Технические характеристики на программируемые источники питания Genesys 3U

По вопросам продаж и поддержки обращайтесь:

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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 10kW/15kW in 3U package
- High Output Current up to 1000ADC
- Wide Range of popular worldwide 3Φ AC inputs, (208VAC, 400VAC, 480VAC)
- Power Factor 0.88 (Passive PFC on all AC Inputs)
- Output Voltage up to 1500V; Output Current up to 1000A
- Built-in RS-232/RS-485 Interface Standard
- Last Setting Memory; Front Panel Lockout
- "Advanced Parallel" configuration reports total system current (up to four identical units)
- Global Commands for Serial RS-232/RS-485 Interface
- Continuous 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

GPIB (IEEE 488.2 & SCPI Compliant) w/ Multi-Drop capability Isolated Analog Programming and Monitoring Interface (0-5V/0-10V & 4-20mA)

- LabView[™] and LabWindows[™] Software Drivers
- Worldwide Safety Agency Approvals; UL Recognized and CE Mark for LVD and EMC Regulation (208VAC, 400VAC and select 480VAC models)
- Five Year Warranty

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 unit. Then up to 30 Slave units may be used with the standard RS-485 Multi-Dropinterface.

c([™]L)us **CE**

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 the optional LAN (LXI compliant) Interface.

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 unit can be configured by the user to report the total Output current of the combined system. Applications include Heaters, Magnets and Laser Diodes.

Aerospace & Satellite Testing systems use the complete Genesys[™] Family: <u>1U</u>-750W Half-Rack, <u>1U</u>-750W/ 1.5kW/2.4kW Full-Rack, <u>2U</u>-3.3kW/5kW Full-Rack and <u>3U</u>-10kW/15kW Full-Rack. All are identical in Front Panel, Rear Panel Analog and Digital Interface Commands. A wide variety of Outputs (voltage and current) allows testing of many different user configurations.

Component Device Testing is simplified because of the many user-friendly control options in the 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 AC Inputs and Outputs from which to select, depending on application. Selectable Safe-Start and Auto Re-Start protects loads and process integrity. Typical applications include Magnets, Filaments and Heaters.

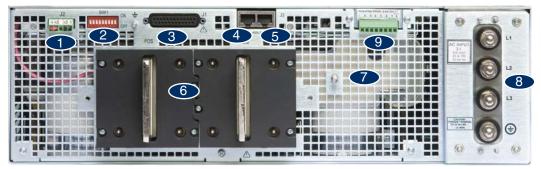
1 Genesys™ 3U 10/15kW

Front Panel Description



- 1. AC ON/OFF Switch
- 2. Air Intake allows zero stacking for maximum system flexibility and power density.
- 3. Continuous encoder controls Output Voltage, Address, OVP and UVL settings.
- 4. Voltage Display shows Output Voltage and directly displays OVP, UVL and Address settings.
- 5. Continuous encoder controls Output Current, sets Baud rate 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 Control
- Remote Mode
- Preview Settings
 Output On
- 8. Pushbuttons allow flexible user configuration
 - Coarse and Fine adjustment of Output Voltage/Output Current and Advanced Parallel Master or Slave select.
 - Preview Settings and set Voltage/Current with Output OFF, Front Panel Lock.
 - Parallel Master/Slave (Basic and Advanced).
 - Set OVP and UVL Limits.
 - Set Current Foldback Protection.
 - Go to Local Mode and select Address and Baud rate.
 - Output ON/OFF and Safe-Start/Auto Re-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 Analog Program and Monitor (non-isolated) and other functions.
- 4. RS-485 OUT to other Genesys[™] Power Supplies.
- 5. RS-232/RS-485 IN Remote Serial Programming.
- 6. Output Connectors: Rugged 2 hole busbars (shown) for models < 30V Output,
- single hole busbars for 30V to 300V Output, and threaded-stud terminals for models > 300V Output. 7. Exit air assures reliable operation when zero stacked.
- 8. Input Terminals L1, L2, L3, and Ground (threaded studs).
- 9. Optional Interface Position for LAN (LXI Class C), GPIB (IEEE 488.2 SCPI) or Isolated Analog Interface.

LAN Interface complies with LXI Class C Specification

Genesys[™] 3U 10kW 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	80-125	100-100	125-80	10
1.Rated Output Voltage	VDC	7.5	10	12.5	20-300	25-400	30	40-250	50	60	80	100-100	125	t
2.Rated Output Current	ADC	1000	1000	800	500	400	333	250	200	167	125	100	80	╞
3.Rated Output Power	kW	0.75	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	12.5	10.0	10.0	╞
4.Efficiency (min) at low AC line, 100% Rated Load	%	77	10.0	10.0	10.0	10.0	10.0	83	10.0	10.0	10.0	10.0	10.0	
4.Elliciency (min) at low AC line, 100% Rated Load	70	11			C	ontact Ea	ctory for o		lole					
1.1 CONSTANT VOLTAGE MODE (CV)						Uniaci Fa			leis					<u> </u>
• •	1	1												Τ
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤ 600V; 0.05% - 600V < Vor ≤ 1500V)	mV	7.5	10	12.5	20	25	30	4	5	6	8	10	12.5	
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor <														+
$2.002\% - 300 < 001\% - 001 \le 300; 0.02\% - 300 < 001 \le 3000; 0.1\% - 300 < 001 \le 3000; 0.1\% - 3000 < 001 \le 3000; 0.1\% - 3000 < 001 \le 3000; 0.02\% - 3000; 0.$	mV	7.5	10	12.5	20	25	30	8	10	12	16	20	25	
3. Ripple, rms, 5Hz~1MHz, CV (*1)	mV	20	20	20	20	20	20	20	20	20	25	25	25	
	+													_
4. Output Noise, p-p, (20MHz), CV (*1)	mV V	60 1	60 1	60 1	60 1	60 1	60	60	75	75	100	100	125	╀
5.Remote Sense Compensation / Wire			-				1.5	2	3	3	4	5	5	╀
6. Temperature Stability			<u> </u>	,	8 hours af	ter 30 mir	nute warn	1 up (con	stant Line	e, Load &	Temperati	ure)		\downarrow
7. Temperature Coefficient	ppm / °C	± 200 (±	: 0.02% 0	of Vo Rate	a) / °C			100						+
8. Up-Prog. Response Time, 0 ~ Vomax, full-load	ms							100						\downarrow
9. Up-Prog. Response Time, 0~Vomax, no-load	ms							50						\downarrow
10. Transient Response Time (CV mode) (*2)	ms						Les	s than 3						
I.2 CONSTANT CURRENT MODE (CC)														
. Max. Line Reg. (0.1% - Ior ≥ 333A; 0.050% - 17A < Ior <		1000	1000			400		105	100				40	Т
333A; 0.15% - lor < 17A)	mA	1000	1000	800	500	400	333	125	100	83.5	62.5	50	40	
2. Max. Load Reg (0.1% - Ior ≥ 333A; 0.075% - 17A ≤ Ior <	<u> </u>	10	10	0.5 -		46.5				46-				+
333A; 0.2% - lor < 17A) (*3)	mA	1000	1000	800	500	400	333	188	150	125	94	75	60	
3. Ripple rms, 5Hz~1MHz, CC	mA	5300	4000	2560	1000	640	444	250	160	67	50	40	32	+
1. Temperature Stability					hours after							-		╈
5. Temperature Coefficient	ppm/°C			of Io Rated					2	,		-1		+
	ppin, o	1 2 000 (2	0.0070	into matoo	.,, .									-
.3 PROTECTIVE FUNCTIONS														Т
. OCP	%	0 ~ 100												_
2. OCP type			t current											
B. Foldback Protection (FOLD)					reset by fr						n, user-sel	ectable		
. Foldback Response Time	S				/ax = 25 /									
. OVP type		Inverter	shut-dow	n; Manua	I reset by	AC On/O	ff recycle.	OUT but	ton, Rem	ote Analo	g or Digita	al commuine	cation	
. OVP Programming Accuracy	%		Vo(rated)											
OVP Trip Point	V							of Vo(rat	ed) - 600'	$V < Vor \le$	1500V; Sł	nall always I	be greater	Т
	, ·				Default = 1									⊥
3. OVP Response Time	ms				begin to o	drop) for ۱	Vor ≤ 600	V; Less th	nan 2.0 (fe	or Output	to begin to	o drop) for		
		<u>. </u>	Vor ≤ 150											
9. Max. OVP Reset Time	s	```		ff switch tu	,									
0. Over-Temperature Protection (OTP)		Shut do	wn if intei	rnal tempe	erature ex	ceeds sat	fe operati	ng levels	(Latched:	: Safe-mo	de / Unlat	ched: Auto-	mode)	
11. Phase-Loss Protection		Yes, pov	ver suppl	y shutdow	vn (Latche	d: Safe-m	node / Un	latched: A	Auto-mode	e)				
4 REMOTE ANALOG CONTROLS & SIGNALS														
1. Vout Voltage Programming	0~100%,	0 ~ 5V or	0 ~ 10V,	user-selec	ctable., Ac	curacy &	Linearity	±1% of \	/o(rated)					Т
2. lout Voltage Programming	0~100%,	0 ~ 5V or	0 ~ 10V,	user-selec	ctable, Acc	uracy & I	Linearity:	± 1% of I	o(rated)					Ť
3. Vout Resistor Programming		0 ~ 5/10kd								ated)				+
1. Iout Resistor Programming		0 ~ 5/10kd		,		,	<u>,</u>		· · ·	,				+
5. Shut-Off (SO) Control (rear panel)											(user-sele	ctable logic)	$^{+}$
6. Output Current Monitor		0 ~ 10V, A				,		or open-		511 - 510	(4001 0010	otable logio	/	╈
Coutput Voltage Monitor		0 ~ 10V, /												╈
B. Power Supply OK (PS_OK) Signal														╋
). CV/CC Signal		High = OK						(0 0 4)/	May air	al auno at	10			╀
0. Enable/Disable		High (4 ~ 5									= IUMA			╇
	,	act; Open =	- ,	,		<u>.</u>				6V				╀
1. Remote/Local Selection		Remote or												
2. Remote/Local Signal	Signals o	perating n	node; Ope	en collecto	or: Local =	Open (N	lax voltag	je = 30V)	, Remote	= On (Ma	ax sink cur	rrent = 10m	A)	
.5 FRONT PANEL														
Control Functions	Vout/ Iout	t manual a	djust by s	separate e	encoders (coarse a	nd fine ac	ljustment	selectabl	le)				Т
	OVP/UVL	_ manual a	djust by	Voltage Ac	djust enco	der, Fron	t Panel Lo	ock/Unloc	k					
		selection b		•										F
		FF, Outpu						Control (CV to CC). Go-to-L	ocal			
		RS-485, IE				,.		,		,,				
	1	e selection		,					200 (by c	urrent adi	iust encod	ler)		F
		d Parallel I												F
2.Display		4 digits, Ac						o unit		, <u> </u>				+
Сорау	-	4 digits, Ac	-		, ,									┢
	1	r displays v			. ,		or at load	d (Pomot						\vdash
B.Indications		D's: PRE	-											┿
		: ALRM (C					UFF, UV/	CC, FINE						
	I NOU LLD		, orr,	. JLD, AU	- , , , ∟l'	.,								_
.6 DIGITAL PROGRAMMING & READBACK														_
. Vout Programming Accuracy		f rated Out												╀
	± 0.5% of	f rated Out	tput curre	nt for unit	s with lo <	: 187.5A;	± 0.7% of	rated Ou	tput curre	ent for lo	≥187.5A			Ľ
. Iout Programming Accuracy	0.000/ af	Vo(rated)												
· · · ·	0.02% 01													T
8. Vout Programming Resolution	0.02% of	lo(rated)												_
8. Vout Programming Resolution . lout Programming Resolution	0.04% of	Io(rated) of Vo(actua	al) + 0.2%	of Vo(rate	ed))									
. Vout Programming Resolution . lout Programming Resolution . Vout Readback Accuracy	0.04% of ± (0.1% c	of Vo(actua	,		,,									╀
Lout Programming Accuracy Vout Programming Resolution Lout Programming Resolution Vout Readback Accuracy Lout Readback Accuracy Vout Readback Resolution	0.04% of ± (0.1% of ± (0.1% of	of Vo(actua of Io(actua	,		,,									╞
. Vout Programming Resolution . lout Programming Resolution . Vout Readback Accuracy . lout Readback Accuracy . Vout Readback Resolution	0.04% of ± (0.1% o ± (0.1% o 0.02% of	of Vo(actua of Io(actua Vo(rated)	,		,,									+
. Vout Programming Resolution . lout Programming Resolution . Vout Readback Accuracy	$\begin{array}{c} 0.04\% \text{ of} \\ \pm (0.1\% \text{ o}) \\ \pm (0.1\% \text{ o}) \\ 0.02\% \text{ of} \\ 0.02\% \text{ of} \end{array}$	of Vo(actua of Io(actua Vo(rated)	l) + 0.4%	of lo(rate	d))	Limit and	supply I	nhibit turr	ning On)					

*1. Ripple and Noise at Vo(rated) and rated Load, Ta = 25C and nominal AC input, per EIJ R9002A. *2. Time for the Output voltage to recover within 2% of rating for a load current change of 50~100% or 100-50% of lo(rated). *3. From 20% - 100% for models with lor < 17A.

