

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



# Genesys<sup>™</sup> Family

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The Genesys<sup>™</sup> family of programmable power supplies sets a new standard for flexible, reliable, AC/DC power systems in OEM, Industrial and Laboratory applications.

### Features include:

- Highest Power Density 750W to 15kW
- Wide Range of popular worldwide inputs, 1 Phase (230VAC) & 3 Phase (208VAC, 400VAC, 480VAC) depending on Platform.
- Active Power Factor Correction to 5kW. Passive correction > 5kW
- Output Voltage up to 600V, Current to 1,000A •
- Standard built in RS-232/RS-485 Interface
- Auto/Safe Re-Start user selectable.
- Global Commands for Serial RS-232/RS-485
- High resolution 16 bit ADCs and DACs
- Reliable Encoders for Voltage and Current adjustment
- Fine and Coarse Voltage and Current adjustment
- Constant Voltage/Constant Current auto-crossover
- Parallel operation up to four identical units with Active Current Sharing
- Advanced Parallel operation reports total current on Master.
- Independent Remote ON/OFF and Remote Enable/Disable
- Front Panel Lock selectable from Front Panel or Software Command •
- External Analog Programming and Monitor (user selectable 0-5V and 0-10V)
- Reliable modular and SMT construction
- 19" Rack Mount for ATE and OEM applications
- Optional Isolated Analog Program and Monitor (0-5V/ 0-10V & 4-20mA)
- Optional Multi-drop IEEE 488.2 SCPI (GPIB) Interface, Multi-Drop (RS-485) Slave Interface standard
- Option USB Interface. Multi-Drop (RS-485) Slave Interface standard
- Optional LXI LAN Interface, supports TCP and UDP Sockets
- Download LabView ® and LabWindows® Drivers Supports all Genesys<sup>™</sup> ports: RS, IEMD and **LX** LAN drivers
  - IVI.com drivers used by many programming languages.
  - IVI-C drivers bring support to LabWindows users
  - Linux Drivers available for LAN
  - Tutorial for first time IVI LAN users.
- Five (5) Year Warranty

1 Genesys<sup>™</sup> Family

### Completely identical Interfaces across all platforms, Half Rack 750W through 15kW 3U

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



Genesys<sup>™</sup> power supplies have been designed to meet the demands of a wide variety of applications. Identical controls are shared across all platforms.

## **Applications**

selection of Outputs and Inputs available.

### Semiconductor

MBE Heaters Thin Film Deposition Ion Implantation Widest range of Inputs for worldwide application. Safe and Auto Re-Start protect processes.

Aerospace & Satellite Testing - Complex systems use entire range of GEN products 750W to 15kW all with identical interfaces. Highest density saves space.

- Overshoot available Contact Factory.
- No derating at full output and 50°C. Zero stack for highest density.
- critical applications. Wide range of user controls.
- Measurement & Material Science Flexible interfaces for Local and Remote Analog or Digital Control. Widest Output ranges. Low noise, excellent programming accuracy.
- Programming options for floating outputs or Series Operation.
- process development.
- Fuel Cells Key Outputs available in power ranging from 750W to 15kW, in highest density.
- (RS-232/RS-485) programming are standard.
- Gas & Oil Exploration Operates at maximum power to 50°C. Outputs available to 600V.
- with current summing. GPIB, LAN, and Isolated Analog controls optional.





Test & Measurement & Burn-in - Built in standard RS-232/RS-485 plus Optional LAN or GPIB. Most complete

Laser Diode - Worldwide inputs. OVP directly set on Front Panel, Current Limit Foldback Alarm. Fast Rise, Low

MILCOM and RF COM - User can fix outputs to different values using Remote Analog Programming by Resistance.

Medical Imaging & Treatment Systems - Stringent design and qualification process assure reliable operation in

Battery Testing - Flexible Analog or Digital controls with identical functions across all platforms. Isolated Analog

Solar Photovoltaic Cell Manufacture - User friendly controls including Front Panel Lockout simplify equipment and

Automotive – Wide range of Outputs & Power Levels for testing lamps, motors and modules. Both analog and digital

Particle Physics - Highest Density and flexible controls for local or remote operation. Easy parallel up to four units









### Front Panel Description





#### GEN 3.3/5kW IN 2U



### GEN 10/15kW IN 3U



- 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 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:
- Fine Control
- Alarm Foldback Mode Remote Mode
- Preview Settings Output ON
- 8. Pushbuttons allow flexible user configuration
  - Coarse and Fine adjustment of Output Voltage/Current and Advanced Parallel Master or Slave
  - Preview settings and set Voltage/Current with Output OFF, Front Panel Lock
  - Advanced Parallel Master/Slave
  - Set OVP and UVL Limits
  - Set Current Foldback Protection
  - Go to Local Mode and select Address and Baud rate
  - Output ON/OFF and Auto/Safe Re-Start Mode

### **Rear Panel Description**

GENH 750W Internet.



GEN 750/1500W IN 1U



GEN 3.3/5kW IN 2U



### GEN 10/15kW IN 3U



- 1. Remote/Local Output Voltage Sense Connections
- 2. DIP Switches select 0-5V or 0-10V Programming and other functions
- 4. RS-485 OUT to other Genesys<sup>™</sup> Power Supplies
- 5. RS-232/RS-485 IN Remote Serial Programming
- 6. Output Connections: See detailed specifications for more information.
- 7. Exit air assures reliable operation when zero stacked
- 8. AC Input Connection: See detailed specifications for more information.
- 9. Position for IEEE 488.2 (GPIB), Isolated Analog Interface, LAN Interface or USB Optional Interfaces.

3 Genesys<sup>™</sup> Family

3. DB25 (Female) connector allows (Non-isolated) Analog Program and Monitor and other functions



### Genesys<sup>™</sup> Half Rack 1U GENH750W Specifications

1.0 MODEL	GENH	6-100	8-90	12.5-60	20-38	30-25	40-19	60-12.5	80-9.5	100-7.5	150-5	300-2.5	600-1.3
1 Bated Output Voltage (*1)	V	6	8	12.5	20	30	40	60	80	100	150	300	600
0. Date of Output Voltage (1)	, v	100		12.5	20	00	40	10.5	00				10
2.Rated Output Current (*2)	A	100	90	60	38	25	19	12.5	9.5	7.5	5	2.5	1.3
3.Rated Output Power	w	600	720	750	760	750	760	750	760	750	750	750	780
4 Efficiency at 100/200\/ac (*3)	%	76/78	78/81	81/8/	82/85	82/85	83/87	83/87	83/87	83/87	83/87	83/87	83/87
4.Elliciency at 100/200 vac ( 0)	70	10/10	70/01	01/04	02/03	02/03	00/07	00/07	00/07	00/07	00/07	00/07	00/07
1.1 CONSTANT VOLTAGE MODE													
1 Max line regulation (0.01% of Va . 2mV/) (*4)	m\/	2.6	2.0		4	E	6		10	10	17	20	60
1.Max.line regulation (0.01% of vo+ 2mv) (4)	mv	2.0	2.8	3.3	4	5	0	8	10	12	17	32	62
2.Max load regulation (0.01% of Vo+2mV) (*5)	mV	2.6	2.8	3.3	4	5	6	8	10	12	17	32	62
3. Bipple and noise p-p 20MHz (*9)	mV	60	60	60	60	60	60	60	80	80	100	150	300
4 Displayers a File 1Mile (*0)						0					10	05	
	mv	0	8	8	8	8	8	8	8	8	10	25	60
<ol><li>Remote sense compensation/line</li></ol>	V	1	1	1	1	1.5	2	3	4	5	5	5	5
6 Temperature coefficient	PPM/°C	100PPM/	°C of rated	output volta	ae followin	a 30 minute	s warm-ur	, ,					
71 In mag response time 0. Ve Deted		1.000.0.00	0 01 latou		/FL registi	ig de minute	o nam ap		1		ve el etil ve le u		050
7.0p-prog. response time, 0~ vo Hated	mə			80, N.L	/F.L, resist	ve load			1	50, N.L/F.L,	resistive loa	au	250
8.Down-prog response time Full-load	mS	10		50			80			15	50		250
No-load	mS	500	600	700	800	900	1000	1100	1200	1500	2000	2500	4000
0 Transient response time (*0)			1 . 1		to and incl	udin a 100\/	0	mandala aha	1001/				
9. Transient response time ( 6)		Less that	T THISEC IO	i mouels up	to and incli	Juling 100v.	ZITISEC IOI	models abo					
1.2 CONSTANT CURRENT MODE													
1.2 CONSTANT CORRENT MODE	1	r											
1.Max.line regulation (0.01% of Io+2mA) (*4)	mA	12	11	8	5.8	4.5	3.9	3.25	2.95	2.75	2.5	2.25	2.13
2 Max load regulation (0.02% of Io+5mA) (*6)	mA	25	23	17	12.6	10	8.8	75	6.9	6.5	6.0	5.5	5 26
$2 \operatorname{Dimple}_{rm} = 5 \operatorname{Lin}_{rm} 1 \operatorname{Miln}_{rm} (*7)$		000	100	100	70		40	00	00		10	10	0
3.Ripple r.m.s 5HZ~1MHZ. (7)	mA	200	180	120	76	63	48	38	29	23	18	13	8
4.Temperature coefficient	PPM/°C	100PPM/	C from rate	ed output cu	rrent, follow	ving 30 mini	utes warm-	up.					
1.3 PROTECTIVE FUNCTIONS													
1. OCP		0~105%	Constant C	urrent									
2 OCP Foldback		Output of	hut down w	hen nower o	upply chan	de from CV	to CC Ller	er selectable					
				iten power 3		ge nom ov	10 00. 030		· .				
3. OVP type		Inverter s	nut-down, i	manual rese	t by AC inp	ut recycle o	r by OUT b	utton or by o	communica	tion port cor	mmand.		r
<ol><li>OVP trip point</li></ol>		0.5~7.5V	0.5~10V	1~15V	1~24V	2~36V	2~44V	5~66V	5~88V	5~110V	5~165V	5~330V	5~660V
5 Over Temperature Protection		Liser sele	ctable late	ched or non-	latched								•
e. ever temperature i teteotion					latoriou.								
1.4 ANALOG PROGRAMMING AND MONITOR	RING												
			0.51/0	101/		a second the s		·					
i.vout voltage Programming		0~100%,	0~50 01 0~	- IUV, user se	elect. Accur	acy and line	earity:±0.5	% of rated vo	Jul.				
2. lout Voltage Programming		0~100%,	0~5V or 0~	-10V, user se	elect. Accur	acy and line	earity:±1%	of rated lout					
3 Vout Besistor Programming		0~100%	0~5/10koh	m full scale	user selec	Accuracy	and linear	tv: +1% of r	ated Vout				
		0 100%	0 5/101.01.	full seals			and line a suit	4.50/ -6.	ate al lavat				
4.Iout Resistor Programming		0~100%,	0~5/10koni	m full scale,	user selec	. Accuracy a	and linearit	$y:\pm 1.5\%$ of r	ated lout.				
5.On/Off control (rear panel)		By Voltag	e: 0.6V = D	isable, 2-15	V = enable	(default) or	dry contac	t, user selec	table logic				
6 Output Current monitor		0~5V or (	D~10V Acci	iracy:1% us	er selectal	he							
				10, uc		510.							
7.Output Voltage monitor		0~5V or 0	J~10V ,ACC	uracy:1%, us	ser selecta	ble.							
8. Power Supply OK signal		Yes. TTL	high-OK, 0	V (500ohm i	mpedance	)-Fail							
9 CV/CC Indicator		Onen Co	lector CC I	Mode: ON C	V Mode: C	EF Maxim		30V Mavim	um sink ci	Irrent: 10mA			
				" OL			in voltage.	00 4, 1410.111					
10. Enable/Disable		Dry conta	act. Open:of	ff, Short: on.	Max. volta	ge at Enable	e/Disable ir	n: 6V.					
11. Local/Remote analog control		By electri	ical signal o	or Open/Sho	rt: 0~0.6V	or short: Rei	mote, 4~5\	/ or open: Lo	ocal.				
12 Local/Pomoto analog control Indicator		Onon col	loctor Loca	I Off Bomo	to: Opon N	Aaximum vo	Itago: 201/	maximum e	ink ourront	5mA			
12. Local/Remote analog control indicator		Opencol	lector, Loca	a. Oli, nellio	te. Open. N		itage. 30v,	maximum s	ink current.	. SITIA.			
15 FRONT PANEL													
I.STHONTTAKEE		1											
1.Control functions		Vout/ lou	t manual ad	ljust by sepa	trate encod	lers (coarse	and fine a	djustment se	electable).				
		OVP/UVL	_ manual ac	djust by Volt.	Adjust enc	oder.							
					- ctart mod	os (auto, sa	fo) Foldba	ck control (C		Go to local (	control		
			n i, Output		-start mou	es (auto, sa	lie), i oluba		v io cc),		Jonitioi.		
		Front Par	nel Lock										
		Address	selection by	Voltage (or	Current) a	diust encode	er. Number	of addresse	s:31				
		DC000/4	PE and IEEI		tion by IEI	E onoblo o	witch and [						
		R5232/4	55 and IEEI	E488.2 Selec		E enable s	witch and L	JIP SWIICH					
		Baud rate	e selection:	1200, 2400,	4800, 960	0 and 19,20	0, by curre	nt adjust en	coder.				
		Parallel N	Aaster Slave	e:Hx. where	x = Slaves	0 up to four							
0 Diaplay		Valtage	A dista Ass	, D E0/	of rotad as	iter it Valta a	1						
2.Display		voitage: 4	4 digits, Acc	curacy: 0.5%	of rated of	utput voitage	e ± i count.						
		Current: 4	4 digits, Acc	curacy: 0.5%	of rated or	utput curren	t ±1 count.						
		Voltmeter	displays Vo	oltage at pov	ver supply	(local mode	) or at load	I (remote mo	de).				
3.Indications		ADDR	VP/UVI V	/A. FOLD	REM./LOC	AL. OUT ON	VOFF I FP	UFP CC/C	V: GREFN	LED's. AI RI	M (OVP OT	P. FOLD A	C FAIL).
Sinteroutono		BEDIE	)	,,.		, 001 01		,				.,. 510,7	느/.
1.6 DIGITAL PROGRAMMING & READBACK													
Model	V	6	8	12.5	20	30	40	60	80	100	150	300	600
	t Č	⊢ Ŭ		12.0	20		-10		50		100		
1. Remote Voltage Programming (16 bit)	<u> </u>	<u> </u>											
Resolution (0.012% of Vo Rated)	mV	0.72	0.96	1.5	2.4	3.6	4.8	7.2	9.6	12	18	36	72
Accuracy (0.05% Vo Bated+0.05% of Vo Actual)	mV	6	<u> </u>	12.5	20	30	40	60	80	100	150	300	600
	1		0	12.0	20		+0	00	00	100	130	500	000
2. Bemote Current Programming (16 bit)	1												
		1 10	40.0	70	4 50	0.0	0.00	4.50			0.00	0.00	0.10
Resolution (0.012% of Io Rated)	mA	12	10.8	7.2	4.56	3.0	2.28	1.50	1.14	0.90	0.60	0.30	0.16
Accuracy (0.1% of Io Rated+0.1% of Io Actual)	mA	200	180	120	76	50	38	25	19	15	10	5.0	2.6
	1			-		-		-		-		-	
3. Readback Voltage	1	1											
Resolution (0.012% of Vo Rated)	mV	0.72	90.0	15	21	3.6	4.8	72	9.6	12	18	36	70
		0.72	0.30	1.3	4.4	0.0		1.4	0.0	14	000		16000
Accuracy (0.1% of vo Hated+0.1% of Vo Actual	n mv	1 12	16	25	40	60	80	120	160	200	300	600	1200
4 Peadback Current	1	<u> </u>											
H. REAUDACK CUTTERIL	<u> </u>	ļ											
Resolution (0.012% of Io Rated )	mA	72	60	37.2	30	20.4	15	10.2	7.8	6	4.08	2.04	1.02
Accuracy (0.3% of lo Bated+0 1% of lo Actual)	mA	400	360	240	152	100	76	50	38	30	20	10	52
5. OVP/UVL Programming	1												
Booolution (0.1% of Va Datad)	m\/	1 ~	0	10.5	00	20	10	60	00	100	150	200	600
nesolution (0.1% of vo Hated)	inv	6	ŏ	12.5	20	30	40	Uơ	8U	100	100	300	000
Accuracy (1% of Vo Rated)	mV	60	80	125	200	300	400	600	800	1000	1500	3000	6000

All specifications subject to change without notice.

## General Specifications Genesys<sup>™</sup> Half Rack 1U GENH750W

2.1 INPUT CHARACTERISTICS	
1. Input voltage/freq. (*10)	85~265Vac continuous, 47~63Hz, single
2.Power Factor	0.99 @ 100/200Vac, rated output power.
3. EN61000-3-2,3 compliance	Complies with EN61000-3-2 class A and
4. Input current 100/200Vac	10.5A / 5A,
5. Inrush current 100/200Vac	Less than 25A,
6. Hold-up time	More than 20mS , 100Vac , at 100% loa
2.2 POWER SUPPLY CONFIGURATION	
1. Parallel Operation	Up to Four (4) identical units may be cor
	current of Master Unit, multiplied by num
	panel of Master unit. Remote analog cur
2. Series Operation	Possible (with external diodes), up to two
2.3 ENVIRONMENTAL CONDITIONS	
1. Operating temperature	0~50°C, 100% load.
2. Storage temperature	-20~70°C
3. Operating humidity	30~90% RH (non-condensing).
4. Storage humidity	10~95% RH (non-condensing).
5. Vibration and Shock	MIL-STD-810F, method 514.5, The EUT Less than 20G, half sine, 11mSec. Unit ASTM D4169, Standard Practice for Per Assurance Level: Level II; Acceptance C Air (intercity) and motor freight (local) u
6. Altitude	Operating: 10000ft (3000m), Derate outp
2.4 EMC	<b>·</b> · · · · · · · · · · · · · · · · · ·
1 Applicable Standards:	
	IEC1000-4-2 Air-disch -8kV contact disc
3 Fast transients	IEC1000-4-2. 2kV
1 Surge immunity	IEC1000-4-5.1kV line to line 2kV line to
5 Conducted immunity	IEC1000-4-6.3V
6 Badiated immunity	IEC1000-4-3, 3V/m
7 Conducted emission	EN55022B ECC part 15 LB VCCLB
8 Badiated emission	EN55022A ECC part 15-4 VCCLA
9 Voltage dins	EN61000-4-11
2.5 SAFETY	
2.Withstand voltage	60-Vout-400V: Output is hazardous, IE 400-Vout-600V:Output is hazardous, IE Vout-60V models :Input-Outputs (SELV 60-Vout-600V models: Input-Haz. Outp Hazardous Output-SELV: 1.9kVrms 1mi
	Input-Ground: 2kVrms 1min.
3.Insulation resistance	More than 100Mohm at 25°C, 70% RH,
2.6 MECHANICAL CONSTRUCTION	
1. Cooling	Forced air flow: from front to rear. No ver
2. Dimensions (WxHxD)	W: 214mm / 8.43." H: 44mm / 1.72." (57r
3. Weight	4.5kg / 9.9 Lbs
4. AC Input connector (with Protective Cover)	IEC320 AC Inlet.
5.Output connectors	6V to 60V models: Bus-bars (hole Ø 6.5
2 7 WARRANTY	· ·
1 Warranty	5 years
<ul> <li>*1: Minimum voltage is guaranteed to maximum</li> <li>*2: Minimum current is guaranteed to maximum</li> <li>*3: At maximum output power.</li> <li>*4: 85~132Vac or 170~265Vac, constant load.</li> <li>*5: From No-load to Full-load, constant input volt</li> <li>*6: For load voltage change, equal to the unit volt</li> <li>*7: For 6V models the rinple is measured et 2~6</li> </ul>	0.2% of Vo Rated. 0.4% of Io Rated lage. Itage rating, constant input voltage. V output voltage and full output current. Fo
1.1 of ov models the tipple is measured at 2~6	v output voltage and full output current. Fo

All specifications subject to change without notice.

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

TaxLambda

le phase r. d EN61000-3-3 at 20~100% output power. ad. ponnected in Master/Slave Mode with single wire connection. In Advanced parallel feature, the mber of units connected in parallel, is made available on digital interface and displayed on front urrent monitor of the Master is scaled to output current of the Master unit (only). wo identical units with total output not to exceed +/-600V from chassis ground. F is fixed to the vibrating surface. it is unpacked. F is fixed to the vibrating surface. it is unpacked. F is fixed to the vibrating fortainers and Systems, Shipping Unit: Single Package Criteria: Criterion 1 - No product damage Criterion 2 - Packaging is intact, Distribution Cycle: 12 -

unitized is used

put current by 2%/100m above 2000m, Non operating: 40000ft (12000m).

sch.-4kV

o ground

out<60V:Output is SELV , IEEE/Isolated analog/LAN/USB are SELV. EE/Isolated analog/LAN/USB are SELV. EEE/Isolated analog/LAB/USB are not SELV.

/): 3.0kVrms 1min, Input-Ground: 2.0kVrms 1min.

out: 2.5kVrms 1min, Input-SELV: 3kVrms 1min.

in, Hazardous Output-Ground:1.9kVrms 1min.

500Vdc

ntilation holes at the top or bottom of the chassis; Variable fan speed. mm / 2.24" Benchtop version), D: 437mm / 17.22", excluding connectors, encoders, handles, etc.

5mm). 80V to 600V models: Mating plug, Phoenix P/N: GIC 2.5/4-ST-7.62.

\*7: For 6V models the ripple is measured at 2-6V output voltage and full output current. For other models, the ripple is measured at 10~100% output voltage and full output current.
\*8: Time for the output voltage to recover within 0.5% of its rated for a load change 10~90% of rated output current, Output set-point:10~100%.
\*9: For 6V~300V models: measured with JEITA RC-9131A 1:1 probe. For 600V model: measured with 10:1 probe

\*10: For cases where conformance to various safety standards (UL, IEC etc.) is required, to be described as 100-240Vac (50/60Hz).





