New! 800V, 1000V, 1250V and 1500V models - 10kW/15kW

Genesy

Programmable DC Power Supplies 10kW/15kW in 3U Built in RS-232 & RS-485 Interface **Advanced Parallel Operation**

Optional Interfaces: LXI Compliant LAN **GPIB (IEEE 488.2 & SCPI Compliant)** Isolated Analog Program/Monitor



Genesys™ Family

GEN H 750W Half-Rack

GEN 1U 750W/1500W/2400W Full-Rack

GEN 2U 3.3kW/5kW GEN 3U 10kW/15kW

TDK·Lambda

www.us.tdk-lambda.com/hp

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

Features include:

- High Power Density 10kW/15kW in 3U package
- High Output Current up to 1000ADC
- Wide Range of popular worldwide 3Φ AC inputs, (208VAC, 400VAC, 480VAC)
- Power Factor 0.88 (Passive PFC on all AC Inputs)
- Output Voltage up to 1500V; Output Current up to 1000A
- Built-in RS-232/RS-485 Interface Standard
- Last Setting Memory; Front Panel Lockout
- "Advanced Parallel" configuration reports total system current (up to four identical units)
- Global Commands for Serial RS-232/RS-485 Interface
- Continuous Encoders for Voltage and Current Adjustment
- Independent Remote ON/OFF and Remote ENABLE/DISABLE
- Reliable Modular and SMT Design
- 19" Rack Mounted for ATE and OEM Applications, zero-stack
- Optional Interfaces

Compliant LAN (Class C)

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

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



Applications

GenesysTM power supplies are designed for demanding applications.

Test & Measurement systems using GPIB control save significant costs by incorporating the optional IEEE Multi-Drop Interface (IEMD) in the Master unit. Then up to 30 Slave units may be used with the standard RS-485 Multi-Drop-interface.

Automated System designers will appreciate new, standard, remote programming features such as Global commands. Also, new high-speed status monitoring is available for the RS-485 bus as well as the optional LAN (LXI compliant) Interface.

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

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

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

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

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

Front Panel Description



- 1. AC ON/OFF Switch
- 2. Air Intake allows zero stacking for maximum system flexibility and power density.
- 3. Continuous encoder controls Output Voltage, Address, OVP and UVL settings.
- 4. Voltage Display shows Output Voltage and directly displays OVP, UVL and Address settings.
- 5. Continuous encoder controls Output Current, sets Baud rate and Advanced Parallel mode.
- 6. Current Display shows Output Current and displays Baud rate. Displays total current in Parallel Master/Slave Mode.
- 7. Function/Status LEDs:
 - Alarm
- Fine Control
- Preview Settings

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

Rear Panel Description



- 1. Remote/Local Output Voltage Sense Connections.
- 2. DIP Switches select 0-5V or 0-10V Programming and other functions.
- 3. DB25 (Female) connector allows Analog Program and Monitor (non-isolated) and other functions.
- 4. RS-485 OUT to other Genesys™ Power Supplies.
- 5. RS-232/RS-485 IN Remote Serial Programming.
- 6. Output Connectors: Rugged 2 hole busbars (shown) for models < 30V Output, single hole busbars for 30V to 300V Output, and threaded-stud terminals for models > 300V Output.
- 7. Exit air assures reliable operation when zero stacked.
- 8. Input Terminals L1, L2, L3, and Ground (threaded studs).
- 9. Optional Interface Position for LAN (LXI Class C), GPIB (IEEE 488.2 SCPI) or Isolated Analog Interface.