All specifications subject to change without notice.

Genesys[™] 3U 10kW Specifications

1.0 MODEL	GEN	150-66	200-50	250-40	300-33	400-25	500-20	600-17	800-12.5	1000-10	1250-8	1500-6.7	>
1.Rated Output Voltage	VDC	150	200	250	300	400	500	600	800*	1000*	1250*	1500*	
2.Rated Output Current	ADC	66	50	40	33	25	20	17	12.5	10	8.0	6.7	
3.Rated Output Power	kW	9.9	10.0	10.0	9.9	10.0	10.0	10.2	10.0	10.0	10.0	10.0	
4.Efficiency (min) at low AC line, 100% Rated Load	%				83						93.5		
1.1 CONSTANT VOLTAGE MODE (CV)					Con	tact Facto	ry for othe	er models					
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤ 600V; 0.05% - 600V < Vor ≤ 1500V)	mV	15	20	25	30	40	50	60	400	500	625	750	
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤ 600V; 0.1% - 600V < Vor ≤ 1500V)	mV	30	40	50	60	80	100	120	800	1000	1250	1500	
3. Ripple, r.m.s, 5Hz~1MHz, CV (*1)	mV	25	35	35	60	60	60	60	80	100	120	140	
4. Output Noise, p-p (20MHz), CV (*1)	mV	150	175	200	200	300	350	350	700	800	1000	1400	
5.Remote Sense Compensation / Wire	V	5	5	5	5	5	5	5	5	5	5	5	Ļ
6. Temperature Stability				,		after 30 mi	inute warr	n up (con	stant Line,	Load & T	emperature)	\vdash
7. Temperature Coefficient	ppm / °C	± 200 (0	0.02% of	Vo Rated	,				1		17		┢
8. Up-Prog. Response Time, 0~Vomax, full-load 9. Up-Prog. Response Time, 0~Vomax, no load	mS mS				100 50						17		┼
10. Transient Response Time (CV mode) (*2)	mS				Less than	3					than 1		┼─
1.2 CONSTANT CURRENT MODE (CC)									1	2000			
1.2 CONSTANT CORRENT MODE (CC) 1. Max. Line Reg. (0.1% - lor ≥ 333A; 0.050% - 17A < lor < 333A; 0.15% - lor < 17A)	mA	33	25	20	17	13	10	9	19	15	12	10	
2. Max. Load Reg (0.1% - Ior ≥ 333A; 0.075% - 17A ≤ Ior < 333A; 0.2% - Ior < 17A) (*3)	mA	50	38	30	25	19	15	13	25	20	15	14	┢
3. Ripple rms, 5Hz~1MHz, CC	mA	26	20	16	13	10	8	7	15	10	6	4	┼─
4. Temperature Stability			-	-	-				-		emperature)		┼─
5. Temperature Coefficient	ppm / °C	:		lo Rated				1,00.10					+
1.3 PROTECTIVE FUNCTIONS													<u> </u>
1. OCP	%	0 ~ 100											Τ
2. OCP type			nt current	t									+
3. Foldback Protection (FOLD)					I reset by	front pane	el OUT bu	itton or Di	gital comm	nunication	, user-selec	table	1
4. Foldback Response Time	S	Less that	an 1 (Mir	n = 0.25 /	Max = 25	/ Default	= 0.25); S	ettable vi	a "FBD" co	mmand			İ
5. OVP type		Inverter	shut-dov	wn; Manu	al reset by	AC On/C	Off recycle	, OUT bu	tton, Remo	te Analog	or Digital c	omm.	1
6. OVP Programming Accuracy	%	<u>. </u>	Vo(rated	/									
7. OVP Trip Point	V 5% to 105% of Vo(rated) - for Vor ≤ 600V; 10% to 105% of Vo(rated) - 600V < Vor ≤ 1500V; Shall always be gr than 105% of Vo(setting); Default = 105% of Vo(rated).								grea				
8. OVP response time	mS	600V <	Vor <u><</u> 15	00V.		drop) for	$Vor \le 600$)V; Less t	han 2.0 (fo	r Output t	o begin to c	Irop) for	
9. Max. OVP reset time 10. Over-Temperature Protection (OTP)	S	<u> </u>		off switch	,					0 4 411			_
11. Phase-Loss Protection									. (Latched: Auto-mode		latched: Au	to)	+
		163, por	wei supp	iy shutuo		eu. oaie-i	noue / OI	natorieu.7		/			
1.4 REMOTE ANALOG CONTROLS & SIGNALS 1. Vout Voltage Programming	0~100%,		0 101/	upor oolo	atabla Ar	ouroov ^e	Lincority	10/ of)	(rotod)				Г
2. lout Voltage Programming	0~100%,								· /				┢
3. Vout resistor programming									of Vo(rate	d)			+
4. lout Resistor Programming									of lo(rated				
5. Shut-Off (SO) Control (rear panel)	By Voltag	e: 0.6V =	Disable,	2-15V = I	Enable (de	efault) or [Dry Conta	ct : Open	= ENA, Sł	nort = DIS	(user-seled	ctable logic)	
6. Output Current Monitor	0 ~ 5V or	0 ~ 10V, A	Accuracy	: ± 1% of	lo(rated),	user-sele	ctable						
7. Output Voltage Monitor	0 ~ 5V or												
8. Power Supply OK (PS_OK) Signal	Yes. TTL												
9. CV/CC Signal), Max sinl		= 10mA		-
10. Enable/Disable								* ****	ontacts = 6	v			-
11. Remote/Local Selection 12. Remote/Local Signal		lemote or								- On (Max	sink curre	at = 10mA	┼
•	Signals 0	perating in	noue, Op	ien collec	IOI. LOCAI	= Open (i	viax voita	ye = 30v)	, nemole -		C SITIK CUTTER	n = 10 mA	
1.5 FRONT PANEL	1.1.1.1.1.1.1					(—
1.Control Functions	OVP/UVL								selectable	e)			┢
	Address s			0		,			λ.				\vdash
								Control (CV to CC),	Go-to-Lo	cal		\vdash
	RS-232/F							,	0 • 10 00),	00 10 20	oui		
				,					200 (by cu	irrent adju	st encoder)	F
					• ·						lave unit(s)		F
2.Display	Voltage: 4					-			. ,,				
	Current: 4					,							
	Voltmeter												
3.Indications	Green LE Red LED:	:D's: PRE\ : ALRM (C					/OFF, CV	/CC, FINE	E				
1.6 DIGITAL PROGRAMMING & READBACK													
1. Vout Programming Accuracy	± 0.5% of	f rated Ou	tput volta	ige									
2. lout Programming Accuracy	± 0.5% of	f rated Ou	tput curre	ent for un	its with Io	< 187.5A;	± 0.7% o	f rated Ou	utput curre	nt for Io ≥	187.5A		
3. Vout Programming Resolution	0.02% of	. ,											
4. lout Programming Resolution	0.04% of	. ,											
	± (0.1% c		,	% of Vo(ra	,,								<u> </u>
•													
6. lout Readback Accuracy	± (0.1% c		al) + 0.4%	% of Vo(ra	ted))								-
6. lout Readback Accuracy 7. Vout Readback Resolution	0.02% of	Vo(rated)	al) + 0.4%	% of Vo(ra	ted))								
5. Vout Readback Accuracy 6. Iout Readback Accuracy 7. Vout Readback Resolution 8. Iout Readback Resolution 0. OV December 2000 0.	0.02% of 0.02% of	Vo(rated) lo(rated)				E 1 in-24	al au1	la la ila ita to					
6. lout Readback Accuracy 7. Vout Readback Resolution	0.02% of 0.02% of 20mS ma	Vo(rated) Io(rated) Iximum (b	etween \	/out exce	eding IEE				ning On) Get Identity				

L *800V - 1500V models (10kW) only available with 400VA and 480VAC input. For 208VAC Input models please contact the factory. *1. Ripple and Noise at Vo(rated) and rated Load, Ta = 25C and nominal AC input. per EIJ R9002A *2. Time for the Output voltage to recover within 2% of rating for a load current change of 50-100% or 100-50% of lo(rated). *3. From 20% - 100% for models with lor < 17A. All specifications subject to change without notice.