## Genesys<sup>™</sup> Full Rack 1U 750W/1500W Specifications

1.0 MODEL	GEN	6-200	8-180	12.5-120	20-76	30-50	40-38	50-30	60-25	80-19	100-15	150-10	300-5	600-2.6		X
1.Bated Output Voltage (*1)	V	6	8	12.5	20	30	40	50	60	80	100	150	300	600		X
2.Bated Output Current (*2)	A	200	180	120	76	50	38	30	25	19	15	10	5	2.6		X
3.Rated Output Power	Ŵ	1200	1440	1500	1520	1500	1520	1500	1500	1520	1500	1500	1500	1560		X
4.Efficiency at 100/200Vac (*3)	%	77/80	78/81	81/84	83/86	83/86	84/88	84/88	84/88	84/88	84/88	84/88	83/87	83/87	х	X
	CEN	6 100	0.00	10 5 60	20.20	20.25	40.10		60 10 5	90 0 E	100.75	150 E	200.2.5	600 1 2		
1 Rated Output Voltage (*1)		6	0-90	12.5-00	20-30	30-25	40-19		60	80	100-7.5	150	200	600	Ŷ	
2 Bated Output Current (*2)	Δ	100	90	60	38	25	10		12.5	9.5	75	5	2.5	13	Ŷ	
2. Nated Output Current (2)	Ŵ	600	720	750	760	750	760		750	760	7.5	750	750	790	Ŷ	
S.haled Oulput Fower		000	720	750	700	750	700		750	700	730	750	730	780	^	
1.1 CONSTANT VOLTAGE MODE															<u> </u>	
1.Max.line regulation $(0.01\% \text{ of Vo} + 2\text{mV})$ (*4)	mV	2.6	2.8	3.3	4	5	6	7	8	10	12	17	32	62	X	X
2.Max load regulation (0.01% of vo+2mv) ("5)	mv mV	2.6	2.8	3.3	4	5	6	- /	8	10	12	1/	32	62	×	×
4 Ripple rm s 5Hz-1MHz	mV	8	8	8	8	8	8	8	8	8	8	100	20	<u> </u>	Ŷ	Ŷ
5 Bemote sense compensation/line	V	1	1	1	1	15	2	2	3	4	5	5	5	5	x	X
6. Temperature coefficient	PPM/°C	100PPM	I/°C of rat	ted output v	voltage, fo	ollowing 3	0 minute	es warm-	up	· ·					X	X
7.Up-prog. response time, 0~Vo Rated	mS			80, N	I.L/F.L, re	sistive lo	ad			150	), N.L/F.L,	resistive I	load	250	х	Х
8.Down-prog response time Full-load	mS	10		50			8	0			15	50		250	Х	Х
No-load	mS	500	600	700	800	900	1000	1100	1100	1200	1500	2000	2500	4000	Х	Х
9.Transient response time (*8)		Less that	an 1mSec	for models	s up to ar	d includi	ng 100V.	2msec f	or models	above 10	00V				Х	Х
1.2 CONSTANT CURRENT MODE																
1.Max.line regulation (0.01% of Io+2mA) (*4)	mA	12	11	8.0	5.8	4.5	3.9		3.25	2.95	2.75	2.5	2.25	2.13	х	
2.Max.load regulation (0.02% of Io+5mA) (*6)	mA	25	23	17	12.6	10	8.8		7.5	6.9	6.5	6.0	5.5	5.26	х	
3.Ripple r.m.s 5Hz~1MHz. (*7)	mA	200	180	120	76	63	48		38	29	23	18	13	8	х	
1.Max.line regulation (0.01% of Io+2mA) (*4)	mA	22	20	14	9.6	7.0	5.8	5	4.5	3.9	3.5	3.0	2.5	2.26		Х
2.Max.load regulation (0.02% of Io+5mA) (*6)	mA	45	41	29	20.2	15	12.6	11	10	8.8	8.0	7.0	6.0	5.52		Х
3.Ripple r.m.s 5Hz~1MHz. (*7)	mA	400	360	240	152	125	95	85	75	57	45	35	25	12		Х
4.Temperature coefficient	PPM/°C	100PPM	I/°C from	rated output	ut current	, followin	g 30 mini	utes war	m-up.						X	Х
1.3 PROTECTIVE FUNCTIONS																
1. OCP		0~105%	Constan	t Current											х	Х
2. OCP Foldback		Output s	shut dowr	when pow	er supply	/ change	from CV	to CC. L	lser selec	table.					X	X
3. OVP type		Inverter	shut-dow	n, manual	reset by /	AC input i	ecycle o	r by OUT	button or	by comm	unication	port comr	mand.		X	X
4. OVP trip point		0.5~7.5V	0.5~10V	1~15V	1~24V	2~36V	2~44V	5~57V	5~66V	5~88V	5~110V	5~165V	5~330V	5~660V	Х	Х
5. Over Temperature Protection		User sel	lectable, l	atched or r	non-latch	ed.									Х	Х
1.4 ANALOG PROGRAMMING AND MONITO	RING															
1. Vout Voltage Programming		0~100%	, 0~5V or	0~10V, us	er select.	Accuracy	and line	arity:±0.	5% of rate	ed Vout.					X	Х
2. lout Voltage Programming		0~100%	, 0~5V or	0~10V, us	er select.	Accuracy	and line	earity:±1	% of rated	lout.					х	Х
3.Vout Resistor Programming		0~100%	, 0~5/10k	ohm full sc	ale, user	select., A	ccuracy	and line	arity: ±1%	of rated \	/out.				х	Х
4. Iout Resistor Programming		0~100%	, 0~5/10k	ohm full sc	ale, user	select. A	ccuracy a	and linea	rity:±1.5%	of rated	lout.				Х	Х
5.On/Off control (rear panel)		By Volta	ge: 0.6V :	= Disable, 2	2-15V = e	enable (de	efault) or	dry cont	act, user :	selectable	logic				Х	Х
6.Output Current monitor		05V or	0 101/ 4	a au una au u 1 0	/ 1100r 01	lootoblo									V	v
		0-37.01	0~10V, A	ccuracy: 19	o, user se	ectable.									_ ^	X
7.Output Voltage monitor		0~5V or	0~10V, A	ccuracy:19	%, user s	electable.									X	X
7.Output Voltage monitor 8.Power Supply OK signal		0~5V or Yes. TTL	0~10V, A 0~10V ,A	Accuracy:19	%, user s %, user s hm impe	electable dance)-Fa	uil		001/ M			4 40 - A			X X	X X X
7.Output Voltage monitor 8.Power Supply OK signal 9. CV/CC Indicator		0~5V or Yes. TTL Open Co	0~10V, A 0~10V, A high-OK ollector. C	Accuracy: 19 Accuracy: 19 Accur	%, user s %, user s hm impe N, CV M	electable. dance)-Fa ode: OFF	iil Maximu	im Voltaç	ge: 30V, M	aximum s	ink curren	it: 10mA.			× X X X	X X X X
7.Output Voltage monitor 8.Power Supply OK signal 9. CV/CC Indicator 10. Enable/Disable		0~5V or Yes. TTL Open Co Dry cont	0~10V, A 0~10V, A high-OK ollector. C tact. Oper	Ccuracy:19 Accuracy:19 (, 0V (5000 CC Mode: C h:off, Short	%, user s %, user s hm imper DN, CV M : on. Max	electable dance)-Fa ode: OFF	iil Maximu at Enable	ım Voltaç e/Disable	ge: 30V, M e in: 6V.	aximum s	ink curren	nt: 10mA.			X X X X X	X X X X X
7.Output Voltage monitor 8.Power Supply OK signal 9. CV/CC Indicator 10. Enable/Disable 1.5 FRONT PANEL		0~5V or Yes. TTL Open Co Dry cont	0~10V, A 0~10V, A high-OK ollector. C tact. Oper	Accuracy:19 Accura	%, user s %, user s hm impe N, CV M : on. Max	electable dance)-Fa ode: OFF	il Maximu at Enable	ım Voltaç e/Disable	ge: 30V, M e in: 6V.	aximum s	ink curren	it: 10mA.			X X X X	X X X X X
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions		0~5V or Yes. TTL Open Co Dry cont	0~10V, A 0~10V ,A high-OK ollector. C tact. Oper	Accuracy:19 Accura	%, user s %, user s hm imper N, CV M : on. Max separate	electable dance)-Fa ode: OFF voltage	il Maximu at Enable (coarse	im Voltag e/Disable and fine	ge: 30V, M e in: 6V. adjustme	aximum s	ink curren	it: 10mA.			× × × × ×	X X X X X
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions		0~5V or Yes. TTL Open Co Dry cont Vout/ Iou OVP/UV	0~10V, A 0~10V, A high-OK ollector. C tact. Oper ut manual (L manua	Accuracy:19 Accuracy:19 Accuracy:19 C, OV (500o) C Mode: C m:off, Short I adjust by s I adjust by s	w, user si w, user s hm imper N, CV M : on. Max separate Volt. Adju	electable dance)-Fa ode: OFF voltage encoders st encode	il Maximu at Enable (coarse er.	im Voltag e/Disable and fine	ge: 30V, M e in: 6V. adjustme	aximum s	ink curren	it: 10mA.				X X X X X X
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions		0~5V or Ves. TTL Open Co Dry cont Vout/ Iou OVP/UV AC ON/O	0~10V, A 0~10V, A high-OK ollector. C tact. Oper ut manual /L manual OFF, Outr	Accuracy:19 Accuracy:19 C, OV (5000) C Mode: C n:off, Short I adjust by s I adjust by s but ON/OFI	w, user s w, user s hm imped N, CV M con. Max separate Volt. Adju F, Re-stal	encoders st encode t modes	iil Maximu at Enable (coarse er. (auto, sa	im Voltag /Disable and fine fe), Foldl	ge: 30V, M e in: 6V. adjustme back cont	aximum s nt selecta rol (CV to	ink curren ble). CC), Go t	nt: 10mA.	ntrol.		× × × × × ×	x x x x x x x x x
7.Output Voltage monitor     8.Power Supply OK signal     9. CV/CC Indicator     10. Enable/Disable     1.5 FRONT PANEL     1.Control functions		Vout/ lou OVP/UV AC ON/C Address BS232//	0~10V, A 0~10V, A high-OK ollector. C tact. Oper ut manual /L manua OFF, Outp selectior	adjust by solution of the second seco	<ul> <li>k, user s</li> <li>k, user s</li> <li>hm imperior</li> <li>on. Max</li> <li>separate</li> <li>Volt. Adju</li> <li>F, Re-state</li> <li>(or Currestele)</li> </ul>	encoders st encoders t modes ent) adjust	ail Maximu at Enable (coarse er. (auto, sa st encode	and fine fe), Foldl er. Numb	ge: 30V, M a in: 6V. adjustme back cont ber of addi	aximum s nt selecta rol (CV to resses:31.	ink curren ble). CC), Go ti	nt: 10mA.	ntrol.		X X X X X X X X X X X X X	× × × × × ×
ZOutput Voltage monitor     8.Power Supply OK signal     9. CV/CC Indicator     10. Enable/Disable     1.5 FRONT PANEL     1.Control functions		0~5V or 0~5V or Yes. TTL Open Co Dry cont Vout/ Iou OVP/UV AC ON/0 Address RS232/4 Baud rat	ut manual L' manual L' manual L' manual CFF, Outp selection 185 and II	Accuracy:19 Accuracy:19 C, OV (5000) C Mode: C C Mo	<ul> <li>viser si</li></ul>	electable lance)-Fa ode: OFF voltage encoders st encoder t modes ent) adju: by IEEE 0, 9600 a	ill Maximu at Enable (coarse rr. (auto, sa st encode enable si nd 19.20	im Voltage e/Disable and fine fe), Foldle er. Numb witch and 0, by cur	ge: 30V, M a in: 6V. adjustme back cont ber of addi d DIP swit rrent adjus	aximum s nt selecta rol (CV to resses:31. ch st encodes	ink curren ble). CC), Go t	nt: 10mA.	ntrol.		X X X X X X X X X X X X X X X	X X X X X X X X X X X X X
7.Output Voltage monitor     8.Power Supply OK signal     9. CV/CC Indicator     10. Enable/Disable     1.5 FRONT PANEL     1.Control functions		0-5V or Yes.TTL Open Co Dry cont OVP/UV AC ON/0 Address RS232/4 Baud rat Parallel	0~10V, A high-OK high-OK Ollector. C tact. Oper ut manual /L manual OFF, Outp selectior 485 and II te selection Master SI	Accuracy:17 Accuracy:17 Accuracy:17 C, 0V (5000 C Mode: C Accuracy:17 C Mode: C Accuracy	with the second	electable dance)-Fa ode: OFF voltage encoders st encoder t modes ent) adju: by IEEE 0, 9600 a Slaves 0 t	ill Maximu at Enable (coarse er. (auto, sa st encode enable so nd 19,20 up to four	and fine and fine fe), Foldl er. Numb witch and 0, by cur	je: 30V, M in: 6V. adjustme back cont ber of addi d DIP swit rent adjus	aximum s nt selecta rol (CV to resses:31. ch st encoder	ink curren ble). CC), Go ti	ut: 10mA.	ntrol.		x x x x x x x x x x x x x x x x	X X X X X X X X X X X X
7.Output Voltage monitor     8.Power Supply OK signal     9. CV/CC Indicator     10. Enable/Disable     1.5 FRONT PANEL     1.Control functions     2.Display		0-5V or Yes. TTL Open Cc Dry cont Vout/ loc OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage:	0~100, A 0~10V, A high-OK oblector. C tact. Oper ut manual /L manual OFF, Outg selector 485 and II te selection Master SI 4 digits, /	Accuracy: 19 Accuracy: 19 Accuracy: 19 C Mode: C acoff, Short adjust by 5 adjust by 5 adjust by 5 but ON/OFI aby 001age EEE488.2 an: 1200, 2 lave:Hx, wh	with the second	electable dance)-Fa ode: OFF voltage encoders st encoder t modes ent) adju: by IEEE 0, 9600 a Slaves 0 u tted output	il Maximu (coarse er. (auto, sa st encode enable so nd 19,20 up to four it Voltage	and fine and fine fe), Foldl er. Numb witch and 0, by cur : = ±1 coul	ge: 30V, M in: 6V. adjustme back cont beer of addu d DIP swit rent adjus nt.	aximum s nt selecta rol (CV to resses:31. ch st encoder	ink curren ble). CC), Go ti	it: 10mA.	ntrol.		X X X X X X X X X X X X X X X X X	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display		Vout/ loc Open Co Dry cont Vout/ loc OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current:	0~100, A 0~10V, A high-OK ollector. C tact. Oper ut manual /L manua OFF, Out selection 4 digits, / 4 digits, /	Couracy: 17 Couracy: 19 Couracy: 19 Couracy: 19 Couracy: 19 Couracy: 19 Couracy: 10 Couracy: 10 Coura	with the second seco	electable. electable dance)-Fa ode: OFF voltage encoders st encoders st encoderst encoderst encoderst encoderst encoderst encoders st enco	il Maximu at Enable (coarse er. (auto, sa st encode enable so nd 19,20 up to four ut Voltage ut current	and fine fe), Foldl er. Numb witch and 0, by cur : e ±1 cour t ±1 cour	ge: 30V, M in: 6V. adjustme back cont er of addi d DIP swit rent adjus nt.	aximum s nt selecta rol (CV to esses:31. ch st encoder	ink curren ble). CC), Go t	it: 10mA.	ntrol.		x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor     8.Power Supply OK signal     9. CV/CC Indicator     10. Enable/Disable     1.5 FRONT PANEL     1.Control functions     2.Display		Vout/ loc Open Cd Dry cont Vout/ loc OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete	0~100, A 0~10V, A high-OK oblector. C lact. Oper ut manual /L manua OFF, Out selection 4 digits, / 4 digits, / 4 digits, / 4 digits, /	Accuracy: 17 , 0V (5000) C Mode: C n:off, Short adjust by 3 adjust by 4 adjust by 5 by Voltage EEE488.2 accuracy: C Accuracy: C Accuracy: C	k, user s hm imper- N, CV M con. Max separate Volt. Adju F, Re-sta e (or Curr selection 400, 480 here x = \$ 0.5% of ra 0.5% of ra t power s	electable. electable dance)-Fa ode: OFF voltage encoders st encoders st encoderst encoderst encoderst encoderst encoderst encoders st enco	il Maximu at Enable (coarse er. (auto, sa st encode enable s nd 19,20 up to four at Voltage ut current cal mode	Im Voltag and fine fe), Foldi er. Numb witch and 0, by cur : e ±1 cour t ±1 cour ) or at lo.	je: 30V, M in: 6V. adjustme back cont back cont d DIP swit rent adjus nt. nt. ad (remot	aximum s nt selecta rol (CV to esses:31. ch st encoder	ink curren ble). CC), Go t	o local con	ntrol.		x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications		0-5V or 0-5V or Yes. TTL Open Co Dry cont Vout/ lou OVP/UV AC ON/ Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR, AC EA <sup>II</sup>	Jon 100, A 0~100, A 0~100, A 10gh-0K	Accuracy: 17 Accuracy: 19 Accuracy: 19 C Mode: C Adjust by 3 adjust by 3 adjust by 3 adjust by 3 adjust by 3 adjust by 3 by 4 Voltag by 4 by 4 Voltag by 4 by 4 Context adjust by 3 by 4 by 4 Context adjust by 3 by 4 by 4 by 4 by 4 by 4 by 4 by 4 by 4	weight of the second	encoders advective advective advective advective encoders st encoders st encoders st encoders t modes ent) adju by IEEE by IEEE 0, 9600 a slaves 0 t tted outpu upply (loc /LOCAL,	il Maximu at Enable (coarse or. (auto, sa st encode enable s nd 19,20 up to four ut Voltage ut current al mode OUT ON	Im Voltag and fine fe), Foldl er. Numb witch and 0, by cur = ± 1 cour t ±1 cour ) or at lo. I/OFF, Lf	je: 30V, M in: 6V. adjustme back cont back cont d DIP swit rrent adjus nt. nt. ad (remot FP/UFP, C	aximum s nt selecta rol (CV to esses:31. ch st encodel e mode). C/CV: GF	ink curren ble). CC), Go t r.	it: 10mA.	ntrol.	P, FOLD,	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK		Vout/ Iou O-5V or Yes. TTL Open Co Dry cont Vout/ Iou OVP/UV AC ON/ AC ON/ Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL	0~10V, A 0~10V, A high-Ok bilector. C tact. Oper ut manual /L manual OFF, Outp selection Master SI 4 digits, / 4 digits, / 4 digits, / er displays OVP/UVU ); RED LI	Accuracy: 17 Accuracy: 19 Couracy: 19 Couracy: 19 Couracy: 19 Couracy: 10 Couracy: 10 Cour	weight of the second	electable electable dance)-FF ode: OFF voltage encoders st encoder t modes ent) adju by IEEE 0, 9600 a Slaves 0 u tted outpu upply (loc /LOCAL,	il Maximu at Enable (coarse er. (auto, sa st encode enable s nd 19,20 pp to four pt to four t Voltage at current cal mode OUT ON	and fine and fine fe), Foldl er. Numb witch and 0, by cur : a ±1 cour t ±1 cour ) or at loo I/OFF, Lf	ge: 30V, M a in: 6V. adjustme back cont back cont ier of addi d DIP swit rent adjus nt. ad (remot FP/UFP, C	aximum s nt selecta rol (CV to esses:31. ch st encoder e mode). C/CV: GF	ink curren ble). CC), Go t r.	it: 10mA. o local coi	ntrol.	P, FOLD,	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X 1500W
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model		0-5V or 0-5V or Yes. TTL Open Co Dry cont Vout/ lou OVP/UV AC ON/O Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAL	0~10V, A 0~10V, A high-Ok bilector. C tact. Oper ut manual /L manual OFF, Outp selection Master SI Master SI 4 digits, / 4 digits, / 4 digits, / er displays OVP/UVU ): RED LI	Accuracy: 17 Accuracy: 19 C Mode: C C Mod	k, user s %, user s %, user s hm impediate N, CV M separate Volt. Adju F, Re-state to (or Curr selection 400, 480 here x = \$ 0.5% of ra t power s LD, REM 20	electable electable ance)-Fa ode: OFF .voltage encoders st encoder t modes ent) adju by IEEE 0, 9600 a slaves 0 t tted output tted output (LOCAL, .30	ill Maximu at Enable (coarse er. (auto, sa st encode enable s nd 19,20 pp to four it Voltage at current cal mode OUT ON	im Voltage p/Disable and fine fe), Foldi er. Numb witch and 0, by cur a ±1 cour t ±1 cour ) or at lo I/OFF, Lf	ge: 30V, M p in: 6V. adjustme back cont er of addi d DIP swit rrent adjus nt. ad (remot FP/UFP, C 60	aximum s nt selecta rol (CV to esses:31. ch st encoder e mode). C/CV: GF	ink curren ble). CC), Go t r. REEN LED	o local col	(OVP, OTI	P, FOLD, 600	× × × × × × × × × × × × × ×	X X X X X X X X X X X X X X X X X X X
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)		Vout/ loc O-SV or Yes. TTL Open Cd Dry cont Vout/ loc OVP/UV AC ON/O ACON/O Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL	0~10V, A 0~10V, A high-Ok bilector. C tact. Oper ut manual 0FF, Outp selection 4055 and II te selection Master SI 4 digits, / 4 digits, / or displays OVP/UVI ): RED L1 8	Accuracy: 17 Accuracy: 19 C Mode: C adjust by si adjust by si adjust by si adjust by si adjust by si adjust by Si adjust by Si by Voltage a Accuracy: C s Voltage a 	k, user s %, user s %, user s hm imperies on, CV M : on. Max separate Volt. Adju F, Re-sta e (or Curr selection 400, 480 here x = \$ 0.5% of ra 1, power s D, REM 20	electable electable adace)-E4 ade: OFF .voltage encoders st encoder t modes ent) adju by IEEE 0, 9600 a slaves 0 u ted outpu ted outpu ted outpu (/LOCAL, 30	iii Maximu (coarse er. (auto, sa st encode enable si nd 19,20 pp to four it Voltage ut current al mode OUT ON 40	um Voltag p/Disable and fine fe), Foldl er. Numb witch and 0, by cur : = ±1 cour 1 cour ) or at lo. 1/OFF, Lf 50	ge: 30V, M a in: 6V. adjustme back cont back cont er of addi d DIP swit rrent adjus nt. ad (remot FP/UFP, C	aximum s nt selecta rol (CV to esses:31. ch st encodel e mode). cC/CV: GF 80	ink curren ble). CC), Go t r. REEN LED	o local con o's. ALRM	(OVP, OTI	P, FOLD,	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)	V	0-5V or 0-5V or Yes. TTL Open Co Dry cont Vout/ lou OVP/UV AC ON/O Address RS232/4 Baud rat Parallel I Voltage: ADDR., AC FAIL 6 0.72	0~10V, A 0~10V, A high-Ok cliector. C tact. Oper tranual /L manual /L manual OFF, Out selection Master SI 4 digits, J 4 digits, J 4 digits, J 9 OVP/UVI ): RED L1 8 0.96	Accuracy: 17 Accuracy: 19 Accuracy: 19 C Mode: C adjust by 5 adjust by 5 adjust by 5 but ON/OFI by Voltage EEE488.2 bon: 1200, 2 lave:Hx, wh Accuracy: C S Voltage a S Voltage a 12.5	%, user s           hm impeon           N, CV M           con. Max           separate           Volt. Adju           F, Re-stal           a (or Curr           selection           400, 480           here x = \$           0.5% of rat           D, REM           20           2.40	electable electable adace)-R ode: OFF voltage encoders st encode t modes ent) adju by IEEE 0, 9600 a Slaves 0 t tted outpu tted outpu tted outpu vILOCAL, 30 3.60	iil Maximu (coarse er. (auto, sa st encode enable se nd 19,20 pp to four it Voltage ut current cal mode OUT ON 40	um Voltage p/Disable and fine fe), Foldl er. Numb witch and 0, by cur = ±1 cour ) or at lo 1/OFF, Lf 50 6	ge: 30V, M a in: 6V. adjustme back cont back cont d DIP swit rrent adjus nt. ad (remot FP/UFP, C 60 7.2	aximum s nt selecta rol (CV to esses:31. ch st encoder t encoder t encoder st encoder t encoder	ink curren ble). CC), Go t r. REEN LED	11: 10mA. 0 local col 0's. ALRM 150 18	(OVP, OTI 300 36	P, FOLD, 600 72	× × × × × × × × × × × × × × × × × × ×	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual)	V mV mV	0-5V or 0-5V or Yes.TTL Open Cc Dry cont Vout/ lou OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAL 6 0.72 6.0	0~10V, A 0~10V, A 1 high-Ok collector. C tact. Oper tranual /L manual OFF, Out; selection 855 and II te selection Master SI 4 digits, A 4 digits, A or displays OVP/UVL ); RED LI 8 0.96 8.0	Accuracy: 17 Accuracy: 17 Accur	a, user s           %, user s           hm impeon           b, CV M           con. Max           separate           Volt. Adju           F, Re-stale           e (or Curreselection           400, 480           here x = \$           0.5% of rational powers           D, REM           20           2.40           20	encoders adace)-talance)-tal adace)-talance)-tal adace)-talance)-tal adace)-talance adace)-talance encoders tencoder	iii Maximu at Enable (coarse rr. (auto, sa st encode enable s nd 19,20 pp to four it Voltage it curren cal mode OUT ON 40 4.80 40	um Voltag p/Disable and fine fe), Foldl er. Numb witch and 0, by cur = ±1 cour ) or at loa //OFF, LF 50 6 50	ge: 30V, M a in: 6V. adjustme back cont back cont back cont d DIP swit rent adjus rent adjus nt. t. t. ad (remot FP/UFP, C 60	aximum s nt selecta rol (CV to resses:31. ch st encodel st encodel cC/CV: GF 80 9.6 80	ink curren ble). CC), Go t c. REEN LED 100 12 100	11: 10mA. 0 local con 0's. ALRM 150 18 150	(OVP, OTI 300 36 300	P, FOLD, 600 72 600	X X X X X X X X X X X X X X X X X X X	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor     8.Power Supply OK signal     9. CV/CC Indicator     10. Enable/Disable     1.5 FRONT PANEL     1.Control functions     2.Display     3.Indications     1.6 DIGITAL PROGRAMMING & READBACK     Model     1. Remote Voltage Programming (16 bit)     Resolution (0.012% of Vo Rated)     Accuracy (0.05% Vo Rated+0.05% of VoActual)     2. Remote Current Programming (16 bit)	V mV mV	0-5V or 0-5V or Yes.TTL Open Co Dry cont Vout/ lou OVP/UV AC ON/0 Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0	0-100, A 0-100, A high-Ok billector. C tact. Oper t manual DFF, Outp selection 455 and Il te selection Master SI 4 digits, J 4 digits, J r displays OVP/UVI ): RED L1 8 0.96 8.0	Accuracy: 17 , 0V (5000) C Mode: C n:off, Short adjust by 3 adjust by 4 adjust by 4 adjus	a, user s           %, user s           %, user s           hm impediation           N, CV M           con. Max           separate           Volt. Adju           F, Re-stata           c (or Curriselection           400, 480           here x = \$           0.5% of rat           power s           D, REM           20           2.40           20	encoders advectable. electable electable encoders st encoder t modes ent) adju by IEEE 0, 9600 a Slaves 0 u ted outpu upply (loc /LOCAL, 30 3.60 30	(coarse er. (auto, sa st encode enable st nd 19,20 up to four it Voltage at current al mode OUT ON 40 4.80 40	Im Voltage/ p/Disable and fine fe), Foldl er. Numb witch and 0, by cur = ±1 cour t ±1 cour ) or at loa I/OFF, Li 50 6 50	ye: 30V, M a in: 6V. adjustme back cont her of addid d DIP switt rent adjus nt. tt. tt. ad (remot FP/UFP, C 60	aximum s nt selecta rol (CV to resses:31. ch t encoder e mode). :C/CV: GF 80 9.6 80	ink curren ble). CC), Go t r. REEN LED 100 12 100	11: 10mA.	