LAN Interface complies with LXI Class C Specification

Genesvs ™	3 <i>U</i>	10kW	Speci	ficati	ons
GELLESVS		IUNVI	JUEGI	IIGali	Ulla

I.0 MODEL	GEN	7.5-1000	10-1000	12.5-800	20-500	25-400	30-333	40-250	50-200	60-167	80-125	100-100	125-80	1
1.Rated Output Voltage	VDC	7.5	10	12.5	20	25	30	40	50	60	80	100	125	+
.Rated Output Voltage	ADC	1000	1000	800	500	400	333	250	200	167	125	100	80	+
B.Rated Output Power	kW	0.75	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		+
Efficiency (min) at low AC line, 100% Rated Load	%	77	10.0	10.0	10.0	10.0	10.0	83	10.0	10.0	10.0	10.0	10.0	+
Elliciency (min) at low AC line, 100% Rated Load	70	77	l		C	ontact Fa	ctory for o		ale					+
1 CONSTANT VOLTAGE MODE (CV)						ornaot r a	otory for c	oution titloo	010					
Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤)/	7.5	40	40.5		05						40	40.5	Т
00V; 0.05% - 600V < Vor ≤ 1500V)	mV	7.5	10	12.5	20	25	30	4	5	6	8	10	12.5	
. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤	mV	7.5	10	12.5	20	25	30	8	10	12	16	20	25	1
00V; 0.1% - 600V < Vor ≤ 1500V)												05	- 05	+
Ripple, rms, 5Hz~1MHz, CV (*1)	mV	20	20	20	20	20	20	20	20	20	25	25	25	+
Output Noise, p-p, (20MHz), CV (*1)	mV V	60 1	60 1	60	60 1	60	60 1.5	60 2	75 3	75 3	100	100 5	125 5	+
.Remote Sense Compensation / Wire .Temperature Stability											Temperatu		5	+
Temperature Gability Temperature Coefficient	ppm / °C			of Vo Rate		ter 30 mil	iule waiii	rup (cons	starit Line	, LUAU &	remperati	116)		+
. Up-Prog. Response Time, 0 ~ Vomax, full-load	+ · · ·	± 200 (±	£ 0.02 % C	I VO Hale	u) / C			100						+
	ms							50						+
. Up-Prog. Response Time, 0~Vomax, no-load	ms													+
0. Transient Response Time (CV mode) (*2)	ms						Les	s than 3						_
2 CONSTANT CURRENT MODE (CC)														_
Max. Line Reg. (0.1% - Ior ≥ 333A; 0.050% - 17A < Ior < 33A; 0.15% - Ior < 17A)	mA	1000	1000	800	500	400	333	125	100	83.5	62.5	50	40	
. Max. Load Reg (0.1% - $lor \ge 333A$; 0.075% - 17A $\le lor < 33A$; 0.2% - $lor < 17A$) (*3)	mA	1000	1000	800	500	400	333	188	150	125	94	75	60	T
. Ripple rms, 5Hz~1MHz, CC	mA	5300	4000	2560	1000	640	444	250	160	67	50	40	32	Ť
. Temperature Stability		± 0.05%	of lo(rate	ed) over 8	hours aft	er 30 min	ute warm	up (cons	tant Line,	Load & T	emperatu	re)		J
. Temperature Coefficient	ppm/°C	± 300 (±	± 0.03% c	f Io Rated	d) / °C									I
3 PROTECTIVE FUNCTIONS														_
OCP	%	0 ~ 100												Т
. OCP type			nt current											+
Foldback Protection (FOLD)				; Manual i	reset by fr	ont panel	OUT but	ton or Dia	ital comn	nunication	ı, user-sel	ectable		†
- Foldback Response Time	S			= 0.25 / N										\dagger
OVP type											g or Digita	al commuino	ation	†
OVP Programming Accuracy	%		Vo(rated)				2,000,		,		19140			†
OVP Trip Point	V				for Vor ≤ 6	00V; 10%	6 to 105%	of Vo(rate	ed) - 600'	V < Vor ≤	1500V; Sh	nall always b	oe greater	+
OVP Peoples Time	V	than 10	5% of Vo(setting); D	Default = 1	05% of V	o(rated).	`						1
S. OVP Response Time	ms				begin to	drop) for '	Vor ≤ 600	V; Less th	an 2.0 (fo	or Output	to begin to	o drop) for		
N. 0/00			Vor ≤ 150											+
9. Max. OVP Reset Time	S	_ `		ff switch to										+
10. Over-Temperature Protection (OTP)											de / Unlate	ched: Auto-r	node)	+
11. Phase-Loss Protection		Yes, po	wer suppi	y shutdow	n (Latche	a: Sate-n	node / Un	iatched: F	uto-mode	9)				\perp
.4 REMOTE ANALOG CONTROLS & SIGNALS														_
. Vout Voltage Programming	0~100%,								. ,					1
2. Iout Voltage Programming	0~100%,								. ,					1
3. Vout Resistor Programming	0~100%,													1
. Iout Resistor Programming	0~100%,													1
	By Voltag	e: 0.6V =		2-15V = E			ry Contac	ct: Open =	EN, Sho	ort = DIS (user-sele	ctable logic))	1
														1
6. Output Current Monitor	0 ~ 5V or				o(rated), ι	user-seled								1
6. Output Current Monitor 7. Output Voltage Monitor	0 ~ 5V or	0 ~ 10V, A	Accuracy:	± 1% of \	o(rated), ι /o(rated),	user-seled user-sele	ctable							
Output Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal	0 ~ 5V or Yes. TTL	0 ~ 10V, <i>I</i> High = Ok	Accuracy: K, 0V = Fa	± 1% of \ ail (500oh)	o(rated), u /o(rated), m series i	user-seled user-sele mpedanc	ctable e)							ļ
Output Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal OV/CC Signal	0 ~ 5V or Yes. TTL I	0 ~ 10V, A High = Ok High (4 ~ 5	Accuracy: K, 0V = Fa 5V), Max	± 1% of \ail (500ohi source cu	o(rated), u /o(rated), m series in	user-selectuser-selectuser-selectuser-mpedancemA; CC:	ctable e) TTL Low				= 10mA			\downarrow
Output Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal Enable/Disable	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta	0 ~ 10V, A High = Ok High (4 ~ 5 ct; Open :	Accuracy: K, 0V = Fa 5V), Max = Off, Sho	± 1% of \ail (500ohi source cu ort = On; N	o(rated), u /o(rated), m series in rrent = 10 Max. volta	user-selectuser-selectuser-selectuser-mpedancemA; CC:	ctable e) TTL Low Enable/[Disable co	ntacts =		= 10mA			+
. Output Current Monitor Cutput Voltage Monitor . Power Supply OK (PS_OK) Signal . CV/CC Signal 0. Enable/Disable 1. Remote/Local Selection	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R	0 ~ 10V, A High = Ok High (4 ~ 5 act; Open = emote or	Accuracy:	± 1% of \ail (500oh) source cu ort = On; Meration by	o(rated), u /o(rated), m series in rrent = 10 Max. voltage: 0	user-select	ctable e) TTL Low s Enable/[- Local / 2	Disable co ~ 15V =	ntacts = Remote	6V				
. Output Current Monitor Output Voltage Monitor . Power Supply OK (PS_OK) Signal . CV/CC Signal 0. Enable/Disable 1. Remote/Local Selection	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R	0 ~ 10V, A High = Ok High (4 ~ 5 act; Open = emote or	Accuracy:	± 1% of \ail (500oh) source cu ort = On; Meration by	o(rated), u /o(rated), m series in rrent = 10 Max. voltage: 0	user-select	ctable e) TTL Low s Enable/[- Local / 2	Disable co ~ 15V =	ntacts = Remote	6V		rrent = 10m/	A)	
Output Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal Enable/Disable Remote/Local Selection Remote/Local Signal	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R	0 ~ 10V, A High = Ok High (4 ~ 5 act; Open = emote or	Accuracy:	± 1% of \ail (500oh) source cu ort = On; Meration by	o(rated), u /o(rated), m series in rrent = 10 Max. voltage: 0	user-select	ctable e) TTL Low s Enable/[- Local / 2	Disable co ~ 15V =	ntacts = Remote	6V		rrent = 10m/	A)	\ \ \ \
. Output Current Monitor Cutput Voltage Monitor . Power Supply OK (PS_OK) Signal . CV/CC Signal 0. Enable/Disable 1. Remote/Local Selection 2. Remote/Local Signal	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R	0 ~ 10V, A High = Ok High (4 ~ 5 ct; Open = emote or perating n	Accuracy: (, 0V = Fa 5V), Max = Off, Sho Local openode; Open	± 1% of \ail (500oh) source cu ort = On; \alpha eration by en collectors	o(rated), to o(rated), to o(rated), m series in trent = 10 Max. voltage: 0 or: Local =	user-select	ctable e) TTL Low Enable/E Local / 2 Max voltag	oisable co ~ 15V = pe = 30V)	Remote Remote	6V = On (Ma		rrent = 10mA	Α)	
. Output Current Monitor Cutput Voltage Monitor . Power Supply OK (PS_OK) Signal . CV/CC Signal 0. Enable/Disable 1. Remote/Local Selection 2. Remote/Local Signal	0 ~ 5V or Yes. TTL CV: TTL Dry conta Selects R Signals o	0 ~ 10V, A High = Ok High (4 ~ 5 ct; Open = emote or perating n	Accuracy: (, 0V = Fa 5V), Max = Off, Sho Local ope node; Ope	± 1% of \ail (500oh) source cuport = On; \alpha eration by en collectors separate e	o(rated), u /o(rated), m series in irrent = 10 Max. voltage: 0 or: Local =	user-select	ctable e) TTL Low s Enable/I - Local / 2 Max voltage	Disable co ~ 15V = pe = 30V)	Remote Remote selectabl	6V = On (Ma		rrent = 10m <i>l</i>	A)	
Output Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal EV/CC Signal EV/CC Signal EV/CD Signal	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R Signals o	0 ~ 10V, A High = Ok High (4 ~ 5 ct; Open = emote or perating n manual a	Accuracy: K, 0V = Fa 5V), Max = Off, Sho Local ope mode; Ope adjust by s adjust by s	± 1% of \alpha ail (500ohi source cu ort = On; \begin{align*} \text{Pressure} & \tex	o(rated), u /o(rated), m series in rrent = 10 Max. voltage: or: Local = encoders (djust enco	user-select	ctable e) TTL Low Enable/[Local / 2 Max voltage and fine act	Disable co ~ 15V = pe = 30V)	Remote Remote selectabl	6V = On (Ma		rrent = 10m <i>l</i>	A)	
Output Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal EV/CC Signal EV/CC Signal EV/CD Signal	0 ~ 5V or Yes.TTL I CV:TTL I Dry conta Selects R Signals of Vout/ lout OVP/UVL	0 ~ 10V, A High = Ok High (4 ~ 5 ct; Open = emote or perating n manual a manual a selection b	Accuracy: X, 0V = Fa 5V), Max = Off, Sho Local ope node; Ope adjust by s adjust by v by Voltage	± 1% of \ail (5000hi source cu ort = On; \begin{array}{c} \text{eration by en collected} \text{eparate } \text{e} \text{Voltage Adjust er}	o(rated), u /o(rated), m /o(rated), m series in irrent = 10 Max. voltage: 0 or: Local = encoders (dijust enconcoder. # 0	user-select	ctable e) TTL Low E Enable/E Local / 2 Max voltage and fine ac t Panel Lo ses = 31	Disable co ~ 15V = pe = 30V). Ijustment ock/Unloc	Remote Remote selectabl	6V = On (Ma	x sink cur	rrent = 10m <i>l</i>	A)	
Output Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal EV/CC Signal EV/CC Signal EV/CD Signal	0 ~ 5V or Yes.TTL I CV: TTL I Dry conta Selects R Signals o	0 ~ 10V, A High = Ok High (4 ~ § ct; Open = emote or perating n manual a manual a selection b	Accuracy: (, 0V = Fa 5V), Max = Off, Sho Local ope mode; Ope adjust by s adjust by v by Voltage ut On/Off,	± 1% of \ ail (500oh source cu ort = On; N eration by en collecto separate e Voltage Ad e Adjust er Restart M	o(rated), , /o(rated), m series ii rrrent = 10 Max. voltage: 0 voltage: 0 cor: Local = encoders (dijust enconcoder. # olodes (Autlobes (user-select	ctable e) TTL Low Enable/I Local / 2 Max voltag Ind fine act t Panel Local ses = 31 Foldback	Disable co ~ 15V = ge = 30V). Ijustment ock/Unloc	Remote Remote selectabl	6V = On (Ma	x sink cur	rrent = 10m <i>l</i>	A)	