Genesys[™] 3U 15kW Specifications

1.0 MODEL		N/A	N/A	N/A	N/A	N/A	30-500	40-375	50-300	60-250	80-187.5	100-150	125-120	15k\ X
1.Rated Output Voltage	VDC						30*	40*	50*	60	80	100-100	125	X
2.Rated Output Current	ADC						500	375	300	250	187.5	150	120	X
3.Rated Output Power	kW						15.0	15.0	15.0	15.0	15.0	15.0	15.0	X
	%						15.0	15.0	13.0	88	13.0	15.0	13.0	X
4.Efficiency (min) at low AC line, 100% Rated Load	%						ictory for a	ther med	olo	88				X
1.1 CONSTANT VOLTAGE MODE (CV)					00	maci Fa			eis					
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor <	1													T
$600V; 0.05\% - 600V < Vor \le 1500V)$	mV						30	4	5	6	8	10	12.5	Х
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤														+
$600V; 0.1\% - 600V < Vor \le 1500V)$	mV						30	8	10	12	16	20	25	Х
3. Ripple, rms, 5Hz~1MHz, CV (*1)	mV						20	20	20	20	25	25	25	Х
4. Output Noise, p-p, (20MHz), CV (*1)	mV						60	60	75	75	100	100	125	X
5.Remote Sense Compensation / Wire	V						1.5	2	3	3	4	5	5	X
6. Temperature Stability			of Vo(rat	ed) over 8	hours aft						Temperatu	-	0	X
7. Temperature Coefficient	ppm / °C			f Vo(rated		01 00 111	nate warn			, Loud a	Temperatu	10)		X
8. Up-Prog. Response Time, 0 ~ Vomax, full-load	ms	1 200 (1	0.02700	1 10(1000	,,,, 0			100						X
9. Up-Prog. Response Time, 0~Vomax, no load	ms							50						X
10. Transient Response Time (CV mode) (*2)	ms							s than 3						X
	1115	I					Les	s than 5						
1.2 CONSTANT CURRENT MODE (CC)														
1. Max. Line Reg. (0.1% - Ior ≥ 333A; 0.050% - Ior < 333A)	mA						500	375	334	125	94	75	60	Х
2. Max. Load Reg (0.1% - Ior \geq 333A; 0.075% - 25A \leq Ior $<$	mA						500	375	334	188	141	113	90	x
333A; 0.2% - lor < 25A) (*3)														
3. Ripple, rms, 5Hz~1MHz, CC	mA						350	200	150	100	100	100	50	Х
4. Temperature Stability						er 30 mir	nute warm	up (const	tant Line,	Load & T	Femperatur	re)		Х
5. Temperature Coefficient	ppm/°C	± 300 (±	0.03% 0	f lo(rated)) / °C									Х
1.3 PROTECTIVE FUNCTIONS														
1. OCP	%	0 ~ 100												Х
2. OCP type		Constan	t current											Х
3. Foldback Protection (FOLD)				Manual	eset by fro	ont pane	I OUT butt	on or Dla	ital comr	nunication	n, user-sele	ectable		X
4. Foldback Response Time	s						= 0.25); Se				1, 4001 0010			X
5. OVP type											g or Digita	l communi	cation	X
6. OVP Programming Accuracy	%		Vo(rated)	n, manaa	ricoct by i	10 011/0	n recycle,	001 000		0107111010	g or Digita	1 oommann	oution	X
	i			Vo(rated) - for Vor	< 600V	10% to 10	5% of Vo(rated) - 6	00V < Vo	r <u><</u> 1500V;	Shall alwa	ivs he	1
7. OVP Trip Point	V						15% of Vo(iatou) o	000 < 00	<u> </u>	onan anno	yo bo	Х
									an 2.0 (fe	or Output	to begin to	drop) for		1 v
8. OVP Response Time	ms		Vor <u><</u> 150		5	- 1-7		,			5			х
9. Max. OVP Reset Time	s	7 (from /	AC On/Of	f switch tu	ırn On)									Х
10. Over-temperature Protection (OTP)		Shut do	wn if inter	nal tempe	erature exc	eeds sa	fe operatir	ng levels ((Latched:	Safe-mo	de/ Unlatcl	hed: Auto-r	node)	Х
11. Phase-Loss Protection		Yes, pov	ver supply	/ shutdow	n (Latche	d: Safe-r	node / Unl	atched: A	uto-mode	e)			,	X
1.4 REMOTE ANALOG CONTROLS & SIGNALS										,				
1. Vout Voltage Programming	0 100%		0 101/ 1		toble Acc		Linearity:	10/ of V	o(rated)					X
2. lout Voltage Programming							Linearity:							X
3. Vout Resistor Programming							acy & Line			atad)				X
4. lout Resistor Programming							acy & Line			,				Â
										,	(table legie	.)	_
5. Shut-Off (SO) Control (rear panel)								:: Open =	= EN, SH	ort = DIS	(user-selec	clable logic)	X
6. Output Current Monitor		0 ~ 10V, A			<u> </u>									X
7. Output Voltage Monitor		0 ~ 10V, A												X
8. Power Supply OK (PS_OK) Signal		High = OK	,				,							X
9. CV/CC Signal							TTL Low				= 10mA			Х
10. Enable/Disable	· · ·		,	,	0	e acros	s Enable/D			6V				Х
11. Remote/Local Selection	Selects F			ration by					Remote					Х
							= Local / 2						A)	Х
12. Remote/Local Signal	Signals o	perating m	node; Ope	n collecto			= Local / 2 ⁄Iax voltag			= On (Ma	ax sink curi	rent = 10m		
12. Remote/Local Signal	Signals o	perating m	node; Ope	en collecto						= On (Ma	ax sink curi	rent = 10m		
12. Remote/Local Signal 1.5 FRONT PANEL					or: Local =	Open (N	vlax voltag	e = 30V),	Remote		ax sink curi	rent = 10m		X
12. Remote/Local Signal	Vout/ Iout	manual a	djust by s	eparate e	or: Local =	Open (N coarse a	Max voltag	e = 30V), justment	Remote		ax sink curi	rent = 10m		
12. Remote/Local Signal 1.5 FRONT PANEL	Vout/ Iout OVP/UVL	manual a manual a	djust by s djust by \	eparate e /oltage Ac	encoders (o	Open (N coarse a der, Fron	Max voltag Ind fine ad	e = 30V), justment	Remote		ax sink curi	rent = 10m		Х
12. Remote/Local Signal 1.5 FRONT PANEL	Vout/ lout OVP/UVL Address	manual a manual a selection b	djust by s djust by \ y Voltage	eparate e /oltage Ac Adjust er	encoders (encoders (encoders (encoders (encoders (encoders))))))))))))))))))))))))))))))))))))	Open (N coarse a der, Fron of addres	Max voltag Ind fine ad It Panel Lo Ises = 31	e = 30V), justment ck/Unlocl	Remote selectabl k	e)		rent = 10m		X X
12. Remote/Local Signal 1.5 FRONT PANEL	Vout/ Iout OVP/UVL Address s AC ON/O	manual a manual a selection b FF, Outpu	djust by s djust by \ y Voltage t On/Off,	eparate e /oltage Ac Adjust er Restart M	encoders (ljust encod ncoder. # c odes (Auto	Open (M coarse a der, Fron of addres p/Safe),	Max voltag and fine ad it Panel Lo ses = 31 Foldback (e = 30V), justment ick/Unlock	Remote selectabl k	e)		rent = 10m		X X X
12. Remote/Local Signal 1.5 FRONT PANEL	Vout/ lout OVP/UVL Address s AC ON/O RS-232/F	manual a manual a selection b FF, Outpu S-485, IE	djust by s djust by \ y Voltage t On/Off, I EE (IEME	eparate e /oltage Ac Adjust er Restart M)) and LA	encoders (ljust encod ncoder. # o odes (Auto N selection	Open (M coarse a der, Fron of addres o/Safe), n by real	Max voltag Ind fine ad It Panel Lo Isses = 31 Foldback (It panel DI	e = 30V), justment ick/Unlock Control (C P-switch	Remote selectabl k	e) , Go-to-L	ocal			X X X X
12. Remote/Local Signal 1.5 FRONT PANEL	Vout/ Iout OVP/UVL Address s AC ON/O RS-232/F Baud rate	manual a manual a selection b FF, Outpu S-485, IE selection	djust by s djust by \ y Voltage t On/Off, I EE (IEME (RS-232/	eparate e /oltage Ac Adjust er Restart M D) and LA (RS-485 c	encoders (d ljust encod ncoder. # c odes (Auto N selection only): 1200	Open (M coarse a der, Fron of addres o/Safe), n by real y 2400, 4	Max voltag Ind fine ad It Panel Lc Isses = 31 Foldback (Ir panel DII 4800, 960(e = 30V), justment cck/Unlock Control (C P-switch) and 19,2	Remote selectabl k CV to CC) 200 (by c	e) , Go-to-L urrent adj	ocal just encode			X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions	Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced	manual a manual a selection b FF, Outpur S-485, IE selection d Parallel N	djust by s djust by \ y Voltage t On/Off, I EE (IEME (RS-232/ Master/Sla	eparate e /oltage Ac Adjust er Restart M 0) and LA /RS-485 c ave: Hx =	encoders (ljust encod ncoder. # c odes (Auto N selection only): 1200 Master un	Open (M coarse a der, Fron of addres o/Safe), n by reau , 2400, 4 it, where	Max voltag and fine ad the Panel Lo sees = 31 Foldback (r panel DIF 4800, 960($\Rightarrow x = #$ of S	e = 30V), justment cck/Unlock Control (C P-switch) and 19,2	Remote selectabl k CV to CC) 200 (by c	e) , Go-to-L urrent adj	ocal just encode			X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL	Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 2	manual a manual a selection b FF, Outpur S-485, IE selection d Parallel M d digits, Ac	djust by s djust by \ y Voltage t On/Off, I EE (IEME (RS-232/ Master/Sla curacy: ±	eparate e /oltage Ac Adjust er Restart M 0) and LA /RS-485 c ave: Hx = 0.5% of N	r: Local = encoders (i ijust encoo iccoder. # c odes (Auto N selection only): 1200 Master un /o(rated) ±	Open (N coarse a der, Fron of addres o/Safe), n by rea , 2400, 4 it, where 1 count	Max voltag and fine ad the Panel Lo sees = 31 Foldback (r panel DIF 4800, 9600 $\Rightarrow x = # of S$	e = 30V), justment cck/Unlock Control (C P-switch) and 19,2	Remote selectabl k CV to CC) 200 (by c	e) , Go-to-L urrent adj	ocal just encode			X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions	Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4	manual a manual a selection b FF, Outpu RS-485, IE selection Parallel N digits, Ac digits, Ac	djust by s djust by \ y Voltage t On/Off, I EE (IEME (RS-232/ Master/Sla curacy: ± curacy: ±	eparate e /oltage Ac Adjust er Restart M D) and LA (RS-485 c ave: Hx = 0.5% of \ 0.5% of \	encoders (iljust encod icoder. # co odes (Aute N selection only): 1200 <u>Master un</u> /o(rated) ± /o(rated) ±	Open (N coarse a der, Fron of addres o/Safe), n by rea , 2400, 4 it, where a count count count	Max voltag and fine ad the Panel Lo sees = 31 Foldback (r panel DIR 4800, 9600 $\Rightarrow x = # \text{ of } S$	e = 30V), justment ick/Unlock Control (C 2-switch 0 and 19,3 Slave units	Remote selectabl k CV to CC) 200 (by c s (0 to 4)	e) , Go-to-L urrent adj	ocal just encode			X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2.Display	Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter	manual a manual a selection b FF, Outpu RS-485, IE selection d Parallel M digits, Ac digits, Ac displays v	djust by s djust by \ y Voltage t On/Off, I EE (IEME (RS-232/ Master/Sla curacy: ± curacy: ± voltage at	eparate e /oltage Ac Adjust er Restart M D) and LA /RS-485 c ave: Hx = 0.5% of \ 0.5% of \ power su	r: Local = procoders (r ljust encou codes (Auto N selection only): 1200 Master un /o(rated) ± /o(rated) ±	Open (N coarse a der, Fron of addres o/Safe), n by read , 2400, 4 it, where a count a count a sense)	Max voltag ind fine ad it Panel Lc ises = 31 Foldback (r panel DIF 4800, 960(a x = # of S	e = 30V), justment ick/Unlock Control (C 2-switch 0 and 19,2 Slave units	Remote selectabl k CV to CC) 200 (by c s (0 to 4) e sense)	e) , Go-to-L urrent adj	ocal just encode			X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions	Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	manual a manual a selection b FF, Outpur RS-485, IE selection Parallel M digits, Ac digits, Ac displays v D's: PREV	djust by s djust by \ y Voltage t On/Off, I EE (IEME (RS-232) Aaster/Sla curacy: ± curacy: ± roltage at /IEW, FO	eparate e /oltage Ac Adjust er Restart M D) and LA (RS-485 c ave: Hx = 0.5% of \ 0.5% of \ 0.5% of \ power su LD, REM	ncoders (d ijust encod icoder, # c odes (Aut N selection nly): 1200 Master un /o(rated) ± /o(rated) ± /o(rated) ±	Open (1 coarse a der, Fron of addres o/Safe), n by rea , 2400, 4 it, where a count a count al sense) OUT ON	Max voltag and fine ad the Panel Lo sees = 31 Foldback (r panel DIR 4800, 9600 $\Rightarrow x = # \text{ of } S$	e = 30V), justment ick/Unlock Control (C 2-switch 0 and 19,2 Slave units	Remote selectabl k CV to CC) 200 (by c s (0 to 4) e sense)	e) , Go-to-L urrent adj	ocal just encode			X X X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2.Display 3.Indications	Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	manual a manual a selection b FF, Outpu RS-485, IE selection d Parallel M digits, Ac digits, Ac displays v	djust by s djust by \ y Voltage t On/Off, I EE (IEME (RS-232) Aaster/Sla curacy: ± curacy: ± roltage at /IEW, FO	eparate e /oltage Ac Adjust er Restart M D) and LA (RS-485 c ave: Hx = 0.5% of \ 0.5% of \ 0.5% of \ power su LD, REM	ncoders (d ijust encod icoder, # c odes (Aut N selection nly): 1200 Master un /o(rated) ± /o(rated) ± /o(rated) ±	Open (1 coarse a der, Fron of addres o/Safe), n by rea , 2400, 4 it, where a count a count al sense) OUT ON	Max voltag ind fine ad it Panel Lc ises = 31 Foldback (r panel DIF 4800, 960(a x = # of S	e = 30V), justment ick/Unlock Control (C 2-switch 0 and 19,2 Slave units	Remote selectabl k CV to CC) 200 (by c s (0 to 4) e sense)	e) , Go-to-L urrent adj	ocal just encode			X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK	Vout/ lout OVP/UVL Address 2 AC ON/O RS-232/F Baud rate Advanced Voltage: 2 Voltage: 2 Voltage 2	manual a manual a selection b FF, Outpu IS-485, IE selection I Parallel M digits, Ac digits, Ac displays \ D's: PRE\ .ALRM (C	djust by s djust by \ y Voltage t On/Off, I EE (IEME (RS-232/ Master/Sla curacy: ± curacy: ± roltage at /IEW, FO VP, OTP,	eparate e /oltage Ac Adjust er Restart M)) and LA (RS-485 c ave: Hx = 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC	ncoders (d ijust encod icoder, # c odes (Aut N selection nly): 1200 Master un /o(rated) ± /o(rated) ± /o(rated) ±	Open (1 coarse a der, Fron of addres o/Safe), n by rea , 2400, 4 it, where a count a