(OVP, OTI 300 36 300	P, FOLD, 600 72 600	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor     8.Power Supply OK signal     9. CV/CC Indicator     10. Enable/Disable     1.5 FRONT PANEL     1.Control functions     2.Display     3.Indications     1.6 DIGITAL PROGRAMMING & READBACK     Model     1. Remote Voltage Programming (16 bit)     Resolution (0.012% of Vo Rated)     Accuracy (0.05% Vo Rated+0.05% of VoActual)     2. Remote Current Programming (16 bit)     Resolution (0.012% of Io Rated)	V mV mV	O-5V or O-5V or Yes. TTL Open Co Dry cont Vout/ lou OVP/UV AC ON/C Address RS232/A Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12	Low, A     Correction, A	Accuracy: 17 , 0V (5000) C Mode: C n:off, Short adjust by 3 adjust by 4 adjust by 5 adjust by 5 by Voltage EEE488.2 : by Voltage EEE488.2 : accuracy: C Accuracy: C Accuracy: C 12.5 1.50 12.5 7.2	w, user s           %, user s           hm impersive           N, CV M           separate           VOIL, Adju           F, Re-stata           a (or Curr           selection           400, 480           here x = S           0.5% of r           0.5% of r           20           2.40           20           4.56	encoders stencoders voltage encoders stencoder t modes ent) adju by IEEE 0, 9600 a Slaves 0 u ted outpu ted outpu ted outpu ted outpu ted outpu ago (LOCAL, 30 3.60 3.0	(coarse or. (auto, sa st encode enable so nd 19,20 up to four it Voltage it to current al mode OUT ON 40 4.80 40	and fine (and fine), Fold (and fine), F	ye: 30V, M ⇒ in: 6V. adjustme back cont ter of addi d DIP swit rent adjus nt. t. ad (remot FP/UFP, C 60 7.2 60 1.50	aximum s nt selecta rol (CV to resses:31. ch st encoden t encoden c/CV: GF 80 9.6 80 1.14	ink curren ible). CC), Go t c. REEN LED 100 12 100 0.90	it: 10mA. o local cor 2's. ALRM 150 18 150 0.60	(OVP, OTI 300 36 300 0.30	P, FOLD, 600 72 600 0.16	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05%/Vo Rated+0.05% of VoActual)         2. Remote Current Programming (16 bit)         Resolution (0.012% of Io Rated)         Accuracy (0.1% of Io Rated)	V mV mV mA	0-5V or 0-5V or Yes. TTL Open Co Dry cont Vout/ Iou OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: ADDR., AC FAIL 6 0.72 6.0 12 200	0~10V, A 0~10V, A high-Ok bilector. C tact. Oper ut manual /L manual OFF, Outp selection Master SI 4 digits, / 4 digits, / 4 digits, / 4 digits, / 9 OVP/UVI ): RED LI 8 0.96 8.0 10.8 180	Accuracy: 17 , 0V (5000) C Mode: C n:off, Short adjust by 3 adjust by 3 adjust by 3 adjust by 4 adjust by 4 by Voltage EEE488.2 s 10, 2 accuracy: C Accuracy: C Accuracy: C Accuracy: C 12.5 1.50 12.5 7.2 120	will be set as           %, user s           %, user s           hm impered           N, CV M           con. Max           separate           VOIt. Adju           F, Re-stat           c (or Curr           selection           400, 480           here x = \$           0.5% of re           .5% of re           .6% of re           .20           2.40           20           4.56           76	encoders stencoders voltage encoders stencoder t modes ent) adju by IEEE ), 9600 a Slaves 0 u ted output ted output upply (loc /LOCAL, 30 3.60 3.0 50	(coarse ar. (auto, sa st encode enable so nd 19,20 up to four ut Voltage ut voltage ut voltage dut curreni cal mode OUT ON 40 40 4.80 40 38	Im Voltag ⇒/Disable and fine fe), Foldl er. Numb witch and 0, by cur ± ± 1 cour ) or at loa I/OFF, Lf 50 6 50  	ge: 30V, M in: 6V. adjustme back cont ler of addi d DIP swit rent adjus nt. nt. ad (remot FP/UFP, C 60 7.2 60 1.50 25	aximum s nt selecta rol (CV to esses:31. ch st encoder t encoder c/CV: GF 80 9.6 80 9.6 80 1.14 19	ink curren ble). CC), Go t c. REEN LED 100 12 100 12 100 15	it: 10mA. o local con o's. ALRM 150 18 150 0.60 10	(OVP, OTI 300 36 300 0.30 5.0	P, FOLD, 600 72 600 0.16 2.6	X X X X X X X X X X X X X X X X X X X	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual)         2. Remote Current Programming (16 bit)         Resolution (0.012% of Io Rated)         Accuracy (0.1% of Io Rated)         Resolution (0.012% of Io Rated)	V mV mV mA mA	0-5V or 0-5V or Yes. TTL Open Co Dry cont Vout/ Iou OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12 200 24	0~10V, A 0~10V, A high-OK bilector. C tact. Oper ut manual /L manual OFF, Outp selection Master SI 4 digits, / 4 digits, / 4 digits, / 4 digits, / er displays OVP/UVI ): RED LI 8 0.96 8.0 10.8 180 21.6	Couracy: 17 Accuracy: 17 (ov (5000) C Mode: C n:off, Short adjust by y adjust by y adjust by y the y Voltage EEE488.2 s on: 1200, 2 lave:Hx, wh Accuracy: C Accuracy: C NA-Curacy: C 12.5 12	a, user s           %, user s           %, user s           hm impeon           N, CV M           con. Max           separate           VOIt. Adju           F, Re-state           e (or Curr           selection           400, 480           here x = S           0.5% of ra           .5% of ra           .20           2.40           20           4.56           76           9.12	encoders ance)-Fa ode: OFF voltage encoders st encoder t modes ent) adju by IEEE ), 9600 a Slaves 0 t tted output tted output tted output (IoCAL, 30 3.60 3.0 50 6.0	iii Maximu at Enable (coarse er. (auto, sa st encode enable so nd 19,20 p to four at Voltage tt Curren cal mode OUT ON 40 4.80 40 4.80 4.56	um Voltag and fine fe), Foldl er. Numb witch and 0, by cur ± ±1 cour ) or at lo. I/OFF, Lf 50 6 50  3.60	ye: 30V, M a in: 6V. adjustme back cont ler of addid d DIP swit rrent adjus nt. nt. ad (remot P/UFP, C 60 7.2 7.2 60 7.2 7.2 60 7.2 7.2 7.2 7.2 7.2 7.2 7.2 7.2	aximum s nt selecta rol (CV to esses:31. ch st encoden e mode). C/CV: GF 80 9.6 80 9.6 80 1.14 19 2.28	ink curren ble). CC), Go t r. REEN LED 100 12 100 12 100 15 1.80	tt: 10mA. o local con 0's. ALRM 150 18 150 0.60 10 1.20	(OVP, OTI 300 36 300 0.30 5.0 0.60	P, FOLD, 600 72 600 0.16 2.6 0.32	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual)         2. Remote Current Programming (16 bit)         Resolution (0.012% of Io Rated)         Accuracy (0.1% of Io Rated)         Accuracy (0.1% of Io Rated)         Accuracy (0.1% of Io Rated)	V mV mV mA mA mA mA	0-5V or 0-5V or Yes. TTL Open Co Dry cont Vout/ loc OVP/UV A C ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12 200 24 400	0~100, A 0~10V, A high-Ok bilector. C tact. Oper ut manual /L manual OFF, Outp selection Master SI 4 digits, / 4 digits, / 4 digits, / 4 digits, / er displays OVP/UVI ): RED LI 8 0.96 8.0 10.8 180 21.6 360	Couracy: 17 Accuracy: 17 , OV (5000) CC Mode: CC adjust by 9 adjust by 9 adjust by 9 adjust by 7 by 001tage EEE488.2 s on: 1200, 2 lave:HX, wf Accuracy: CC s Voltage a _, V/A, FOL ED 12.5 12.5 7.2 120 14.4 240	a, user s           %, user s           %, user s           hm impeon           N, CV M           con. Max           separate           VOIt. Adju           F, Re-state           e (or Curr           selection           400, 480           here x = S           0.5% of rc           .5% of rc           .6% of rc           .6% of rc           .70           20           2.40           20           4.56           76           9.12           152	electable electable ance)-Fa ode: OFF voltage encoders st encoder t modes t nodes t ent) adju by IEEE 0, 9600 a Slaves 0 t tted output ted output ted output (locAL, 30 3.60 3.0 50 6.0 100	iii Maximu at Enable (coarse er. (auto, sa st encode enable so nd 19,20 pt o four at Voltage tt current cal mode OUT ON 40 4.80 4.0 2.28 38 4.56 76	um Voltag and fine and fine fe), Foldi er. Numb witch and 0, by cur = ±1 court ±1 court ±1 court ±1 court 50 6 50 6 50  3.60 60	ge: 30V, M p in: 6V. adjustme back cont eer of addi d DIP swit rent adjus nt. ad (remot FP/UFP, C 60 7.2 60 7.2 60 1.50 25 3.0 50	aximum s nt selecta rol (CV to esses:31. ch st encoden st encoden EC/CV: GF 80 9.6 80 9.6 80 1.14 19 2.28 38	ink curren ble). CC), Go t r. REEN LEC 100 12 100 12 100 15 1.80 30	tt: 10mA. o local col o's. ALRM 150 18 150 0.60 10 1.20 20	(OVP, OTI 300 36 300 0.30 5.0 0.60 10	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X
7.Output Voltage monitor     8.Power Supply OK signal     9. CV/CC Indicator     10. Enable/Disable     1.5 FRONT PANEL     1.Control functions     2.Display     3.Indications     1.6 DIGITAL PROGRAMMING & READBACK     Model     1. Remote Voltage Programming (16 bit)     Resolution (0.012% of Vo Rated)     Accuracy (0.05% Vo Rated+0.05% of VoActual)     Resolution (0.012% of Io Rated)     Accuracy (0.11% of Io Rated)	V mV mV mA mA mA mA	0-5V or 0-5V or Yes. TTL Open Co Dry cont Vout/ lou OVP/UV A C ON/C A C ON/C	0~100, A 0~10V, A high-Ok bilector. C tact. Oper ut manual /L manual OFF, Outp selection Master SI Master SI 4 digits, / 4 digits, / 4 digits, / 4 digits, / 100PF, Outp selection Master SI 00PF, Outp 8 00PF, Outp 100 100 100 100 100 100 100 10	Couracy: 17 Accuracy: 17 , OV (5000) CC Mode: CC adjust by sy adjust by sy adjust by sy adjust by Voltage EEE488.2 s on: 1200, 2 ave:Hx, wh Accuracy: CC s Voltage a 	a, user s           %, user s           %, user s           %, user s           hm impeon           bN, CV M           con. Max           separate           VOIt. Adjup           selection           400, 480           ber x = S           0.5% of rc           .5% of rc           .5% of rc           .20           2.40           20           4.56           76           9.12           152	electable electable ance)-Fa ode: OFF voltage encoders st encoder t modes st encoder t modes t modes by IEEE 0, 9600 a slaves 0 t tted output tted output tted output tted output (LOCAL, 30 3.60 30 50 6.0 100	iii Maximu at Enable (coarse er. (auto, sa st encode enable si nd 19,20 pt o four it Voltage tt current at mode OUT ON 40 40 40 40 40 40 40 40 40 40 40 40 40	um Voltag and fine and fine fe), Foldi er. Numb witch and 0, by cur = ±1 cour ± ±1 cour ± ±1 cour t ±1 cour 50 6 50 6 50  3.60 60	ye: 30V, M in: 6V. adjustme back cont ver of addid d DIP swit rrent adjus nt. ad (remot FP/UFP, C 60 7.2 60 7.2 60 1.50 25 3.0 50	aximum s nt selecta rol (CV to esses:31. ch st encoder e mode). C/CV: GF 80 9.6 80 9.6 80 1.14 19 2.28 38	ink curren ble). CC), Go t r. REEN LED 100 12 100 12 100 15 1.80 30	tt: 10mA. o local col o's. ALRM 150 18 150 0.60 10 1.20 20	(OVP, OTI 300 36 300 0.30 5.0 0.60 10	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual)         2. Remote Current Programming (16 bit)         Resolution (0.012% of Io Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Besolution (0.012% of Vo Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Besolution (0.012% of Vo Rated)	V mV mV mA mA mA mA mA mA	0-5V or 0-5V or Vout/ lou OVP/UV AC ON/O Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12 200 24 400 0.72 0.72	0~10V, A 0~10V, A high-Ok bilector. C tact. Oper ut manual /L manual OFF, Outp selection Master SI 4 digits, / 4 digits, / 4 digits, / 4 digits, / 9 0VP/UVI ): RED LI 8 0.96 8.0 10.8 180 21.6 360 0.96	Accuracy: 17 Accuracy: 17 Accuracy: 17 Accuracy: 17 Accuracy: 17 Accuracy: 17 Accuracy: 10 Accuracy: 10 Ac	a, user s           %, user s           %, user s           %, user s           hm impeon           bN, CV M           separate           VOIt. Adju           separate           volt. Adju           F, Re-state           c (or Curr           selection           400, 480           here x = \$           0.5% of rate           t power s           20           2.40           20           4.56           76           9.12           152	actable. electable ance)-Fa ode: OFF .voltage encoders st encoder t modes ent) adju by IEEE 0, 9600 a slaves 0 t ted output upply (loc /LOCAL, 30 3.60 3.0 50 6.0 100	A so the second	$\frac{\text{Im Voltag}}{\text{p/Disable}}$ and fine fe), Foldl er. Numb witch and 0, by cur $\frac{1}{2} = \pm 1 \text{ cour}$ is $\pm 1 \text{ cour}$ j or at lo. 0/OFF, Lf 50 6 50 6 50 3.60 60 60 60 60 60 60 60 60 60 60 60 60 6	ge: 30V, M a in: 6V. adjustme back cont er of addid d DIP swit rent adjus nt. ad (remot FP/UFP, C 60 7.2 60 1.50 25 3.0 50	aximum s nt selecta rol (CV to esses:31. ch st encodel st encodel e mode). C/CV: GF 80 9.6 80 9.6 80 1.14 19 2.28 38	ink curren ble). CC), Go t c. REEN LED 100 12 100 15 1.80 30 30	tt: 10mA. o local col 0's. ALRM 150 18 150 0.60 10 1.20 20 18	(OVP, OTI 300 36 300 0.30 5.0 0.60 10 36	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2 72	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable <b>1.5 FRONT PANEL</b> 1.Control functions         2.Display         3.Indications <b>1.6 DIGITAL PROGRAMMING &amp; READBACK</b> Model <b>1. Remote Voltage Programming (16 bit)</b> Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual) <b>2. Remote Current Programming (16 bit)</b> Resolution (0.012% of lo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual) <b>3. Readback Voltage</b> Resolution (0.012% of Vo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual) <b>3. Readback Voltage</b> Resolution (0.012% of Vo Rated)         Accuracy (0.1% of VoRated+0.1% of lo Actual)	V mV mV mA mA mA mA mA mA mA mV mV	0-5V or 0-5V or Yes. TTL Open Cc Dry cont Vout/ loc OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FALL 6 0.72 6.0 12 200 24 400 0.72 12	0~10V, A 0~10V, A high-Ok bilector. C tact. Oper ut manual 0FF, Out selection 4 digits, / 4 digits, / 4 digits, / 4 digits, / 9 0VP/UVI ): RED L1 8 0.96 8.0 10.8 180 21.6 360 0.96 16	Couracy: 17 Accuracy: 17 , OV (5000) C Mode: C adjust by si adjust by si adjust by si adjust by si adjust by si adjust by si by Voltage EEE488.2 : 500: 1200, 24 Accuracy: C Accuracy: C Accuracy: C Accuracy: C S Voltage a , V/A, FOL ED 12.5 1.50 12.5 7.2 120 14.4 240 25 1.50 1.50 25 25 25 25 26 26 27 27 20 25 26 26 27 27 20 27 27 20 27 20 27 20 27 20 27 20 20 20 20 20 20 20 20 20 20	a, user s           %, user s           %, user s           hm impered           N, CV M           con. Max           separate           Volt. Adju           F, Re-state           400, 480           here x = \$           0.5% of rate           10.5% of rate           20           2.40           20           4.56           76           9.12           152           2.40           4.0	actable. electable alance)-Fa ode: OFF .voltage encoders st encoder t modes ent) adjue by IEEE 0, 9600 a slaves 0 u ted output ted output ted output (LOCAL, 30 3.60 3.0 50 6.0 100	iii Maximu at Enable (coarse er. (auto, sa st encode enable s ind 19,20 pt o four it Voltage ut current al mode OUT ON 40 40 40 4.80 4.56 76 4.80 80	um Voltag -/Disable and fine fe), Foldl er. Numb witch and 0, by cur = ±1 cour 0, by cur = ±1 cour ) or at lo 10 or At lo 50 6 50  3.60 60  60 100	ge: 30V, M a in: 6V. adjustme back cont beack cont erer of addid d DIP swit rrent adjus nt. ad (remot FP/UFP, C 60 7.2 60 1.50 25 3.0 50 50	aximum s nt selecta rol (CV to resses:31. ch tt encoder tt encoder sc/CV: GF 80 9.6 80 1.14 19 2.28 38 38 9.6 160	ink curren ble). CC), Go t r. REEN LED 100 12 100 15 1.80 30 30 12 200	vs. ALRM 150 0.60 10 1.20 20 18 300	(OVP, OTI 300 36 300 0.30 5.0 0.60 10 36 600	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2 72 1200	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