Output Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal EV/CC Signal EV/CC Signal EV/CD Signal	0 ~ 5V or Yes.TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O	0 ~ 10V, / High = OM High (4 ~ § ct; Open = emote or perating n manual a manual a selection b FF, Outpu	Accuracy:	± 1% of \alpha ii (500ohi source cu ort = On; \bar{h} eration by en collecte separate e \dagger{collecte} voltage Ac \alpha djust er Restart MD) and LA	o(rated), u /o(rated), m series in rrent = 10 Max. voltag voltage: 0 or: Local = encoders (djust enco ncoder. # a lodes (Aul N selectic	user-select	ctable e) TTL Low E Enable/L Local / 2 Max voltage and fine ace t Panel Le ses = 31 Foldback panel DI	Disable co ~ 15V = ye = 30V). Ijustment ock/Unloc Control (C	Remote Remote selectabl	e)	x sink cur		A)	
Output Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal EV/CC Signal EV/CC Signal EV/CD Signal	0 ~ 5V or Yes.TTL I CV: TTL I Dry conta Selects R Signals of Vout/ lout OVP/UVL Address s AC ON/O RS-232/F	0 ~ 10V, / High = Ok digh (4 ~ 5 ct; Open = emote or perating n manual a manual a selection b FF, Outpu BS-485, IE	Accuracy: (X, 0V = Fa (SV), Max Off, Sho Local ope adjust by s adjust by v by Voltage at On/Off, EEE (IEMI a (RS-232	± 1% of \all (500ohr source cu ort = On; \all be existed by exact of the collected by the c	o(rated), u/o(rated), m series in trent = 10 Max. voltage: 0 or: Local = encoders (dijust encoders (Author) N selectionly): 1200	user-select	ctable e) TTL Low E Enable/IE Local / 2 Max voltage and fine ac t Panel Lo ses = 31 Foldback panel DI 1800, 960	Disable co ~ 15V = ye = 30V). Ijustment bock/Unloc Control (C P-switch 0 and 19,	Remote Remote selectabl k CV to CC)	e) , Go-to-Lurrent adj	ocal		A)	
Dutput Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal Enable/Disable Remote/Local Selection Remote/Local Signal FRONT PANEL Control Functions	0 ~ 5V or Yes.TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate	0 ~ 10V, / High = Ok High (4 ~ 5 ct; Open emote or perating n manual a manual a selection b FF, Outpu BS-485, IE e selection	Accuracy: (X, 0V = Fa (SV), Max Off, Sho Local ope adjust by s adjust by v oy Voltage at On/Off, EEE (IEMI a (RS-232 Master/SI	± 1% of \all (500ohr source cu ort = On; \all be ration by en collecte separate e Voltage Ace Adjust er Restart MD) and LA (7RS-485 cave: Hx =	o(rated), to voltage: 0 o/crated), m series in trent = 10 o/dax. voltage: 0 or: Local = encoders (dijust encoder. # olodes (Auth N selectic only): 1200 o/master ur	user-select	ctable e) TTL Low E Enable/IE Local / 2 Max voltage and fine ac t Panel Lo ses = 31 Foldback panel DI 1800, 960	Disable co ~ 15V = ye = 30V). Ijustment bock/Unloc Control (C P-switch 0 and 19,	Remote Remote selectabl k CV to CC)	e) , Go-to-Lurrent adj	ocal		A)	
is. Shut-Off (SO) Control (rear panel) is. Output Current Monitor is. Output Voltage Monitor is. Power Supply OK (PS_OK) Signal is. CV/CC Signal is. Enable/Disable is. Remote/Local Selection is. FRONT PANEL is. Control Functions	0 ~ 5V or Yes. TTL I Dry conta Selects R Signals o	0 ~ 10V, / High = ON High (4 ~ 5 ct; Open = emote or perating n manual a selection b FF, Outpu IS-485, IE selection	Accuracy: 4, 0V = Fa 5V), Max = Off, Sho Local ope mode; Ope adjust by sa adjust by Sa adjus	± 1% of \alpha iii (500ohi source cu ort = On; \alpha ration by en collecte separate e voltage Ac e Adjust er Restart M D) and LA v/RS-485 c ave: Hx = e 0.5% of \alpha	o(rated), u /o(rated), m series in rrent = 10 Max. voltage: 0 or: Local = encoders (dijust enco ncoder. # dodes (Aul N selectic only): 1200 Master ur vo(rated) :	user-select	ctable e) TTL Low E Enable/IE Local / 2 Max voltage and fine ac t Panel Lo ses = 31 Foldback panel DI 1800, 960	Disable co ~ 15V = ye = 30V). Ijustment bock/Unloc Control (C P-switch 0 and 19,	Remote Remote selectabl k CV to CC)	e) , Go-to-Lurrent adj	ocal		A)	
Dutput Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal Enable/Disable Remote/Local Selection Remote/Local Signal FRONT PANEL Control Functions	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R Signals o	0 ~ 10V, AHIGH = ON HIGH = ON HIGH = ON HIGH dight (4 ~ 5 ct; Open = emote or perating n manual a manual a selection be FF, Output S-485, IE selection digits, Ac digi	Accuracy: 4, 0V = Fa 5V), Max = Off, Sho Local ope mode; Ope adjust by sa adjust by sa adjus	± 1% of \alpha iii (500ohi iii (500ohi iii (500ohi source cu ort = On; \alpha ration by en collected separate en collected separate (500 iii iii ii	o(rated), to /o(rated), macries in /o(rated), macries in /o(rated), macries in /o(rated), macries in /o(rated) /or: Local = /o(rated) /o	user-select	ctable e) TTL Low E Enable/I Local / 2 flax voltage and fine act t Panel Lo ses = 31 Foldback panel DI 800, 960 x = # of \$	ijustment pek/Unloc Control ((P-switch 0 and 19, 6lave unit	ntacts = Remote Remote Remote selectabl k CV to CC)	e) , Go-to-Lurrent adj	ocal		Α)	
. Output Current Monitor Cutput Voltage Monitor . Power Supply OK (PS_OK) Signal . CV/CC Signal 0. Enable/Disable 1. Remote/Local Selection 2. Remote/Local Signal .5 FRONT PANEL .Control Functions	0 ~ 5V or Yes.TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	0 ~ 10V, / High = Ok High (4 ~ 5, ct; Open : emote or perating n manual a manual a selection b FF, Outpu IS-485, IE selection I Parallel I digits, Ac displays D's: PRE\	Accuracy: X, 0V = Fa SV), Max = Off, Sho Local ope adjust by 8 adjust by 9 op Voltage at On/Off, EEE (IEM) a (RS-232 Master/SI ccuracy: ± ccuracy: ± voltage at voltage at VIEW, FO	± 1% of \alpha iii (500ohi source cu ort = On; \alpha ort	o(rated), to /o(rated), macries in important of the control of the	user-select	ctable e) TTL Low E Enable/Ic Local / 2 Max voltag and fine ac t Panel Lc ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load	ijustment bock/Unloc Control (CP-switch 0 and 19, Slave unit	ntacts = Remote Remote selectable k CV to CC) 200 (by c s (0 to 4)	e) , Go-to-Lurrent adj	ocal		A)	
. Output Current Monitor Output Voltage Monitor . Power Supply OK (PS_OK) Signal . CV/CC Signal 0. Enable/Disable 1. Remote/Local Selection 2. Remote/Local Signal 5. FRONT PANEL Control Functions	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Voltage: 4 Voltmeter	0 ~ 10V, / High = Ok High (4 ~ 5, ct; Open : emote or perating n manual a manual a selection b FF, Outpu IS-485, IE selection I Parallel I digits, Ac displays D's: PRE\	Accuracy: X, 0V = Fa SV), Max = Off, Sho Local ope adjust by 8 adjust by 9 op Voltage at On/Off, EEE (IEM) a (RS-232 Master/SI ccuracy: ± ccuracy: ± voltage at voltage at VIEW, FO	± 1% of \alpha iii (500ohi source cu ort = On; \alpha ort	o(rated), to /o(rated), macries in important of the control of the	user-select	ctable e) TTL Low E Enable/Ic Local / 2 Max voltag and fine ac t Panel Lc ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load	ijustment bock/Unloc Control (CP-switch 0 and 19, Slave unit	ntacts = Remote Remote selectable k CV to CC) 200 (by c s (0 to 4)	e) , Go-to-Lurrent adj	ocal		A)	
. Output Current Monitor Cutput Voltage Monitor . Power Supply OK (PS_OK) Signal . CV/CC Signal 0. Enable/Disable 1. Remote/Local Selection 2. Remote/Local Signal . FRONT PANEL . Control Functions	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	0 ~ 10V, / High = Ok High (4 ~ 5, ct; Open : emote or perating n manual a manual a selection b FF, Outpu IS-485, IE selection I Parallel I digits, Ac displays D's: PRE\	Accuracy: X, 0V = Fa SV), Max = Off, Sho Local ope adjust by 8 adjust by 9 op Voltage at On/Off, EEE (IEM) a (RS-232 Master/SI ccuracy: ± ccuracy: ± voltage at voltage at VIEW, FO	± 1% of \alpha iii (500ohi source cu ort = On; \alpha ort	o(rated), to /o(rated), macries in important of the control of the	user-select	ctable e) TTL Low E Enable/Ic Local / 2 Max voltag and fine ac t Panel Lc ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load	ijustment bock/Unloc Control (CP-switch 0 and 19, Slave unit	ntacts = Remote Remote selectable k CV to CC) 200 (by c s (0 to 4)	e) , Go-to-Lurrent adj	ocal		A)	
Dutput Current Monitor Output Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal Enable/Disable Remote/Local Selection Remote/Local Signal FRONT PANEL Control Functions Display Display Indications BrogramMing & READBACK	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	0 ~ 10V, / High = Ok High (4 ~ 5, ct; Open : emote or perating n manual a selection b FF, Outpu IS-485, IE selection I Parallel I digits, Ac displays D's: PREV ALRM (C	Accuracy: K, OV = Fe 5V), Max = Off, Sho Local ope adjust by sadjust by voltage at On/Off, EEE (IEM) (RS-232 Master/Sl couracy: ± covoltage at VIEW, FO OVP, OTP,	± 1% of \alpha ii (500ohi source cu ort = On; \alpha ort	o(rated), to /o(rated), macries in important of the control of the	user-select	ctable e) TTL Low E Enable/Ic Local / 2 Max voltag and fine ac t Panel Lc ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load	ijustment bock/Unloc Control (CP-switch 0 and 19, Slave unit	ntacts = Remote Remote selectable k CV to CC) 200 (by c s (0 to 4)	e) , Go-to-Lurrent adj	ocal		Α)	
Dutput Current Monitor Output Voltage Monitor Dewer Supply OK (PS_OK) Signal CV/CC Signal Denable/Disable Remote/Local Selection Remote/Local Signal SFRONT PANEL Control Functions Display Display Display Display Bendications FROGRAMMING & READBACK Vout Programming Accuracy	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED:	0 ~ 10V, / High = OH digh (4 ~ § ct; Open = emote or perating n manual a manual a selection b FF, Outpu IS-485, IE selection I Parallel I digits, Ac digits, Ac digits, AC ALRM (C	Accuracy: (, OV = Fe 5V), Max = Off, Sho Local ope adjust by s adjust by s y Voltage at On/Off, EEE (IEMI (RS-232 Master/SI couracy: ± couracy	± 1% of \alpha iil (500ohi source cu ont = On; Neration by en collecte separate e voltage Ac Adjust er Restart MD) and LA (/RS-485 cave: Hx = ± 0.5% of 1 power st. LLD, REM FOLD, Ac ge	o(rated), L /o(rated), m series in /o(rated), m series in /o(rated), m series in /orent = 10 /oren = 10 /orent = 1	user-select	ctable e) TTL Low E Enable/IE E Local / 2 Max voltag Ind fine ac t Panel Lo ses = 31 Foldback r panel DI 800, 960 x = # of \$ or at load OFF, CV/	Disable cc ~ 15V = 10 = 30V) Ijustment ck/Unloc Control ((CP-switch 0 and 19, Slave unit) d (Remote CC, FINE	entacts = Remote Remote Remote selectable k CV to CC) 200 (by c s (0 to 4) e sense)	= On (Ma e) , Go-to-Lourrent adj , S = Slav	ocal ust encode unit(s)		A)	