count al sense) OUT ON	Max voltag ind fine ad it Panel Lc ises = 31 Foldback (r panel DIF 4800, 960(a x = # of S	e = 30V), justment ick/Unlock Control (C 2-switch 0 and 19,2 Slave units	Remote selectabl k CV to CC) 200 (by c s (0 to 4) e sense)	e) , Go-to-L urrent adj	ocal just encode			X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy	Vout/ lout OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage : Voltage : Current : Voltage : Red LED # 20.5% of	manual a manual a selection b FF, Outpu RS-485, IE s selection d Parallel N d digits, Ac d digits, Ac d digits, Ac d displays L D's: PREV ALRM (C	djust by s djust by V y Voltage t On/Off, I EE (IEME (RS-232/ Master/Sla curacy: ± coltage at /IEW, FO VP, OTP, put voltag	eparate e /oltage Ac Adjust er Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC	r: Local = incoders (i ljust encoders (i ljust encoders (autor) odes (Autor) N selection Master un /o(rated) ± /o(rated) ± /o(Open (N coarse a der, Fron of addres o/Safe), n by reau , 2400, 4 it, where 1 count al sense) OUT ON JA, SO)	Max voltag Ind fine ad tt Panel Lc ses = 31 Foldback (r panel Dif 4800, 9600 a x = # of S o or at loace I/OFF, CV/	e = 30V), justment ick/Unlocl Control (C switch 0 and 19,3 Slave units 1 (Remote CC, FINE	Remote selectabl k 200 (by c s (0 to 4) e sense)	e) I, Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			X X X X X X X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK	Vout/ lout OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage : Voltage : Current : Voltage : Red LED # 20.5% of	manual a manual a selection b FF, Outpu RS-485, IE s selection d Parallel N d digits, Ac d digits, Ac d digits, Ac d displays L D's: PREV ALRM (C	djust by s djust by V y Voltage t On/Off, I EE (IEME (RS-232/ Master/Sla curacy: ± coltage at /IEW, FO VP, OTP, put voltag	eparate e /oltage Ac Adjust er Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC	r: Local = incoders (i ljust encoders (i ljust encoders (autor) odes (Autor) N selection Master un /o(rated) ± /o(rated) ± /o(Open (N coarse a der, Fron of addres o/Safe), n by reau , 2400, 4 it, where 1 count al sense) OUT ON JA, SO)	Max voltag ind fine ad it Panel Lc ises = 31 Foldback (r panel DIF 4800, 960(a x = # of S	e = 30V), justment ick/Unlocl Control (C switch 0 and 19,3 Slave units 1 (Remote CC, FINE	Remote selectabl k 200 (by c s (0 to 4) e sense)	e) I, Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			X X X X X X X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy	Vout/ lout OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage : Voltage : Current : Voltage : Red LED # 20.5% of	manual a manual a selection b FF, Outpu S-485, IE selection d Parallel N d digits, Ac displays v D's: PREV ALRM (C	djust by s djust by V y Voltage t On/Off, I EE (IEME (RS-232/ Master/Sla curacy: ± coltage at /IEW, FO VP, OTP, put voltag	eparate e /oltage Ac Adjust er Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC	r: Local = incoders (i ljust encoders (i ljust encoders (autor) odes (Autor) N selection Master un /o(rated) ± /o(rated) ± /o(Open (N coarse a der, Fron of addres o/Safe), n by reau , 2400, 4 it, where 1 count al sense) OUT ON JA, SO)	Max voltag Ind fine ad tt Panel Lc ses = 31 Foldback (r panel Dif 4800, 9600 a x = # of S o or at loace I/OFF, CV/	e = 30V), justment ick/Unlocl Control (C switch 0 and 19,3 Slave units 1 (Remote CC, FINE	Remote selectabl k 200 (by c s (0 to 4) e sense)	e) I, Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			X X X X X X X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Accuracy	Vout/ lout OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltage: 4 Current: 4 C	manual a manual a selection b FF, Outpu SS-485, IE selection d Parallel N d digits, Ac displays v D's: PREV .ALRM (C rated Out rated Out vo(rated)	djust by s djust by V y Voltage t On/Off, I EE (IEME (RS-232/ Master/Sla curacy: ± coltage at /IEW, FO VP, OTP, put voltag	eparate e /oltage Ac Adjust er Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC	r: Local = incoders (i ljust encoders (i ljust encoders (autor) odes (Autor) N selection Master un /o(rated) ± /o(rated) ± /o(Open (N coarse a der, Fron of addres o/Safe), n by reau , 2400, 4 it, where 1 count al sense) OUT ON JA, SO)	Max voltag Ind fine ad tt Panel Lc ses = 31 Foldback (r panel Dif 4800, 9600 a x = # of S o or at loace I/OFF, CV/	e = 30V), justment ick/Unlocl Control (C switch 0 and 19,3 Slave units 1 (Remote CC, FINE	Remote selectabl k 200 (by c s (0 to 4) e sense)	e) I, Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			X X X X X X X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Accuracy 3. Vout Programming Resolution	Vout/ lout OVP/UVL Address AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED ± 0.5% of 0.02% of 0.02% of 0.04% of	manual a manual a selection b FF, Outpu SS-485, IE selection d Parallel N d digits, Ac displays v D's: PREV .ALRM (C rated Out rated Out vo(rated)	djust by s djust by V y Voltage t On/Off, I EE (IEME (RS-232) Aaster/SIE curacy: ± curacy: ± roltage at /IEW, FO VP, OTP, put voltag put curre	eparate e /oltage Ac Adjust er Restart M 0) and LA RS-485 c ave: Hx = 0.5% of \ power su LD, REM FOLD, AC ge nt for unit:	pr: Local = mcoders (i ijust encor icoder. # c odes (Auta N selection mly): 1200 Master un /o(rated) ± /o(rated) ± /o(rated) ± /LOCAL, i C FAIL, EN s with lo <	Open (N coarse a der, Fron of addres o/Safe), n by reau , 2400, 4 it, where 1 count al sense) OUT ON JA, SO)	Max voltag Ind fine ad tt Panel Lc ses = 31 Foldback (r panel Dif 4800, 9600 a x = # of S o or at loace I/OFF, CV/	e = 30V), justment ick/Unlocl Control (C switch 0 and 19,3 Slave units 1 (Remote CC, FINE	Remote selectabl k 200 (by c s (0 to 4) e sense)	e) I, Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			X X X X X X X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Accuracy 3. Vout Programming Resolution 4. lout Programming Resolution	Vout/ lout OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltage: 4 Current: 4	manual a manual a selection b FF, Output S-485, IE selection d Parallel N d digits, Ac displays v D's: PREV .ALRM (C rated Out vo(rated)	djust by s djust by V v Voltage t On/Off, I EE (EME (RS-232/ Aaster/Sla curacy: ± curacy: ± roltage at rIEW, FO VP, OTP, put voltag put curre	eparate e /oltage Ac Adjust er Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC je of Vo(rate	r: Local = incoders (i ijust encoders (i ijust encoder, # c odes (Auta N selection only): 1200 Master un /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± s with lo < s with lo < ed))	Open (N coarse a der, Fron of addres o/Safe), n by reau , 2400, 4 it, where 1 count al sense) OUT ON JA, SO)	Max voltag Ind fine ad tt Panel Lc ses = 31 Foldback (r panel Dif 4800, 9600 a x = # of S o or at loace I/OFF, CV/	e = 30V), justment ick/Unlocl Control (C switch 0 and 19,3 Slave units 1 (Remote CC, FINE	Remote selectabl k 200 (by c s (0 to 4) e sense)	e) I, Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			X X X X X X X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Accuracy 3. Vout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy	Vout/ lout OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltage: 4 Current: 4	manual a manual a selection b FF, Outpu SS-485, IE selection displays v D's: PREL .ALRM (C f rated Out rated Out Vo(rated) Io(rated) f Vo(actual f lo(actual	djust by s djust by V v Voltage t On/Off, I EE (EME (RS-232/ Aaster/Sla curacy: ± curacy: ± roltage at rIEW, FO VP, OTP, put voltag put curre	eparate e /oltage Ac Adjust er Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC je of Vo(rate	r: Local = incoders (i ijust encoders (i ijust encoder, # c odes (Auta N selection only): 1200 Master un /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± s with lo < s with lo < ed))	Open (N coarse a der, Fron of addres o/Safe), n by reau , 2400, 4 it, where 1 count al sense) OUT ON JA, SO)	Max voltag Ind fine ad tt Panel Lc ses = 31 Foldback (r panel Dif 4800, 9600 a x = # of S o or at loace I/OFF, CV/	e = 30V), justment ick/Unlocl Control (C switch 0 and 19,3 Slave units 1 (Remote CC, FINE	Remote selectabl k 200 (by c s (0 to 4) e sense)	e) I, Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Accuracy 3. Vout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy 6. lout Readback Accuracy	Vout/ lout OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage: ∠ Current: 4 Voltmeter Green LE # 0.5% of ± 0.5% of ± 0.5% of ± 0.5% of ± 0.0% of ± (0.1% of ± (0.1% of	manual a manual a selection b FF, Outpu S-485, IE selection d Parallel N digits, Ac displays v D's: PREV ALRM (C rated Out rated Out frated Out frated Out frated Out fo(cated) f Vo(actual fo(cated) f lo(catual fo(cated)	djust by s djust by V v Voltage t On/Off, I EE (EME (RS-232/ Aaster/Sla curacy: ± curacy: ± roltage at rIEW, FO VP, OTP, put voltag put curre	eparate e /oltage Ac Adjust er Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC je of Vo(rate	r: Local = incoders (i ijust encoders (i ijust encoder, # c odes (Auta N selection only): 1200 Master un /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± s with lo < s with lo < ed))	Open (N coarse a der, Fron of addres o/Safe), n by reau , 2400, 4 it, where 1 count al sense) OUT ON JA, SO)	Max voltag Ind fine ad tt Panel Lc ses = 31 Foldback (r panel Dif 4800, 9600 a x = # of S o or at loace I/OFF, CV/	e = 30V), justment ick/Unlocl Control (C switch 0 and 19,3 Slave units 1 (Remote CC, FINE	Remote selectabl k 200 (by c s (0 to 4) e sense)	e) I, Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			X X X X X X X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1.Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy 6. lout Readback Accuracy 7. Vout Readback Resolution	Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED ± 0.5% of ± 0.5% of ± 0.5% of ± 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of	manual a manual a selection b FF, Output RS-485, IE selection d Parallel N d digits, Ac d digits	djust by s djust by V Voltage t On/Off, I EE (IEME (RS-232/ Master/Slá curacy: ± coltage at /IEW, FO WP, OTP, put voltag put curre II) + 0.2%	eparate e /oltage Ac Adjust er Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC ge of Vo(rate	pr: Local = incoders (i just encor coder. # c odes (Aut N selection only): 1200 Master un /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± s with lo < s with lo < ed))	Open (1 coarse a der, Fron of addres o/Safe), n by rea , 2400, 4 it, where 1 count al sense) OUT ON IA, SO)	Max voltag ind fine ad the Panel Lc uses = 31 Foldback for panel DIM 4800, 9600 $\Rightarrow x = # \text{ of } S$ $\Rightarrow x = # \text{ of } S$ $\Rightarrow x = 0.7\% \text{ of } S$	e = 30V), justment ick/Unlock Control (C 2-switch) and 19,2 Slave units CC, FINE CC, FINE rated Ou	Remote selectabl k 2V to CC) 200 (by c s (0 to 4) e sense) E	e) I, Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			X X X X X X X X X X X X X X X X X X X
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Accuracy 3. Vout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy 6. lout Readback Accuracy 7. Vout Readback Resolution 8. lout Readback Resolution	Vout/ lout OVP/UVL Address AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED ± 0.5% of ± 0.5% of ± 0.5% of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of 20mS ma	manual a manual a manual a selection b FF, Output Selection Parallel N digits, Ac displays v D's: PREV .ALRM (C rated Out f rated Out Vo(rated) f Vo(actual f Vo(actual f Vo(actual f Vo(actual) lo(rated) ximum (be	djust by s djust by V Voltage t On/Off, I EE (IEME (RS-232/ Aaster/Sla curacy: ± curacy: ± curacy: ± voltage at /IEW, FO WP, OTP, put voltag put curre il) + 0.2%)) + 0.4%	eparate e /oltage Ac Adjust er Restart M)) and LA RS-485 c ave: Hx = 0.5% of N 0.5% of N power su LD, REM FOLD, AC ge of Vo(rate of Vo(rate of lo(rate out exceeded)	pr: Local = mcoders (i jjust encor coder, # c odes (Auta N selection mly): 1200 Master un /o(rated) ± /o(rated) ± /o(rated) ± /o(rated) ± s with lo < s with lo < dd)) d)) ding IEEE	Open (1 coarse a der, Fron of addres o/Safe), n by rea , 2400, 4 it, where 1 count 1 count al sense) OUT ON JA, SO) 187.5A; Limit an	Max voltag Ind fine ad tt Panel Lc ses = 31 Foldback (r panel Dif 4800, 9600 a x = # of S o or at loace I/OFF, CV/	e = 30V), justment ick/Unlock Control (C 2-switch) and 19,3 Slave unit: CC, FINE CC, FINE rated Ou nhibit turr	Remote selectabl k 200 (by c s (0 to 4) e sense) E tput curre	e) , Go-to-L urrent adj S = Slav	ocal just encode e unit(s)			XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