7.Output Voltage monitor     8.Power Supply OK signal     9. CV/CC Indicator     10. Enable/Disable     1.5 FRONT PANEL     1.Control functions     2.Display     3.Indications     1.6 DIGITAL PROGRAMMING & READBACK     Model     1. Remote Voltage Programming (16 bit)     Resolution (0.012% of Vo Rated)     Accuracy (0.05%Vo Rated+0.05% of VoActual)     2.Remote Current Programming (16 bit)     Resolution (0.012% of Io Rated)     Accuracy (0.1% of Io Rated+0.1% of Io Actual)     Resolution (0.012% of Vo Rated)     Accuracy (0.1% of Io Rated+0.1% of Io Actual)     Resolution (0.012% of Vo Rated)     Accuracy (0.1% of Vo Rated+0.1% of Io Actual)     Accuracy (0.1% of Vo Rated+0.1% of VoActual)     4. Readback Voltage     Resolution (0.012% of Vo Rated)	V mV mV mA mA mA mA mA mA mV mV	0-5V or 0-5V or Yes. TTL Open Cc Dry cont Vout/ lou OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12 200 24 400 0.72 12 200 24 400	0~100, A 0~100, A high-Ok billector. C tact. Oper tranual Charact. Oper tranual DFF, Outp selection 4 digits, J 4 digits, J 4 digits, J 4 digits, J 10.8 0.96 8.0 10.8 180 21.6 360 0.96 16	Couracy: 17 , OV (5000) C Mode: C n:off, Short adjust by 3 adjust by 4 adjust by 5 adjust by 5 by Voltage EEE488.2 a curacy: C Accuracy: C Accuracy: C s Voltage a , V/A, FOL ED 12.5 7.2 120 14.4 240 1.50 25 	a, user s           %, user s           %, user s           hm impediation           N, CV M           separate           VOIt. Adju           separate           VOIt. Adju           F, Re-stata           e (or Currestection           selection           400, 480           here x = S           0.5% of rat           power s           20           2.40           20           4.56           76           9.12           152           2.40           40	encoders stencoder voltage encoders stencoder t modes ent) adju- by IEEE 0, 9600 a Slaves 0 u ted outpu upply (loc /LOCAL, 30 3.60 3.0 50 6.0 100	iii Maximu at Enable (coarse or. (auto, sa st encode enable s nd 19,20 up to four it Voltage at current al mode OUT ON 40 40 40 40 40 40 40 40 40 40 4.80 40 4.80 76 76 4.80 80 80	um Voltag //Disable and fine fe), Foldl er. Numb witch and 0, by cur : = ±1 cour ) or at lo. //OFF, LF 50 6 50  3.60 60  6.0 100	ge: 30V, M a in: 6V. adjustme back cont back cont erer of addin d DIP swit rrent adjus nt. ad (remot FP/UFP, C 60 7.2 60 1.50 25 3.0 50 7.2 120	aximum s nt selecta rol (CV to esses:31. ch st encoder t encoder 80 9.6 80 1.14 19 2.28 38 9.6 160	ink curren ible). CC), Go to CC, CC, GO TO CC, CC, CC, CC, CC, CC, CC, CC, CC, CC,	11: 10mA. 0 local con 0's. ALRM 150 18 150 0.60 10 1.20 20 18 300	(OVP, OTI 300 36 300 0.30 5.0 0.60 10 36 600	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2 72 1200	X X X X X X X X X X X X X X X X X X X	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05%Vo Rated+0.05% of VoActual)         Resolution (0.012% of lo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual)         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual)         3. Readback Voltage         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual)         Accuracy (0.1% of Vo Rated)         Accuracy (0.1% of Vo Rated+0.1% of VoActual)         3. Readback Current         Desolution (0.012% of Vo Rated)         Accuracy (0.1% of VoRated+0.1% of VoActual)	V mV mV mA mA mA mA mA mV mV	0-5V or 0-5V or Yes. TTL Open Cc Dry cont Vout/ loc OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12 200 24 400 0.72 12 12 12 12 12	0~100, A 0~100, A high-OK billector. C tact. Oper tranual OFF, Outp selection 45 and II te selection Master SI 4 digits, J 4 digits, J 4 digits, J 9 displays OVP/UVI 8 0.96 8.0 10.8 180 21.6 360 10.2	Couracy: 17 , OV (5000) C Mode: C n:off, Short adjust by 3 adjust by 4 adjust by 5 adjust by 5 by Voltage EEE488.2 a n: 1200, 2 lave:Hx, wh Accuracy: C Accuracy: C S Voltage a , V/A, FOL ED 12.5 1.50 12.5 7.2 120 14.4 240 	a, user s           %, user s           %, user s           hm impediation           N, CV M           separate           VOIL, Adju           F, Re-stata           a (or Currestelection           selection           400, 480           here x = S           0.5% of rat           power s           D, REM           20           2.40           20           2.40           20           2.40           20           2.40           20           2.40           20           2.40           20	electable electable ance)-Fa ode: OFF voltage encoders st encoder t modes ent) adju by IEEE 0, 9600 a Slaves 0 u tied outpp upply (loc /LOCAL, 30 3.60 3.0 50 6.0 100	iii Maximu (coarse ar. (auto, sa st encode enable so nd 19,20 up to four it Voltage it tourren' al mode OUT ON 40 40 40 40 40 40 40 40 40 4.80 4.80 80 60 60 60 60 60 60 60 60 60 60 60 60 60	and Voltage (a)/Disable and fine fe), Foldl er. Numb witch and 0, by cur = = ±1 cour t ±1 cour ) or at loa //OFF, Lf = 50   3.60 60  60  	ge: 30V, M in: 6V. adjustme back cont ler of addid d DIP swit rent adjus nt. it. ad (remote FP/UFP, C 60 7.2 60 1.50 25 3.0 50 7.2 120 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	aximum s nt selecta rol (CV to resses:31. ch st encoden t encoden C/CV: GF 80 9.6 80 9.6 80 1.14 19 2.28 38 9.6 160	ink curren ible). CC), Go t c. REEN LED 100 12 100 12 100 15 1.80 30 12 200	tt: 10mA. o local cor y's. ALRM 150 18 150 0.60 10 1.20 20 18 300	(OVP, OTI 300 36 300 5.0 0.60 10 36 600	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2 72 1200	x x x x x x x x x x x x x x x x x x x	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of VoRated+0.1% of VoActual)         3. Readback Voltage         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of VoRated+0.1% of VoActual)         4.Readback Current         Resolution (0.012% of Io Rated)         Accuracy (0.1% of VoRated+0.1% of VoActual)	V mV mV mA mA mA mA mV mV	0-5V or 0-5V or Yes. TTL Open Co Dry cont Vout/ loc OVP/UV AC ON/C Address RS232/A Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12 200 24 400 0.72 12 12 0.72 12 12 0.72 12 12 0.72 12 12 0.72 12 12 0.72 12 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 12 0.72 0.72 0.72 0.72 12 0.72 0.	0~100, A 0~100, A 107, A 10	Couracy: 17 , OV (5000) C Mode: C n:off, Short adjust by 3 adjust by 3 adjust by 5 by Voltage EEE488.2 : by Voltage EEE488.2 : by Voltage EEE488.2 : by Voltage CAccuracy: C Accuracy: C Accuracy: C Accuracy: C 12.5 1.50 12.5 7.2 120 14.4 240 1.50 25 7.2 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.0000 2.00000 2.00000 2.00000 2.00000 2.00000 2.00000 2.00000 2.000000 2.000000 2.0000000000	a, user s           %, user s           %, user s           hm imperiest           N, CV M           separate           VOIL, Adju           F, Re-stat           a (or Currestelection           selection           400, 480           here x = S           0.5% of rest           D, SF% of rest           D, REM           20           2.40           20           4.56           76           9.12           152           2.40           4.56           76           9.12           152           2.40           4.56	encoders stencoders voltage encoders stencoder t modes ent) adju by IEEE 0, 9600 a Slaves 0 u tted output ted output ted output pupply (loc /LOCAL, 30 3.60 50 6.0 100 3.60 60 3 3	iii Maximu at Enable (coarse or. (auto, sa st encode enable so nd 19,20 up to four it Voltage it current al mode OUT ON 40 40 40 2.28 38 4.56 76 4.80 80 2.28	and fine (and fine (b), Foldl (c), Fold	ge: 30V, M a in: 6V. adjustme back cont ler of addid d DIP swit rent adjus nt. nt. ad (remot FP/UFP, C 60 7.2 60 7.2 60 7.2 1.50 25 3.0 50 7.2 120 7.2 120	aximum s nt selecta rol (CV to esses:31. ch st encoder e mode). C/CV: GF 80 9.6 80 9.6 80 1.14 19 2.28 38 9.6 160 1.14	ink curren ible). CC), Go t c. REEN LED 100 12 100 12 100 15 1.80 30 12 200 12 12 200	tt: 10mA. o local con 0's. ALRM 150 18 150 0.60 10 1.20 20 18 300 0.6 0.6 0.6 0.0 0.0	(OVP, OTI 300 36 300 0.30 5.0 0.60 10 36 600 0.3 40	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2 72 1200 0.156	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05%Vo Rated+0.05% of VoActual)         Accuracy (0.12% of Io Rated)         Accuracy (0.12% of Io Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of Io Rated+0.1% of VoActual)         3. Readback Voltage         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of VoRated+0.1% of VoActual)         4. Readback Current         Resolution (0.012% of Io Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)         Besolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)	V mV mV mA mA mA mA mA mA mA	0-5V or 0-5V or Yes. TTL Open Co Dry cont Vout/ Iou OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6 0.72 12 200 24 400 0.72 12 12 200 24 400	0~100, A 0~100, A 0~100, A high-Ok bilector. C tact. Oper ut manual /L manual OFF, Out selection Master SI 4 digits, / 4 digits, / 4 digits, / 4 digits, / 4 digits, / 10.8 10.	Couracy: 17 , OV (5000) C Mode: C n:off, Short adjust by si adjust by si adjust by sout by Voltage EEE488.2 si by Voltage EE25 c c c C C C C C C C C C C C C C	a, user s           %, user s           %, user s           hm imperiest           N, CV M           con. Max           separate           VOIL. Adju           F, Re-stata           c (or Curr           selection           400, 480           here x = S           0.5% of re           .5% of re           .6%           .76           9.12           152           .2.40           .4.56           .76           .76           .76           .76           .76           .76           .76           .76           .76	encoders stencoders voltage encoders stencoder t modes ent) adju by IEEE ), 9600 a Slaves 0 u ted output ted output ted output ted output (IoCAL, 30 3.60 50 6.0 100 3.60 60 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	iii           Maximu           at Enable           (coarse           at encode           enable sind           (auto, sa           st encode           enable sind           (auto, sa           at current           40           40           2.28           38           4.56           76           2.28           76           2.28           76	um Voltag and fine and fine fe), Fold er. Numb witch and 0, by cur ± ± 1 cour 0 or at loo 1/OFF, Lf 50 6 6 50 6 50 6 50 6 50 6 6 6 6 6 6 6 6 6 6 6 6 6	ge: 30V, M a in: 6V. adjustme back cont ler of addid d DIP swit rent adjus nt. nt. ad (remot P/UFP, C 60 7.2 60 7.2 60 7.2 1.50 50 7.2 120 7.2 1.5 50 7.2 1.5 50	aximum s nt selecta rol (CV to esses:31. ch st encoden e mode). C/CV: GF 80 9.6 80 9.6 80 9.6 80 9.6 80 9.6 1.14 19 2.28 38 9.6 160 1.14 38	ink curren ble). CC), Go t CC), Go t 7. REEN LED 100 12 100 12 100 15 1.80 30 15 1.80 30 0.90 15 1.80 30 0.90 12 200	tt: 10mA. o local con ys. ALRM 150 18 150 0.60 10 1.20 20 18 300 0.6 20 0.6	(OVP, OTI 300 36 300 0.30 5.0 0.60 10 36 600 0.3 10 0.3	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2 72 1200 0.156 5.2	X X X X X X X X X X X X X X X X X X X	x x x x x x x x x x x x x x x x x x x
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual)         2. Remote Current Programming (16 bit)         Resolution (0.012% of Io Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of Vo Rated+0.1% of VoActual)         3. Readback Voltage         Resolution (0.012% of Io Rated+0.1% of VoActual)         Accuracy (0.1% of Vo Rated+0.1% of VoActual)         4. Readback Current         Resolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Io Rated)	V mV mV mA mA mA mA mV mV mV mV	0-5V or 0-5V or Vout/ Iou Open Co Dry cont Vout/ Iou OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12 200 24 400 24 400 24 200 200	0~100, A 0~100, A 0~100, A ingn-Ok billector. C tact. Oper ut manual /L manual OFF, Outp selection Master SI 4 digits, / 4 digits, / 4 digits, / 4 digits, / 4 digits, / 10.8 8 0.96 8.0 	Couracy: 17 Accuracy: 17 (ov (5000) C Mode: C n:off, Short adjust by sy adjust by sy adjust by voltage EEE488.2 s on: 1200, 2 lave:Hx, wh Accuracy: C Accuracy: C Accuracy: C s Voltage a ., V/A, FOL ED 12.5       	a, user s           %, user s           %, user s           %, user s           hm impeon           bN, CV M           con. Max           separate           VOIt. Adjup           selection           400, 480           here x = S           0.5% of ra           .5% of ra           .6% of ra <td< td=""><td>encoders ance)-Fa ode: OFF .voltage encoders st encoder st encoder t modes ent) adju by IEEE .) 9600 a Slaves 0 t tted output tted output tted output tted output tted output (IOCAL, 30 3.60 3.0 50 6.0 100 60 60 60 60 60</td><td>iii           Maximu           at Enable           (coarse           (auto, sa           st encode           enable sind           (auto, sa           to four           at current           cal mode           OUT ON           40           4.80           40           4.80           40           2.28           38           4.56           76           4.80           2.28           76           4.50</td><td>um Voltage and fine and fine fe), Foldi er. 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7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1.Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual)         2.Remote Current Programming (16 bit)         Resolution (0.012% of Io Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Vo Rated)         Accuracy (0.1% of VoRated+0.1% of Io Actual)         Accuracy (0.1% of VoRated+0.1% of Io Actual)         Accuracy (0.1% of VoRated+0.1% of Io Actual)         Accuracy (0.03% of Io Rated+0.1% of Io Actual)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual)         Resolution (0.012% of Io Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual)         Reso	V mV mV mV mA mA mA mA mA mA mA mA mA mA	0-5V or 0-5V or Yes. TTL Open Cc Dry cont Vout/ loc OVP/UV A C ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12 200 24 400 24 400 24 800	0~100, A 0~100, A 10, 100, A	Couracy: 17 Accuracy: 17 , OV (5000) CC Mode: CC moff, Short adjust by sy adjust by sy adjust by voltage EEE488.2 s on: 1200, 2 lave:HX, wf Accuracy: CC s Voltage a , V/A, FOL ED 12.5 12.5 12.5 7.2 120 14.4 240 1.50 25 7.2 240 14.4 480	a, user s           %, user s           %, user s           %, user s           hm impeon           bN, CV M           con. Max           separate           VOIt. Adjup           F, Re-state           c (or Curr           selection           400, 480           here x = S           0.5% of rc           .5% of rc           .6% of rc	electable electable ance)-Fa ode: OFF voltage encoders st encoder t modes t modes t nodes t ent) adju by IEEE 0, 9600 a slaves 0 t tted output ted output ted output (IoCAL, 30 3.60 3.0 50 6.0 100 60 3.60 60 60 60 60 60 60 60 60 60 60 60 60 6	aiii           Maximu           at Enable           (coarse           (auto, sa           st encode           enable sind           19,20           pt o four           tt Voltage           tt current           40           40           40           40           40           40           40           40           40           40           40           2.28           38           4.56           76           4.56           76           4.56           152	um Voltag and fine and fine fe), Foldi er. Numb witch and 0, by cur = ±1 court ±1 court ±1 court t ±1 court 50 6 6 50 6 6 6 6 6 6 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8	ge: 30V, M a in: 6V. adjustme back cont ter of addid d DIP swit rent adjus nt. ad (remot FP/UFP, C 60 7.2 60 7.2 60 7.2 1.50 25 3.0 50 7.2 120 1.55 50 3.0 100	aximum s nt selecta rol (CV to resses:31. ch tt encoder st encoder st encoder e mode). C/CV: GF 80 9.6 80 9.6 80 9.6 1.14 19 2.28 38 9.6 160 1.14 38 2.28 76	ink curren ble). CC), Go t r. REEN LEC 100 12 100 12 100 15 1.80 30 30 12 200 15 1.80 60	tt: 10mA. o local col o's. ALRM 150 18 150 0.60 10 1.20 1.20 40	(OVP, OTI 300 36 300 0.30 5.0 0.60 10 36 600 0.3 10 0.60 20	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2 72 1200 0.156 5.2 0.32 10.4	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable <b>1.5 FRONT PANEL</b> 1.Control functions         2.Display         3.Indications <b>1.6 DIGITAL PROGRAMMING &amp; READBACK</b> Model <b>1. Remote Voltage Programming (16 bit)</b> Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual) <b>2. Remote Current Programming (16 bit)</b> Resolution (0.012% of Io Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual) <b>3. Readback Voltage</b> Resolution (0.012% of Vo Rated)         Accuracy (0.1% of Io Rated+0.1% of Io Actual) <b>4. Readback Voltage</b> Resolution (0.012% of Vo Rated)         Accuracy (0.1% of VoRated+0.1% of Io Actual) <b>4. Readback Current</b> Resolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual) <b>4. Readback Current</b> Resolution (0.012% of Io Rated)         Accuracy (0.3% of Io Rated+0.1% of Io Actual) <b>5. OVP/UVL Programming</b>	V mV mV mA mA mA mA mV mV mV mV	0-5V or 0-5V or 9-5V or Yes. TTL Open Cc Dry cont Vout/ loc OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR, AC FAIL 6 0.72 6.0 12 200 24 400 24 400 24 800 24 800	0~100, A 0~100, A 0~100, A ingh-Ok bilector. C tact. Oper ut manual 0FF, Outp selection 4 digits, J 4 digits, J 4 digits, J 4 digits, J 90 PP/UVI 00 PP	Couracy: 17 Accuracy: 17 , OV (5000) C Mode: C n:off, Short adjust by sy adjust by sy adjust by voltage EEE488.2 in: 1200, 2 adve:Hx, wh Accuracy: C Accuracy: C S Voltage a , V/A, FOL ED 12.5 1	a, user s           %, user s           %, user s           hm impeon           N, CV M           con. Max           separate           VOIt. Adjup           selection           400, 480           be (or Curr           selection           400, 480           be (or Curr           selection           20, 5% of re           20           2.40           20           2.40           4.56           76           9.12           152           2.40           40           4.56           152           9.12           304	electable electable ance)-Fa ode: OFF voltage encoders st encoder t modes st encoder t modes st encoder t modes by IEEE 0, 9600 a slaves 0 t tted output tted output tted output tted output (locAL, 30 3.60 3.0 50 6.0 100 60 60 60 60 60 60 60 60 60 60 60 60 6	aiii           Maximu at Enable           (coarse r. (auto, sa st encode enable sind 19,20 pt o four it Voltage tt current OUT ON 40 40 40 40 40 40 40 40 40 40 40 40 40	um Voltag and fine fe), Foldl er. Numb witch and 0, by cur = ±1 cour ± ±1 cour ± ±1 cour 50 6 7 1100 1100 1	ge: 30V, M a in: 6V. adjustme back cont ter of addid d DIP swit rent adjus nt. ad (remot FP/UFP, C 60 7.2 60 1.50 25 3.0 50 7.2 120 1.5 50 3.0 100	aximum s nt selecta rol (CV to esses:31. ch st encodel e mode). C/CV: GF 80 9.6 80 9.6 1.14 19 2.28 38 9.6 160 1.14 38 2.28 76	ink curren ble). CC), Go t c. REEN LED 100 12 100 12 100 15 1.80 30 12 200 15 1.80 30 30 1.80 60	tt: 10mA. o local col o local	(OVP, OTI 300 36 300 0.30 5.0 0.60 10  36 600 0.3 10 0.60 20	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2 72 1200 0.156 5.2 0.32 10.4	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X
7.Output Voltage monitor         8.Power Supply OK signal         9. CV/CC Indicator         10. Enable/Disable         1.5 FRONT PANEL         1.Control functions         2.Display         3.Indications         1.6 DIGITAL PROGRAMMING & READBACK         Model         1. Remote Voltage Programming (16 bit)         Resolution (0.012% of Vo Rated)         Accuracy (0.05% Vo Rated+0.05% of VoActual)         2. Remote Current Programming (16 bit)         Resolution (0.012% of lo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual)         Accuracy (0.1% of Vo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual)         Accuracy (0.1% of lo Rated+0.1% of lo Actual)         Accuracy (0.1% of lo Rated)         Accuracy (0.1% of lo Rated)         Accuracy (0.1% of lo Rated)         Accuracy (0.3% of lo Rated)         Accuracy (0.3% of lo Rated+0.1% of lo Actual)         Resolution (0.012% of lo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual)         Resolution (0.012% of lo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual)         Resolution (0.012% of lo Rated)         Accuracy (0.1% of lo Rated+0.1% of lo Actual)         Resolution (0.012% of lo Rated)	V mV mV mA mA mA mA mV mV mV mV mV mV	0-5V or 0-5V or Yes. TTL Open Cc Dry cont Vout/ loc OVP/UV AC ON/C Address RS232/4 Baud rat Parallel Voltage: Current: Voltmete ADDR., AC FAIL 6 0.72 6.0 12 200 24 400 24 400 24 800 6 6	0~100, A 0~100, A 100, A 10	Contracts 17 (1997) (Contracts 1997) (Co	a, user s           %, user s           %, user s           hm impedition           N, CV M           con. Max           separate           VOIL. Adju           F, Re-stat           con Current           selection           400, 480           here x = S           0.5% of rat           power s           20           2.40           20           2.40           20           2.40           20           2.40           20           2.40           20           2.40           20           2.40           20           2.40           20           2.40           20           2.40           20           2.40           304	actable. alectable lance)-Fa ode: OFF voltage encoders st encoder t modes ent) adju by IEEE 0, 9600 a Slaves 0 u ted outpu upply (loc /LOCAL, 30 3.60 30 3.60 30 50 6.0 100 6 200 3.0 50 6.0 100 6 200 3.0 50 6 200 3.0 50 6 200 5 3.0 5 5 5 5 5 5 5 5 5 5 5 5 5	aiii           Maximu           at Enable           (coarse           (auto, sa           st encode           and 19,20           pt o four           tt Voltage           at an mode           OUT ON           40           4.80           40           2.28           38           4.56           76           4.56           76           4.56           152           40	um Voltag p/Disable and fine fe), Foldl er. Numb witch and 0, by cur = ±1 cour ± ±1 cour ± ±1 cour 0 or at lo. 0 or at lo. 0 or at lo. 100 6.0 6.0 6.0 6.0 100  3.60 120 50	ge: 30V, M a in: 6V. adjustme back cont teer of addid d DIP swit rent adjus nt. ad (remot P/UFP, C 60 7.2 60 7.2 60 7.2 60 7.2 50 7.2 120 1.5 50 3.0 50 7.2 120 1.5 50 3.0 60	aximum s nt selecta rol (CV to esses:31. ch st encodel e mode). cC/CV: GF 80 9.6 80 1.14 19 2.28 38 9.6 160 1.14 38 2.28 76 80	ink curren ble). CC), Go t c. REEN LED 100 12 100 12 100 15 1.80 30 30 12 200 0.90 15 1.80 30 30 1.80 60 60	tt: 10mA. o local con o's. ALRM 150 18 150 0.60 10 1.20 20 1.20 40 150	(OVP, OTI 300 36 300 0.30 5.0 0.60 10 0.60 20 300	P, FOLD, 600 72 600 0.16 2.6 0.32 5.2 72 1200 0.156 5.2 0.32 10.4	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X