Output Current Monitor Coutput Voltage Monitor Power Supply OK (PS_OK) Signal Course Supply OK (PS_OK) Signal Enable/Disable Remote/Local Selection Remote/Local Signal FRONT PANEL Control Functions Display Display Indications Bould Read Back Vout Programming Accuracy Lout Voltage Monitor Output Voltage Monitor Display Lout Programming Accuracy Lout Programming Accuracy	0 ~ 5V or Yes. TTL I Dry conta Selects R Signals on Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED:	0 ~ 10V, / High = OH High (4 ~ § ct; Open = emote or perating n manual a manual a selection b FF, Outpu IS-485, IE selection I Parallel I digits, Ac displays v D's: PREV ALRM (C	Accuracy: (, OV = Fe 5V), Max = Off, Sho Local ope adjust by s adjust by s y Voltage at On/Off, EEE (IEMI (RS-232 Master/SI couracy: ± couracy	± 1% of \alpha iil (500ohi source cu ont = On; Neration by en collecte separate e voltage Ac Adjust er Restart MD) and LA (/RS-485 cave: Hx = ± 0.5% of 1 power st. LLD, REM FOLD, Ac ge	o(rated), L /o(rated), m series in /o(rated), m series in /o(rated), m series in /orent = 10 /oren = 10 /orent = 1	user-select	ctable e) TTL Low E Enable/IE E Local / 2 Max voltag Ind fine ac t Panel Lo ses = 31 Foldback r panel DI 800, 960 x = # of \$ or at load OFF, CV/	Disable cc ~ 15V = 10 = 30V) Ijustment ck/Unloc Control ((CP-switch 0 and 19, Slave unit) d (Remote CC, FINE	entacts = Remote Remote Remote selectable k CV to CC) 200 (by c s (0 to 4) e sense)	= On (Ma e) , Go-to-Lourrent adj , S = Slav	ocal ust encode unit(s)		A)	
6. Output Current Monitor 7. Output Voltage Monitor 8. Power Supply OK (PS_OK) Signal 9. CV/CC Signal 9. CV/CC Signal 9. Enable/Disable 1. Remote/Local Selection 2. Remote/Local Signal 8. FRONT PANEL 9. Control Functions 9. Display 9. Indications 9. Indications 9. Output Programming Accuracy 9. Lout Programming Accuracy 9. Vout Programming Resolution	0 ~ 5V or Yes. TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE # 20.5% of # 0.5% of	0 ~ 10V, // High = Ok/ High = Ok/ High (4 ~ 5, ct; Open = operating n manual a manual a selection b FF, Output BS-485, IE selection b I Parallel II digits, Ac displays b D's: PREV ALRM (C	Accuracy: (, OV = Fe 5V), Max = Off, Sho Local ope adjust by s adjust by s y Voltage at On/Off, EEE (IEMI (RS-232 Master/SI couracy: ± couracy	± 1% of \alpha iil (500ohi source cu ont = On; Neration by en collecte separate e voltage Ac Adjust er Restart MD) and LA (/RS-485 cave: Hx = ± 0.5% of 1 power st. LLD, REM FOLD, Ac ge	o(rated), L /o(rated), m series in /o(rated), m series in /o(rated), m series in /orent = 10 /oren = 10 /orent = 1	user-select	ctable e) TTL Low E Enable/IE E Local / 2 Max voltag Ind fine ac t Panel Lo ses = 31 Foldback r panel DI 800, 960 x = # of \$ or at load OFF, CV/	Disable cc ~ 15V = 10 = 30V) Ijustment ck/Unloc Control ((CP-switch 0 and 19, Slave unit) d (Remote CC, FINE	entacts = Remote Remote Remote selectable k CV to CC) 200 (by c s (0 to 4) e sense)	= On (Ma e) , Go-to-Lourrent adj , S = Slav	ocal ust encode unit(s)		A)	
6. Output Current Monitor 7. Output Voltage Monitor 8. Power Supply OK (PS_OK) Signal 9. CV/CC Signal 9. Enable/Disable 1. Remote/Local Selection 2. Remote/Local Signal 9. Enable/Disable 1. Senote/Local Signal 9. Enable/Local Signal 9. Senote/Local Signal 9. Senote/Local Signal 9. Display 9. Display 9. Display 9. Under Tender Mining Accuracy 9. Vout Programming Accuracy 9. Vout Programming Accuracy 9. Vout Programming Resolution 9. Lout Programming Resolution 9. Lout Programming Resolution 9. Lout Programming Resolution	0 ~ 5V or Yes.TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advancec Voltage: 4 Voltmeter Green LE Red LED: ± 0.5% of 0.02% of	0 ~ 10V, // High = Ok/ High = Ok/ High (4 ~ 5, ct; Open = operating n manual a manual a selection belief of the celection belief of the celebrate of the celebra	Accuracy: X, OV = Fa SV), Max = Off, Sho Local ope mode; Ope mod	± 1% of \alpha iii (500ohi source cu ort = On; \alpha ort	o(rated), to /o(rated), m series is immented in the control of the	user-select	ctable e) TTL Low E Enable/IE E Local / 2 Max voltag Ind fine ac t Panel Lo ses = 31 Foldback r panel DI 800, 960 x = # of \$ or at load OFF, CV/	Disable cc ~ 15V = 10 = 30V) Ijustment ck/Unloc Control ((CP-switch 0 and 19, Slave unit) d (Remote CC, FINE	entacts = Remote Remote Remote selectable k CV to CC) 200 (by c s (0 to 4) e sense)	= On (Ma e) , Go-to-Lourrent adj , S = Slav	ocal ust encode unit(s)		A)	
6. Output Current Monitor 7. Output Voltage Monitor 8. Power Supply OK (PS_OK) Signal 9. CV/CC Signal 9. CV/CC Signal 9. Enable/Disable 1. Remote/Local Selection 2. Remote/Local Signal 8. FRONT PANEL 9. Control Functions 8. Indications 9. Display 9. Indications 9. Indication	0 ~ 5V or Yes.TTL I CV: TTL I Dry conta Selects R Signals or Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of 0.02% of 0.04% of	0 ~ 10V, // High = ON High (4 ~ 5, ct; Open = emote or perating n manual a manual a selection b FF, Outpu IS-485, IE selection I Parallel I digits, Ac displays D's: PREV ALRM (C rated Ou rated Ou Vo(rated) Io(rated)	Accuracy: (X, OV = Fa 5V), Max = Off, Sho Local ope mode; Ope mo	± 1% of \alpha iii (500ohi source cu ort = On; \alpha ort	o(rated), u /o(rated), m series is /ro(rated), m series is /ro(rated), m series is /ro(rated), m series is /ro(rated), m series is /ro(rated) = /ro(roders (/ro(rode) = /ro(roted) = /ro(r	user-select	ctable e) TTL Low E Enable/IE E Local / 2 Max voltag Ind fine ac t Panel Lo ses = 31 Foldback r panel DI 800, 960 x = # of \$ or at load OFF, CV/	Disable cc ~ 15V = 10 = 30V) Ijustment ck/Unloc Control ((CP-switch 0 and 19, Slave unit) d (Remote CC, FINE	entacts = Remote Remote Remote selectable k CV to CC) 200 (by c s (0 to 4) e sense)	= On (Ma e) , Go-to-Lourrent adj , S = Slav	ocal ust encode unit(s)		A)	
Dutput Current Monitor Output Voltage Monitor Doupout Voltage Monitor Coutput Voltage Monitor Power Supply OK (PS_OK) Signal Coutput Signal Enable/Disable Remote/Local Selection Remote/Local Signal FRONT PANEL Control Functions Display Display Display Display Display Lindications Out Programming Accuracy Vout Programming Resolution Lout Programming Resolution Out Readback Accuracy Lout Readback Accuracy	0 ~ 5V or Yes.TTL I CV: TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.02% of 0.04% of ± (0.1% of	0 ~ 10V, / High = ON High (4 ~ 5 ct; Open = emote or perating n manual a manual a manual a selection b FF, Outpu IS-485, IE selection I Parallel I digits, Ac digits, Ac digits, Ac Company Co	Accuracy: (X, OV = Fa 5V), Max = Off, Sho Local ope mode; Ope mo	± 1% of \alpha iii (500ohi source cu ort = On; \alpha ort	o(rated), u /o(rated), m series is /ro(rated), m series is /ro(rated), m series is /ro(rated), m series is /ro(rated), m series is /ro(rated) = /ro(roders (/ro(rode) = /ro(roted) = /ro(r	user-select	ctable e) TTL Low E Enable/IE E Local / 2 Max voltag Ind fine ac t Panel Lo ses = 31 Foldback r panel DI 800, 960 x = # of \$ or at load OFF, CV/	Disable cc ~ 15V = 10 = 30V) Ijustment ck/Unloc Control ((CP-switch 0 and 19, Slave unit) d (Remote CC, FINE	entacts = Remote Remote Remote selectable k CV to CC) 200 (by c s (0 to 4) e sense)	= On (Ma e) , Go-to-Lourrent adj , S = Slav	ocal ust encode unit(s)		A)	
6. Output Current Monitor 7. Output Voltage Monitor 8. Power Supply OK (PS_OK) Signal 9. CV/CC Signal 9. Enable/Disable 1. Remote/Local Selection 2. Remote/Local Signal 9. FRONT PANEL 9. Control Functions	0 ~ 5V or Yes. TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of 0.02% of 0.02% of ± 0.04% of ± (0.1% of ± (0.1% of	0 ~ 10V, / High = ON High (4 ~ § ct; Open = emote or perating n manual a manual a manual a selection b FF, Outpu IS-485, IE selection I Parallel I digits, Ac digits, Ac digits, AC digits, AC LARM (C rated Ou rated Ou vo(rated) lo(rated) f Vo(actua f lo(actua vo(rated)	Accuracy: (X, OV = Fa 5V), Max = Off, Sho Local ope mode; Ope mo	± 1% of \alpha iii (500ohi source cu ort = On; \alpha ort	o(rated), u /o(rated), m series is /ro(rated), m series is /ro(rated), m series is /ro(rated), m series is /ro(rated), m series is /ro(rated) = /ro(roders (/ro(rode) = /ro(roted) = /ro(r	user-select	ctable e) TTL Low E Enable/IE E Local / 2 Max voltag Ind fine ac t Panel Lo ses = 31 Foldback r panel DI 800, 960 x = # of \$ or at load OFF, CV/	Disable cc ~ 15V = 10 = 30V) Ijustment ck/Unloc Control ((CP-switch 0 and 19, Slave unit) d (Remote CC, FINE	entacts = Remote Remote Remote selectable k CV to CC) 200 (by c s (0 to 4) e sense)	= On (Ma e) , Go-to-Lourrent adj , S = Slav	ocal ust encode unit(s)		A)	
Dutput Current Monitor Cutput Voltage Monitor Power Supply OK (PS_OK) Signal CV/CC Signal EV/CC	0 ~ 5V or Yes. TTL I Dry conta Selects R Signals o Vout/ lout OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of 0.02% of 0.04% of ± (0.1% of ± (0.1% of 0.02% of 0.02% of	0 ~ 10V, // High = Ok/ High = Ok/ High (4 ~ 5, oct.) Grand of the control of the	Accuracy: X, 0V = Fa SV), Max = Off, Sho Local ope node; Ope nod	± 1% of \alpha ii (500ohis source cu ort = On; \alpha ort	o(rated), to /o(rated), m series is immented in the control of the	user-select	ctable e) TTL Low TTL Low E Enable/IE Local / 2 Max voltage and fine ac t Panel Le ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load OFF, CV/	Disable cc ~ 15V = le = 30V) Ijustment ljustment ljustm	entacts = Remote Remote Remote selectable k CV to CC) 200 (by c s (0 to 4).	= On (Ma e) , Go-to-Lourrent adj , S = Slav	ocal ust encode unit(s)		A)	