*30V, 40V and 50V models (15kW) only available with 400VAC and 480VAC. For 208VAC Input models please contact the factory. *1. Ripple and Noise at Vo(rated) and rated Load, Ta = 25C and nominal AC input, per EIJ R9002A. *2. Time for the Output voltage to recover within 2% of rating for a load current change of 50~100% or 100-50% of rated Output. *3. From 20% - 100% for models with lor < 25A. All specifications subject to change without notice.

Genesys[™] 3U 15kW Specifications

1.0 MODEL	GEN	150-100	200-75	250-60	300-50	400-37.5	500-30	600-25	800-18.8	1000-15	1250-12	1500-10	15
1.Rated Output Voltage	VDC	150	200	250	300	400	500	600	800*	1000*	1250*	1500*	
2.Rated Output Current	ADC	100	75	60	50	37.5	30	25	18.8	15	12	10	
3.Rated Output Power	kW	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.04	15.0	15.0	15.0	
4.Efficiency (min) at low AC line, 100% Rated Load	%				88					ç	93.5		
1.1 CONSTANT VOLTAGE MODE (CV)					Cont	act Factor	y for othe	r models					
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤ 600V; 0.05% - 600V < Vor ≤ 1500V)	mV	15	20	25	30	40	50	60	400	500	625	750	
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤ 600V; 0.1% - 600V < Vor ≤ 1500V)	mV	30	40	50	60	80	100	120	800	1000	1250	1500	
3. Ripple r.m.s, 5Hz~1MHz, CV (*1)	mV	25	35	35	60	60	60	60	80	100	120	140	
4. Output Noise p-p (20MHz), CV (*1)	mV	150	175	200	200	300	350	350	700	800	1000	1400	
5.Remote Sense Compensation / Wire	V	5	5	5	5	5	5	5	5	5	5	5	
5. Temperature Stability					,	after 30 mi	nute war	m up, cor	stant Line,	Load & Te	emperature		
7. Temperature Coefficient	ppm / °C	200 (0.0	02% of V	o Rated) /							-		┝
 Up-Prog. Response Time, 0~Vomax, full-load Up-Prog. Response Time, 0~Vomax, no load 	mS mS				100 50						7 7		┢
10. Transient Response Time (CV mode) (*2)	mS				Less than	3				Less			┼─
						0			I	L033			
I.2 CONSTANT CURRENT MODE (CC)		50	00	20	05	10	15	10	00	00	10	15	Г
. Max. Line Reg (0.1% - lor ≥ 333A; 0.050% - lor < 333A) 2. Max. Load Reg (0.1% - lor ≥ 333A; 0.075% - 25A ≤ lor <	mA	50	38	30	25	19	15	13	28	23	18	15	
333A; 0.2% - 10r < 25A) (*3)	mA	75	57	45	38	28	23	19	38	30	24	20	
B. Ripple r.m.s, 5Hz~1MHz, CC	mA	50	20	20	20	10	10	10	15	10	6	4	
I. Temperature Stability											mperature)		ſ
i. Temperature Coefficient	ppm / °C			of Io(rated					,		. /		
3 PROTECTIVE FUNCTIONS													
. OCP	%	0 ~ 100											Γ
2. OCP type			nt current	t									T
B. Foldback Protection		Output	shut dow	n; Manua	I reset by	front pane	l OUT bu	tton or D	gital comm	nunication	user-selec	table	\square
. Foldback Response Time	s	Less th	an 1 (Mir	n = 0.25 /	Max = 25	/ Default =	= 0.25); S	ettable vi	a "FBD" co	mmand			İ
5. OVP type		Inverter	' shut-dov	vn; Manu	al reset by	/ On/Off re	cycle, Ol	JT button	, Remote A	Analog or [Digital comr	nunication	
6. OVP Programming Accuracy	%	± 5% of	f Vo(ratec	l)									
OVP Trip Point	v					r <u><</u> 600V; 1 ; Default =				00V < Vor	≤ 1500V; Sł	nall always	
. OVP response time	ms		an 10 (fo Vor ≤ 15		o begin to	drop) for	Vor ≤ 600	V; Less t	nan 2.0 (fo	r Output to	begin to d	rop) for	Γ
9. Max. OVP reset time	s	7 (from	AC On/C	off switch	turn On)								İ
10. Over temperature Protection		Shut do	wn if inte	ernal temp	erature e	xceeds sa	fe operati	ng levels	(Latched: \$	Safe/ Unla	tched: Auto)	
11. Phase Loss Protection		Yes, po	wer supp	ly shutdo	wn (Latch	ed: Safe-n	node / Un	latched: /	Auto-mode))			
.4 REMOTE ANALOG CONTROLS & SIGNALS													
1. Vout Voltage Programming	0~100%,	0 ~ 5V or	0 ~ 10V,	user-sele	ctable, Ac	curacy &	Linearity:	± 1% of \	/o(rated)				
2. lout Voltage Programming		‰, 0~5V or											
3. Vout resistor programming							,		of Vo(rate	,			
4. lout Resistor Programming									of lo(rated				
5. Shut-Off (SO) Control (rear panel)								ct: Open	EN, Shor	t-DIS (use	r-selectable	e logic)	┝
6. Output Current Monitor		r 0 ~ 10V, <i>i</i> r 0 ~ 10V, <i>i</i>											┢
7. Output Voltage Monitor 3. Power Supply OK (PS_OK) Signal		$r = 0 \sim 10 v, I$ High = OF			· /								+
9. CV/CC Signal		-					,	(0 = 0.4)), Max sink	current -	10m4		┢
10. Enable/Disable		<u> </u>							0, max sin for a contacts = 6		TUTIA		┢
1. Remote/Local Selection		Remote or								•			\vdash
					V VOIIANA.	0 ~ 0.6V -	Local / 2	(- 10V =					
2. Remote/Local Signal	3		node: Or							= On (Max	sink currer	nt = 10mA)	┢
			node; Op							= On (Max	sink currer	nt = 10mA)	
.5 FRONT PANEL	Vout/ lou			en collec	tor: Local	= Open (N	lax volta	ge = 30V)	, Remote =		sink currer	nt = 10mA)	
.5 FRONT PANEL		it manual a	adjust by	en collec separate	tor: Local encoders	= Open (N (coarse a	flax voltag	ge = 30V) djustment	, Remote = selectable		sink currer	nt = 10mA)	
.5 FRONT PANEL	OVP/UV		adjust by adjust by	separate Voltage A	encoders	= Open (N (coarse a oder, Fron	Max voltag nd fine ac t Panel L	ge = 30V) djustment	, Remote = selectable		sink currer	nt = 10mA)	
.5 FRONT PANEL	OVP/UV Address	t manual a L manual a selection l	adjust by adjust by by Voltag	separate Voltage A e Adjust e	encoders djust encern	= Open (N (coarse a oder, Fron of addres	Max voltag nd fine ad t Panel L ses = 31	ge = 30V) djustment ock/Unloc	, Remote = selectable	2)		nt = 10mA)	
.5 FRONT PANEL	OVP/UV Address AC ON/C	t manual a L manual a selection l	adjust by adjust by by Voltag ut On/On	separate Voltage A e Adjust e n, Restart	encoders djust enc encoder. # Modes (/	= Open (N (coarse a oder, Fron of addres Auto/Safe)	nd fine ad t Panel Li ses = 31 , Foldbac	ge = 30V) djustment ock/Unloc k Control	, Remote = selectable k	2)		nt = 10mA)	
.5 FRONT PANEL	OVP/UV Address AC ON/C RS232/F	t manual a L manual a selection I DFF, Outpu	adjust by adjust by by Voltag ut On/On EE (IEMI	separate Voltage A e Adjust e n, Restart D) and LA	encoders adjust enc encoder. # Modes (/	= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear	nd fine ac t Panel L ses = 31 , Foldbac panel DIF	ge = 30V) djustment ock/Unloo k Control P-switch	, Remote = selectable k	e)), Go-to-Lo	ocal	nt = 10mA)	
.5 FRONT PANEL	OVP/UV Address AC ON/C RS232/F Baud rate	t manual a L manual a selection I DFF, Outpu S-485, IE e selectior	adjust by adjust by by Voltag ut On/On EE (IEMI a (RS-232	separate Voltage A e Adjust e n, Restart D) and LA 2/RS-485	encoders adjust enc encoder. # : Modes (/ .N selection only): 120	= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 00, 2400, 4	Max voltag nd fine ac t Panel L ses = 31 , Foldbac panel DIF 800, 960	ge = 30V) djustment ock/Unloc k Control P-switch 0 and 19	, Remote = selectable k (CV to CC	e)), Go-to-Li rent adjus	ocal t encoder)	nt = 10mA)	
.5 FRONT PANEL Control Functions	OVP/UVI Address AC ON/C RS232/F Baud rate Advance Voltage:	t manual a L manual a selection l DFF, Outpu S-485, IE e selectior d Parallel 4 digits, Ad	adjust by adjust by by Voltag ut On/On EE (IEMI n (RS-232 Master/S ccuracy:	separate Voltage A e Adjust e n, Restart D) and LA 2/RS-485 lave: Hx = ± 0.5% o	encoders adjust enc encoder. # Modes (/ N selection only): 120 = Master u f Vo(rated	= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 00, 2400, 4 unit, where) ±1 count	nd fine ad t Panel Li ses = 31 , Foldbac panel DIF 1800, 960 x = # of	ge = 30V) djustment ock/Unloc k Control P-switch 0 and 19	, Remote = selectable k (CV to CC 200 (y curr	e)), Go-to-Li rent adjus	ocal t encoder)	nt = 10mA)	
.5 FRONT PANEL Control Functions	OVP/UVI Address AC ON/C RS232/F Baud rate Advance Voltage: Current:	It manual a L manual a selection I DFF, Outpu RS-485, IE e selectior d Parallel 4 digits, Ad 4 digits, Ad	adjust by adjust by by Voltag ut On/On EE (IEMI n (RS-232 Master/S ccuracy: ccuracy:	separate Voltage A e Adjust e n, Restart D) and LA 2/RS-485 lave: Hx = ± 0.5% of	encoders djust enc encoder. # Modes (/ N selection only): 120 <u>– Master u</u> f Vo(rated)	= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 00, 2400, 4 unit, where) ±1 count ±1 count	Max volta; nd fine ac t Panel L ses = 31 , Foldbac panel DIF (800, 960 x = # of	ge = 30V) djustment ock/Unloc k Control P-switch 0 and 19, Slave uni	, Remote = selectable k (CV to CC 200 (y curr ts (0 to 4); ;	e)), Go-to-Li rent adjus	ocal t encoder)	nt = 10mA)	
.5 FRONT PANEL Control Functions	OVP/UVI Address AC ON/C RS232/F Baud rate Advance Voltage: Current: Voltmete	It manual a L manual a selection I DFF, Outpu RS-485, IE e selectior d Parallel 4 digits, Ad 4 digits, Ad r displays	adjust by adjust by by Voltag ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: voltage a	separate Voltage A e Adjust e n, Restart D) and LA 2/RS-485 lave: Hx = \pm 0.5% of t power s	encoders kdjust enc encoder. # Modes (r N selectic only): 120 - Master L f Vo(rated) lo(rated) upply (Lo	= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 00, 2400, 4 unit, where) ±1 count ±1 count cal sense)	Max voltag Ind fine ac t Panel L ses = 31 , Foldbac panel DIF 800, 960 x = # of or at loa	ye = 30V) djustment ock/Unloc k Control P-switch 0 and 19, Slave uni d (Remot	, Remote = selectable k (CV to CC 200 (y curr ts (0 to 4); e sense)	e)), Go-to-Li rent adjus	ocal t encoder)	nt = 10mA)	
.5 FRONT PANEL Control Functions	OVP/UVI Address AC ON/C RS232/F Baud rate Advance Voltage: Current: Voltmete Green LE	It manual a L manual a selection I DFF, Outpu RS-485, IE e selectior d Parallel 4 digits, Ad 4 digits, Ad	adjust by adjust by by Voltag tt On/On EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: voltage a VIEW, FC	separate Voltage A e Adjust e n, Restart D) and LA 2/RS-485 lave: Hx = $\pm 0.5\%$ of $\pm 0.5\%$ of at power s	encoders djust enc. encoder. # mcoder. # Modes (/ N selectio only): 122 Master t f Vo(rated lo(rated) upply (Lo M./LOCAL	= Open (N (coarse a oder, Fron of addres Auto/Safe) n by rear 10, 2400, 4 nint, where) ±1 count ±1 count cal sense) , OUT ON	Max voltag Ind fine ac t Panel L ses = 31 , Foldbac panel DIF 800, 960 x = # of or at loa	ye = 30V) djustment ock/Unloc k Control P-switch 0 and 19, Slave uni d (Remot	, Remote = selectable k (CV to CC 200 (y curr ts (0 to 4); e sense)	e)), Go-to-Li rent adjus	ocal t encoder)	1t = 10mA)	
.5 FRONT PANEL Control Functions Display .Indications .6 DIGITAL PROGRAMMING & READBACK	OVP/UVI Address AC ON/C RS232/F Baud rate Advance Voltage: Current: Voltmete Green LE Red LED	It manual a L manual a selection l DFF, Outpu S-485, IE e selectior d Parallel 4 digits, At 4 digits, At 4 digits, At 4 digits, At 7 displays ED's: PRE 2:.ALRM (0	adjust by adjust by by Voltag tt On/Onn EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC DVP, OTF	separate Voltage A e Adjust e n, Restart) and LA 2/RS-485 lave: Hx = $\pm 0.5\%$ of t power s DLD, REP P, FOLD, A	encoders djust enc. encoder. # mcoder. # Modes (/ N selectio only): 122 Master t f Vo(rated lo(rated) upply (Lo M./LOCAL	= Open (N (coarse a oder, Fron of addres Auto/Safe) n by rear 10, 2400, 4 nint, where) ±1 count ±1 count cal sense) , OUT ON	Max voltag Ind fine ac t Panel L ses = 31 , Foldbac panel DIF 800, 960 x = # of or at loa	ge = 30V) djustment ock/Unloc k Control o-switch 0 and 19, Slave uni d (Remot	, Remote = selectable k (CV to CC 200 (y curr ts (0 to 4); e sense)	e)), Go-to-Li rent adjus	ocal t encoder)	it = 10mA)	
