIL): RED LED 16 DIGITAL PROGRAMMING & READBACK	<u>x x</u>				ock/Unlock							
RS232/485 and IEEE488.2 selection by IEEE enable switch and DIP switch Baud rate selection by Current adjust encoder. Parallel Master Slave: Slaves 0 up to four. 2. Display Vout: 4 Digits, Accuracy: 0.5% +/- 1 Count lou: 4 Digits, Accuracy: 0.5% +/- 1 Count 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP, OTP, FOLD, AC FAIL): RED LED			a to Lot'	1 to CC) C	Control (C)							
Baud rate selection by Current adjust encoder. Parallel Master Slave:Hx, where x = Slaves 0 up to four. 2. Display Vout: 4 Digits, Accuracy: 0.5% +/- 1 Count Iou: 4 Digits, Accuracy: 0.5% +/- 1 Count Voltmeter is user selectable to read either local voltage (at power supply) or remote voltage (at the load). 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP, OTP, FOLD, AC FAIL): RED LED 1.6 DIGITAL PROGRAMMING & READBACK			J IU LOCAI	το CC), G								
Parallel Master Slave:Hx, where x = Slaves 0 up to four. 2. Display Vout: 4 Digits, Accuracy: 0.5% +/. 1 Count lout: 4 Digits, Accuracy: 0.5% +/. 1 Count 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP,OTP,FOLD,AC FAIL): RED LED 1.6 DIGITAL PROGRAMMING & READBACK EADBACK					JIP SWIICH	witch and i						
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Iout: 4 Digits, Accuracy: 0.5% +/- 1 Count Voltmeter is user selectable to read either local voltage (at power supply) or remote voltage (at the load). 3. Indications ADDR., OVP/UVL, VIA, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED'S. ALRM (OVP,OTP,FOLD,AC FAIL): RED LED 1.6 DIGITAL PROGRAMMING & READBACK	X X											Display
Voltmeter is user selectable to read either local voltage (at power supply) or remote voltage (at the load). 3. Indications ADDR., OVP/UVL, V/A, FOLD, REM./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP,OTP,FOLD,AC FAIL): RED LED 1.6 DIGITAL PROGRAMMING & READBACK Voltmeter is user selectable to read either local voltage (at the load).	X X							1 Count	y: 0.5% +/-	ts, Accurac	lout: 4 Dig	
(OVP,OTP,FOLD,AC FAIL): RED LED 1.6 DIGITAL PROGRAMMING & READBACK	ХХ	load).	age (at the	remote voli	supply) or	e (at power	ocal voltage					
(OVP,OTP,FOLD,AC FAIL): RED LED 1.6 DIGITAL PROGRAMMING & READBACK												
	x x											
1. vout programming accuracy +/-0.5% of rated output voltage											10.50	
			0 \107 5	ourror t-	atod cutre 1	1070/-/	10.1075	e maite colt				
2. lout programming accuracy +/-0.5% of rated output current for units with lo<187.5; +/-0.7% of rated output current for lo ≥187.5			18/.5	current for	alea output	⊦/-U./% of r	110<187.5;	or units with	u current fo			
3. Vout programming resolution 0.02% of full scale												
4. lout programming resolution 0.04% of ruit scale 5. Vour readback accuracy 0.1%+0.2% of rated output voltage								16	utput volta			
6. Jour readuals actualsy 0.17470.276 of rated output correct												
7. Vour readback resolution 0.02% of full scale	X X											
8. lout readback resolution 0.02% of full scale	X X									ull scale	0.02% of f	lout readback resolution
9. OV Response time 20 mS maximum between output V exceeding IEEE Limit and supply inhibit turning on.	ХХ		-	turning on.	ply inhibit	mit and sup	ng IEEE Li					
10. Other Functions Set Over-Voltage Limit, Set Local/Remote	X X							l/Remote	it, Set Loca	oltage Lim	Set Over-\	J. Other Functions

Ripple and Noise at Full Rated Voltage & Load at 25C, Nominal Line. Per ELJ R9002A
 Time for the rated output voltage to recover within 2% for a load change of 50~100% or 100~50% of rated output.