# General Specifications Genesys<sup>™</sup> Full Rack 1U 750W/1500W

2.1 INPUT CHARACTERISTICS	
1. Input voltage/freq. (*9)	85~265Vac continuous, 47~63Hz, single phase
2.Power Factor	0.99 @100/200Vac, rated output power.
3. EN61000-3-2,3 compliance	Complies with EN61000-3-2 class A and EN61000-3-3 at 20~100% output power.
4. Input current 100/200Vac	<b>750W</b> :10.5A / 5A, <b>1500W</b> :21A / 11A
5. Inrush current 100/200Vac	<b>750W</b> :Less than 25A, <b>1500W</b> :Less than 50A
6. Hold-up time	More than 20mS , 100Vac , at 100% load.
2.2 POWER SUPPLY CONFIGURATION	
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 front
	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 two identical units with total output not to exceed +/-600V from chassis ground.
2.3 ENVIRONMENTAL CONDITIONS	
1. Operating temperature	0~50°C, 100% load.
2. Storage temperature	-20~70°C
3. Operating humidity	30~90% RH (non-condensing).
4. Storage humidity	10~95% RH (non-condensing).
5. Vibration and Shock	MIL-STD-810F, method 514.5, The EUT is fixed to the vibrating surface.
	Less than 20G, half sine, 11mSec. Unit is unpacked.
	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: 12 -
6 Altitudo	Air (intercity) and motor treight (local), unitized is used
8. Allilude	Operating: Tooloon (Socion), berate output current by 21% form above 2000m, Non operating. 40000n (12000m).
2.4 EMC	1
1. Applicable Standards:	
2. ESD	IEC1000-4-2. Air-disch8kV, contact disch4kV
3. Fast transients	IEC1000-4-4. 2kV
4. Surge immunity	IEC1000-4-5. 1kV line to line, 2kV line to ground
5. Conducted immunity	IEC1000-4-6, 3V
6. Radiated immunity	IEC1000-4-3, 3V/m
7. Conducted emission	EN55022B,FCC part 15J-B,VCCI-B
8. Radiated emission	EN55022A,FCC part 15-A,VCCI-A
9. Voltage dips	EN61000-4-11
2.5 SAFETY	
1.Applicable standards:	CE Mark, UL60950,EN60950 listed . Vout<60V:Output is SELV, IEEE/Isolated analog/LAN/USB are SELV.
	60 <vout<400v: analog="" are="" hazardous,="" ieee="" is="" isolated="" lan="" output="" selv.<="" td="" usb=""></vout<400v:>
	400 <vout<600v:output analog="" are="" hazardous,="" ieee="" is="" isolated="" lan="" not="" selv.<="" td="" usb=""></vout<600v:output>
2.Withstand voltage	Vout<60V models :Input-Outputs (SELV): 3.0kVrms 1min, Input-Ground: 2.0kVrms 1min.
	60 <vout<600v 1min,="" 1min.<="" 2.5kvrms="" 3kvrms="" input-haz.="" input-selv:="" models:="" output:="" td=""></vout<600v>
	Hazardous OutputSELV: 1.9kVrms 1min, Hazardous Output-Ground: 1.9kVrms 1min.
	Input-Ground: 2kVrms 1min.
3.Insulation resistance	More than 100Mohm at 25°C, 70% RH, 500Vdc
2.6 MECHANICAL CONSTRUCTION	
1. Cooling	Forced air flow: from front to rear. No ventilation holes at the top or bottom of the chassis; Variable fan speed.
2. Dimensions (WxHxD)	W: 422.6mm / 16.64," H: 43.7mm / 1.72," D: 432.8mm / 17," excluding connectors, encoders, handles, etc.
3. Weight	750W :7kg / 15lbs, 1500W :8.5kg / 18lbs
4. AC Input connector (with Protective Cover)	750W: IEC320 AC Inlet.
	1500W: Screw terminal block, Phoenix P/N: FHQN1-4-H-7.62, with Strain relief
5.Output connectors	6V to 6UV models: Bus-bars (noie Ø 6.5mm). 8UV to 6UUV models: Wire Clamp Connector.
2.7 WARRANTY	
1. Warranty	5 years.
*1: Minimum voltage is guaranteed to maximum 0.2%	% of Vo Rated.
*2: Minimum current is guaranteed to maximum 0.4%	6 of Io Rated
*3: At maximum output power.	
*4: 85~132Vac or 170~265Vac, constant load.	
*5: From No-load to Full-load, constant input voltage.	
*6: For load voltage change, equal to the unit voltage	erating, constant input voltage.
*7: For 6V models the ripple is measured at 2~6V ou	itput voltage and full output current. For other models, the ripple is measured at 10~100% output voltage and full output current.
*8: Time for the output voltage to recover within 0.5%	₀ of its rated for a load change 10~90% of rated output current, Output set-point:10~100%.
Accuracy -Values have been calculated at Vo Ra	ted & lo Rated

\*9: For cases where conformance to various safety standards (UL, IEC etc.) is required, to be described as 100-240Vac (50/60Hz).

All specifications subject to change without notice.

75014/ 150014/





### Genesys<sup>™</sup> 2U 3.3kW Specifications

1.0 MODEL	GEN	8-400	10-330	15-220	20-165	30-110	40-85	60-55	80-42	100-33	150-22	300-11	600-5.5
1.Rated Output Voltage (*1)	V	8	10	15	20	30	40	60	80	100	150	300	600
2.Rated Output Current (*2)	A	400	330	220	165	110	85	55	42	33	22	11	5.5
3.Rated Output Power	Ŵ	3200	3300	3300	3300	3300	3400	3300	3360	3300	3300	3300	3300
1.1 CONSTANT VOLTAGE MODE													
1.Max.line regulation (0.01% of rated Vo+2mV)(*6)	mV	2.8	3	3.5	4	5	6	8	10	12	17	32	62
2.Max load regulation (0.015% of ratedVo+5mV)(*7)	mV	6.2	6.5	7.25	8	9.5	11	14	17	20	27.5	50	95
3.Ripple and noise p-p 20MHz (*8)	mV	60	60	60	60	60	60	60	80	100	100	300	500
4.Ripple r.m.s 5Hz~1MHz	mv	8	8	8	8			8	- 8	8	25	100	120
6. Tomperature conficient		2 100000M	2			5 uing 20 min	5	5	5	5	5	5	5
7. Temperature etability			roted Vout		interval fol	wing 30 min	inutoo wa	-up mun Cono	tont line la	ad 8 tomp			
		0.05%0					intutes wat	filleuria a un		au a temp.			
8.warm-up drift		Less that	n 0.05% of	rated outp	out voltage-	2mv over 3	30 minutes	following po	ower On.	150			050
9.0p-prog. response time, 0~vo Rated (9)	S	20		100	80		160		1	150	00		250
No-load (*10)	S	500	600	700	800	900	100	1100	1200	1500	2000	3500	4000
11 Transient response time	mS	Time for	output volt	age to rec	over within	0.5% of its	rated outpu	It for a load	change 10	-90% of rate	ed output cu	rrent Outn	ut set-noint
		10-100%	. local sen	se. Less ti	han 1mSec	for models	up to and	includina 10	0V. 2msec	for models	above 100	/	at oot point
13 CONSTANT CURRENT MODE			,										
1 Mox line regulation (0.01% of le roted (2mA)(*6)	^	40	25	- 04	10 5	10	10 E	75	6.0	E 2	4.0	2.1	2.6
I.Max.line regulation (0.01% of to rated+2ffA)( 6)	mA mA	42	 		18.5	27	10.5	1.5	12.4	11.6	4.2	72	6.1
3 Ripple r m s 5Hz. 1MHz (*12)	mA	1300	1200	880	660	300	200	100	80	70	9.4	20	10
4 Load regulation thermal drift		Loss the	1200	rotod outpu	t ourrent o	300			00	10	00	20	10
4.Load regulation thermal drift			/9C from ro	tod output	ourropt fo	Ver 30 minu	niputoo wo	iy ioau chai	ige.				
6 Tomporature stability		0.05% of	rated lout	avor 8brc	intorval fol	lowing 30m	inutos war	mun Const	ant line lor	ad & tompor	aturo		
7.Worm up drift		0.03 /0 01	modolo: Lo	over onis.	F <sup>0</sup> / of rotor	lowing Som	ront over 2	0 minutoo fo	lowing no		aluie.		
7.wam-up unit		301/600	W models. Le	l oss than	0.25% of r	ated output	current ov	or 30 minutes in	s following				
		000-000	v modela.	2033 11411	0.20/0011	alea oulpul	current ov		53 IONOWING	power on.			
1.3 PROTECTIVE FUNCTIONS		0.4050/	<u> </u>										
		0~105%	Constant C	Jurrent	<u> </u>								
2. OCP Foldback		Output s	hut down w	vhen powe	r supply ch	ange from (	CV to CC.	Jser selecta	ible.				
3. OVP type		Inverter s	snut-down,	manual re		nput recycle				lication port	command.	5 0001/	E 000V
4. OVP Inp point		0.5~10V	0.5~12V			2~30V	Z~44V	Ucting Vout		5~1100	5~105V	5~330V	5~00UV
6. Over Temperature Protection		Licor cold	otable la	tehod or p	on-latebod	Jont. Fieven	is non auj	using your		•			
6. Over temperature Protection		USEI SEI	ectable , la		Un-lateneu.								
1.4 ANALOG PROGRAMMING AND MONITORING	ì												
1.Vout Voltage Programming		0~100%,	0~5V or 0	~10V, use	r select. Ac	curacy and	linearity:±0	0.5% of rated	d Vout.				
2.lout Voltage Programming (*13)		0~100%,	0~5V or 0	~10V, use	r select. Ac	curacy and	linearity:±1	% of rated I	out.				
3.Vout Resistor Programming		0~100%,	0~5/10koł	hm full sca	le, user sel	ect., Accura	cy and line	earity: ±1% o	of rated Vol	ut.			
4.lout Resistor Programming (*13)		0~100%,	0~5/10kor	nm full sca	le, user sel	ect. Accura	cy and line	arity:±1.5%	of rated lou	Jt.			
5.On/Off control (rear panel)		By Voltag	$\frac{100}{2}$	Disable, 2-	15V = enal	ole (default)	or ary con	tact, user se	electable lo	gic			
6.Output Current monitor (*13)		0~5V or	0~10V, ACC	curacy:±1%	o, user sele	etable.							
7.Output voltage monitor			bigh OK	Uracy:±17	o, user sele	clable.							
9. CV/CC Indicator			high (4, 5)	0 (500011		CE)-Fall	0.6\/) cink	current: 10	mΛ				
10 Enable/Disable		Dry cont	act Open:	off Short of	on Max vo	Itage at Ena	hle/Disahl	e in: 6V					
11 Local/Bemote analog control		By electr	ical signal	or Open/S	hort: 0~0 6	V or short	Remote 4	~5V or open	·Local				
12 Local/Bemote analog control Indicator		Open co	lector Loc	al Off Be	mote: On M	Aaximum vo	ltage: 30V	maximum	sink current	t <sup>.</sup> 10mA			
		Openioo					nage. oo v						
1.5 FRONT PANEL													
1.Control functions		Vout/ Iou	t manual a	idjust by se	eparate end	oders (coai	rse and fine	e adjustmen	t selectable	e).			
			L manual a	adjust by V	olt. Adjust e	encoder.							
		ON/OFF,	Output Of		-start mode	s (auto, sat	e), Foldbad	CK CONTROL (C	V to CC), (	GO TO IOCAI O	control.		
		Address Re start	selection c	by voltage	(or Current	) adjust enc	oder. Num	ber of addre	sses:31.				
		Roud ret	noues (au	1200 24	5 10 1, SATE I	1000).	200 by -	urront adjust	oncodor				
		Dauu Tau Darallol M	Jactor Slav	1. 1200, 240	00, 4600, 9 vro v – Slov	oc 0 up to f	,200, by cu	ineni aujusi	encouer.				
2 Display		Voltage	A digite Ac		5% of rated	output Volt		int					
opiay		Current	4 digits. Ac	curacy: 0.	5% of rated	l output cum	rent ±1 coi	int.					
		Voltmete	r displavs \	Voltage at	power supp	olv (local mo	ode) or at lo	ad (remote	mode).				
3.Indications		ADDR., (	OVP/UVL,	V/A, FOLD	, REM./LC	CAL, OUT	ON/OFF, L	FP/UFP, CC	C/CV: GRE	EN LED's. A	LRM (OVP,	OTP, FOLD	, AC FAIL)
		RED LÉ	<u>,</u>			-	,				. ,		,
1.6 DIGITAL PROGRAMMING & READBACK													
Model	V	8	10	15	20	30	40	60	80	100	150	300	600
1. Remote Voltage Programming (16 bit)													
Resolution (0.012% of Vo Rated)	mV	0.96	1.2	1.8	2.4	3.6	4.8	7.2	9.6	12	18	36	72
Accuracy (0.05% of Vo Rated+0.05% of Vo Actual)	mV	8	10	15	20	30	40	60	80	100	150	300	600
2. Remote Current Programming (16 bit)													
Resolution (0.012% of Io Rated)	mA	48	39.6	26.4	19.8	13.2	10.2	6.6	5	4	2.6	1.3	0.7
Accuracy (0.2% of Io Rated+0.1% of Io Actual)(*13)	mA	1200	990	660	495	330	255	165	126	99	66	33	16.5
3. Readback Voltage													
Resolution (0.012% of Vo Rated)	mV	0.96	1.2	1.8	2.4	3.6	4.8	7.2	9.6	12	18	36	72
Accuracy (0.1% Vo Rated+0.1% of Vo Actual)	mV	16	20	30	40	60	80	120	160	200	300	600	1200
4. Readback Current													
Resolution (0.012% of Io Rated )	mA	48	39.6	26.4	19.8	13.2	10.2	6.6	5.0	4.0	2.6	1.3	0.7
Accuracy (0.3% of Io Rated+0.1% of Io Actual)(*13)	mA	1600	1320	880	660	440	340	220	168	132	88	44	22
5. OVP/UVL Programming	1												
Resolution (0.1% of Vo Rated)	mV	8	10	15	20	30	40	60	80	100	150	300	600
Accuracy (1% of Vo Rated)	mV	80	100	150	200	300	400	600	800	1000	1500	3000	6000

All specifications subject to change without notice.

### General Specifications Genesys<sup>™</sup> 2U 3.3kW

	-													
2.1 INPUT CHARACTER	RISTICS	GEN	8-400	10-330	15-220	20-165	30-110	40-85	60-55	80-42	100-33	150-22	300-11	600-5.5
1. Input voltage/freq. (*3)			Single Ph	ase, 230	/ models: 1	70~265Va	c, 47~63H	z						
		VAC	3-Phase,	208V mo	dels : 170~	265Vrms ,	47~63Hz							
0 Mariana la sut			3-Phase,	400V mo	dels: 342~4	160Vac, 47	~63Hz							
current at 100% load	Single Phase,230V models:	A	24	24	24	23	24	23	23	23.5	23	10.7	23	23
current at 100 /8 load	3-Phase, 208V models:	Arms	14.5	14.5	14.5	14.5	7	14.5	13.6		13.7	13.7	13.8	13.9
2 Power Easter (Typ)	3-Filase, 400V models.		7.2 Single Ph	7.2 200 mod	1.2 No: 0.00@/	7.2 220\/20_r2		7.2	0.0 haso mode	1	0.0	rated outr	0.9	1
4 Efficiency (*4)		%	82	84	84	86	86	88	88	88	88	88	88	87
5. Inrush Current (*5)		<i>γ</i> ο Δ	Single-Ph	ase and :	3-Phase 20	NRV models	: Less that	1 50A	00		0		00	07
		~	3-Phase	400V moc	els: Less t	han 20A	- 2000 110							
6. Hold up time (Typ)		mS	10mSec f	or Single-	Phase and	3-phase 2	08V mode	ls, 6mSec	for 3-Phas	e 400V mo	dels. Rated	output pov	ver.	
	ONFIGURATION													
1. Parallel Operation		Lin to Fou	r (1) identic	al unite n		nected in N	lastor/Slav	o Modo wi	th two wire	connection	n Advanc	od narallo	l faatura th	10
		current of panel of M	Master Un Aaster unit.	it, multipli Remote a	ed by numl analog curr	per of units ent monito	connected of the Ma	l in paralle ster is scal	l, is made a led to output	available or at current o	n digital inter f the Master	face and of unit (only	displayed c ).	on front
2. Series Operation		Possible (	with extern	al diodes)	, up to two	identical u	nits with to	tal output	not to exce	ed +/-600V	from chass	is ground.		
2.3 ENVIRONMENTAL	CONDITIONS													
1. Operating temperature	• • • • • • • • • • • • • • • • • • • •	0~50°C.	00% load.											
2. Storage temperature		-30~85°C												
3. Operating humidity		20~90%	RH (non-co	ndensing)	).									
<ol> <li>Storage humidity</li> </ol>		10~95% F	RH (non-co	ndensing)										
5. Vibration and Shock		MIL-STD-	810F, meth	od 514.5	, The EUT	is fixed to t	ne vibrating	g surface.						
		Less than	20G, half	sine, 11 n	nSec. Unit	is unpacke	d. ating of Ch		atainara an	d Custana	Chinging II	nit. Cinala	Deelvere	
		ASTM D4	e Level: Lev	ard Practi /el II: Acci	ce for Perfo	iteria: Crite	sting of Sr rion 1 - No	nroduct d	ntainers an amage Crit	a Systems, erion 2 - Pa	Snipping U ackaging is i	nit: Single	Package	rcle: 12 -
		Air (interc	ity) and mo	tor freight	(local), un	itized is us	ed	product d	uniugo oni		zonaging io i	indot, Diot	induition by	010.12
6. Altitude		Operating by 1ºC/10	: 10000ft (3 0m above 2	000m), D 2000m. N	erate outpu	ut current b g: 40000ft	y 2%/100n (12000m).	n above 20	000m, Alter	natively, de	rate maximi	um ambier	nt temp.	
2.4 EMC														
1. Applicable Standards:														
2. ESD		IEC1000-	4-2. Air-disc	:h8KV, c	ontact disc	h4KV								
3. Fast transients		IEC1000-	4-4.2KV	a ta lina		awa u na al								
4. Surge inimunity		IEC 1000-	4-5. IKV III	ie to line,	ZKV line to	ground								
6 Badiated immunity		IEC1000-	4-3, 3V/m								6			
7. Magnetic field immunit	v	EN61000	-4-8. 1A/m								1			
8. Voltage dips	,	EN61000	-4-11											
9. Conducted emission		EN55022	A, FCC par	t 15-A, VC	CCI-A.									
10. Radiated emission		EN55022	A, FCC par	t 15-A, VC	CCI-A.									
2.5 SAFETY														
1.Applicable standards:		CE Mark,	UL60950,I	EN60950	listed. Vou	t≤40V:Out	out is SELV	/, IEEE/Is	olated anal	og/LAN/US	B are SELV			
		40 <vout≤ 400<vout< td=""><td>400V: Outp ≤600V:Out</td><td>ut is haza put is haz</td><td>ardous, IEE ardous, IEE</td><td>E/Isolated EE/Isolated</td><td>analog/LAI analog/LA</td><td>N/USB are</td><td>e SELV. e not SELV.</td><td></td><td></td><td></td><td></td><td></td></vout<></vout≤ 	400V: Outp ≤600V:Out	ut is haza put is haz	ardous, IEE ardous, IEE	E/Isolated EE/Isolated	analog/LAI analog/LA	N/USB are	e SELV. e not SELV.					
2.Withstand voltage		Vout≤40V	models :In	put-Outp	uts (SELV):	4242VDC	1min, Inpu	t-Ground:	2828VDC	1min.				
		40 <vout≤< td=""><td>100V mode</td><td>els: Input-l</td><td>Haz. Outpu</td><td>t: 2600VD</td><td>C 1min, Inp</td><td>ut-SELV: 4</td><td>1242VDC 1</td><td>min.</td><td></td><td></td><td></td><td></td></vout≤<>	100V mode	els: Input-l	Haz. Outpu	t: 2600VD	C 1min, Inp	ut-SELV: 4	1242VDC 1	min.				
		Hazardou	s OutputS	SELV: 190	0VDC 1mir	n, Hazardo	us Output-0	Ground:12	00VDC 1m	in. Input-G	round: 2828	VDC 1min	ı.	
		100 <vout< td=""><td>≤600V moc</td><td>lels: Input</td><td>-Haz. Outp</td><td>ut: 4000VE</td><td>C 1min, In</td><td>put-SELV:</td><td>4242VDC</td><td>1min.</td><td></td><td></td><td></td><td></td></vout<>	≤600V moc	lels: Input	-Haz. Outp	ut: 4000VE	C 1min, In	put-SELV:	4242VDC	1min.				
		Hazardou	IS OutputS	SELV: 355	OVDC 1mir	n. Hazardo	us Output-	Ground:26	70VDC 1m	in. Input-G	round: 2828	VDC 1mir	l.	
3.Insulation resistance		More than	100Mohm	at 25°C,	70% RH.									
2.6 MECHANICAL CON	STRUCTION													
1. Cooling		Forced ai	r flow: from	front to re	ar. No ven	ilation hole	s at the to	o or botton	n of the cha	ssis; Varial	ole fan spee	d.		
2. Dimensions (WxHxD)		W: 423mr	n / 16.65in,	H: 88mm	/3.46in, D:	442mm/17	42in, exclu	iding conn	ectors, enc	oders, han	dles, etc.			
3. Weight	ith Ducto stiller Osural)	15 kg. / 30		nadala D					with Ctrai	n valiaf				
4. AC Input connector (w	ith Protective Cover)	3-Phase	2081/ 8, 400	N models	Bower Comu	ambicon P	16/3-GF-10	J, 16 Series	rice with	train roliof				
5.Output connectors		8V to 100	V models: F	Bus-bars	hole Ø 10	5mm) 150	/ to 600V	models: w	ire clamp o	onnector F	hoenix P/N	: FRONT-4	1-H-7.62	
2.7 WARRANTY		0.10100		_ 30 Julo										
1. Warranty		5 years								i	0			
ta Minimum II I		t yours.												
1:Minimum voltage is gi	uaranteed to maximum 0.2% o	t rated outp	ut voltage.											
2.iviinimum current is gu	ormance to safety standards (	I IEC ata	) is require	d to be d	oscribod o	e 100-2401	ac (50/604	dz) for 2Ph	208\/ maa	lale and a	30-1151/201	50/604-1	for 3Ph 40	0V modele
*4:Single Phase and 3-P	hase 208V models. At 2081/ac	input voltar	ne. 3-Phase	400V·At	380Vac in	out voltage	With rate		wer.	ioio, anu oc		(00/00/12)	101 01 11 40	o v mouela.
*5:Not including EMI filte	r inrush current, less than 0.2r	nSec.	,,						-					
*6 Single Phase and 3-P	hase 208V models: 170~265V	ac constan	t load 3-P	hase 400	/ models: 3	342~460Va	c constan	t load						

nase 400V mod \*7:From No-Load to Full-Load, constant input voltage. Maximum drop in Remote Sense. \*8:For 8V~300V models: Measured with JEITA RC-9131A (1:1) probe. For 600V model: Measured with 10:1 probe. \*9:From 10% to 90% or 90% to 10% of Rated Output Voltage, with rated, resistive load. \*10:From 90% to 10% of Rated Output Voltage.