1.5 FRONT PANEL 1.Control Functions 2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy	OVP/UVI Address AC ON/C RS232/F Baud rati Advance Voltage: Current: Voltmete Green LE Red LED	It manual a L manual a selection l DFF, Outpu S-485, IE e selectior d Parallel 4 digits, A4 d di	adjust by adjust by by Voltag tt On/Onn EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC DVP, OTF	separate Voltage A e Adjust e n, Restart) and LA 2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REP 2, FOLD, A ROLD, A	encoders adjust enc encoder. # Modes (/ N selection only): 120 among the selection only (the selection only (= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 10, 2400, 4 unit, where 1, 2400, 4 unit, where 1 count ±1 count ±1 count cal sense) , OUT ON NA, SO)	Max voltag nd fine ac t Panel Li ses = 31 , Foldbac panel DIF 1800, 960 x = # of or at loa /OFF, CV	ge = 30V) djustment ock/Unloc k Control 2-switch 0 and 19 Slave uni d (Remot /CC, FIN	, Remote = selectable k (CV to CC 200 (y curi ts (0 to 4); e sense) E	e)), Go-to-Li rent adjus S = Slave	ocal t encoder) unit(s)	1t = 10mA)	
	OVP/UVI Address AC ON/C RS232/F Baud rate Advance Voltage: Current: Voltmete Green LE Red LED ± 0.5% cl	It manual a L manual a Selection I DFF, Outpu SS-485, IE e selection d Parallel 4 digits, Au 4 digits, Au 4 digits, Au 4 digits, Au 4 digits, Au 4 digits, Au 7 displays ED's: PRE ED's: PRE ED's: PRE Chatter of the second f rated Out	adjust by adjust by by Voltag ut On/Oni EE (IEMI n (RS-233 Master/S ccuracy: ccuracy: Voltage a VIEW, FC DVP, OTF	separate Voltage A e Adjust e n, Restart) and LA 2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REP 2, FOLD, A ROLD, A	encoders adjust enc encoder. # Modes (/ N selection only): 120 among the selection only (the selection only (= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 10, 2400, 4 unit, where 1, 2400, 4 unit, where 1 count ±1 count ±1 count cal sense) , OUT ON NA, SO)	Max voltag nd fine ac t Panel Li ses = 31 , Foldbac panel DIF 1800, 960 x = # of or at loa /OFF, CV	ge = 30V) djustment ock/Unloc k Control 2-switch 0 and 19 Slave uni d (Remot /CC, FIN	, Remote = selectable k (CV to CC 200 (y curr ts (0 to 4); e sense)	e)), Go-to-Li rent adjus S = Slave	ocal t encoder) unit(s)	1t = 10mA)	
2. Display 3. Indications 4. 6 DIGITAL PROGRAMMING & READBACK 4. Vout Programming Accuracy 5. Jout Programming Accuracy 5. Jout Programming Accuracy 5. Vout Programming Resolution 5. Vo	OVP/UVI Address AC ON/C RS232/F Baud ratt Advance Voltage: Current: Voltmete Green LE ± 0.5% of ± 0.5% of	It manual a L manual a selection I DFF, Outpu S-485, IE e selectior d Parallel 4 digits, A4 4 digits, A4 4 digits, A4 4 digits, A4 7 displays ED's: PRE D's: PRE D's: PRE Mathematical f rated Out f rated Out Vo(rated)	adjust by adjust by by Voltag ut On/Oni EE (IEMI n (RS-233 Master/S ccuracy: ccuracy: Voltage a VIEW, FC DVP, OTF	separate Voltage A e Adjust e n, Restart) and LA 2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REP 2, FOLD, A ROLD, A	encoders adjust enc encoder. # Modes (/ N selection only): 120 among the selection only (the selection only (= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 10, 2400, 4 unit, where 1, 2400, 4 unit, where 1 count ±1 count ±1 count cal sense) , OUT ON NA, SO)	Max voltag nd fine ac t Panel Li ses = 31 , Foldbac panel DIF 1800, 960 x = # of or at loa /OFF, CV	ge = 30V) djustment ock/Unloc k Control 2-switch 0 and 19 Slave uni d (Remot /CC, FIN	, Remote = selectable k (CV to CC 200 (y curi ts (0 to 4); e sense) E	e)), Go-to-Li rent adjus S = Slave	ocal t encoder) unit(s)	it = 10mA)	
I.S FRONT PANEL I.Control Functions I.Control Functions I.Display I.I.G DIGITAL PROGRAMMING & READBACK I. Vout Programming Accuracy I. Vout Programming Accuracy I. Vout Programming Resolution I. Vout Programming Resolution I. Vout Programming Resolution I. Vout Programming Resolution I. I. I. I. I. I. I. I. I. I. I. I. I. I	OVP/UVI Address AC ON/C RS232/F Baud ratt Advance Voltage: Current: Voltmete Green LE Red LED ± 0.5% of 0.02% of 0.04% of	t manual a L manual a Selection I DFF, Outpu SS-485, IE e selection d Parallel 4 digits, At 4 digits, At 4 digits, At 4 digits, At 4 digits, At 4 digits, At 4 digits, At 7 displays ED's: PRE 2: ALRM (C of rated Out Vo(rated) f lo(rated)	adjust by adjust by by Voltag tt On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTF tput volta tput curre	separate Voltage A e Adjust e n, Restart 2) and LA 2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of ± 0.5% of ± 0.5% of t power s DLD, REP 3, FOLD, A age	tor: Local encoders djust enc encoder. # Modes (/ N selectic only): 120 = Master L f Vo(rated) uo(rated) uopply (Lo M./LOCAL XC FAIL, E	= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 10, 2400, 4 unit, where 1, 2400, 4 unit, where 1 count ±1 count ±1 count cal sense) , OUT ON NA, SO)	Max voltag nd fine ac t Panel Li ses = 31 , Foldbac panel DIF 1800, 960 x = # of or at loa /OFF, CV	ge = 30V) djustment ock/Unloc k Control 2-switch 0 and 19 Slave uni d (Remot /CC, FIN	, Remote = selectable k (CV to CC 200 (y curi ts (0 to 4); e sense) E	e)), Go-to-Li rent adjus S = Slave	ocal t encoder) unit(s)	it = 10mA)	
I.S FRONT PANEL I.Control Functions I.Control Functions I.Display I.Indications I.S DIGITAL PROGRAMMING & READBACK I. Vout Programming Accuracy 2. lout Programming Accuracy 3. Vout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy 5. Vout Readback Accuracy	OVP/UVI Address AC ON/C RS232/F Baud ratt Advance Voltage: Current: Voltage: Erent LE Red LED ± 0.5% cl ± 0.5% of 0.02% of 0.02% of 0.04% of 0.10% +	It manual a L manual a selection I DFF, Outpu S-485, IE e selectior d Parallel 4 digits, A4 4 digits, A4 4 digits, A4 4 digits, A4 7 displays ED's: PRE D's: PRE D's: PRE Mathematical f rated Out f rated Out Vo(rated)	adjust by adjust by by Voltag tt On/On EE (IEMI 1 (RS-233 Master/S couracy: couracy: couracy: voltage a Voltage a Voltage a Voltage to Voltage to DVP, OTF	separate Voltage A e Adjust e n, Restart) and LA 2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of t power s DLD, REP ?, FOLD, A age put voltag	tor: Local encoders djust enc encoder. # Modes (/ N selectic only): 12(Master (f Vo(rated) lo(rated) upply (Lo M./LOCAL AC FAIL, E	= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 10, 2400, 4 unit, where 1, 2400, 4 unit, where 1 count ±1 count ±1 count cal sense) , OUT ON NA, SO)	Max voltag nd fine ac t Panel Li ses = 31 , Foldbac panel DIF 1800, 960 x = # of or at loa /OFF, CV	ge = 30V) djustment ock/Unloc k Control 2-switch 0 and 19 Slave uni d (Remot /CC, FIN	, Remote = selectable k (CV to CC 200 (y curi ts (0 to 4); e sense) E	e)), Go-to-Li rent adjus S = Slave	ocal t encoder) unit(s)	it = 10mA)	
I.5 FRONT PANEL I.Control Functions I.Control Functions I.Display I.Indications I.I. DIGITAL PROGRAMMING & READBACK I. Vout Programming Accuracy I. Vout Programming Accuracy I. Vout Programming Resolution I. Vout Programming Resolution I. Vout Programming Resolution I. Vout Readback Accuracy I. Vout Re	OVP/UVI Address AC ON/C RS232/F Baud rate Advance Voltage: Current: Voltmete Green LE ± 0.5% of ± 0.5% of 0.02% of 0.04% of ± 0.1% + ± 0.1% +	t manual a L manual a Selection I DFF, Outpu SS-485, IE: e selection d Parallel 4 digits, Ar 4 digits, Ar 4 digits, Ar 4 digits, Ar 4 digits, Ar 7 displays ED's: PRE' D: ALRM (0 f rated Out i Vo(rated) 1 (o(rated) - 0.2% of r	adjust by adjust by by Voltag tt On/On EE (IEMI CRS-233 Master/S ccuracy: ccuracy: voltage a Voltage a Voltage a Voltage a ty Voltage a	separate Voltage A e Adjust e n, Restart) and LA 2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of t power s DLD, REP ?, FOLD, A age put voltag	tor: Local encoders djust enc encoder. # Modes (/ N selectic only): 12(Master (f Vo(rated) lo(rated) upply (Lo M./LOCAL AC FAIL, E	= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 10, 2400, 4 unit, where 1, 2400, 4 unit, where 1 count ±1 count ±1 count cal sense) , OUT ON NA, SO)	Max voltag nd fine ac t Panel Li ses = 31 , Foldbac panel DIF 1800, 960 x = # of or at loa /OFF, CV	ge = 30V) djustment ock/Unloc k Control 2-switch 0 and 19 Slave uni d (Remot /CC, FIN	, Remote = selectable k (CV to CC 200 (y curi ts (0 to 4); e sense) E	e)), Go-to-Li rent adjus S = Slave	ocal t encoder) unit(s)	it = 10mA)	
	OVP/UVI Address AC ON/C RS232/F Baud rate Advance Voltage: Current: Voltmete Green LE # 0.5% of 0.02% of 0.02% of 0.04% of ± 0.1% + 0.02% of	t manual a L manual a Selection I DFF, Outpu SS-485, IE e selection d Parallel 4 digits, Ar 4 digits, Ar 4 digits, Ar 4 digits, Ar 4 digits, Ar 1 di	adjust by adjust by by Voltag tt On/On EE (IEMI CRS-233 Master/S ccuracy: ccuracy: ccuracy: Voltage a Voltage a Voltage a Voltage a ty Voltage a ty Voltage a ty CRS-233 Master/S ccuracy: atted Out	separate Voltage A e Adjust e n, Restart) and LA 2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of t power s DLD, REP ?, FOLD, A age put voltag	tor: Local encoders djust enc encoder. # Modes (/ N selectic only): 12(Master (f Vo(rated) lo(rated) upply (Lo M./LOCAL AC FAIL, E	= Open (N (coarse a oder, Fron of addres Auto/Safe) on by rear 10, 2400, 4 unit, where 1, 2400, 4 unit, where 1 count ±1 count ±1 count cal sense) , OUT ON NA, SO)	Max voltag nd fine ac t Panel Li ses = 31 , Foldbac panel DIF 1800, 960 x = # of or at loa /OFF, CV	ge = 30V) djustment ock/Unloc k Control 2-switch 0 and 19 Slave uni d (Remot /CC, FIN	, Remote = selectable k (CV to CC 200 (y curi ts (0 to 4); e sense) E	e)), Go-to-Li rent adjus S = Slave	ocal t encoder) unit(s)	it = 10mA)	
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 2. Vout Readback Accuracy 3. Vout Readback Accuracy 5. Vout Readback Accuracy 6. Iout Readback Accuracy 7. Vout Readback Resolution 9. Iout Resolution 9. Iout Resolution 9. Iout Resolution 9. Iout Resolution 9. Iout Resolution 9. Iout Resolution 9. Iout Resolution 9. Iout Resolution 9. Iout Resolution 9. Iout Resolution 9. Iout Resolution	OVP/UVI Address AC ON/C RS232/F Baud rat Advance Voltage: Current: Voltmete Green LE Red LED ± 0.5% ct ±0.5% of 0.02% o	t manual a L manual a Selection I DFF, Outpu SS-485, IE e selection d Parallel 4 digits, At 4 digits, At 4 digits, At 4 digits, At 4 digits, At 4 digits, At 7 displays ED's: PRE D's:	adjust by adjust by by Voltag it On/On EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: ccuracy: ccuracy: voltage a VIEW, FC DVP, OTF atput volta iput curre ated Out ated Out ated Out	separate Voltage A e Adjust e n, Restart 2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of ± 0.5% of ± 0.5% of ± 0.5% of t power s DLD, REP 3, FOLD, A age put voltag put voltag put currer	tor: Local encoders djust enc encoder. # Modes (/ N selectic only): 120 Master (f Vo(rated) uopply (Lo M./LOCAL C FAIL, E ts with Io	= Open (N (coarse a oder, Fron of addres Auto/Safe) nb y rear 10, 2400, 4 init, where 1) ±1 count ±1 count ±1 count ±1 count <187.5A; -	Aax voltag nd fine ac t Panel L ses = 31 , Foldbac panel DIF 1800, 960 × = # of or at loa /OFF, CV	ge = 30V) djustment ock/Unloc k Control 2-switch 0 and 19, Slave uni d (Remot //CC, FIN f rated Ou f rated Ou	, Remote = selectable k (CV to CC 200 (y curris (0 to 4); : e sense) E utput curren	s)), Go-to-Lı rent adjus S = Slave nt for lo ≥	ocal t encoder) unit(s)	it = 10mA)	