Genea Specifications Genesys ™ 10/15kW

. Input voltage/freg.(range)		208VAC (180-253); 400VAC (360/440); 480VAC (432-528), all 47-63Hz.
2. No. of phases		3 Phase (Wye or Delta) 4 wire total (3 Phase and 1 protective earth ground)
3. Dropout voltage	V	180/360/432
1. Input current 180/360/432Vac	A	10kW - 45/23/20; 15kW - 64/32/27 All at full rated output power.
5. Inrush current	A	Not to exceed full rated Input current See Para. 2.4
5. Power Factor		0.88 Passive
7. Leakage current	mA	3.5 (EN60950) max.
3. Input Protection		208 VAC Circuit Breaker; 400VAC, 480VAC - Line Fuse
9. Input Overvoltage Protection		Unit shall not be damaged by line overvoltage with max. duration of 100uSec. Up to 120% of nominal AC input voltage.
10. Phase Imbalance	%	= < 5% on Three Phase Input
2.2 POWER SUPPL CONNECTION		
1. Parallel operation		Up to Four (4) identical units may be connected in Master/Slave Mode with 'Single' wire connection. In Advanced parallel feature, the
		current of Master Unit, multiplied by number of units connected in parallel, is made available on digital interface and displayed on fro
		panel of Master unit. Remote analog current monitor of the Master is scaled to output current of the Master unit (only).
2. Series operation		Possible (with external diodes), up to identical 2 units with total output not to exceed +/-600V from chassis ground.
2.3 ENVIRONMENTAL CONDITIONS		
1. Operating temp	С	0-50 C, 100% load.
2. Storage temp	c	-20C to +70C
3. Operating humidity	%	20-80% RH Non-condensing
4. Storage humidity	%	10-90% RH Non-condensing
5. Vibration & Shock (208/400VAC)	- /0	ASTM D4169, Standard Practice for Performance Testing of Shipping Containers and Systems, Shipping Unit: Single Package
······································		Assurance Level: Level II; Acceptance Criteria: Criterion 1 - No product damage Criterion 2 - Packaging is intact, Distribution Cycle:
	G	Air (intercity) and motor freight (local), unitized is used
6. Altitude		Derating:50° C up to 7500 ft. (2500m), 45° C from 7501 to 10,000ft (2501m - 3000m)
		Non Operating 40,000 ft (12,000m)
7. Audible Noise	db	65dBA at Full Load, measured 1m from Front Panel
		·
2.4 EMC		
1. 208 Vots Inpt Moes		CE Mark
1. ESD		EN61000-4-2 (IEC 801-2) Air-disch.+/-8kV , contact disch.+/-4kV
2. Fast transients		EN61000-4-4 (IEC 1000-4-3)
3. Surge immunity		EN61000-4-5 (IEC 1000-4-5)
4. Conducted immunity		EN61000-4-6 (IEC 1000-4-6)
5. Radiated immunity		EN61000-4-3 (IEC 1000-4-3)
6. Power Frequency Magnetic Field		EN61000-4-8
7. Conducted emission		EN55011A, FCC part 15J-A
8. Radiated emission		EN55011A, FCC part 15J-A
2. 400 Vots Inpt Moes		CE Mark
1. ESD		EN61000-4-2 (IEC 801-2) Air-disch.+/-8kV , contact disch.+/-4kV
2. Fast transients		EN61000-4-4 (IEC 1000-4-3)
3. Surge immunity		EN61000-4-5 (IEC 1000-4-5)
4. Conducted immunity		EN61000-4-6 (IEC 1000-4-6)
5. Radiated immunity		EN61000-4-3 (IEC 1000-4-3)
6. Power Frequency Magnetic Field		EN61000-4-8
Voltage Dips, Short Interruptions and Voltage Variations		IEC 61000-4-11
Immunity Tests (400VAC Only).		
8. Conducted emission		EN55011A, FCC part 15J-A
9. Radiated emission		ENSSOTTA, FCC part 15J-A
7. Naulaieu ettiissiuti		
2.5 SAFET		
2.5 SAFET 1. Applicable standards	_	UL/CUL 60950-1, EN60950-1 recognized. All Outputs are Hazardous. (Units with IEMD or ISOL option are
n Applicable statualus		UL/CUL 60950-1, EN60950-1 recognized. All Outputs are Hazardous. (Units with TEMD or ISOL option are Recognized up to 400 volts output). CE Mark 208 & 400VAC Inputs only (CB Scheme).
2. Insulation resistance		100Mohm at 500Vdc
		Trooworkit at 500 vdc
2.6 MECANICAL CONSTRUCTION		
1. Cooling		Fan driven, Airflow from Front to Rear. Supplemental vents on side that shall not be blocked. EIA Rack mounting,
		stackable. "Zero Stackable" top and bottom. Slides or suitable rear support required.
2. Weight	Kg/Lb	
3. Dimensions (W x H x D)		W: 19" Rack, H:3U - 5.22"(133mm), D - 22.2" (564mm) without connectors.
4. Types of connectors		1) Input: Threaded Studs and terminal cover. Strain relief optional.
<i></i>		2) Output: Up to and including 300V Models: bus-bars. Greater than 300V Models: threaded stud terminals
		3) Analog programming: DB25, plastic connector, AMP, 747461-5, Female on Power Supply, Male on Mating
		connector 747321. Standard 25 pin D connector.
5. Mounting method		Standard 19" Rack Mount, provision for standard slides. Side/Rear Support is required; do not mount by F/P only.
6. Output ground connection		M5 Stud