^{*1.} Ripple and Noise at Vo(rated) and rated Load, Ta = 25C and nominal AC input, per EIJ R9002A.
*2. Time for the Output voltage to recover within 2% of rating for a load current change of 50~100% or 100-50% of lo(rated).
*3 .From 20% - 100% for models with lor < 17A.
All specifications subject to change without notice.

Genesvs[™] 3U 10kW Specifications

1.0 MODEL	GEN	150-66	200-50	250-40	300-33	400-25	500-20	600-17	800-12.5	1000-10	1250-8	1500-6.7	T
1.Rated Output Voltage	VDC	150	200	250	300	400	500	600	800*	1000*	1250*	1500*	\vdash
2.Rated Output Current	ADC	66	50	40	33	25	20	17	12.5	10	8.0	6.7	T
3.Rated Output Power	kW	9.9	10.0	10.0	9.9	10.0	10.0	10.2	10.0	10.0	10.0	10.0	T
4.Efficiency (min) at low AC line, 100% Rated Load	%				83					9	3.5		İ
1.1 CONSTANT VOLTAGE MODE (CV)					Cont	act Factor	ry for othe	r models					\perp
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤ 600V; 0.05% - 600V < Vor ≤ 1500V)	mV	15	20	25	30	40	50	60	400	500	625	750	Γ
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤ 600V; 0.1% - 600V < Vor ≤ 1500V)	mV	30	40	50	60	80	100	120	800	1000	1250	1500	T
3. Ripple, r.m.s, 5Hz~1MHz, CV (*1)	mV	25	35	35	60	60	60	60	80	100	120	140	T
4. Output Noise, p-p (20MHz), CV (*1)	mV	150	175	200	200	300	350	350	700	800	1000	1400	\Box
5.Remote Sense Compensation / Wire	V	5	5	5	5	5	5	5	5	5	5	5	I
6. Temperature Stability						fter 30 mi	nute warr	n up (cons	stant Line,	, Load & Te	mperature)		Ļ
7. Temperature Coefficient	ppm / °C	± 200 (0.02% of	Vo Rated					1				╀
8. Up-Prog. Response Time, 0~Vomax, full-load 9. Up-Prog. Response Time, 0~Vomax, no load	mS mS				100 50					17			╀
10. Transient Response Time (CV mode) (*2)	mS				ess than	3			<u> </u>	Less ti			╁
	1110				Less man	<u> </u>			l	L633 II	iaii i		_
1.2 CONSTANT CURRENT MODE (CC) 1. Max. Line Reg. (0.1% - lor ≥ 333A; 0.050% - 17A < lor < 333A; 0.15% - lor < 17A)	mA	33	25	20	17	13	10	9	19	15	12	10	Τ
2. Max. Load Reg (0.1% - lor ≥ 333A; 0.075% - 17A ≤ lor < 333A; 0.2% - lor < 17A) (*3)	mA	50	38	30	25	19	15	13	25	20	15	14	t
3. Ripple rms, 5Hz~1MHz, CC	mA	26	20	16	13	10	8	7	15	10	6	4	+
4. Temperature Stability										Load & Ter			+
5. Temperature Coefficient	ppm / °C			lo Rated)		11111	.ato waili	. ap (00115	LIIIU,		porature)		+
· · · · · · · · · · · · · · · · · · ·	PP.117 U	000 (/0 UI										_
1.3 PROTECTIVE FUNCTIONS	0/	0 400											$\overline{}$
1. OCP 2. OCP type	%	0 ~ 100	nt curren										+
2. OCP type 3. Foldback Protection (FOLD)					I recet hu	front nand		itton or Di-	nital comp	nunication	user-select	ahle	+
4. Foldback Response Time	S								gitai comin a "FBD" co		user-serect	able	+
5. OVP type											or Digital co	mm	t
6. OVP Programming Accuracy	%		f Vo(rated		ar reset by	710 011/0	on recycle	, 001 but	ion, monie	oto / trialog t	or Digital oc	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	十
7. OVP Trip Point	V	V 5% to 105% of Vo(rated) - for Vor ≤ 600V; 10% to 105% of Vo(rated) - 600V < Vor ≤ 1500V; Shall always be grithan 105% of Vo(setting); Default = 105% of Vo(rated).								gre			
8. OVP response time	mS	Less th		Output to				V; Less th	nan 2.0 (fo	or Output to	begin to dr	op) for	Γ
9. Max. OVP reset time	S	7 (from	AC On/C	off switch t	urn On)								\perp
10. Over-Temperature Protection (OTP)											atched: Auto	o)	丄
11. Phase-Loss Protection		Yes, po	wer supp	ly shutdo	wn (Latch	ed: Safe-r	node / Ur	latched: A	luto-mode	e)			\perp
1.4 REMOTE ANALOG CONTROLS & SIGNALS													
Vout Voltage Programming	0~100%,												┸
2. Iout Voltage Programming	0 ~ 100%												╄
3. Vout resistor programming	0~100%,												╄
4. lout Resistor Programming	0~100%,						,			,	(abla lasia\	+
5. Shut-Off (SO) Control (rear panel)								ct : Open	= ENA, SI	nort = DIS (user-select	able logic)	╀
Output Current Monitor Output Voltage Monitor	0 ~ 5V or 0 ~ 5V or												╫
8. Power Supply OK (PS_OK) Signal	Yes. TTL												╁
9. CV/CC Signal								(0 ~ 0 4V) Max sin	k current =	10mA		╁
10. Enable/Disable	Dry conta												\dagger
11. Remote/Local Selection		от, орот	,	,		9		2 ~ 15V =					\uparrow
12. Remote/Local Signal										= On (Max	sink curren	t = 10mA)	T
1.5 FRONT PANEL													_
1.Control Functions	Vout/ Iout	manual a	adjust by	separate	encoders	(coarse a	and fine a	djustment	selectable	e)			Т
						•		ock/Unloc		•			Г
	Address s			-	-								
			ut On/Off	Restart N	∕lodes (Aι	to/Safe),			CV to CC),	, Go-to-Loc	al		
	AC ON/OFF, Output On/Off, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local												
	RS-232/F	RS-232/RS-485, IEEE (IEMD) and LAN selection by rear-panel DIP-switch Baud rate selection (RS-232/RS-485 only): 1200, 2400, 4800, 9600 and 19,200 (by current adjust encoder)									Ĺ		
	RS-232/F Baud rate	selection	n (RS-23	D) and L/ 2/RS-485	only): 120	0, 2400, 4	4800, 960	0 and 19,					1
	RS-232/F Baud rate Advanced	selection Parallel	n (RS-23 Master/S	D) and L/ 2/RS-485 lave: Hx =	only): 120 : Master u	0, 2400, 4 nit, where	4800, 960 x = # of	0 and 19,		urrent adjus Slave = Sla			-
2.Display	RS-232/F Baud rate Advanced Voltage: 4 Current: 4	selection Parallel digits, A digits, A	Master/S ccuracy: ccuracy:	D) and L/ 2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of	only): 120 Master uf Vo(rated) Io(rated)	0, 2400, 4 nit, where ±1 count	4800, 960 e x = # of t	0 and 19, Slave unit	s (0 to 4),				E
	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter	e selection d Parallel digits, A digits, A displays	Master/S ccuracy: ccuracy: voltage a	D) and L/ 2/RS-485 lave: Hx = ± 0.5% of t power s	only): 120 Master u Vo(rated) lo(rated) upply (Loc	0, 2400, 4 nit, where ±1 count ±1 count cal sense	4800, 960 e x = # of t	0 and 19, Slave unit	s (0 to 4),				E
	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter	selection I Parallel I digits, A I digits, A displays D's: PRE	Master/S ccuracy: ccuracy: voltage a	D) and L/ 2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of t power s	only): 120 - Master u f Vo(rated) lo(rated) upply (Loc M/LOCAL,	0, 2400, 4 nit, where ±1 count tal sense OUT ON	4800, 960 e x = # of t	0 and 19, Slave unit	s (0 to 4),				
3.Indications	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	selection I Parallel I digits, A I digits, A displays D's: PRE	Master/S ccuracy: ccuracy: voltage a	D) and L/ 2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of t power s	only): 120 - Master u f Vo(rated) lo(rated) upply (Loc M/LOCAL,	0, 2400, 4 nit, where ±1 count tal sense OUT ON	4800, 960 e x = # of t	0 and 19, Slave unit	s (0 to 4),				
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	e selection d Parallel digits, A digits, A displays D's: PRE	n (RS-23) Master/S ccuracy: ccuracy: voltage a VIEW, FO DVP, OTF	D) and L/ 2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of t power s DLD, REM ; FOLD, A	only): 120 - Master u f Vo(rated) lo(rated) upply (Loc M/LOCAL,	0, 2400, 4 nit, where ±1 count tal sense OUT ON	4800, 960 e x = # of t	0 and 19, Slave unit	s (0 to 4),				
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED:	e selection d Parallel d digits, A digits, A displays D's: PRE ALRM (0	Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTF	D) and L/2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REM ; FOLD, A	only): 120 Master uf Vo(rated) lo(rated) upply (Loo M/LOCAL, C FAIL, E	0, 2400, 4 nit, where ±1 count ±1 count cal sense OUT ON NA, SO)	4800, 960 e x = # of t) or at loa	0 and 19, Slave unit d (Remote /CC, FINE	s (0 to 4),		ave unit(s)		F F
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Accuracy 3. Vout Programming Resolution	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of	e selection d Parallel digits, A digits, A displays D's: PRE : ALRM (0	Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTF	D) and L/2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REM ; FOLD, A	only): 120 Master uf Vo(rated) lo(rated) upply (Loo M/LOCAL, C FAIL, E	0, 2400, 4 nit, where ±1 count ±1 count cal sense OUT ON NA, SO)	4800, 960 e x = # of t) or at loa	0 and 19, Slave unit d (Remote /CC, FINE	s (0 to 4),	Slave = Sla	ave unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of 0.04% of	selection I Parallel I digits, A I digits, A I displays D's: PRE I ALRM (C I rated Out Vo(rated) Io(rated)	n (RS-23: Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTF	D) and L/2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REN; FOLD, A	only): 120 Master u Vo(rated) Io(rated) Upply (Loc M/LOCAL, C FAIL, E	0, 2400, 4 nit, where ±1 count ±1 count cal sense OUT ON NA, SO)	4800, 960 e x = # of t) or at loa	0 and 19, Slave unit d (Remote /CC, FINE	s (0 to 4),	Slave = Sla	ave unit(s)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy	RS-232/F Baud rate Advancec Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of 0.04% of ± (0.1% o	selection Parallel digits, A digits, A displays D's: PRE ALRM (0 rated OL rated OL vo(rated) of Vo(actu	n (RS-23: Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTF utput volta utput curre	D) and L/2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REM; FOLD, A ge ent for unit	only): 120 Master u Vo(rated) Io(rated) Upply (Loc M/LOCAL, C FAIL, E ts with Io	0, 2400, 4 nit, where ±1 count ±1 count cal sense OUT ON NA, SO)	4800, 960 e x = # of t) or at loa	0 and 19, Slave unit d (Remote /CC, FINE	s (0 to 4),	Slave = Sla	ave unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy	RS-232/F Baud rate Advancec Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 6 ± 0.5% of ± 0.5% of 0.02% of 0.04% of ± (0.1% c ± (0.1% c	selection I Parallel I digits, A I digits, A I displays D's: PRE I ALRM (0 I rated OL Vo(rated) Io(rated) Io(vo(actu If Vo(actu If Vo(actu	Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTF atput volta atput curr al) + 0.25 al) + 0.45	D) and L/2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REM; FOLD, A ge ent for unit	only): 120 Master u Vo(rated) Io(rated) Upply (Loc M/LOCAL, C FAIL, E ts with Io	0, 2400, 4 nit, where ±1 count ±1 count cal sense OUT ON NA, SO)	4800, 960 e x = # of t) or at loa	0 and 19, Slave unit d (Remote /CC, FINE	s (0 to 4),	Slave = Sla	ave unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy 7. Vout Readback Resolution	RS-232/F Baud rate Advancec Voltage: 4 Voltmeter Green LE Red LED: ± 0.5% of 0.02% of 0.04% of ± (0.1% of ± (0.1% of ± (0.1% of 0.02% of	selection Parallel digits, A digits, A displays D's: PRE ALRM ((rated Ot Vo(rated) Io(rated) Io(rated) Vo(actu Vo(rated)	Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTF atput volta atput curr al) + 0.25 al) + 0.45	D) and L/2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REM; FOLD, A ge ent for unit	only): 120 Master u Vo(rated) Io(rated) Upply (Loc M/LOCAL, C FAIL, E ts with Io	0, 2400, 4 nit, where ±1 count ±1 count cal sense OUT ON NA, SO)	4800, 960 e x = # of t) or at loa	0 and 19, Slave unit d (Remote /CC, FINE	s (0 to 4),	Slave = Sla	ave unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy	RS-232/F Baud rate Advancec Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 6 ± 0.5% of ± 0.5% of 0.02% of 0.04% of ± (0.1% c ± (0.1% c	selection Parallel digits, A digits, A displays D's: PRE ALRM ((rated Ot vo(rated) lo(rated) of Vo(actu Vo(rated) lo(rated) lo(rated) lo(rated) lo(rated)	n (RS-23; Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTF atput volta atput curr	D) and L/ 2/RS-485 lave: Hx = ± 0.5% o ± 0.5% of t power s DLD, REN ; FOLD, A age ent for uni	only): 120 Master u f Vo(rated) Io(rated) upply (Loc ///LOCAL, C FAIL, E ts with Io ted))	0, 2400, 4 nit, where ±1 count ±1 count cal sense; OUT ON NA, SO)	4800, 960 ⇒ x = # of t) or at loa /OFF, CV. ± 0.7% o	0 and 19, Slave unit d (Remote /CC, FINE	s (0 to 4),	Slave = Sla	ave unit(s)		

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

Genesys™ 3U 15kW Spec	cific	atio	ns											15kW
1.0 MODEL	GEN	N/A	N/A	N/A	N/A	N/A	30-500	40-375	50-300	60-250	80-187.5	100-150	125-120	X
1.Rated Output Voltage	VDC						30*	40*	50*	60	80	100	125	Х
2.Rated Output Current	ADC						500	375	300	250	187.5	150	120	Х
3.Rated Output Power	kW						15.0	15.0	15.0	15.0	15.0	15.0	15.0	Х
4.Efficiency (min) at low AC line, 100% Rated Load	%									88				Х
Contact Factory for other models						els					Х			

						ornaot r a	Clory for C	ALLICI IIIOG	OIO					
1.1 CONSTANT VOLTAGE MODE (CV)														
1. Max. Line Reg (0.1% - Vor \leq 30V; 0.01% - 30V < Vor \leq 600V; 0.05% - 600V < Vor \leq 1500V)	mV						30	4	5	6	8	10	12.5	Х
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤ 600V; 0.1% - 600V < Vor ≤ 1500V)	mV						30	8	10	12	16	20	25	Х
3. Ripple, rms, 5Hz~1MHz, CV (*1)	mV						20	20	20	20	25	25	25	Х
4. Output Noise, p-p, (20MHz), CV (*1)	mV						60	60	75	75	100	100	125	Х
5.Remote Sense Compensation / Wire	V						1.5	2	3	3	4	5	5	Х
6. Temperature Stability		± 0.05%	of Vo(rat	ed) over 8	3 hours af	ter 30 mir	nute warm	up (cons	stant Line	, Load &	Temperatu	re)		Х
7. Temperature Coefficient	ppm / °C	± 200 (±	0.02% o	f Vo(rated	l)) / °C									Х
8. Up-Prog. Response Time, 0 ~ Vomax, full-load	ms							100						Х
9. Up-Prog. Response Time, 0~Vomax, no load	ms							50						Х
10. Transient Response Time (CV mode) (*2)	ms						Les	s than 3						Х

1.2 CONSTANT CURRENT MODE (CC)											
1. Max. Line Reg. (0.1% - Ior ≥ 333A; 0.050% - Ior < 333A)	mA	 	 	 500	375	334	125	94	75	60	Х
2. Max. Load Reg (0.1% - lor ≥ 333A; 0.075% - 25A ≤ lor < 333A; 0.2% - lor < 25A) (*3)	mA	 	 	 500	375	334	188	141	113	90	Х
3. Ripple, rms, 5Hz~1MHz, CC	mA	 	 	 350	200	150	100	100	100	50	Х

333A; 0.2% - Ior < 25A) (^3)														
3. Ripple, rms, 5Hz~1MHz, CC	mA						350	200	150	100	100	100	50	Х
4. Temperature Stability		± 0.05%	of lo(rat	ed) over 8	3 hours aft	er 30 mir	nute warm	up (cons	tant Line,	Load & T	emperatu	re)		Х
5. Temperature Coefficient	ppm/°C	± 300 (±	± 0.03% c	of lo(rated)) / °C									Х

1.3 PROTECTIVE FUNCTIONS			
1. OCP	%	0 ~ 100	X
2. OCP type		Constant current	Х
3. Foldback Protection (FOLD)		Output shutdown; Manual reset by front panel OUT button or DIgital communication, user-selectable	Х
4. Foldback Response Time	s	Less than 1 (Min = 0.25 / Max = 25 / Default = 0.25); Settable via "FBD" command	Х
5. OVP type		Inverter shut-down; Manual reset by AC On/Off recycle, OUT button, Remote Analog or Digital communication	Х
6. OVP Programming Accuracy	%	± 5% of Vo(rated)	Х
7. OVP Trip Point	V	5% to to 105% of Vo(rated) - for Vor ≤ 600V; 10% to 105% of Vo(rated) - 600V < Vor ≤ 1500V; Shall always be greater than 105% of Vo(setting); Default = 105% of Vo(rated)	Х
8. OVP Response Time	ms	Less than 10 (for Output to begin to drop) for Vor ≤ 600V; Less than 2.0 (for Output to begin to drop) for 600V < Vor ≤ 1500V	Х
9. Max. OVP Reset Time	S	7 (from AC On/Off switch turn On)	Х
10. Over-temperature Protection (OTP)		Shut down if internal temperature exceeds safe operating levels (Latched: Safe-mode/ Unlatched: Auto-mode)	Х
11. Phase-Loss Protection		Yes, power supply shutdown (Latched: Safe-mode / Unlatched: Auto-mode)	Х