*800V - 1500V models (15kW) only available with 400VA and 480VAC input. For 208VAC Input models please contact the factory.
*1. Ripple and Noise at Vo(rated) and rated Load, Ta = 25C and nominal AC input, per EIJ R9002A.
*2. Time for the Output voltage to recover within 2% of rating for a load current change of 50~100% or 100-50% of lo(rated).
*3. From 20% - 100% for models with lor < 25A.
All specifications subject to change without notice.

General Specifications, Genesys[™] 3U 10kW/15kW

2.1 INPUT CHARACTERISTICS 1. Input Voltage / Frequency (range)		208VAC (180-253), 400VAC (360-440 , 342-440 (select 10kW/15kW models)), 480VAC (432-528); 47-63Hz (all)
2. No. of phases		3-Phase (Wye or Delta) 4 wire total (3-Phase and 1 protective Earth ground)
3. Dropout Voltage		180 / 360, 342 (select models) / 432; select models (10kW): 800V-1500V, select models (15kW): 30V-50V, 800V-1500V
	1	10kW - 45/23/20 (Vout ≤ 600V); N/A/23/20 (800V ≤ Vout ≤ 1500V) - at full rated Output power
4. Input Current (180VAC/360 or 342VAC/432VAC)	Arms	15kW - 64/32/27 (Vout ≤ 600V); N/A/32/27 (800V ≤ Vout ≤ 1500V) - at full rated Output power
5. Inrush Current	A	Not to exceed full rated Input current (see para. above)
6. Power Factor		0.88 Passive (typical)
7. Leakage Current	mA	3.5 (EN60950) max.
8. Input Protection		208VAC: circuit breaker (Vout ≤ 600V); 400VAC/480VAC (all models) - line fuse
9. Input Overvoltage Protection		Unit shall not be damaged by line overvoltage of 120% nominal AC input voltage with maximum duration of 100usec.
10. Phase Imbalance	%	≤ 5% on Three-Phase Input
2.2 POWER SUPPLY CONFIGURATION		
1. Parallel Operation	current of	r (4) identical units may be connected in Master/Slave Mode with single wire connection (*3). In Advanced-Parallel feature, the Master unit multiplied by number of units connected in parallel, is available via digital interface and displayed on the front play of the Master unit. Remote Analog current monitor of the Master is scaled to the Output current of the Master unit (only).
2. Series Operation	Possible	with external diodes); Up to two identical units with total Output voltage not to exceed \pm 600V from Chassis ground (for Vor \leq 600V); eed \pm 1500V from Chassis ground (for 600V < Vor \leq 1500V).
2.3 ENVIRONMENTAL CONDITIONS		
1. Operating Temperature	0 ~ +50°C	C, 100% load
2. Storage Temperature	-20 ~ +70	2°C
3. Operating Humidity		RH (non-condensing)
4. Storage Humidity	10 ~ 90%	RH (non-condensing)
5. Vibration & Shock	Assuranc	I169, Standard Practice for Performance Testing of Shipping Containers and Systems, Shipping Unit: Single Package e Level: Level II; Acceptance Criteria: Criterion 1 - No product damage Criterion 2 - Packaging is intact, Distribution Cycle: 12 - ity) and motor freight (local), unitized is used.
6. Altitude	Operating	g: +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	65dBA at	lo(rated) (measured 1m from front panel)
2.4 EMC (*4)		
1. 208VAC Input	CE Mark	
1. ESD	EN61000	-4-2 (IEC 801-2): Air-discharge ± 8kV , Contact-discharge ± 4kV
2. Fast Transients		-4-4 (IEC 1000-4-3)
3. Surge Immunity		-4-5 (IEC 1000-4-5)
4. Conducted Immunity		-4-6 (IEC 1000-4-6)
5. Radiated Immunity		-4-3 (IEC 1000-4-3)
6. Power Frequency Magnetic Field	EN61000	
7. Conducted Emissions		A, FCC part 15J-A
8. Radiated Emissions		A, FCC part 15J-A
2. 400VAC/480VAC (*4) Input	CE Mark	
1. ESD 2. Fast Transients		-4-2 (IEC 801-2): Air-discharge ± 8kV , Contact-discharge ± 4kV -4-4 (IEC 1000-4-3)
3. Surge Immunity		-4-4 (IEC 1000-4-3) -4-5 (IEC 1000-4-5)
4. Conducted Immunity		-4-6 (IEC 1000-4-6)
5. Radiated Immunity		-4-3 (IEC 1000-4-3)
6. Power Frequency Magnetic Field	EN61000	
7. Voltage Dips, Short Interruptions and Voltage	IEC 6100	
Variations Immunity Test (400VAC Only).		
8. Conducted Emissions	EN55011	A, FCC part 15J-A
9. Radiated Emissions		A, FCC part 15J-A
2.5 SAFETY		
1.Applicable Standards:	7.5V <u><</u> Vo 400V < V	30950-1, EN60950-1 recognized, CB Scheme, CE Mark (208VAC & 400VAC inputs only) ut ≤ 400V: Output is Hazardous; LAN/IEEE/Isolated Analog/USB are SELV out ≤ 600V: Output is Hazardous; LAN/IEEE/Isolated Analog/USB are not SELV out ≤ 1500V: Output is Hazardous; LAN/IEEE/Isolated Analog/USB are SELV
2. Withstand Voltage	Hazardou 300 < Voi Hazardou 600 < Voi	DOV models: Input - Ground: 2900VDC for 1min, Input-Hazardous Output: 3500VDC for 1min, Input - SELV: 2900VDC for 1min Is Output - SELV: 2121VDC for 1min, Hazardous Output - Ground: 2121VDC for 1min ut ≤ 600V models: Input-Ground: 2900VDC for 1min, Input-Hazardous Output: 3900VDC for 1min, Input-SELV: 2900VDC for 1min, Is Output - SELV: 2688VDC for 1min, Hazardous Output - Ground: 2688VDC for 1min ut ≤ 1500V models: Input-Ground: 2900VDC for 1min, Input-Hazardous Output: 5040VDC for 1min, Input-SELV: 2900VDC for 1min, Is Output - SELV: 2500VDC for 1min, Hazardous Output - Ground: 2600VDC for 1min, Input-SELV: 2900VDC for 1min, ut ≤ 1500V models: Input-Ground: 2900VDC for 1min, Input-Hazardous Output: 5040VDC for 1min, Input-SELV: 2900VDC for 1min, Is Output - SELV: 2500VDC for 1min, Hazardous Output - Ground: 2500VDC for 1min
3.Insulation Resistance	> 100Med	johms at 500VDC, +25°C
2.6 MECHANICAL CONSTRUCTION		
1. Cooling	Fan-drive	n, Airflow from front to rear. Supplemental vents on side that shall not be blocked. EIA Rack mounting, stackable
		ckable" top and bottom. Chassis slides or suitable rear support required.
2. Dimensions (WxHxD)		9mm / 16.9", Height: 3U - 133mm / 5.22", Depth - 564mm / 22.2" (excluding connectors, encoders, handles, etc.)
3. Weight	32kg / 70	
4. AC Input connector (with Protective Cover)		1" threaded studs (L1, L2, L3 and Chassis GND) and terminal cover.
5.Output Connectors		I including 300V models: bus-bars (one and two-hole). Greater than 300V models: M6 x 0.5" threaded-stud terminals.
6.Control Connectors		rogramming: DB25, plastic connector, AMP747461-5, Female on Supply; Male on Mating connector, 747321, 25 pin Sub-D connector
		19" Rack-Mount, provision for standard chassis slides. Side/Rear Support is required; Do not mount by front panel only.
7. Mounting Method		
7. Mounting Method 8. Output Ground Connection		threaded-stud
8. Output Ground Connection		

*3 GENESYSTM 30V-50V (15kW) and 800V-1500V (10kW/15kW) mdoels require a Two-Wire Parallel Master-Slave connection. See the Product USer's Manual for details. *4. 30V-50V (15kW) and 800V-1500V (10kW/15kW) models with 480VAC Input have CE Mark. All specifications subject to change without notice



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 GND for Vor < 600V; Max 1500V to Chassis GND for 600V < Vor < 1500V).

Remote Programming via RS-232 & RS-485 Interface

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

Programming Options (Factory installed)

IEEE Multi-Drop Interface

- Allows IEEE Master to control up to 30 (Standard) slaves over RS-485 daisy-chain
- Only the Master needs be equipped with IEEE Interface
- IEEE 488.2 & SCPI Compliant
- **Program Voltage**
- Measure Voltage
- Over-Voltage setting and shutdown
- Error and Status Messages

Multi-Drop Slave Option is Standard

- Standard Units are equipped with the Multi-Drop Slave (RS-485) function •
- Allows RS-485 Master to control up to 30 (standard) Slaves over RS-485 Daisy-chain

Isolated Analog Programming

- ۲ Four Channels total (Two to Program Voltage and Current; Two to Monitor Voltage and Current)
- Isolation allows operation with floating references in harsh electrical environments.
- Choose between programming with Voltage or Current.
- Connection via removable terminal block: Phoenix MC1,5/8-ST-3.81
- Voltage Programming, User-selectable 0-5V or 0-10V signal. Power supply Voltage and Current Programming Accuracy: ±1% Power supply Voltage and Current Monitoring Accuracy: ±1.5%
- Current Programming with 4-20mA signal. Power supply Voltage and Current Programming Accuracy: ±1%

LXI Compliant to Class C LAN Interface

Meets all LXI Class C Requirements • Address Viewable on Front Panel Fixed and Dynamic Addressing

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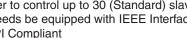
•

Fast Startup

- VISA & SCPI Compatible LAN Fault Indicators
- Auto-detects LAN Cross-over Cable
 - Compatible with most standard Networks

Program Current

- Measure Current •
- Current Foldback shutdown







P/N: "-----"

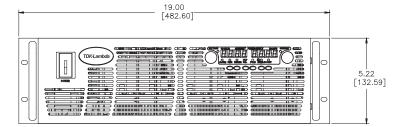
P/N: IS510

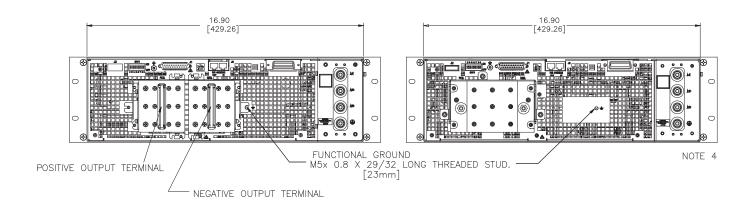
P/N: IS420

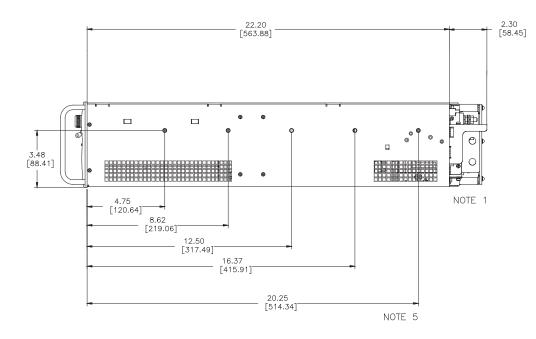
P/N: LAN

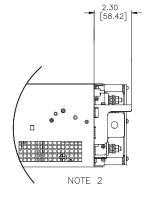
P/N: IEMD

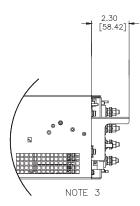
Outline Drawings: Genesys™ 10kW (All - 208VAC), 10kW/15kW (60V to 600V - 208/400/480VAC)









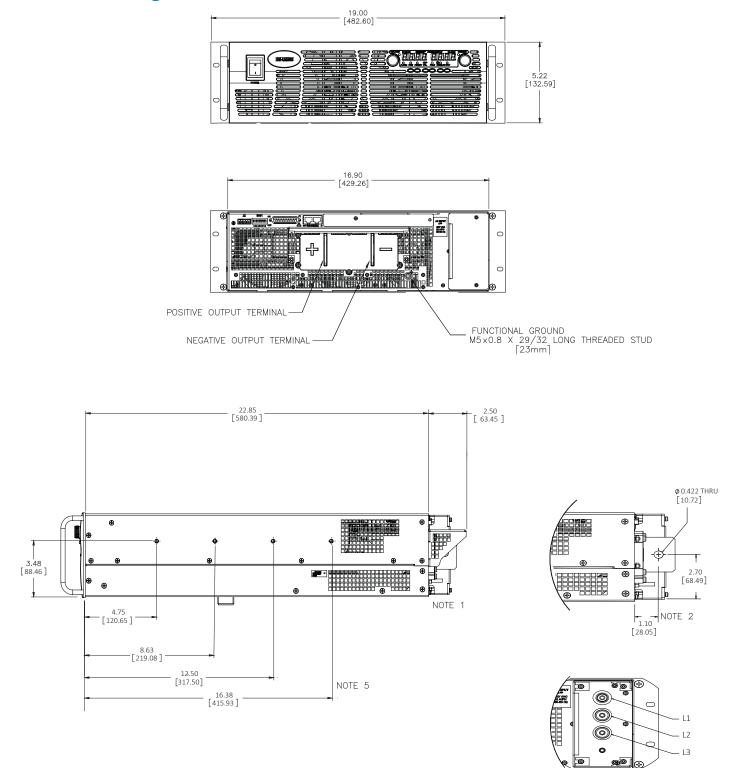


NOTES:

- 1. Busbars for models up to 30V Output: two holes 0.42" (10.72mm) diameter.
- Busbars for models 40-300V (10kW) and 60-300V (15kW) Output: one hole 0.42" (10.72mm) diameter.
- 3. Threaded stud terminal for models above 300V Output.
- 4. Input Terminals M6 x 1" (3) + Ground M5 x 1" (2).
- Mounting for Slide Mounts (not included). Recommend General Devices, Chassis Trak P/N C230-S-122. Secure with pan head screw M5 x 0.8-8mm long (max).