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

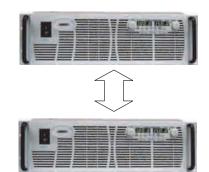
Up to two units may be connected in series to increase the output voltage or to provide bipolar output. (Max600V to Chassis Ground).

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 & S-485 Interface with or without Multi-Drop option.





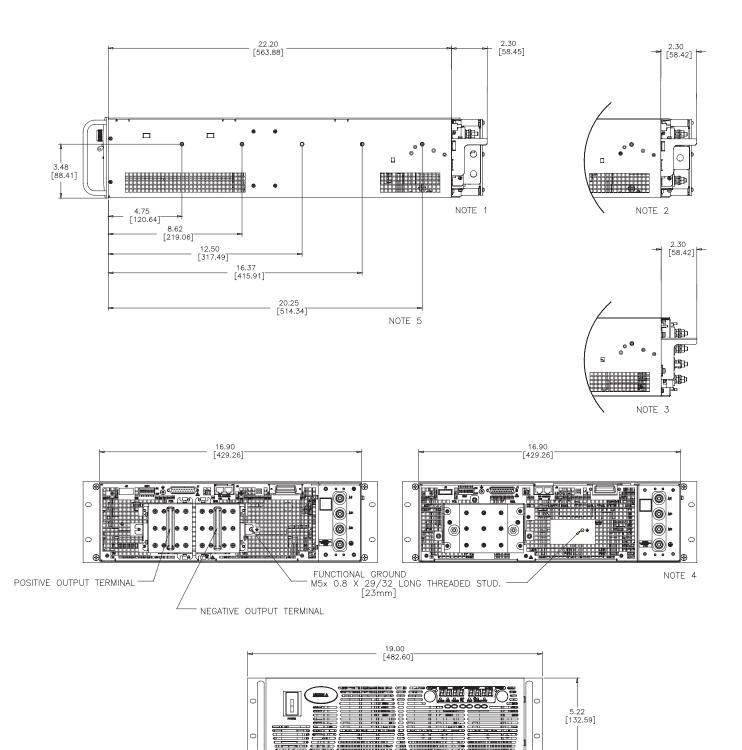


Programming Options (Factory installed)

Programming Options	(raciony mistaneu)	
New IEEE Multi-Drop Interface	,	P/N: IEMD
•Only the Master needs be eqipped with I •IEEE 488.2 SCPI Compliant	Multi-Drop eqipped) slaves over RS-485 daisy-ch IEEE Interface	ain
Program Voltage	Program Current	
•Measure Voltage •Over Voltage setting and shutdown •Error and Status Messages	•Measure Current •Current Foldback shutdown	
New Multi-Drop Slave Option		P/N: MD
•Slaves need to be eqipped with the MD	Slave (RS-485) option	.,
Isolated Analog Programming	l	
•Four Channels to Program and Monitor •Isolation allows operation with floating re •Choose between programming with Volt •Connection via removable terminal block	eferences in harsh electrical environments. tage or Current.	
•Voltage Programming,user-selectable 0 Power supply Voltage and Curren	t Programming Accuracy ±%	P/N: IS510
Power supply Voltage and Curren •Current Programming with 4-20mA signation Power supply Voltage and Curren Power supply Voltage and Curren	al. t Programming Accuracy 1 %	P/N: IS420
 LAN Interface Meets all LKC Regirements Address Viewable on Front Panel Fired and Dynamic Addressing Fast Startup 	Compliant to Class C •VISA &CPI Compatible •LAN Fault Indicators •Auto-detects LAN Cross-over Cable •Compatible with most standard Networks	P/N: LAN
USB Interface	•	P/N: USB
•Allows Serial Connection to USB Port or •Serial commands same as (standard) R		1/N. 00D