\*11:For load voltage change, equal to the unit voltage rating, constant input voltage.

\*12:For 8V~15V models ripple is measured from 2V to rated output voltage and current. For other models, the ripple is measured at 10~100% of rated output voltage and current. \*13: The Constant Current programming readback and monitoring accuracy does not include the warm-up and Load regulation thermal drift.

All specifications subject to change without notice.





### Genesys<sup>™</sup> 2U 5kW Specifications

1.0 MODEL		GEN	8-600	10-500	16-310	20-250	30-170	40-125	60-85	80-65	100-50	150-34	300-17	600-8.5
1.Rated Output Voltage(*1)		V	8	10	16	20	30	40	60	80	100	150	300	600
2.Rated Output Current(*2)		A	600	500	310	250	170	125	85	65	50	34	17	8.5
3.Rated Output Power		W	4800	5000	4960	5000	5100	5000	5100	5200	5000	5100	5100	5100
1.1 CONSTANT VOLTAGE MODE														
1.Max.line regulation (0.01% of rat	ed Vo)(*6)	mV	0.8	1	1.6	2	3	4	6	8	10	15	30	60
2.Max load regulation (0.015% of i	ratedVo+5mV)(*7)	mV	6.2	6.5	7.4	8	9.5	11	14	17	20	27.5	50	95
3.Ripple and noise p-p 20MHz (*8	5)	mV	70	70	70	70	70	70	70	80	100	120	200	500
4.Ripple r.m.s 5Hz~1MHz		mV	10	10	10	10	10	10	10	12	15	25	35	120
5.Remote sense compensation/wi	re		2 100PDM/	2 °C of rotod		2 ao followin	5	5	5	5	5	5	5	5
6. Temperature coefficient		PPIVI/*C		C of rated o		ge, ioliowin	ig 30 minut	les warm-l		and Prove the				
7. Temperature stability			0.05% 01	rated vout o	over enrs in	terval tollov	Ving 30 mir	nutes warm	I-up. Const	ant line, lo	ad & temp.			
8.warm-up driπ	- t ( <b>†</b> 0)		Less than	1 0.05% Of r	ated output	voitage+2r	nv over 30	minutes to	bilowing po	wer On.				100
9.0p-prog. response time, 0~vo H	ated ("9)	ms mc	15	<u> </u>		)	r	00			50	0		100
10.Down-plog response time	Full-load ( 9)	mS	10	500	600	700	800		1000	1200	1500	2000	2500	200
11 Transient response time	N0-10au (10)	S	400 Time for (			700 or within 0.6	ouu	tod output	for a load (	1200 abango 10	-90% of rate	2000	rront Outn	
n. nansient response time		1110	point <sup>,</sup> 10-	100% local	sense Les	s than 1mS	Sec for mor	tels un to a	and includir	ng 100V 2	msec for mo	ndels above	100V	ui 301-
	-		pointi ro	100 /0, 1000						.g .cot. 2				
1.2 CONSTANT CURRENT MOD	E	<del>.</del> .												
1.Max.line regulation (0.05% of Io	rated)(*6)	mA	300	250	155	125	85	62.5	42.5	32.5	25	17	8.5	4.25
2.Max.load regulation (0.1% of Io	rated)(^11)	mA mA	600	500	310	250	1/0	125	58	65	50	34	1/	8.5
4. Temperature coefficient			1000000	C from rote	1400	IUUU	400 ving 20 mir	300	150	120	100	90	- 30	15
4. Temperature coefficient			0.05% of	rated lout o	vor 8bre in	toryal follow	ving 30 min	utoc worm	up Constr	ant line los	ad & tompor	aturo		
6.Warm-up drift		1	81/~161/	nodele: Leo	s than ±0 5	% of rated	output curr	ent over 2	minutes f					
o.waini up unit			20V~600	V models: L	ess than $\pm 0.3$	0.25% of ra	ted output	current over	er 30 minut	es followin	na power On			
											<u></u>			
1.3 PROTECTIVE FUNCTIONS			0.4050/	0										
1. UCP			0~105% (	oursiant CL			ao from C	/ to CC //	or colocto	blo				
2. OCF FOIDBACK			Invortor c	but down n	nanual ross	t by AC inn	ut rocyclo	or by OUT	button or h		vication port	command		
4 OVP trip point			0.5~10V	0.5~12V	1~19V	1~24V		2~44 1V	5~66 15V	5~88 2V	5~110 25V	5~165.3V	5~330 7V	5~6615V
5 Over Temp Protection			Liser sele	octable lato	hed or non-	-latched	2-007	2	5-00.157	5°-00.2 V	5-110.251	5-100.01	0-000.7 V	J-001.3V
6. Output Under Voltage Limit			Preset by	front panel	or commun	ication por	t. Prevents	from adjus	stina Vout b	elow limit.				
1.4 ANALOG PROGRAMMING A		2	0.100%	0.51/0+0	101/				0/ of voto o	Veut				
1. Voul Voltage Programming (*12)			0~100%,	0~5V OF 0~	10V, user s	elect. Accur	acy and lin	leanty:±0.	of roted l	i vout.				
2.10ut Voltage Flogramming (13)			0~100%	0~5V 0I 0~	n full coolo	usor coloci		v and lines	rity: +1%	f rated Vo	ut			
4 Jour Besistor Programming (*13)			0~100%	0~5/10kohn	n full scale,	user select	t Accuracy	and linear	$\frac{110}{110} \pm 1\%0$	of rated lou	ut.			
5.On/Off control (rear panel)			By electri	cal. Voltage	: 0~0.6V/2~	15V.or drv	contact .us	ser selecta	ble logic.	114104100				
6.Output Current monitor (*13)			0~5V or (	)~10V. Acci	.racv:+1%.	user select	able.		ole logio.					
7.Output Voltage monitor			0~5V or 0	0~10V. Accu	racv:±1%.	user selecta	able.							
8. Power Supply OK signal			TTL high	(4~5V) -OK	, 0V-Fail 5	00ohm seri	es resistan	ice.						
9. CV/CC Indicator			CV: TTL I	nigh (4~5V)	source: 10r	nA, CC: TT	L low (0~0	.6V), sink	current: 10	nA.				
10. Enable/Disable			Dry conta	act. Open:of	f, Short: or	. Max. volta	ige at Enat	ble/Disable	in: 6V.					
11. Local/Remote analog control			By electri	cal signal o	r Open/Sho	rt: 0~0.6V (	or short: Re	emote, 4~5	V or open:	Local.				
12. Local/Remote analog control I	ndicator		Open col	lector, Local	l: Off, Remo	te: On. Max	kimum volta	age: 30V, r	naximum s	ink current	t: 10mA.			
1.5 FRONT PANEL														
1.Control functions			Vout/ lout	manual ad	iust by sepa	arate encod	lers (coarse	e and fine	adiustment	selectable	e).			
			OVP/UVL	manual ad	just by Volt.	Adjust enc	oder.		aajaoanon					
			ON/OFF.	Output ON/	OFF. Re-st	art modes (	auto, safe)	. Foldback	control (C	V to CC).	Go to local c	ontrol.		
			Address	selection by	Voltage (or	Current) a	djust encod	der. Numbe	er of addre	sses:31.				
			Re-start r	nodes (auto	matic resta	irt, safe mo	de).							
			Baud rate	e selection:	1200, 2400	, 4800, 960	0 and 19,2	00.						
2.Display			Voltage: 4	1 digits, Acc	uracy: 0.5%	of rated ou	utput Voltag	ge ±1 cour	t.					
			Current: 4	4 digits, Acc	uracy: 0.5%	of rated ou	utput currei	nt ±1 coun	t.					
			Voltmeter	displays Vo	ltage at po	wer supply	(local mod	e) or at loa	d (remote	mode).				
3.Indications			ADDR., C	DVP/UVL, V	/A, FOLD,	REM./LOC/	AL, OUT O	N/OFF, LF	P/UFP, CC	/CV: GRE	EN LED's. A	lrm (ovp,	OTP, FOL	D, AC
L				יח רבח										
1.6 Interface RS-232&RS-485 or	Optional GPIB /	LAN Interfa	ace											
Model		V	8	10	16	20	30	40	60	80	100	150	300	600
1. Remote Voltage Programming	(16 bit)													
Resolution (0.012% of Vo Rated)		mV	0.96	1.2	1.92	2.4	3.6	4.8	7.2	9.6	12	18	36	72
Accuracy (0.1% of Vo Rated)		mV	8	10	16	20	30	40	60	80	100	150	300	600
2. Remote Current Programmin	g (16 bit)													
Resolution (0.012% of Io Rated)		mA	72	60	37.2	30	20.4	15	10.2	7.8	6	4.08	2.04	1.02
Accuracy (0.3% of Io Rated+0.1%	of Io Actual	mΔ	2400	2000	1240	1000	680	500	340	260	200	136	68	34
Output)(*13)			2700	2000	1240	1000	000		0+0	200	200	100		54
3. Readback Voltage														
Resolution (0.012% of Vo Rated)		mV	0.96	1.2	1.92	2.4	3.6	4.8	7.2	9.6	12	18	36	72
Accuracy (0.15% of Vo Rated)		mV	12	15	24	30	45	60	90	120	150	225	450	900
4. Beadback Current														
Besolution (0.012% of lo Bated )		m∆	72	60	372	30	20.4	15	10.2	78	6	4 08	2 04	102
Accuracy (0.4% of lo Bated)(*13)		mA	2400	2000	1240	1000	680	500	340	260	200	136	68	34
			2.00							200				5-
5. OVP/UVL Programming		<u> </u>												
Hesolution (U.1% of Vo Rated)		mV	8	10	16	20	30	40	60	80	100	150	300	600
ACCURACY (1% OF VO HATED)		I IIIV	8U	100	100	200	300	400	000	800	1000	1500	3000	0000

All specifications subject to change without notice.

## General Specifications Genesys<sup>™</sup> 2U 5kW

2.1 INPUT CHARACTERIS	TICS	GEN	8-600	10-500	16-310	20-250	30-170	40-125	60-85	80-65	100-50	150-34	300-17	600-8.5
1. Input voltage/freq. (*3)	-		3-Phase	200Vac , 2	208Vac an	d 230Vac I	Nodels : 17	70~265Vrm	is , 47~63⊢	z				
		VAC	3-Phase,	400V moc	dels: 342~4	60Vac, 47	-63Hz							
2. Maximum Input	3-Phase, 208V models:	Arms	20.7	21.5	21.4	21	21.5	20.6	20.5	21.4	20.6	21	21	21
current at 100% load	3-Phase, 400V models:		10.3	10.7	10.6	10.5	10.2	10.2	10.2	10.6	10.2	10.4	10.4	10.4
3.Power Factor (Typ)			0.94 at 10	0% load a	and 208V/3	80V/400V/	415V							
4. Inrush Current	2017	A	3-Phase 2	200V: 50A	, 3-Phase	400V: 20A	Not includ	ding the EN	11 filter inrus	sh current,	less than C	).2mSec.		
5. Efficiency at 200V and 38	30V	%	84	84	84	86	86	88	90	88	88	88	88	88
6. Efficiency at 170V and 34	12V	% 	84 Em£ tunio	84	84	86	86	88	90	88	88	88	88	88
8 Phase Imbalance		1113 %	<5%	ai										
9 Leakage Current		<sup>70</sup> m∆	less than :	3mA										
		110/3	1000 11011											
2.2 POWER SUPPLY CON	FIGURATION	Unite Feu	r (1) identia	al cusita na		a ata din M	a ata x/Clau	. Mada witi			In Advance		faature the	
		current of panel of N	Master Uni Master unit.	t, multiplie Remote a	ay be conn ed by numb nalog curre	per of units	connected of the Mas	in parallel, ster is scale	is made a ed to output	vailable on	digital inte	face and d unit (only)	isplayed or	n front
2. Series Operation		Possible (	with externa	al diodes),	up to two	identical u	nits with to	tal output n	ot to excee	d +/-600V	from chass	is ground.		
2.3 ENVIRONMENTAL CO	NDITIONS													
1. Operating temp		0~50°C, 1	00% load.											
2. Storage temp		-20~85°C												
3. Operating humidity		20~90% F	RH (non-cor	ndensing).										
<ol> <li>Storage humidity</li> </ol>		10~95% F	RH (non-cor	ndensing).										
5. Vibration and Shock		MIL-STD-	810F, metho	od 514.5 ,	The EUT i	s fixed to th	e vibrating	g surface.						
		Less than	20G, halt : 169 Stands	sine, 11m ard Practic	Sec. Unit i	s unpacket	l. sting of Sh	inning Con	tainars and	Svetome	Shinning I	Init: Sinalo	Packago	
		Assurance	e Level: Lev	el II: Acce	ptance Cri	teria: Criter	ion 1 - No	product da	mage Crite	rion 2 - Pa	ckaging is i	intact. Distr	ibution Cvo	cle: 12 -
		Air (interc	ity) and mot	tor freight	(local), uni	tized is use	d							-
6. Altitude		Operating	: 10000ft (3	000m), De	erate outpu	t current b	/ 2%/100m	above 200	00m, Non o	perating: 4	0000ft (120	000m).		
2.4 EMC														
1. Applicable Standards:														
2. ESD		IEC1000-4	4-2. Air-disc	h8KV, co	ontact disc	h4KV								
<ol><li>Fast transients</li></ol>		IEC1000-4	4-4. 2KV											
<ol><li>Surge immunity</li></ol>		IEC1000-4	4-5. 1KV lin	e to line, 2	2KV line to	ground								
5. Conducted immunity		IEC1000-4	4-6, 3V											
6. Radiated immunity		IEC1000-4	4-3, 3V/m											
7. Magnetic field immunity		EN61000-	4-8, 1A/m											
9. Conducted emission		EN65022	4-11 A ECC part											
10 Badiated emission		EN55022	A FCC part	15-A, VO	CI-A									
		2.100022	., i oo pui		0.7.0									
1 Applicable standards:		CE Mark	111 60050 5	N60050 I	isted Vou		ut is SELV		lated analo		aro SELV			
in pphotolo otaridardo.		40∠Voute	400V: Outp	ut is haza	rdous IFF	E/Isolated :		//ISB are	SELV	y/LANUSL	ale GLLV.			
		400 <vout< td=""><td>&lt;600V:Outr</td><td>out is haza</td><td>ardous, IEE</td><td>E/Isolated</td><td>analog/LA</td><td>N/USB are</td><td>not SELV.</td><td></td><td></td><td></td><td></td><td></td></vout<>	<600V:Outr	out is haza	ardous, IEE	E/Isolated	analog/LA	N/USB are	not SELV.					
2.Withstand voltage		Vout≤40V	models :In	put-Outpu	ts (SELV):	4242VDC	1min, Inpu	t-Ground: 2	828VDC 1	min.				
-		40 <vout≤< td=""><td>100V mode</td><td>Is: Input-⊢</td><td>laz. Outpu</td><td>t: 2600VDC</td><td>1min, Inp</td><td>ut-SELV: 42</td><td>242VDC 1r</td><td>nin.</td><td></td><td></td><td></td><td></td></vout≤<>	100V mode	Is: Input-⊢	laz. Outpu	t: 2600VDC	1min, Inp	ut-SELV: 42	242VDC 1r	nin.				
		Hazardou	s OutputS	ELV: 1900	VDC 1min	, Hazardou	s Output-0	Ground:120	0VDC 1mi	n. Input-Gr	ound: 2828	VDC 1min.		
		100 <vout< td=""><td>≤600V mod</td><td>els: Input-</td><td>Haz. Outp</td><td>ut: 4000VD</td><td>C 1min, In</td><td>put-SELV: 4</td><td>4242VDC 1</td><td>min.</td><td></td><td></td><td></td><td></td></vout<>	≤600V mod	els: Input-	Haz. Outp	ut: 4000VD	C 1min, In	put-SELV: 4	4242VDC 1	min.				
		Hazardou	s OutputS	ELV: 3550	VDC 1mir	n. Hazardou	s Output-0	Ground:267	0VDC 1mi	n. Input-Gr	ound: 2828	VDC 1min.		
3.Insulation resistance		More than	100Mohm	at 25°C, 7	70% RH.									
2.6 MECHANICAL CONST	RUCTION													
1. Cooling		Forced air	flow: from	front to rea	ar. No vent	ilation hole	s at the top	or bottom	of the chas	ssis; Variab	le fan spee	ed.		
2. Dimensions (WxHxD)		W: 423mn	n / 16.65" H	l: 88mm /	3.46", D: 44	42.5mm / 1	7.42" exclu	iding conne	ectors, enco	oders, han	dles, etc.			
3. Weight		16 kg. / 35	5.2lbs					- 10 10						
4. AC input connector (with	Protective Cover)	3-Phase,	2087 & 400	v models	, Power Co	Emm) 150	0-16/4-G	r-10,16 set	ies, with Si	rain relief.	hoonin D /		LI 760	
		6 V 10 100	v models: E	มนรามสาร (I		51111). 1501		nouels: WI	e ciamp co	minector, P			-11-7.02	
2.7 WARRANTY		<b></b>												
1. Warranty		5 years.												
*1:Minimum voltage is guar *2:Minimum current is guar *3:For cases where conform *4:3-Phase 208V models: A	anteed to maximum 0.2% of anteed to maximum 0.4% of nance to safety standards ( tt 208Vac input voltage, 3-F	of rated outp f rated outp UL, IEC, etc hase 400V:	ut voltage. ut current. ) is required At 380Vac i	d, to be de input volta	escribed as age. With ra	ated output	ac (50/60H power.	lz) for 3-Ph	208V mod	els, and 38	80~415Vac	(50/60Hz)	for 3-Ph 40	00V models.
*6:3-Phase 208V models: 1	70~265Vac, constant load.	3-Phase 40	00V models	: 342~460	)Vac, cons	tant load.								

 $\ensuremath{^*\!7}\xspace$  From No-Load to Full-Load, constant input voltage. Maximum drop in Remote Sense. \*8:For 8V~300V models: Measured with JEITA RC-9131A (1:1) probe. For 600V model: Measured with 10:1 probe. \*9:From 10% to 90% or 90% to 10% of Rated Output Voltage, with rated, resistive load. \*10:From 90% to 10% of Rated Output Voltage.

\*11:For load voltage change, equal to the unit voltage rating, constant input voltage. \*12:For 8V~16V models ripple is measured from 2V to rated output voltage and current. For other models, ripple is measured at 10~100% of rated output voltage and current. \*13: The Constant Current programming readback and monitoring accuracy does not include the warm-up and Load regulation thermal drift.

All specifications subject to change without notice.