9 Genesys[™] 3U 10/15kW

Outline Drawings: Genesys[™] 15kW (30V to 50V - 400VAC/480VAC)

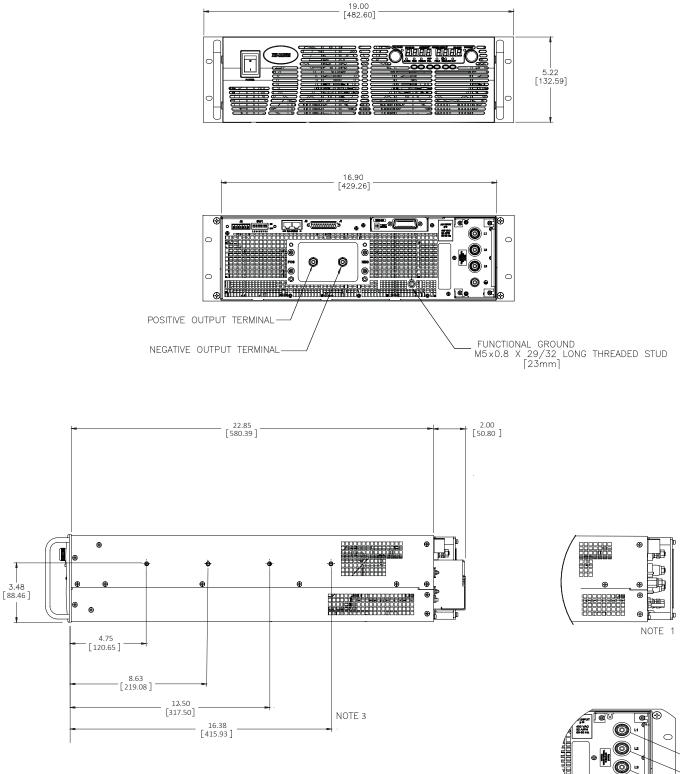


NOTE 4

NOTES:

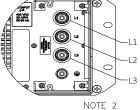
- 1. N/A
- 2. Bus bars for models 30-50V Output (15kW): one hole 0.42" (10.72mm) diameter.
- 3. N/A
- 4. Input Terminals M6 x 1" (3) + Ground M5 x 1" (2)
- Mounting for Slide Mounts (not included). Recommend General Devices, Chassis Trak P/N C230-S-122. Secure with pan head screw M5 x 0.8-8mm long (max).

Outline Drawings: Genesys[™] 15kW (800V to 1500V - 400VAC/480VAC)



NOTES:

- 1. Threaded stud terminals for 800V 1500V Output; M5 x 1".
- 2. Input Terminals M6 x 1" (3) + Ground M5 x 1" (2)
- 3. Mounting for Slide Mounts (not included).
- Recommend General Devices, Chassis Trak P/N C230-S-122. Secure with pan head screw M5 x 0.8-8mm long (max).



Power Supply Identification / Accessories (Genesys[™] 3U 10/15kW) How to Order:

Se	EN 10 ries Outp me Volta (0~10	ut Outp ge Curre	Fac out Op	LAN tory Options totion: "" LAN IEMD IS510 IS420	- 3P208 AC Input Options 3P208 (Three 3P400 (Three 3P480 (Three	e-Phase 40	0VAC)
Model	Output Voltage (Vdc)	Output Current (Adc)	Output Power (kW)		Model	Output Voltage (Vdc)	Output Current (Adc)
GEN 7.5-1000	0~7.5	0~1000	7.5		GEN 200-50	0~200	0~50
GEN 10-1000	0~10	0~1000	10		GEN 200-75	0~200	0~75
GEN 12.5-800	0~12.5	0~800	10]	GEN 250-40	0~250	0~40
GEN 20-500	0~20	0~500	10		GEN 250-60	0~250	0~60
GEN 25-400	0~25	0~400	10]	GEN 300-33	0~300	0~33
GEN 30-333	0~30	0~333	10		GEN 300-50	0~300	0~50
GEN 30-500	0~30	0~500	15]	GEN 400-25	0~400	0~25
GEN 40-250	0~40	0~250	10]	GEN 400-37.5	0~400	0~37.5
GEN 40-375	0~40	0~375	15]	GEN 500-20	0~500	0~20
GEN 50-200	0~50	0~200	10		GEN 500-30	0~500	0~30
GEN 50-300	0~50	0~300	15		GEN 600-17	0~600	0~17
GEN 60-167	0~60	0~167	10]	GEN 600-25	0~800	0~25
GEN 60-250	0~60	0~250	15]	GEN 800-12.5	0~800	0~12.5
GEN 80-125	0~80	0~125	10		GEN 800-18.8	0~800	0~18.8
GEN 80-187.5	0~80	0~187.5	15		GEN 1000-10	0~1000	0~10
GEN 100-100	0~100	0~100	10]	GEN 1000-15	0~1000	0~15
GEN 100-150	0~100	0~150	15]	GEN 1250-8	0~1250	0~8
GEN 125-80	0~125	0~80	10]	GEN 1250-12	0~1250	0~12
GEN 125-120	0~125	0~120	15		GEN 1500-6.7	0~1500	0~6.7
GEN 150-66	0~150	0~66	10]	GEN 1500-10	0~1500	0~10
GEN 150-100	0~150	0~100	15]			

Factory options

RS-232/RS-485 Multi-Drop Interface (built-in Standard) LAN Interface (LXI Class C compliant) GPIB (Multi-Drop Master) Interface Voltage Programming Isolated Analog Interface Current Programming Isolated Analog Interface

P/N

"-----" LAN IEMD IS510 (standard on 800-1500V models) IS420 Output

Power

(kW)

10

15

10

15

10

15

10

15

10

15

10

15

10

15

10

15

10

15

10

15

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	DB-9F	DB-9F	DB-25F
Communication Cable	Shield Ground, L=2m	Shield Ground, L=2m	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 GENESYS[™]-1U, -2U power supply only.

Genesys[™] Family - Output Voltage / Output Current

Model	GENH		GEN-1U		GEI	N-2U	GE	EN 3U
Rated Power	750W	750W	1500W	2400W	3300W	5000W	10kW	15kW
Voltage Range				Output	Current Rang	je		
0~6V	0~100A	0~100A	0~200A					
0~7.5V							0~1000A	
0~8V	0~90A	0~90A	0~180A	0~300A	0~400A	0~600A		
0~10V				0~240A	0~330A	0~500A	0~1000A	
0~12.5V	0~60A	0~60A	0~120A				0~800A	
0~15V					0~220A			
0~16V				0~150A		0~310A		
0~20V	0~38A	0~38A	0~76A	0~120A	0~165A	0~250A	0~500A	
0~25V							0~400A	
0~30V	0~25A	0~25A	0~50A	0~80A	0~110A	0~170A	0~333A	0~500A ^{(3), (4)}
0~40V	0~19A	0~19A	0~38A	0~60A	0~85A	0~125A	0~250A	0~375A ^{(3), (4)}
0~50V			0~30A				0~200A	0~300A ^{(3), (4)}
0~60V	0~12.5	0~12.5A	0~25A	0~40A	0~55A	0~85A	0~167A	0~250A
0~80V	0~9.5A	0~9.5A	0~19A	0~30A	0~42A	0~65A	0~125A	0~187.5A
0~100V	0~7.5A	0~7.5A	0~15A	0~24A	0~33A	0~50A	0~100A	0~150A
0~125V							0~80A	0~120A
0~150V	0~5A	0~5A	0~10A	0~16A	0~22A	0~34A	0~66A	0~100A
0~200V							0~50A	0~75A
0~250V							0~40A	0~60A
0~300V	0~2.5A	0~2.5A	0~5A	0~8A	0~11A	0~17A	0~33A	0~50A
0~400V							0~25A	0~37.5A
0~500V							0~20A	0~30A
0~600V	0~1.3A	0~1.3A	0~2.6A	0~4A	0~5.5A	0~8.5A	0~17A	0~25A
0~800V							0~12.5A	*0~18.8A ^{(3), (4}
0~1000V							0~10A	*0~15A ^{(3), (4)}
0~1250V							0~8A	*0~12A ^{(3), (4)}
0~1500V							0~6.7A	*0~10A ^{(3), (4)}
Weight (kg/lb)	4.5 / 9.9	7.0 / 15.0	8.5 / 18.0	10 .0 / 22.0	13.0 / 29.0	16.0 / 35.0	43.0 / 97.0	43.0 / 97.0 *32.0 / 70.0

(4) Available in 400VAC and 480VAC input. For 208VAC input please contact the factory.

AC Inputs

85-265Vac, 1Ø	• (1)	• (1)	• (1)					
230Vac, 1Ø				• (1	• (1)			
208Vac, 3Ø				• (1	• (1)	• (1)	• (2)	• (2)
400Vac, 3Ø					• (1)	• (1)	• (2)	• (2)
480Vac, 3Ø							• (3)	• (3)

(1) UL Listed; CE Mark , RoHS (2) UL Recognized; CE Mark (3) UL Recognized only (CE Mark for select 10kW (800V-1500V) and 15kW (30V-50V and 800V-1500V) models.

Options (All Models)

""	Standard (with Multi-Drop Slave installed)
LAN	LXI Compliant LAN Interface (Class C)
IEMD	IEEE Master (IEEE 488.2 & SCPI compliant) with Multi-Drop Slave installed
IS510	Isolated Analog Programming (0-5V or 0-10V, User-selectable); standard on 800-1500V Outputs
IS420	Isolated Analog Programming (4-20mA)

(All options are factory installed and limited to one per power supply). All specifications subject to change without notice. Архангельск (8182)63-90-72 Брянск (4832)59-03-52 Вологда (8172)26-41-59 Иваново (4932)77-34-06 Калининград (4012)72-03-81 Киров (8332)68-02-04 Курск (4712)77-13-04 Москва (495)268-04-70 Нижний Новгород (831)429-08-12 Орел (4862)44-53-42 Пермь (342)205-81-47 Самара (846)206-03-16 Смоленск (4812)29-41-54 Тверь (4822)63-31-35 Тюмень (3452)66-21-18 Челябинск (351)202-03-61

Астана +7(7172)727-132 Владивосток (423)249-28-31 Воронеж (473)204-51-73 Ижевск (3412)26-03-58 Калуга (4842)92-23-67 Краснодар (861)203-40-90 Липецк (4742)52-20-81 Мурманск (8152)59-64-93 Новокузнецк (3843)20-46-81 Оренбург (3532)37-68-04 Ростов-на-Дону (863)308-18-15 Санкт-Петербург (812)309-46-40 Сочи (862)225-72-31 Томск (3822)98-41-53 Ульяновск (8422)24-23-59 Череповец (8202)49-02-64

Белгород (4722)40-23-64 Волгоград (844)278-03-48 Екатеринбург (343)384-55-89 Казань (843)206-01-48 Кемерово (3842)65-04-62 Красноярск (391)204-63-61 Магнитогорск (3519)55-03-13 Набережные Челны (8552)20-53-41 Новосибирск (383)227-86-73 Пенза (8412)22-31-16 Рязань (4912)46-61-64 Саратов (845)249-38-78 Ставрополь (8652)20-65-13 Тула (4872)74-02-29 Уфа (347)229-48-12 Ярославль (4852)69-52-93

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