Outline Drawings Genesys[™] 3U - 10/15kW



NOTES:

- For models up to 80VDC Output two holes 0.42" Dia (10.72mm)
 For models 100-300VDC Output one hole 0.42" Dia (10.72mm)
- 3. For models above 300V Output threaded stud terminal
- 4. Input Terminals M6x1 (3 + GND)
- 5. Mounting for Slide Mounts (not included). Recommend General Devices, Chassis Trak P/N C230-S-122. Secure with pan head screw M5x0.8-8mm long MAX.

Power Supply Identification / Accessories How to order

	GEN	10 -	1000 -	
ls 10/1	Name	Output Voltage (0~10V)	Output Current (0~1000A)	Factory Options Option: : IEM ME ISS
				LA
Model	Output Voltage VDC	Output Current (A)	Output Power (kW)	US
EN 7.5-1000	0~7.5	0~1000	7.5	
EN 10-1000	0~10	0~1000	10	
EN 12.5-800	0~12.5	0~800	10	
EN 20-500	0~20	0~500	10	
EN 25-400	0~25	0~400	10	
EN 30-333	0~30	0~333	10	
EN 40-250	0~40	0~250	10	
EN 50-200	0~50	0~200	10	
EN 60-167	0~60	0~167	10	
EN 60-250	0 00	0~250	15	
N 80-125	0~80	0~125	10	
EN 80-187.5	0~00	0~187.5	15	
EN 100-100	0~100	0~100	10	
EN 100-150	0100	0~150	15	
EN 125-80	0~125	0~80	10	
EN 125-120	0~120	0~120	15	

AC Input options Option: : IEMD 3P208 (Three Phase 208VAC) 3P400 (Three Phase 400VAC) IS510 3P480 (Three Phase 480VAC) IS420

Model

GEN 150-66

GEN 150-100

GEN 200-50

GEN 200-75

GEN 250-40

GEN 250-60

GEN 300-33

GEN 300-50

GEN 400-25

GEN 500-20

GEN 500-30

GEN 600-17

GEN 600-25

GEN 400-37.5

Output

Voltage

VDC

0~150

0~200

0~250

0~300

0~400

0~500

0~600

Output

Current

(A)

0~66

0~100

0~50

0~75

0~40

0~60

0~33

0~50

0~25

0~37.5

0~20

0~30

0~17

0~25

Output

Power

(kW)

10

15

10

15

10

15

10

15

10

15

10

15

10

15

Model

	Output	Output	Output
Model	Voltage	Current	Power
	VDC	(A)	(kW)
GEN 7.5-1000	0~7.5	0~1000	7.5
GEN 10-1000	0~10	0~1000	10
GEN 12.5-800	0~12.5	0~800	10
GEN 20-500	0~20	0~500	10
GEN 25-400	0~25	0~400	10
GEN 30-333	0~30	0~333	10
GEN 40-250	0~40	0~250	10
GEN 50-200	0~50	0~200	10
GEN 60-167	0~60	0~167	10
GEN 60-250	0~00	0~250	15
GEN 80-125	0.00	0~125	10
GEN 80-187.5	0~80	0~187.5	15
GEN 100-100	0.100	0~100	10
GEN 100-150	0~100	0~150	15
GEN 125-80	0 125	0~80	10
GEN 125-120	0~125	0~120	15

Factory options

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 LXI Class C)
USB Interface

Accessories

1. Serial Communication cable

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

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

2. Serial link cable*

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

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

* Included with power supply



Also available Genesys ™ **1U Half Rack 750W** 1U 750/1500W 2U 3.3kW

P/N

IEMD

MD

IS510 IS420

LAN

USB

MD

LAN

USB