11.1 Hase-Loss Flotection	163, power supply shutdown (Laterieu. Sale-mode / Offiaterieu. Auto-mode)	
1.4 REMOTE ANALOG CONTROLS & SIGNALS		
Vout Voltage Programming	0~100%, 0 ~ 5V or 0 ~ 10V, user-selectable., Accuracy & Linearity: ±1% of Vo(rated)	X
lout Voltage Programming	0~100%, 0 ~ 5V or 0 ~ 10V, user-selectable, Accuracy & Linearity: ± 1% of lo(rated)	X
Vout Resistor Programming	0~100%, 0 ~ 5/10kohm full-scale, user-selectable, Accuracy & Linearity: ± 1% of Vo(rated)	X
Iout Resistor Programming	0~100%, 0 ~ 5/10kohm full-scale, user-selectable, Accuracy & Linearity: ± 1% of lo(rated)	X
5. Shut-Off (SO) Control (rear panel)	By Voltage: 0.6V = Disable, 2-15V = Enable (default) or Dry Contact: Open = EN, Short = DIS (user-selectable logic)	Х
6. Output Current Monitor	0 ~ 5V or 0 ~ 10V, Accuracy: ± 1% of lo(rated), user-selectable	X
7. Output Voltage Monitor	0 ~ 5V or 0 ~ 10V, Accuracy: ± 1% of Vo(rated), user-selectable	X
8. Power Supply OK (PS_OK) Signal	Yes. TTL High = OK, 0V = Fail (500ohm series impedance)	X
9. CV/CC Signal	CV: TTL High (4 ~ 5V), Max source current = 10mA; CC: TTL Low (0 ~ 0.4V), Max sink current = 10mA	X
10. Enable/Disable	Dry contact; Open = Off, Short = On; Max. voltage across Enable/Disable contacts = 6V	X
11. Remote/Local Selection	Selects Remote or Local operation by voltage: 0 ~ 0.6V = Local / 2 - 15V = Remote	X
12 Remote/Local Signal	Signals operating mode: Open collector: Local - Open (Max voltage - 30V), Remote - On (Max sink current - 10mA)	X

12.1 tomoto/200al orginal	organic operating mode; open consistent zood - open (max voidage - oov); nemete - on (max sink current - term)	
1.5 FRONT PANEL		
1.Control Functions	Vout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable)	X
	OVP/UVL manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock	X
	Address selection by Voltage Adjust encoder. # of addresses = 31	X
	AC ON/OFF, Output On/Off, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local	X
	RS-232/RS-485, IEEE (IEMD) and LAN selection by rear panel DIP-switch	X
	Baud rate selection (RS-232/RS-485 only): 1200, 2400, 4800, 9600 and 19,200 (by current adjust encoder)	X
	Advanced Parallel Master/Slave: Hx = Master unit, where x = # of Slave units (0 to 4); S = Slave unit(s)	X
2.Display	Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count	X
	Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count	X
	Voltmeter displays voltage at power supply (Local sense) or at load (Remote sense)	X
3.Indications	Green LED's: PREVIEW, FOLD, REM./LOCAL, OUT ON/OFF, CV/CC, FINE Red LED: ALRM (OVP. OTP. FOLD, AC FAIL, ENA, SO)	Х

Red LED:.ALRM (OVP, OTP, FOLD, AC FAIL, ENA, SO)	
± 0.5% of rated Output voltage	X
± 0.5% of rated Output current for units with Io < 187.5A; ± 0.7% of rated Output current for Io ≥187.5A	X
0.02% of Vo(rated)	X
0.04% of lo(rated)	X
± (0.1% of Vo(actual) + 0.2% of Vo(rated))	X
± (0.1% of lo(actual) + 0.4% of lo(rated))	X
0.02% of Vo(rated)	X
0.02% of lo(rated)	X
20mS maximum (between Vout exceeding IEEE Limit and supply Inhibit turning On)	X
Set OVP/UVL limits, Set Local/Remote, Operating parameters and Status, Get Identity	X
	± 0.5% of rated Output current for units with lo < 187.5A; ± 0.7% of rated Output current for lo ≥187.5A 0.02% of Vo(rated) 0.04% of lo(rated) ± (0.1% of Vo(actual) + 0.2% of Vo(rated)) ± (0.1% of lo(actual) + 0.4% of lo(rated)) 0.02% of Vo(rated) 0.02% of lo(rated) 20mS maximum (between Vout exceeding IEEE Limit and supply Inhibit turning On)

^{*30}V, 40V and 50V models (15kW) only available with 400VAC and 480VAC. For 208VAC Input models please contact the factory.

*1. Ripple and Noise at Vo(rated) and rated Load, Ta = 25C and nominal AC input, per EIJ R9002A.

*2. Time for the Output voltage to recover within 2% of rating for a load current change of 50~100% or 100-50% of rated Output.

*3. From 20% - 100% for models with lor < 25A.

All specifications subject to change without notice.