# Genesys<sup>™</sup> 3U 10/15kW Specifications

•	-										10kW	15kW
1.0 MODEL	GEN	7.5-1000	10-1000	12.5-800	20-500	25-400	30-333	40-250	50-200	60-167	Х	
1.Rated Output Voltage	V	7.5	10	12.5	20	25	30	40	50	60	Х	
2. Bated Output Current	Α	1000	1000	800	500	400	333	250	200	167	x	
3 Bated Output Power	kW	75	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	X	
4 Efficiency (min) at low line, 100% Poted Load	0/	7.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		
4.Elliciency (min) at low line, 100% Rated Load	70	11				C					^	
1.0 MODEL	GEN									60-250		Х
1.Rated Output Voltage	V	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60		Х
2.Rated Output Current	Α									250		Х
3 Bated Output Power	kW									15.0		x
4 Efficiency (min) at law line, 100% Dated Load	0/									10.0		×
4.Elliciency (min) at low line, 100% Rated Load	70									88		^
1.1 CONSTANT VOLTAGE MODE				Conta	act Factory	for other m	odels				J	
1. Max. line regulation (0.1% Vo Max≤30V; 0.01%>30V)	mV	7.5	10	12.5	20	25	30	4	5	6	Х	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	Х	Х
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	3	3	X	х
6 Temperature stability		+0.05% 0	f Vo Bated	Over 8 hour	s after 30 r	ninute war	n un consta	Intline Io	ad & Temp	erature	X	X
7 Temperature coefficient	PPM/°C	200 (0 02	% Vo Bater	1)/°C	-,						X	X
8 LIn-prog response time 0-Vomax full-load	mS	200 (0.02	/0 10 110100	<i></i>		100					X	X
9. Up-prog. response time, 0. Vomax, no load	mS					50					× ×	× ×
10. Transient response time (ev mode) (*2)	m6	Loop then	2									×
10. Transient response time (cv mode) ( 2)	1113	Less that	3.								^	^
1.2 CONSTANT CURRENT MODE												
1. Max. line regulation (0.1%lo Max≥333A; 0.05%<333A)	mA	1000	1000	800	500	400	333	125	100	83.5	Х	
2. Max. load regulation (0.1%lo Max≥333A; 0.075%<333A)	mA	1000	1000	800	500	400	333	188	150	125	Х	
1. Max. line regulation (0.1% lo Max>333A · 0.05%<333A)	mΑ									125		x
2 Max load regulation (0.1% to Max_2000A, 0.0076% -2020A)	mA									100		v
2. IVIA. IVAU TEGUIATION (U. 17010 IVIA.2003A; U.U/0%<003A)		E100	E400	0000	0000	1700	1700	100		100	~	^
3. Hipple r.m.s 5HZ~ IMHZ C.C	mA	5100	5100	2600	2600	1/00	1700	100	60	67	X	
3. Ripple r.m.s 5Hz~1MHz c.c	mA									100		Х
4. Temperature stability		±0.05% o	f lo Rated C	Over 8 hours	s, after 30 n	ninute warn	n up, consta	nt Line, Lo	ad & Tempe	erature	Х	Х
5. Temperature coefficient	PPM/°C	300 (0.03	% Io Rated	)/°C							Х	Х
13 PROTECTIVE FUNCTIONS												
1 OCP	%	0~100									X	X
	/0	Constant	current								X	X
2. Foldback protection		Output ch	ut down m	anual recet	by front na		tton				× ×	× ×
4. Foldback protection	 C	Loop thom		anuariesei	by none pa						× ×	×
	3	Less trial	hut dawa w		h hu On /0#						~	×
		Inverter s	nut-down, r	nanual rese		recycle or l	by OUT build	n		1	×	×
6. OVP programming accuracy	70	5% Full 5			-+ \ / - I+					1	×	×
	V	0.05 to (1.	02-1.05) X I	Rated Outpl	it voitage						X	X
8. OVP response time	ms	Less than	10mS for 0	Jutput to be	gin to drop.						X	X
9. Max. OVP reset time	S	7 from Tu	rn On.								Х	Х
10. Over temperature protection		Shut dow	n if internal	temperature	e exceeds s	afe operati	ng levels. (L	atched in S	Safe Mode/	Unlatched	х	х
		In Auto IVI	ode).									
11. Phase Loss Protection		Yes									Х	Х
1.4 REMOTE ANALOG CONTROLS & SIGNALS												
1. Vout voltage programming	0~100%,	0~5V or 0~	10V, user s	electable. A	ccuracy & L	inearity ±1	% of Rated	/o.			Х	Х
2. lout voltage programming	0~100%,	0~5V or 0~	10V, user s	electable. A	ccuracy & L	inearity ±1	% of Rated	0.			Х	Х
3. Vout resistor programming	0~100%,	0~5/10kohr	n full scale,	user select	able. Accura	acy & Linea	rity ±1% of	Rated Vo.			Х	Х
4. lout resistor programming	0~100%,	0~5/10kohr	n full scale,	user select	able. Accura	acy & Linea	rity ±1% of	Rated Io.			Х	Х
5. On/Off control (rear panel)	By Voltag	e: 0.6V = D	isable, 2-15	V = enable	(default) or	dry contac	t, user selec	table logic			Х	Х
6. Output current monitor	0~5V or 0	~10V. accu	racv:±1%. ι	user selecta	ble		/	Ŭ			Х	Х
7. Output voltage monitor	0~5V or 0	~10V. accu	racv:+1%, I	user selecta	ble						Х	х
8 Power supply OK signal	Yes TTI	high-OK 0	/ (500ohm i	mpedance)	-Fail						X	X
9. CV/CC signal	CV: TTL P	$\frac{1}{100} (4 \sim 5)/1$	source 10n	1A. CC. TTI	low (0~0 4	V), sink cu	rrent: 10mA				X	X
10 Enable/Disable	Dry conta	ct Open:of	f Short on	Max voltar	e at Enable	/Disable C	ontacts 6V				X	X
11 Bemote/Local selection	Selects R	emote or L	ocal operati	on by Voltag	ne: 0~0 6\//	2~15\/ ~04	SV = 1  ocal  2	-15V - Re	mote		X	X
12 Remote/Local signal	Signals	nerating mo	de in use		0.0 V/	,	200ul 2				X	X
	Olghaid d	perating me									A	X
I.5 FRONT PANEL	1											
1.Control functions	Vout/ lout	manual ad	just by sepa	arate encod	ers (coarse	and fine ad	ljustment se	lectable).			Х	Х
1.Control functions	Vout/ lout OVP/UVL	manual ad	just by sepa just by Volta	arate encode age Adjust e	ers (coarse encoder, Fro	and fine ac	ljustment se ock/Unlock	lectable).			X X	X X
1.Control functions	Vout/ lout OVP/UVL Address s	manual ad manual ad selection by	just by sepa just by Volta Voltage Ad	arate encod age Adjust e just encode	ers (coarse encoder, Fro r. No of ado	and fine ac ont Panel Lo Iresses:31	ljustment se ock/Unlock	lectable).			X X X	X X X
1.Control functions	Vout/ lout OVP/UVL Address s AC On/O	manual ad manual ad selection by f, Output O	just by sepa just by Volta Voltage Ad N/OFF, Res	arate encode age Adjust e just encode start Modes	ers (coarse encoder, Fro r. No of ado (Auto/Safe)	and fine ad ont Panel Lu Iresses:31 , Foldback	ljustment se ock/Unlock Control (CV	lectable). to CC), Go	o to Local		X X X X	X X X X
1.Control functions	Vout/ lout OVP/UVL Address s AC On/O RS232/48	manual ad manual ad selection by f, Output O 35 and IEEE	just by sepa just by Volta Voltage Ad N/OFF, Res 488.2 sele	arate encode age Adjust e just encode start Modes ction by IEE	ers (coarse encoder, Fro r. No of ado (Auto/Safe) E enable s	and fine ac ont Panel Lu Iresses:31 , Foldback witch and E	ljustment se ock/Unlock Control (CV DIP switch	lectable). to CC), Go	o to Local		X X X X X	X X X X X
1.Control functions	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate	manual ad manual ad selection by f, Output O 35 and IEEE selection:	just by sepa just by Volta Voltage Ad N/OFF, Res 488.2 sele 1200, 2400	arate encode age Adjust e just encode start Modes ction by IEE , 4800, 9600	ers (coarse encoder, Fro r. No of ado (Auto/Safe) E enable s 0 and 19,20	and fine ac ont Panel Lu Iresses:31 , Foldback witch and E 0, by curre	djustment se ock/Unlock Control (CV DIP switch nt adjust end	to CC), Go	o to Local		X X X X X X	X X X X X X
1.Control functions	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate Parallel M	manual ad manual ad selection by f, Output O 35 and IEEE selection: laster Slave	just by sepa just by Volta Voltage Ad N/OFF, Res 488.2 sele 1200, 2400, e:Hx, where	arate encode age Adjust e just encode start Modes ction by IEE , 4800, 9600 x = Slaves	ers (coarse encoder, Fro r. No of ado (Auto/Safe) E enable s 0 and 19,20 0 up to four	and fine ad ont Panel Lu Iresses:31 , Foldback witch and E 0, by curre	ljustment se ock/Unlock Control (CV DIP switch nt adjust end	lectable). to CC), Go coder.	o to Local		X X X X X X X	X X X X X X X
1.5 FROM PANEL      1.Control functions      2.Display	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate Parallel M Voltage: 4	manual ad manual ad selection by ff, Output O 35 and IEEE selection: laster Slave	just by sepa just by Volta Voltage Ad N/OFF, Res E488.2 sele 1200, 2400, ::Hx, where uracy: 0.5%	arate encode age Adjust e just encode start Modes ction by IEE , 4800, 9600 x = Slaves o of rated ou	ers (coarse encoder, Fro r. No of ado (Auto/Safe) E enable s 0 and 19,20 0 up to four tout Voltage	and fine ac ont Panel Li Iresses:31 , Foldback witch and E 0, by curre	djustment se pock/Unlock Control (CV DIP switch nt adjust ene	lectable). to CC), Go coder.	o to Local		X X X X X X X X	X X X X X X X X X
1.Control functions      2.Display	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate Parallel M Voltage: 4 Current: 4	manual ad manual ad selection by ff, Output O as and IEEE selection: laster Slave digits, Acc	just by sepa just by Volta Voltage Ad N/OFF, Res 488.2 sele 1200, 2400, 1:Hx, where uracy: 0.5% uracy: 0.5%	arate encode age Adjust e just encode start Modes ction by IEE , 4800, 9600 x = Slaves of rated ou	ers (coarse encoder, Fro r. No of ado (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tout curren	and fine ac ont Panel Li Iresses:31 , Foldback witch and E 0, by curre = = ±1 count. t ±1 count.	djustment se ock/Unlock Control (CV DIP switch nt adjust end	lectable). to CC), Go	o to Local		X X X X X X X X X	X X X X X X X X X
1.Control functions       2.Display	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate Parallel M Voltage: 4 Current: 4	manual ad manual ad selection by ff, Output O 55 and IEEE selection: laster Slave digits, Acc digits, Acc digita, Acc	just by sepa just by Volta Voltage Ad N/OFF, Res 488.2 sele 1200, 2400, 1200, 2500, 1200, 200, 1200, 200, 1000, 200, 1000, 200, 200, 1000, 200, 200, 200, 200, 200, 200, 200,	arate encode age Adjust e just encode start Modes ction by IEE , 4800, 9600 x = Slaves of rated ou wer supply (	ers (coarse ncoder, Fro r. No of ado (Auto/Safe) E enable s ) and 19,20 0 up to four tput Voltage tput Voltage tput curren local mode	and fine ac ont Panel Lu Iresses:31 , Foldback witch and E 0, by curre : = ±1 count. t ±1 count. ) or at load	djustment se pock/Unlock Control (CV DIP switch nt adjust end (remote mo	to CC), Go	o to Local		X X X X X X X X X X	X X X X X X X X X X
1. Control functions      2. Display	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate Parallel M Voltage: 4 Voltage: 4 Voltmeter	manual ad manual ad selection by f, Output O 85 and IEEE a selection: laster Slave d digits, Acc displays Vo WP/I/U/	just by sepa just by Volta Voltage Ad N/OFF, Res E488.2 sele 1200, 2400 ::Hx, where uracy: 0.5% uracy: 0.5% oltage at po	arate encode age Adjust e just encode start Modes ction by IEE 4800, 9600 x = Slaves of rated ou wer supply ( BEM // OCA	ers (coarse encoder, Fro r. No of ado (Auto/Safe) E enable s and 19,20 0 up to four tput Voltage tput voltage tput curren [local mode	and fine ac ont Panel Lu Iresses:31 , Foldback witch and E 0, by curre : = ±1 count. t ±1 count. ) or at load	ljustment se ock/Unlock Control (CV DIP switch nt adjust end (remote mo	to CC), Go coder. de).	o to Local		X X X X X X X X X X	X X X X X X X X X X
2.Display     3.Indications	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate Parallel M Voltage: 2 Current: 2 Voltmeter ADDR, C OTP FOI	manual ad manual ad selection by f, Output O 55 and IEEE selection: laster Slave digits, Acc displays Vc VVP/UVL, V D AC FAIL	just by sepa just by Volta Voltage Ad N/OFF, Res E488.2 sele 1200, 2400, ::Hx, where uracy: 0.5% uracy: 0.5% oltage at por /A, FOLD,	arate encode age Adjust e just encode start Modes ction by IEE 4800, 9600 x = Slaves o for rated ou wer supply ( REM./LOCA	ers (coarse encoder, Fro r. No of ado (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tput curren (local mode NL, OUT ON	and fine ad ont Panel Li Iresses:31 , Foldback witch and E 0, by curre = = ±1 count. t ±1 count. ) or at load	ljustment se ock/Unlock Control (CV )IP switch nt adjust end (remote mo	to CC), Go coder. de). /: GREEN	o to Local	RM (OVP,	X X X X X X X X X X X	X X X X X X X X X X X X
1. Control functions      2. Display      3. Indications	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate Parallel M Voltage: 4 Current: 4 Voltmeter ADDR., C OTP, FOL	manual ad manual ad selection by f, Output O 55 and IEEE selection: laster Slave digits, Acc digits, Acc digits, Acc displays Vo VP/UVL, V. D, AC FAIL	just by sepa just by Volta Voltage Ad N/OFF, Res 488.2 sele 1200, 2400. http://www.ener- uracy: 0.5% uracy: 0.5% httage at po /A, FOLD, http://www.ener- interventional http://www.ener- http://www.ener- http://www.ener- http://www.ener- http://www.ener- uracy: 0.5% http://www.ener- http://wwwww.ener- http://wwww	arate encode age Adjust e just encode start Modes ction by IEE , 4800, 9600 x = Slaves of rated ou wer supply ( REM./LOCA	ers (coarse encoder, Fro r. No of ado (Auto/Safe) E enable s E enable s E enable s 0 and 19,20 0 up to four tput Voltage tput voltage tput curren (local mode NL, OUT ON	and fine ac ont Panel Li Iresses:31 , Foldback witch and E 0, by curre : e ±1 count. t ±1 count. ) or at load I/OFF, LFP	ljustment se ock/Unlock Control (CV VIP switch nt adjust end (remote mo /UFP, CC/C	de).	o to Local	RM (OVP,	X X X X X X X X X X X X X	X X X X X X X X X X
I.S PROVI PANEL   I.Control functions   2.Display  3.Indications  I.6 DIGITAL PROGRAMMING & READBACK	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate Parallel M Voltage: 4 Current: 4 Voltmeter ADDR., C OTP, FOL	manual ad manual ad selection by f, Output O 5 and IEEE selection: laster Slave digits, Acc digits, Acc digplays Vc VP/UVL, V, D, AC FAIL	just by sepz just by Voltage Ad N/OFF, Res 2488.2 sele 1200, 2400. ::Hx, where uracy: 0.5% uracy: 0.5% uracy: 0.5% uracy: 0.5% uracy: 0.5%	arate encod age Adjust e just encode tart Modes ction by IEE , 4800, 9600 x = Slaves of rated ou wer supply ( REM./LOCA	ers (coarse encoder, Frc r. No of add (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tput curren (local mode LL, OUT ON	and fine ac nt Panel L Iresses:31 , Foldback witch and E 0, by curre : ≥ ±1 count. t ±1 count. ) or at load I/OFF, LFP	djustment se ock/Unlock Control (CV DIP switch nt adjust end (remote mo	lectable). to CC), Ga coder. de). V: GREEN	D to Local	im (ovp,	X X X X X X X X X X	X X X X X X X X X
1. Control functions      2. Display      3. Indications      1.6 DIGITAL PROGRAMMING & READBACK      1. Vout programming accuracy	Vout/ lout OVP/UVL Address & AC On/O RS232/48 Baud rate Parallel M Voltage: 4 Current: 4 Voltmeter ADDR., C OTP, FOL	manual ad manual ad selection by f, Output O 35 and IEEE selection: laster Slave digits, Acc digits, A	just by sepa just by Voltage Ad N/OFF, Res 488.2 sele 1200, 2400, :Hx, where uracy: 0.5% ultage at po /A, FOLD, ): RED LEC	arate encod age Adjust e just encode itart Modes ction by IEE 4800, 960( x = Slaves of rated ou wer supply ( REM./LOCA	ers (coarse nncoder, Fr r. No of adc (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tput curren (local mode L, OUT ON	and fine ac nt Panel L irresses:31 , Foldback witch and E 0, by curre : a ±1 count. t ±1 count. ) or at load //OFF, LFP	djustment se ock/Unlock Control (CV IIP switch nt adjust end (remote ma /UFP, CC/C	lectable). to CC), Go coder. de). V: GREEN	o to Local	IM (OVP,	X X X X X X X X X X	X X X X X X X X X X
	Vout/ lout OVP/UVL Address s AC On/O RS232/4 Baud rate Parallel M Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 5 Voltage: 6 Current: 4 Voltage: 6 Current: 4 Current: 4	manual ad manual ad selection by f, Output O 55 and IEEE selection: laster Slave digits, Acc digits, Acc digits, Acc digits, Acc displays V VVP/UVL, V, D, AC FAIL rated outpurated outpur	just by sepa just by Volta Voltage Ad N/OFF, Res 488.2 sele 1200, 2400, :HX, where uracy: 0.5% uracy: 0.5% uracy: 0.5% uracy: 0.5% turacy: 0.5% tura	arate encod age Adjust e just encode start Modes stion by IEE 4800, 960( x = Slaves o of rated ou wer supply ( REM./LOCP )	ers (coarse nncoder, Frr r. No of adc (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tput curren (local mode LL, OUT ON	and fine ad nt Panel L iresses:31 , Foldback witch and E 0, by curre 3 ±1 count. t ±1 count. ) or at load I/OFF, LFP -0.7% of ra	ijustment se ock/Uniock Control (CV IP switch nt adjust ene (remote mo r/UFP, CC/C	lectable). to CC), Go coder. de). V: GREEN urrent for lo	D to Local LED's. ALR	IM (OVP,	X X X X X X X X X X X X	X X X X X X X X X X X
	Vout/ lout OVP/UVL Address s AC On/O RS232/48 Baud rate Parallel N Voltage: 4 Voltage: 4	manual ad manual ad selection by f, Output O 55 and IEEE selection: laster Slave digits, Acc digits, A	just by sepa just by Volta Voltage Ad N/OFF, Res 488.2 sele 1200, 2400. :Hx, where uracy: 0.5% uracy: 0.5% uracy: 0.5% ltage at por /A, FOLD, ): RED LEC t voltage t voltage	arate encod age Adjust e just encode tart Modes ction by IEE 4800, 9600 x = Slaves o f rated ou wer supply ( REM./LOCA )	ers (coarse encoder, Fr r. No of adc (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltag tput voltag tput curren (local mode NL, OUT ON	and fine a ont Panel L resses:31 , Foldback witch and D 0, by curre : = ± 1 count. t ± 1 count. t ± 1 count. ) or at load I/OFF, LFP -0.7% of ra	ijustment se ock/Unlock Control (CV IP switch nt adjust enu (remote mo /UFP, CC/C <sup>1</sup> ted output c	lectable). to CC), Go coder. de). V: GREEN	D to Local LED's. ALR D≥1875	IM (OVP,	X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X
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 RS232/48 Baud rate Parallel N Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 OTP, FOL	manual ad manual ad selection by f, Output O 55 and IEEE selection: laster Slave digits, Acc digits, A	just by sepa just by Voltage Ad N/OFF, Res 488.2 sele 1200, 2400 ::Hx, where uracy: 0.5% uracy: 0.5% oltage at po /A, FOLD, :: RED LEC t voltage t current fo	arate encod just encode itart Modes ction by IEE 4800, 9600 x = Slaves of rated ou of rated ou wer supply ( REM./LOCA	ers (coarse ncoder, Fr r. No of adc (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tput curren local mode L, OUT ON	and fine a nr Panel L resses:31 , Foldback witch and E 0, by curre : = ±1 count. t ±1 count. t ±1 count. t ±1 count. UOFF, LFP -0.7% of ra	ijustment se ock/Unlock Control (CV IP switch nt adjust end (remote mo /UFP, CC/C' ted output c	lectable). to CC), Go coder. de). V: GREEN	o to Local LED's. ALR D≥187.5	IM (OVP,	X X X X X X X X X X X X X X	x x x x x x x x x x x x x x x x x x x
1. Control functions         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 RS232/48 Baud rate Parallel M Voltage: 4 Current: 4 Voltage: 4 Current: 4 Voltage: 6 OTP, FOL ±0.5% of ±0.5% of 0.02% of 0.04% of 0.04% of 0.04% of	manual ad manual ad selection by f, Output O 35 and IEEE selection: laster Slave digits, Acc digits, A	just by sepa just by Voltage Ad N/OFF, Res 488.2 sele 1200, 2400, :Hx, where uracy: 0.5% oltage at po /A, FOLD, ): RED LEC t voltage t current fol poutput volta	arate encod age Adjust e just encode tart Modes ction by IEE 4800, 960( x = Slaves of rated ou wer supply REM./LOCA	ers (coarse encoder, Fr r. No of adc (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tput curren [local mode L, OUT ON	and fine ac ont Panel L Iresses:31 , Foldback witch and E 0, by curre : = ±1 count. t ±1 count. J or at load //OFF, LFP	ijustment se ock/Unlock Control (CV IP switch nt adjust end (remote mo /UFP, CC/C)	lectable). to CC), Go coder. de). V: GREEN	0 to Local LED's. ALR 0 ≥187.5	IM (OVP,	X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X
	Vout/ lout OVP/UVL Address s AC On/O RS232/4 Baud rate Parallel № Voltage: 4 Current: 4 Voltmeter ADDR., C OTP, FOL ±0.5% of ±0.5% of 0.02% of 0.02% of 0.04% of 0.01%+0.4	manual ad manual ad selection by f, Output O 55 and IEEE selection: laster Slave digits, Acc digits, A	just by sepa just by Voltage Ad N/OFF, Res 488.2 sele 1200, 2400, :HX, where uracy: 0.5% uracy: 0.5% u	arate encod age Adjust e just encode itart Modes ction by IEE 4800, 960( x = Slaves of rated ou o of rated ou wer supply i REM./LOCA	ers (coarse ncoder, Fr r. No of adc (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tput curren local mode LL, OUT ON	and fine a nt Panel L Iresses:31 , Foldback witch and E 0, by curre ≥ ±1 count. t ±1 count. ) or at load //OFF, LFP -0.7% of ra	ijustment se ock/Uniock Control (CV IP switch nt adjust ene (remote mo r/UFP, CC/C' ted output c	lectable). to CC), Go coder. de). V: GREEN urrent for lo	D to Local LED's. ALR D≥187.5	IM (OVP,	X X X X X X X X X X X X X X X X X X X	x x x x x x x x x x x x x x x x x x x
	Vout/ lout OVP/UVL Address s AC On/O RS232/44 Baud rate Parallel N Voltage: 4 Current: 4 Voltage: 4 Voltage: 4 Voltage: 4 OTP, FOL ±0.5% of 0.02% of 0.04% of 0.1%+0.2 0.1%+0.4 0.1%+0.4	manual ad manual ad selection by f, Output O 55 and IEEE selection: laster Slave digits, Acc digits, Acc digits, Acc digits, Acc digits, Acc digits, Acc displays Vc VP/UVL, V. D, AC FAIL rated outpur full scale % of rated of full scale	just by sepa just by Voltage Ad Voltage Ad N/OFF, Res 488.2 sele 1200, 2400, ::Hx, where uracy: 0.5% uracy: 0.5% uracy: 0.5% uracy: 0.5% tracy: 0.5% t	arate encod age Adjust e just encode tart Modes ction by IEE 4800, 9600 x = Slaves o f rated ou wer supply ( REM./LOCA ) r units with 1 ge	ers (coarse encoder, Fr r. No of adc (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltag tput voltag tput voltag tput curren (local mode NL, OUT ON	and fine ac ont Panel L resses:31 , Foldback witch and D 0, by curre - - - - - - - - - - - - - - - - - -	ijustment se ock/Unlock Control (CV IP switch nt adjust ene (remote mo /UFP, CC/C' ted output c	lectable). to CC), Go coder. de). V: GREEN	D to Local LED's. ALR D≥1875	IM (OVP,	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X
1. Control functions      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 s AC On/O RS232/48 Baud rate Parallel N Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 OTP, FOL ±0.5% of 0.02% of 0.02% of 0.02% of 0.02% of	manual ad manual ad selection by f, Output O S5 and IEEE selection: laster Slave digits, Acc displays Vc VVP/UVL, V. D, AC FAIL rated output rated output full scale % of rated of % of rated full scale full scale	just by sepa just by Voltage Ad N/OFF, Res 488.2 sele 1200, 2400. ::Hx, where uracy: 0.5% uracy: 0.5% uracy: 0.5% uracy: 0.5% uracy: 0.5% turacy: 0.	arate encod age Adjust e just encode tart Modes ction by IEE 4800, 9600 x = Slaves o of rated ou wer supply ( REM./LOC# ) r units with 1 ge ent	ers (coarse ncoder, Fr r. No of adc (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tput curren local mode L, OUT ON	and fine a nr Panel L resses:31 , Foldback witch and [] 0, by curre : 2 ±1 count. ±1 count. ±1 count. ) or at load I/OFF, LFP -0.7% of ra	ijustment se ock/Unlock Control (CV IP switch nt adjust end (remote mo /UFP, CC/C' ted output c	lectable). to CC), Go coder. de). V: GREEN	D to Local LED's. ALR D≥187.5	IM (OVP,	X X X X X X X X X X X X X X X X X X X	x x x x x x x x x x x x x x x x x x x
1. Control functions      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      9. OV Response time	Vout/ lout OVP/UVL Address : AC On/O RS232/48 Baud rate Parallel N Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 OTP, FOL 007% of 0.02% of	manual ad manual ad reneation by f, Output O 55 and IEEE selection: laster Slave digits, Acc digits, A	just by sepa just by Voltage Ad N/OFF, Res 488.2 sele 1200, 2400. ::Hx, where uracy: 0.5% uracy: 0.5% uracy: 0.5% litage at poi /A, FOLD, ): RED LEC t voltage t voltage t voltage t voltage utput volta putput volta putput volta utput current ween outpu	arate encod age Adjust e just encode tart Modes ction by IEE 4800, 960( x = Slaves of rated ou wer supply ( REM./LOCA ) r units with I ge ent	ers (coarse ncoder, Fr r. No of adc (Auto/Safe) E enable s 0 and 19,20 0 up to four tput Voltage tput curren local mode L, OUT ON	and fine ac ont Panel L resses:31 , Foldback witch and E 0, by curre : = ±1 count. t ±1 count. t ±1 count. t ±1 count. t ±1 count. t 1 count. t 1 count. t -0.7% of ra	ijustment se ock/Unlock Control (CV IP switch nt adjust end (remote mo /UFP, CC/C' ted output c	lectable). to CC), Go coder. de). V: GREEN urrent for lo ming on.	D to Local	IM (OVP,	X X X X X X X X X X X X X X X X X X X	x x x x x x x x x x x x x x x x x x x