Genesvs™	3U	15kW	Specifications
MEHE373	J	IJAVV	opecinications

1.0 MODEL	GEN	150-100	200-75	250-60	300-50	400-37.5	500-30	600-25	800-18.8	1000-15	1250-12	1500-10
Rated Output Voltage	VDC	150	200	250	300	400	500	600	800*	1000*	1250*	1500*
Rated Output Current	ADC	100	75	60	50	37.5	30	25	18.8	15	12	10
B.Rated Output Power	kW	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.04	15.0	15.0	15.0
Efficiency (min) at low AC line, 100% Rated Load	%				88					9:	3.5	
.1 CONSTANT VOLTAGE MODE (CV)					Cont	act Factor	ry for othe	r models				
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor <	.,	45							400			750
600V; 0.05% - 600V < Vor ≤ 1500V)	mV	15	20	25	30	40	50	60	400	500	625	750
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤	mV	30	40	50	60	80	100	120	800	1000	1250	1500
600V; 0.1% - 600V < Vor ≤ 1500V)												
3. Ripple r.m.s, 5Hz~1MHz, CV (*1) 4. Output Noise p-p (20MHz), CV (*1)	mV mV	25 150	35 175	35 200	60 200	60 300	60 350	60 350	700	100 800	120 1000	140 1400
5.Remote Sense Compensation / Wire	V	5	5	5	<u>200</u>	5	5	5	5	5	5	5
5. Temperature Stability										, Load & Te		
7. Temperature Coefficient	ppm / °C		02% of V					р,		,		
3. Up-Prog. Response Time, 0~Vomax, full-load	mS				100					17	7	
9. Up-Prog. Response Time, 0~Vomax, no load	mS				50					17	7	
10. Transient Response Time (CV mode) (*2)	mS				ess than	3				Less th	nan 1	
1.2 CONSTANT CURRENT MODE (CC)												
I. Max. Line Reg (0.1% - Ior ≥ 333A; 0.050% - Ior < 333A)	mA	50	38	30	25	19	15	13	28	23	18	15
2. Max. Load Reg (0.1% - Ior \geq 333A; 0.075% - 25A \leq Ior $<$	mA	75	57	45	38	28	23	19	38	30	24	20
333A; 0.2% - lor < 25A) (*3)												
B. Ripple r.m.s, 5Hz~1MHz, CC	mA	50	20	20	20	10	10	10	15	10	6	4
4. Temperature Stability			6 of lo(rate			ner 30 mir	nute warm	up (cons	tant Line,	Load & Ter	nperature)	
5. Temperature Coefficient	ppm / °C	± 300 (:	± 0.03% (or io(rated	1)) / °C							
1.3 PROTECTIVE FUNCTIONS												
1. OCP	%	0 ~ 100										
2. OCP type			nt current		was at law	frank nan	al OUT has	tton or Di	wital aanan			abla
3. Foldback Protection 4. Foldback Response Time									gitai comn t "FBD" co		user-select	able
5. OVP type	s 										igital comm	unication
6. OVP Programming Accuracy	%		f Vo(rated		ai reset by	7 011/011 10	scycle, Oc	or buttori,	Tierriote /	analog of D	igital comin	iuiiicatioii
,			- (,	t) - for Vo	r < 600V·	10% to 10	5% of Vol	rated) - 60	10V < Vor <	1500V; Sh	all always
7. OVP Trip Point	V					; Default =				50 V \ VOI <u>s</u>	. 1000 1, 011	an anvayo
B. OVP response time	ms		an 10 (foi Vor ≤ 15		begin to	drop) for	Vor ≤ 600	V; Less th	an 2.0 (fo	r Output to	begin to dr	op) for
9. Max. OVP reset time	S	7 (from	AC On/C	ff switch t	urn On)							
10. Over temperature Protection											ched: Auto))
11. Phase Loss Protection		Yes, po	wer supp	ly shutdo	vn (Latch	ed: Safe-r	node / Un	latched: A	uto-mode)		
1.4 REMOTE ANALOG CONTROLS & SIGNALS												
1. Vout Voltage Programming	0~100%,											
2. lout Voltage Programming	0 ~ 100%											
3. Vout resistor programming	0~100%,											
4. lout Resistor Programming 5. Shut-Off (SO) Control (rear panel)	0~100%,										-selectable	logic)
6. Output Current Monitor	0 ~ 5V or							ot. Open -	-LIN, SHOI	t-Dio (user	-selectable	logic)
7. Output Voltage Monitor	0 ~ 5V or											
B. Power Supply OK (PS_OK) Signal	Yes. TTL I											
9. CV/CC Signal								(0 ~ 0.4V), Max sinl	k current =	10mA	
10. Enable/Disable	Dry conta	ct; Open	= Off, Sh	ort = On;	Max. volta	age acros	s Enable/[Disable co	ntacts = 6	SV V		
11. Remote/Local Selection	Selects R	emote or	Local op	eration by	voltage:	0 ~ 0.6V =	= Local / 2	! - 15V = F	Remote			
12. Remote/Local Signal	Signals o	perating r	mode; Op	en collec	or: Local	= Open (I	Max voltaç	ge = 30V),	Remote =	On (Max	sink curren	t = 10mA)
1.5 FRONT PANEL												
0									selectable	e)		
1.Control Functions	OVP/UVL			0	,	,		ock/Unloc	k			
.Control Functions		selection I	by Voltag	e Adiust e		of addres						
LControl Functions	Address s			-				k Control	(CV to CC	;), Go-to-Lo	cal	
LControl Functions	AC ON/O	FF, Outpu	ut On/Oni	n, Restart		,						
LControl Functions	AC ON/O RS232/RS	FF, Outpu S-485, IE	ut On/Oni EE (IEMI	n, Restart D) and LA	N selection	on by rear	panel DIF		000 (
LControl Functions	AC ON/O RS232/RS Baud rate	FF, Outpu S-485, IE selection	ut On/Oni EE (IEMI n (RS-232	n, Restart 0) and LA 2/RS-485	N selection	on by rear 00, 2400,	panel DIF 4800, 960	0 and 19,	1,5	rent adjust	,	
	AC ON/O RS232/RS Baud rate Advanced	FF, Outpu S-485, IE selection I Parallel	ut On/Oni EE (IEMI n (RS-232 Master/S	n, Restart 0) and LA 2/RS-485 ave: Hx =	N selection only): 120 Master u	on by rear 00, 2400, 4 unit, where	panel DIF 4800, 960 x = # of 3	0 and 19,	1,5	rent adjust S = Slave ι	,	
	AC ON/O RS232/RS Baud rate Advanced Voltage: 4	FF, Outpu S-485, IE selection Parallel digits, A	ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy:	n, Restart 0) and LA 2/RS-485 ave: Hx = ± 0.5% o	N selection only): 120 Master u	on by rear 00, 2400, 4 unit, where) ±1 coun	panel DIF 4800, 960 x = # of 3	0 and 19,	1,5	,	,	
	AC ON/O RS232/RS Baud rate Advanced Voltage: 4 Current: 4	FF, Outpu S-485, IE selection Parallel digits, Ad digits, Ad	ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy:	n, Restart 0) and LA 2/RS-485 ave: Hx = ± 0.5% of	N selection only): 120 Master La Vo(rated lo(rated)	on by rear 00, 2400, 4 unit, where) ±1 count	panel DIF 4800, 960 e x = # of 5	0 and 19, Slave unit	s (0 to 4);	,	,	
2.Display	AC ON/O RS232/RS Baud rate Advanced Voltage: 4	FF, Outpu S-485, IE selection Parallel digits, Addigits, Addigits, Addigits, Addigits, Addisplays	ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: : Voltage a	n, Restart 0) and LA 2/RS-485 lave: Hx = ± 0.5% of t power s	N selection only): 120 Master L Vo(rated lo(rated) upply (Lo	on by rear 00, 2400, 4 unit, where) ±1 count cal sense	panel DIF 4800, 960 e x = # of s t) or at load	0 and 19,3 Slave unit	s (0 to 4);	,	,	
.Display	AC ON/O RS232/RS Baud rate Advanced Voltage: 4 Current: 4 Voltmeter	FF, Outpu S-485, IE selection I Parallel digits, Addigits, Addigits, Addigits, Addigits, Addigits, Addigits, Addisplays	ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC	n, Restart 0) and LA 2/RS-485 ave: Hx = ± 0.5% of t power s DLD, REM	N selection only): 120 Master L Vo(rated lo(rated) upply (Lo I./LOCAL	on by rear 10, 2400, 4 unit, where 1 count ±1 count cal sense , OUT ON	panel DIF 4800, 960 e x = # of s t) or at load	0 and 19,3 Slave unit	s (0 to 4);	,	,	
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK	AC ON/O RS232/RS Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED:	FF, Outpu S-485, IE selection d Parallel digits, Addigits, Addigit	ut On/Oni EE (IEMI E (IEMI E) (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC OVP, OTF	n, Restart D) and LA L/RS-485 Eave: Hx = ± 0.5% of t power s DLD, REM	N selection only): 120 Master L Vo(rated lo(rated) upply (Lo I./LOCAL	on by rear 10, 2400, 4 unit, where 1 count ±1 count cal sense , OUT ON	panel DIF 4800, 960 e x = # of s t) or at load	0 and 19,3 Slave unit	s (0 to 4);	,	,	
2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy	AC ON/O RS232/RS Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED:	FF, Outpu S-485, IE s selection d Parallel d digits, Addigits, Addisplays D's: PRE ALRM (O	ut On/Oni EE (IEME n (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC OVP, OTF	n, Restart n) and LA 2/RS-485 ave: Hx = ± 0.5% of t power s pl.D, REM pge	N selection only): 120 Master Law Worked Io(rated) Upply (Low In/LOCAL C FAIL, E	on by rear 00, 2400, 4 init, where 1 count ±1 count cal sense , OUT ON ENA, SO)	panel DIF 4800, 960 e x = # of st t) or at load	0 and 19,i Slave unit d (Remote /CC, FINE	s (0 to 4);	S = Slave u	unit(s)	
2. Display B. Indications L. 6 DIGITAL PROGRAMMING & READBACK I. Vout Programming Accuracy 2. Iout Programming Accuracy	AC ON/O RS232/RS Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of	FF, Outpu S-485, IE s selection I Parallel digits, Ai digits, Ai displays D's: PRE ALRM (0 rated Output S-485)	ut On/Oni EE (IEMI In (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC OVP, OTF	n, Restart n) and LA 2/RS-485 ave: Hx = ± 0.5% of t power s pl.D, REM pge	N selection only): 120 Master Law Worked Io(rated) Upply (Low In/LOCAL C FAIL, E	on by rear 00, 2400, 4 init, where 1 count ±1 count cal sense , OUT ON ENA, SO)	panel DIF 4800, 960 e x = # of st t) or at load	0 and 19,i Slave unit d (Remote /CC, FINE	s (0 to 4);	,	unit(s)	
2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution	AC ON/O RS232/RS Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ±0.5% of	FF, Outpu S-485, IE s selection I Parallel digits, Ai displays D's: PRE .ALRM (G rated Output Selection (G rated Output Se	ut On/Oni EE (IEMI In (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC OVP, OTF	n, Restart n) and LA 2/RS-485 ave: Hx = ± 0.5% of t power s pl.D, REM pge	N selection only): 120 Master Life Vo(rated lo(rated) upply (Lo M./LOCAL C FAIL, E	on by rear 00, 2400, 4 init, where 1 count ±1 count cal sense , OUT ON ENA, SO)	panel DIF 4800, 960 e x = # of st t) or at load	0 and 19,i Slave unit d (Remote /CC, FINE	s (0 to 4);	S = Slave u	unit(s)	
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution	AC ON/O RS232/R: Baud rate Advancec Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ±0.5% of 0.02% of 0.04% of	FF, Outpu S-485, IE s selection I Parallel d digits, Ai displays D's: PRE .ALRM (0 rated Out Vo(rated) Io(rated)	ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC OVP, OTF	n, Restart)) and LA (RS-485 ave: Hx = ± 0.5% of t power s DLD, REM , FOLD, A ge nt for unit	N selectionly): 120 Master L Vo(rated lo(rated) upply (Lo M./LOCAL C FAIL, E	on by rear 00, 2400, 4 init, where 1 count ±1 count cal sense , OUT ON ENA, SO)	panel DIF 4800, 960 e x = # of st t) or at load	0 and 19,i Slave unit d (Remote /CC, FINE	s (0 to 4);	S = Slave u	unit(s)	
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	AC ON/O RS232/R: Baud rate Advanced Voltage: 4 Voltmeter Green LE Red LED: ± 0.5% of 0.02% of 0.04% of ± 0.1% +	FF, Outpus S-485, IE s selection I Parallel digits, Addisplays D's: PRE .ALRM (C rated Outrated) lo(rated) 0.2% of r	ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC OVP, OTF	n, Restart n) and LA t/RS-485 ave: Hx = ± 0.5% or t power s DLD, REN t, FOLD, A ge nut for unit	N selectionly): 120 Master L Vo(rated lo(rated) upply (Lo M./LOCAL C FAIL, E	on by rear 00, 2400, 4 init, where 1 count ±1 count cal sense , OUT ON ENA, SO)	panel DIF 4800, 960 e x = # of st t) or at load	0 and 19,i Slave unit d (Remote /CC, FINE	s (0 to 4);	S = Slave u	unit(s)	
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy 7. Vout Readback Accuracy 7. Vout Readback Resolution	AC ON/O RS232/R: Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of 0.02% of ± 0.1% + ± 0.1% +	FF, Outpus S-485, IE s selection I Parallel d digits, Addisplays D's: PRE .ALRM (C rated Outrated Outrated Outrated Outrated) Io(rated) Io(rated) 0.2% of r 0.4% of r	ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC OVP, OTF utput volta tput curre	n, Restart n) and LA t/RS-485 ave: Hx = ± 0.5% or t power s DLD, REN t, FOLD, A ge nut for unit	N selectionly): 120 Master L Vo(rated lo(rated) upply (Lo M./LOCAL C FAIL, E	on by rear 00, 2400, 4 init, where 1 count ±1 count cal sense , OUT ON ENA, SO)	panel DIF 4800, 960 e x = # of st t) or at load	0 and 19,i Slave unit d (Remote /CC, FINE	s (0 to 4);	S = Slave u	unit(s)	
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 5. Iout Readback Accuracy 7. Vout Readback Resolution	AC ON/O RS232/R: Baud rate Advancec Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of 0.02% of 0.02% of 0.04% of ± 0.1% + ± 0.1% + 0.02% of	FF, Outpus S-485, IE s selection I Parallel digits, Ai digits, Ai displays D's: PRE .ALRM (0 rated Out Vo(rated) 10(rated) 0.2% of r 0.4% of r Vo(rated)	ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC OVP, OTF utput volta tput curre	n, Restart n) and LA t/RS-485 ave: Hx = ± 0.5% or t power s DLD, REN t, FOLD, A ge nut for unit	N selectionly): 120 Master L Vo(rated lo(rated) upply (Lo M./LOCAL C FAIL, E	on by rear 00, 2400, 4 init, where 1 count ±1 count cal sense , OUT ON ENA, SO)	panel DIF 4800, 960 e x = # of st t) or at load	0 and 19,i Slave unit d (Remote /CC, FINE	s (0 to 4);	S = Slave u	unit(s)	
2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy 6. Iout Readback Accuracy	AC ON/O RS232/R: Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of 0.02% of ± 0.1% + ± 0.1% +	FF, Outpus S-485, IE s selection I Parallel digits, Au digits, Au displays D's: PRE ALRM (0 rated Outpus Increase) Increase Incre	ut On/Oni EE (IEMI n (RS-232 Master/S ccuracy: ccuracy: Voltage a VIEW, FC DVP, OTF atput volta tput curre	n, Restart n) and LA t/RS-485 ave: Hx = ± 0.5% o ± 0.5% of t power s slLD, REN t, FOLD, A ge nt for unit	N selection only): 120 Master LE Vo(rated lo(rated) upply (LO A./LOCAL C FAIL, E	on by rear 10, 2400, 4 unit, where 1) ±1 count ±1 count cal sense , OUT ON ENA, SO)	panel DIF 4800, 960 9 x = # of st t) or at load 1/OFF, CV +/-0.7% o	0 and 19,6 Slave unit	s (0 to 4);	S = Slave u	unit(s)	

^{*800}V - 1500V models (15kW) only available with 400VA and 480VAC input. For 208VAC Input models please contact the factory.

*1. Ripple and Noise at Vo(rated) and rated Load, Ta = 25C and nominal AC input, per EIJ R8002A.

*2. Time for the Output voltage to recover within 2% of rating for a load current change of 50~100% or 100-50% of lo(rated).

*3. From 20% - 100% for models with lor < 25A.

All specifications subject to change without notice.

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

2.1 INPUT CHARACTERISTICS		
1. Input Voltage / Frequency (range)		208VAC (180-253), 400VAC (360-440 , 342-440 (select 10kW/15kW models)), 480VAC (432-528); 47-63Hz (all)
2. No. of phases		3-Phase (Wye or Delta) 4 wire total (3-Phase and 1 protective Earth ground)
3. Dropout Voltage	V	180 / 360, 342 (select models) / 432; select models (10kW): 800V-1500V, select models (15kW): 30V-50V, 800V-1500V
4. Input Current (180VAC/360 or 342VAC/432VAC)	Arms	10kW - 45/23/20 (Vout ≤ 600V); N/A/23/20 (800V ≤ Vout ≤ 1500V) - at full rated Output power
4. Input Current (160 VAC/360 or 342 VAC/432 VAC)		15kW - 64/32/27 (Vout ≤ 600V); N/A/32/27 (800V ≤ Vout ≤ 1500V) - at full rated Output power
5. Inrush Current	Α	Not to exceed full rated Input current (see para. above)
6. Power Factor		0.88 Passive (typical)
7. Leakage Current	mA	3.5 (EN60950) max.
8. Input Protection		208VAC: circuit breaker (Vout ≤ 600V); 400VAC/480VAC (all models) - line fuse
9. Input Overvoltage Protection		Unit shall not be damaged by line overvoltage of 120% nominal AC input voltage with maximum duration of 100usec.
10. Phase Imbalance	%	≤ 5% on Three-Phase Input

2.2 POWER SUPPLY CONFIGURATION

1. Parallel Operation	Up to four (4) identical units may be connected in Master/Slave Mode with single wire connection (*3). In Advanced-Parallel feature, the current of Master unit multiplied by number of units connected in parallel, is available via digital interface and displayed on the front panel display of the Master unit. Remote Analog current monitor of the Master is scaled to the Output current of the Master unit (only).
2. Series Operation	Possible (with external diodes); Up to two identical units with total Output voltage not to exceed ± 600V from Chassis ground (for Vor ≤ 600V); not to exceed ± 1500V from Chassis ground (for 600V < Vor ≤ 1500V).