## Genesys<sup>™</sup> 3U 10/15kW Specifications

												10kW	15kW
1.0 MODEL	GEN	80-125	100-100	125-80	150-66	200-50	250-40	300-33	400-25	500-20	600-17	X	
2 Rated Output Voltage		125	100	125	150	200	250	300	400	20	17	X	
3.Bated Output Power	kW	10.0	10.0	10.0	9.9	10.0	10.0	9.9	10.0	10.0	10.2	x	
4.Efficiency (min) at low line, 100% Rated Load	%					8	3					X	
1.0 MODEL	GEN	80-187.5	100-150	125-120	150-100	200-75	250-60	300-50	400-37.5	500-30	600-25		Х
1.Rated Output Voltage	V	80	100	125	150	200	250	300	400	500	600		Х
2.Rated Output Current	А	187.5	150	120	100	75	60	50	37.5	30	25		Х
3.Rated Output Power	kW	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0		Х
4.Efficiency (min) at low line, 100% Rated Load	%					8	8						Х
1.1 CONSTANT VOLTAGE MODE	<u> </u>			<u> </u>	ontact Fac	ctory for oth	ner models					<u> </u>	
1. Max. line regulation (0.1% Vo Max≤30V; 0.01%>30V)	mV	8	10	12.5	15	20	25	30	40	50	60	X	X
2. Max. load regulation (0.1% vo Max $\leq$ 30V; 0.02%>30V) 3. Bipple r m s 5Hz~1MHz c v (*1)	mv mV	25	20	25	25	35	35	60	<u> </u>	60	60	X	X
4. Output noise p-p(20MHz) c.v (*1)	mV	100	100	125	150	175	200	200	300	350	350	X	X
5.Remote sense compensation/wire	V	4	5	5	5	5	5	5	5	5	5	Х	Х
6. Temperature stability		±0.05% c	of Vo Rated	d Over 8 ho	urs, after 3	0 minute w	arm up, co	onstant Lir	ne, Load & T	emperatu	re	X	X
8. Up-prog. response time. 0~Vomax full-load	mS	200 (0.02	2% VO Hale	eu)/°C		10	0					X	X
9. Up-prog. response time, 0~Vomax, no load	mS					50	0					X	X
10. Transient response time (cv mode) (*2)	mS	Less thar	n 3.									X	Х
1.2 CONSTANT CURRENT MODE													
1. Max. line regulation (0.1%lo Max≥333A; 0.05%<333A)	mA	62.5	50	40	33	25	20	17	13	10	9	X	
2. Max. load regulation (0.1%lo Max≥333A; 0.075%<333A)	mA	94	75	60	50	38	30	25	19	15	13	X	
1. Max. line regulation (0.1% lo Max≥333A; 0.05%<333A)	mA	94	75	60	50	38	30	25	19	15	13		X
2. Max. load regulation (0.1% lo Max $\geq$ 333A; 0.075%<333A) 3. Bipple rm s 5Hz-1MHz c c	mA mA	50	40	90	26	20	45	38	10	23	19 7	x	X
3. Ripple r.m.s 5Hz~1MHz c.c	mA	100	100	50	50	20	20	20	10	10	10		Х
4. Temperature stability		±0.05% c	of Io Rated	Over 8 hou	Irs, after 3	0 minute wa	arm up, co	nstant Lin	e, Load & Te	emperatur	e	Х	X
5. Temperature coefficient	PPM/°C	300 (0.03	3% Io Rate	d)/°C								X	Х
1.3 PROTECTIVE FUNCTIONS													
1. OCP	%	0~100		-								X	Х
2. OCP type		Constant	current				hutten					X	X
A Foldback response time	 S	Less that	iut down, i n 1	nanual rese	et by front	panel OUT	bullon.					X	X
5. OVP type		Inverter s	hut-down,	manual res	et by On/0	Off recycle	or by OUT	button				X	X
6. OVP programming accuracy	%	5% Full S	Scale				,					х	Х
7. OVP trip point	V	0.05 to (1	.02-1.05) >	Rated Out	put Voltage	Э						Х	Х
8. OVP response time	mS	Less that	10mS for	Output to b	begin to dr	op.						X	X
10. Over temperature protection		Shut dow	n if interna	al temp. exc	eeds safe	operating l	evels. (Lat	ched in Sa	afe Mode/ U	nlatched ir	n Auto	x	x
11. Phase Loss Protection		Yes										Х	Х
1.4 REMOTE ANALOG CONTROLS & SIGNALS													
1. Vout voltage programming	0~100%,	0~5V or 0~	10V, user	selectable.	Accuracy &	& Linearity	±1% of Ra	ted Vo.				Х	Х
2. lout voltage programming	0~100%,	0~5V or 0~	10V, user	selectable.	Accuracy a	& Linearity	±1% of Ra	ted lo.				X	X
3. Vout resistor programming	0~100%,	0~5/10kohi	m full scale	e, user sele	ctable. Acc	uracy & Lir	nearity ±1°	6 of Ratec	d Vo.			X	X
5. On/Off control (rear panel)	By Voltag	e: 0.6V = D	isable, 2-1	5V = enabl	e (default)	or dry con	tact. user s	electable	logic			x	X
6. Output current monitor	0~5V or 0	~10V, accu	racy:±1%	user selec	table							X	X
7. Output voltage monitor	0~5V or 0	)~10V, accu	uracy:±1%	, user seled	ctable							Х	Х
8. Power supply OK signal	Yes. TTL	high-OK, 0	V (500ohm	impedance	e)-Fail	0.410		) A				X	X
9. CV/CC signal	CV: IIL r	nigh (4~5V)	source 10	mA, CC: I	L low (0~	0.4V), SINK	Contacts	MA.				X	X
11. Remote/Local selection	Selects R	emote or L	ocal opera	tion by Volt	age: 0~0 €	SV/2~15V. <	<0.6V = Lo	cal 2-15V	= Remote			x	x
12. Remote/Local signal	Signals o	perating m	ode in use									Х	Х
1.5 FRONT PANEL													
1.Control functions	Vout/ lout	manual ac	ljust by se	parate enco	ders (coar	se and fine	e adjustme	nt selectal	ble).			Х	Х
	OVP/UVL	manual ac	ljust by Vo	Itage Adjust	encoder,	Front Pane	l Lock/Unl	ock				X	X
	Address s	Selection by	ON/OFE I	ajust encod	ier. No of a	addresses:	3 I Dack Contr	ol (C)/ to (	C) Go to I	ocal		×	X
	RS232/48	B5 and IEE	E488.2 sel	ection by IE	EE enable	e switch an	d DIP swit	ch	5C), GO IO L	Jucai		- Â	X
	Baud rate	selection:	1200, 240	0, 4800, 96	00 and 19	200, by cu	rrent adjus	t encoder.				X	X
	Parallel N	laster Slave	e:Hx, wher	e x = Slave	s 0 up to f	our.						Х	Х
2.Display	Voltage: 4	digits, Acc	uracy: 0.5	% of rated of	output Volt	age ±1 cou	int.					X	Х
	Current: 4	digits, Acc	uracy: 0.5	% of rated (	utput curr	ent ±1 cou	nt. ad (romot	a modo)				X	X
3.Indications	Voltmeter displays Voltage at power supply (local mode) or at load (remote mode).												
	FOLD, AC	FAIL): RE	D LED		,	0.001.1,2	, e, e			/ 12/ 11/ (0	, e,	Х	Х
1.6 DIGITAL PROGRAMMING & READBACK													
1. Vout programming accuracy	±0.5% of	rated outpu	ut voltage									Х	Х
2. lout programming accuracy	±0.5% of	rated outpu	ut current f	or units with	n lo<187.5;	+/-0.7% of	rated out	out current	t for lo ≥187.	5		X	X
A lout programming resolution	0.02% of	full scale										X	X Y
5. Vout readback accuracy	0.1%+0.2	% of rated	output vol	tage								x	X
6. lout readback accuracy	0.1%+0.4	% of rated	output cur	rent								X	X
7. Vout readback resolution	0.02% of	full scale										Х	Х
8. lout readback resolution	0.02% of	full scale					• • •					X	Х
9. UV Response time	20 mS ma	Voltage Lin	ween out	out V excee	aing OVP	∟imit and s	upply inhit	oit turning	on.				X
	Set Over-	vollage LIN	mi, Sei LO										

# TDK·Lambda |14

### General Specifications 3U Genesys<sup>™</sup> 10/15kW

2.1 INPUT CHARACTERISTICS		
1. Input voltage/freq.(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
4. Input current 180/360/432Vac	A	10kW - 45/23/20; 15kW - 64/32/27 All at full rated output power.
5. Inrush current	Α	Not to exceed full rated Input current See Para. 2.4
6. Power Factor		0.88 Passive
7. Leakage Current	mA	3.5 (EN60950) max.
8. 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 SUPPLY CONFIGURATION		

1. Parallel Ope

ration	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 front panel of Master unit. Remote analog current monitor of the Master is scaled to output current of the Master unit (only).
ration	Possible (with external diodes), up to two identical units with total output not to exceed +/-600V from chassis ground.

#### 2.3 ENVIRONMENTAL CONDITIONS

1. Operating temperature	0~50°C, 100% load.
2. Storage temperature	-20~70°C
3. Operating humidity	20~80% RH (non-condensing).
4. Storage humidity	10~90% RH (non-condensing).
5. Vibration & Shock	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: 12 - Air (intercity) and motor freight (local), unitized is used
6. Altitude	Operating: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 Full Load, measured 1m from Front Panel

#### 2.4 EMC

2. Series Oper

1. 208 Volt Input Models	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 Volt Input Models	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. Voltage Dips, Short Interruptions and Voltage Variations Immunity Tests (400VAC Only).	IEC 61000-4-11
8. Conducted emission	EN55011A, FCC part 15J-A
0. Redicted emission	ENEE011A ECC part 15 LA

#### 2 5 SAFETV

10 0/0 11	
1.Applicable standards:	UL/CUL 60950-1, EN60950-1 recognized. Vout=<40V: Output is SELV, IEEE/Isolated Analog/LAN/USB are SELV 40 <vout=<400v: analog="" are="" hazardous;="" ieee="" is="" isolated="" lan="" output="" selv<br="" usb="">400<vout=<600v: &="" (cb="" 208="" 400vac="" analog="" are="" ce="" hazardous;="" ieee="" inputs="" is="" isolated="" lan="" mark="" not="" only="" output="" scheme)<="" selv,="" th="" usb=""></vout=<600v:></vout=<400v:>
2. Withstand Voltage	Vout =<60V models :Input-Ground: 2818VDC 1 min, Input-Outputs (SELV): 4242VDC 1min, Output -Ground: 1000VDC 1min. 60 <vout 1="" 1min,="" 1min.<br="" 2828v="" 2828vdc="" 3535vdc="" =<300v="" dc="" input-ground:="" input-haz.="" input-selv:="" min,="" models:="" output:="">Hazardous OutputSELV: 2121VDC 1min, Hazardous Output-Ground: 2121VDC 1min. 300<vout 1="" 1min,="" 1min.<br="" 2828vdc="" 3535="" =<600v="" input-ground:="" input-haz.="" input-selv:="" min,="" models:="" output:="">Hazardous OutputSELV: 2688VDC 1 min, Hazardous Output-Ground: 2688VDC 1 min</vout></vout>
3.Insulation resistance	100Mohm at 500Vdc

2.6 MECHANICAL 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. Dimensions (WxHxD)	W: 429mm / 16.9", H:3U - 133mm / 5.22", D - 564mm / 22.2", excluding connectors, encoders, handles, etc.
3. Weight	43kg. / 97lbs
4. AC Input connector (with Protective Cover)	3 x M6 x 1"Threaded Studs and terminal cover. Strain relief optional.
5.Output connectors	Up to and including 300V Models: bus-bars. Greater than 300V Models: threaded stud terminals
6.Control connectors	Analog programming: DB25, plastic connector, AMP747461-5, Female on Supply, Male on Mating connector 747321. Std 25 pin D connector.
7. Mounting method	Standard 19" Rack Mount, provision for standard slides. Side/Rear Support is required; do not mount by F/P only.
8. Output ground connection	M5 Stud

2.7 WARRANT 1. Warranty

5 years.

\*1. Ripple and Noise at Full Rated Voltage & Load at 25C, Nominal Line. Per EIJ R9002A

\*2. Time for the rated output voltage to recover within 2% for a load change of 50~100% or 100~50% of rated output.

All specifications subject to change without notice.



## Genesys<sup>™</sup> Power Parallel and Series Configurations

#### Parallel operation - Master/Slave:

Active current sharing allows up to four identical units to be connected in an auto-parallel configuration for four times the output power. In Advanced Parallel Master/Slave Mode, total current is programmed and reported by the Master, Up to four supplies act as one.

#### Series operation

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

### Remote Programming via RS-232 & RS-485 Interface

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





## 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 MD Slave (RS-485) function

### Isolated Analog Programming

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

#### **LXI** Compliant to Class C LAN Interface

- Meets all LXI-C Requirements
- Address Viewable on Front Panel Fixed and Dynamic Addressing
- Fast Startup

### **USB** Interface

- Allows Serial Connection to USB Port on Computer
- Serial commands same as (standard) RS-232/RS-485 Interface





P/N: IEMD

**P/N: N/A** 

 Program Current Measure Current Current Foldback shutdown

P/N: IS510 P/N: IS420

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

P/N: USB



### Genesys<sup>™</sup> GENH Mounting Accessories

### **Rack Mounting Applications**

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

### Single unit installation

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

### **Dual unit installation**

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

### **Benchtop applications**

### P/N: GENH/MO

P/N: GENH/RM

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

### AC Cord Sets for GENH and GEN750W 1U Models Only

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

### Communication cable (all models)

RS-232/RS-485 Cable is used to connect the power supply to the PC Controller.

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

### Serial link cable\* (all models)

Daisy-chain up to 31 Genesys<sup>™</sup> power supplies.

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

\* Included with power supply



## Outline Drawings Genesys<sup>™</sup> GENH 750W







NOTE 1



GENH Models 80V to 600V.



ALL DE LA CALLER

### NOTES:

- 1. Bus-bars 6V to 60V models Plug Connector 80V to 600V model Header Phoenix P/N: GIC 2.5/4-G-7.62 Mating plug Phoenix P/N: GIC 2.5/4-ST-7.62
- 2. Mating plug Phoenix P/N: MC1.5/5-ST-3.81 3. Mating plug AMP P/N: 745211-2
- Mating plugs supplied with power supply. 4. Benchtop assembly x 2 (removable) Screws: 4 x M3x8 marked "A"
- Supplied with the power supply.

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### Outline Drawings Genesys<sup>™</sup> GEN 750/1500W 1U



#### NOTES:

- 1. Plug connectors included with the Power Supply
- 2. Chassis slide mounting holes #10-32 market "A", General Devices P/N: CC301-00-S160 or equivalent
- 3. Bus-bars 6V to 60V models, Wire clamp connector for 80V to 600V models

### Outline Drawings Genesys<sup>™</sup> GEN 3.3/5kW 2U



#### 1. Bus bars for 8V to 100V models (shown), Wire clamp connector for 150V to 600V models

2. Plug connectors included with the power supply

3. Chassis slides mounting holes #10-32 marked "A", General Devices P/N: C-300-S-116 or equivalent

NOTES:

## Outline Drawings Genesys<sup>™</sup> GEN 10/15kW 3U







- Bus bars for models up to 30VDC Output two holes 0.42" Dia (10.72mm) 1.
- 2. Bus bars for models 40-300VDC 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.



#### How to order GENH Half Rack 1U 750W CENH 60 12 5

GENH	_00_	- 12.5	-	
Series Name	Output Voltage (0~60V)	Output Current (0~12.5A)	Factory Optio Option:	IEMD IS510 IS420 I AN
				LAN

USB

USB

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

### Models GENH750W

Model	Output Voltage (VDC)	Output Current (A)	Output Power (W)
GENH6-100	0~6	0~100	600
GENH8-90	0~8	0~90	720
GENH12.5-60	0~12.5	0~60	750
GENH20-38	0~20	0~38	760
GENH30-25	0~30	0~25	750
GENH40-19	0~40	0~19	760

Model	Output Voltage (VDC)	Output Current (A)	Output Power (W)
GENH60-12.5	0~60	0~12.5	750
GENH80-9.5	0~80	0~9.5	760
GENH100-7.5	0~100	0~7.5	750
GENH150-5	0~150	0~5	750
GENH300-2.5	0~300	0~2.5	750
GENH600-1.3	0~600	0~1.3	780

#### How to order GEN Full Rack 1U 750/1500W ----

GEN	60	- 25	
			Factory Options
Series Name	Output Voltage (0~60V)	Output Current (0~25A)	Option: IEMD IS510 IS420 I AN

### Models GEN750/1500W

Model	Output Voltage (VDC)	Output Current (A)	Output Power (W)
GEN6-100	0.6	0~100	600
GEN6-200	0~0	0~200	1200
GEN8-90	0.9	0~90	720
GEN8-180	0~0	0~180	1440
GEN12.5-60	0 10 5	0~60	750
GEN12.5-120	0~12.5	0~120	1500
GEN20-38	0.20	0~38	760
GEN20-76	0~20	0~76	1520
GEN30-25	0.20	0~25	750
GEN30-50	0~30	0~50	1500
GEN40-19	0.40	0~19	760
GEN40-38	0~40	0~38	1520
GEN50-30	0~50	0~30	1500

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

AC Cable Option for 750W models only

Model	Output Voltage (VDC)	Output Current (A)	Output Power (W)
GEN60-12.5	0.60	0~12.5	750
GEN60-25	0~60	0~25	1500
GEN80-9.5	0.90	0~9.5	760
GEN80-19	0~80	0~19	1520
GEN100-7.5	0 100	0~7.5	750
GEN100-15	0~100	0~15	1500
GEN150-5	0 150	0~5	750
GEN150-10	0~150	0~10	1500
GEN300-2.5	0, 200	0~2.5	750
GEN300-5	0~300	0~5	1500
GEN600-1.3	0,600	0~1.3	780
GEN600-2.6	0~800	0~2.6	1560

-IEMD Standard IS510 IS420 LAN USB

#### Factory options (all Genesys<sup>™</sup> models) P/N

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 🕅 Class C)			
USB Interface			

How to order GEN3.3/5kW 2U CEN Q 600

GLN	0	- 000	- <u> </u>
			Facto
Series	Output	Output	Opt
Name	Voltage	Current	•
	$(0 \sim 8V)$	(0~600A)	
	(0 0.)	(0 000.)	

### Models GEN3.3/5kW

Model	Output Voltage (VDC)	Output Current (A)	Output Power (W)
GEN8-400	0.9	0~400	3200
GEN8-600	0~0	0~600	4800
GEN10-330	0 10	0~330	3300
GEN10-500	0~10	0~500	5000
GEN15-220	0 15	0~220	3300
GEN15-310	0~15	0~310	4650
GEN20-165	0.20	0~165	3300
GEN20-250	0~20	0~250	5000
GEN30-110	0.20	0~110	3300
GEN30-170	0~30	0~170	5100
GEN40-85	0.40	0~85	3400
GEN40-125	0~40	0~125	5000

### How to order GEN10/15kW 3U

<u>GEN</u>	10	- <u>1000</u>	
Series Name	Output Voltage (0~10V)	Output Current (0~1000A)	Factory Opti

### Models GEN10/15kW

Model	Output Voltage (VDC)	Output Current (A)	Output Power (kW)
GEN7.5-1000	0~7.5	0~1000	7.5
GEN10-1000	0~10	0~1000	10
GEN12.5-800	0~12.5	0~800	10
GEN20-500	0~20	0~500	10
GEN25-400	0~25	0~400	10
GEN30-333	0~30	0~333	10
GEN40-250	0~40	0~250	10
GEN50-200	0~50	0~200	10
GEN60-167	0.60	0~167	10
GEN60-250	0~60	0~250	15
GEN80-125	0.90	0~125	10
GEN80-187.5	0~80	0~187.5	15
GEN100-100	0 100	0~100	10
GEN100-150	0~100	0~150	15
GEN125-80	0 125	0~80	10
GEN125-120	0~125	0~120	15

ory Options tion: IEMD IS510 IS420 LAN USB

AC Input Options 1P230 (Single Phase 230VAC)\* 3P208 (Three Phase 208VAC) 3P400 (Three Phase 400VAC)

\*Only available on 3.3kW models

Model	Output Voltage (VDC)	Output Current (A)	Output Power (W)
GEN60-55	0,60	0~55	3300
GEN60-85	0~60	0~85	5100
GEN80-42	0.90	0~42	3360
GEN80-65	0~80	0~65	5200
GEN100-33	0 100	0~33	3300
GEN100-50	0~100	0~50	5000
GEN150-22	0 150	0~22	3300
GEN150-34	0~150	0~34	5100
GEN300-11	0, 200	0~11	3300
GEN300-17	0~300	0~17	5100
GEN600-5.5	0,600	0~5.5	3300
GEN600-8.5	0~800	0~8.5	5100

v Options ion: IEMD IS510 IS420 LAN

USB

AC Input Options 3P208 (Three Phase 208VAC) 3P400 (Three Phase 400VAC) 3P480 (Three Phase 480VAC)

Model	Output Voltage (VDC)	Output Current (A)	Output Power (kW)
GEN150-66	0 150	0~66	10
GEN150-100	0~150	0~100	15
GEN200-50	0, 200	0~50	10
GEN200-75	0~200	0~75	15
GEN250-40	0.250	0~40	10
GEN250-60	0~250	0~60	15
GEN300-33	0, 200	0~33	10
GEN300-50	0~300	0~50	15
GEN400-25	0,400	0~25	10
GEN400-37.5	0~400	0~37.5	15
GEN500-20	0 500	0~20	10
GEN500-30	0~500	0~30	15
GEN600-17	0,600	0~17	10
GEN600-25	0~800	0~25	15



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