2.3 ENVIRONMENTAL CONDITIONS

2.3 LIVINONWENTAL CONDITIONS	
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 lo(rated) (measured 1m from front panel)

2.4 EMC (*4)	
1. 208VAC Input	CE Mark
1. ESD	EN61000-4-2 (IEC 801-2): Air-discharge ± 8kV , Contact-discharge ± 4kV
2. Fast Transients	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)
Power Frequency Magnetic Field	EN61000-4-8
7. Conducted Emissions	EN55011A, FCC part 15J-A
8. Radiated Emissions	EN55011A, FCC part 15J-A
2. 400VAC/480VAC (*4) Input	CE Mark
1. ESD	EN61000-4-2 (IEC 801-2): Air-discharge ± 8kV , Contact-discharge ± 4kV
2. Fast Transients	EN61000-4-4 (IEC 1000-4-3)
3. Surge Immunity	EN61000-4-5 (IEC 1000-4-5)
Conducted Immunity	EN61000-4-6 (IEC 1000-4-6)
5. Radiated Immunity	EN61000-4-3 (IEC 1000-4-3)
Power Frequency Magnetic Field	EN61000-4-8
7. Voltage Dips, Short Interruptions and Voltage Variations Immunity Test (400VAC Only).	IEC 61000-4-11
8. Conducted Emissions	EN55011A, FCC part 15J-A
9. Radiated Emissions	EN55011A, FCC part 15J-A

2.5 SAFETY	
1.Applicable Standards:	UL/cUL 60950-1, EN60950-1 recognized, CB Scheme, CE Mark (208VAC & 400VAC inputs only) 7.5V ≤ Vout ≤ 400V: Output is Hazardous; LAN/IEEE/Isolated Analog/USB are SELV 400V < Vout ≤ 600V: Output is Hazardous; LAN/IEEE/Isolated Analog/USB are not SELV 600V < Vout ≤ 1500V: Output is Hazardous; LAN/IEEE/Isolated Analog/USB are SELV
2. Withstand Voltage	Vout ≤ 300V models: Input - Ground: 2900VDC for 1min, Input-Hazardous Output: 3500VDC for 1min, Input - SELV: 2900VDC for 1min Hazardous Output - SELV: 2121VDC for 1min, Hazardous Output - Ground: 2121VDC for 1min G00 < Vout ≤ 600V models: Input-Ground: 2900VDC for 1min, Input-Hazardous Output: 3900VDC for 1min, Input-SELV: 2900VDC for 1min. Hazardous Output - SELV: 2688VDC for 1min, Hazardous Output - Ground: 2688VDC for 1min G00 < Vout ≤ 1500V models: Input-Ground: 2900VDC for 1min, Input-Hazardous Output: 5040VDC for 1min, Input-SELV: 2900VDC for 1min. Hazardous Output - SELV: 2500VDC for 1min, Hazardous Output - Ground: 2500VDC for 1min
3.Insulation Resistance	> 100Megohms at 500VDC, +25°C

2.0 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. Chassis slides or suitable rear support required.
2. Dimensions (WxHxD)	Width: 429mm / 16.9," Height: 3U - 133mm / 5.22," Depth - 564mm / 22.2" (excluding connectors, encoders, handles, etc.)
3. Weight	32kg / 70lbs
4. AC Input connector (with Protective Cover)	3 x M6 x 1" threaded studs (L1, L2, L3 and Chassis GND) and terminal cover.
5.Output Connectors	Up to and including 300V models: bus-bars (one and two-hole). Greater than 300V models: M6 x 0.5" threaded-stud terminals.
6.Control Connectors	Analog Programming: DB25, plastic connector, AMP747461-5, Female on Supply; Male on Mating connector, 747321, 25 pin Sub-D connector.
7. Mounting Method	Standard 19" Rack-Mount, provision for standard chassis slides. Side/Rear Support is required; Do not mount by front panel only.
8. Output Ground Connection	M5 x 1.0" threaded-stud

2.7 WARRANTY

1. Warranty	5 years

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



Genesys™ Power Parallel and Series Configurations

Parallel operation - Master/Slave:

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



Series operation

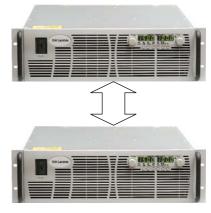
Up to two units may be connected in series to increase the Output voltage or to provide bipolar output. (Max 600V to Chassis GND for Vor \leq 600V; Max 1500V to Chassis GND for 600V < Vor \leq 1500V).

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.







P/N: IEMD

P/N: "----"

P/N: IS510

P/N: IS420

P/N: LAN

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

- Program Current
- Measure Current
- Current Foldback shutdown

Multi-Drop Slave Option is Standard

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

Isolated Analog Programming

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

Power supply Voltage and Current Programming Accuracy: ±1%

Power supply Voltage and Current Monitoring Accuracy: ±1.5%

Current Programming with 4-20mA signal.

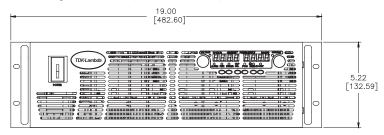
Power supply Voltage and Current Programming Accuracy: ±1%

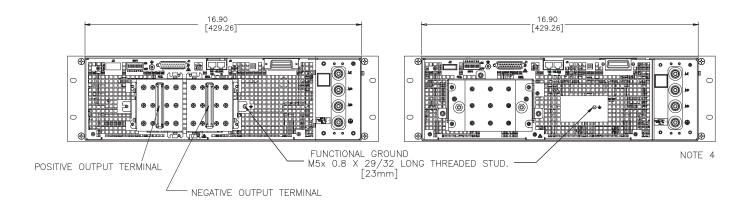
LAN Interface LXI Compliant to Class C

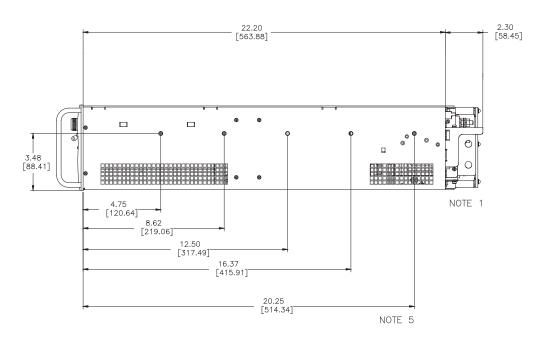
- Meets all LXI Class C Requirements
- Address Viewable on Front Panel
- Fixed and Dynamic Addressing
- Fast Startup

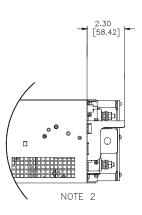
- VISA & SCPI Compatible
- LAN Fault Indicators
- Auto-detects LAN Cross-over Cable
- Compatible with most standard Networks

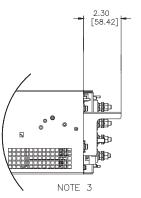
Outline Drawings: Genesys™ 10kW (All - 208VAC), 10kW/15kW (60V to 600V - 208/400/480VAC)







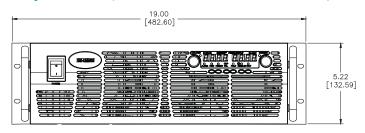


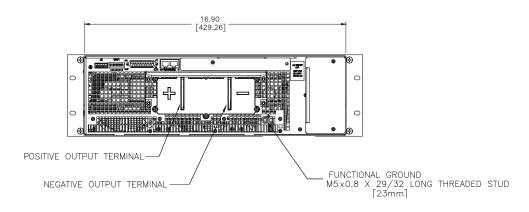


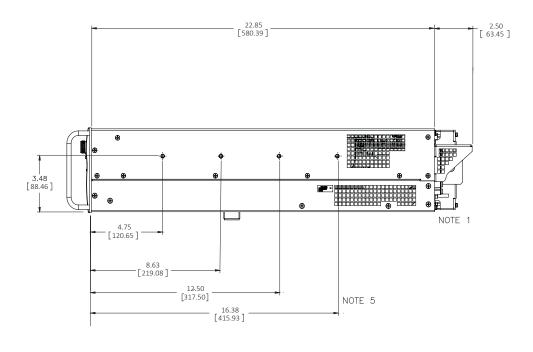
NOTES:

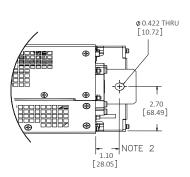
- 1. Busbars for models up to 30V Output: two holes 0.42" (10.72mm) diameter.
- 2. Busbars for models 40-300V (10kW) and 60-300V (15kW) Output: one hole 0.42" (10.72mm) diameter.
- 3. Threaded stud terminal for models above 300V Output.
- 4. Input Terminals M6 x 1" (3) + Ground M5 x 1" (2).
- Mounting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

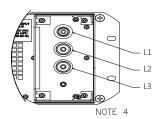
Outline Drawings: Genesys™ 15kW (30V to 50V - 400VAC/480VAC)







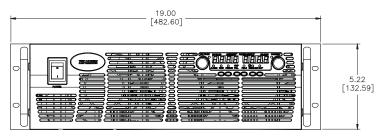


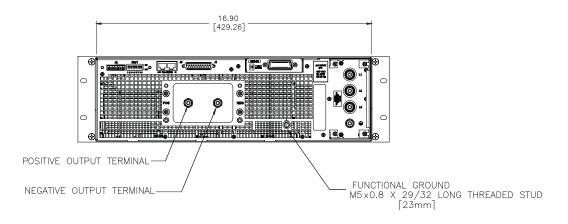


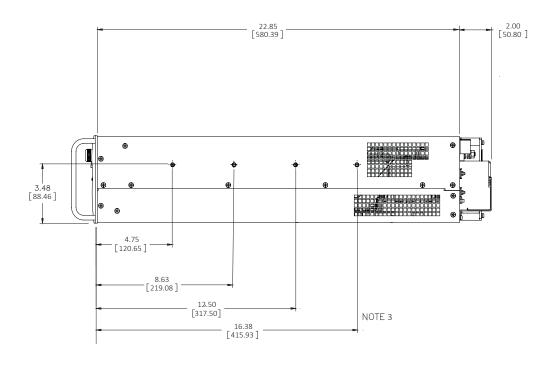
NOTES:

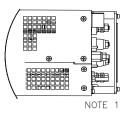
- 1. N/A
- 2. Bus bars for models 30-50V Output (15kW): one hole 0.42" (10.72mm) diameter.
- 3. N/A
- 4. Input Terminals M6 x 1" (3) + Ground M5 x 1" (2)
- Mounting for Slide Mounts (not included).
 Recommend General Devices, Chassis Trak P/N C230-S-122.
 Secure with pan head screw M5 x 0.8-8mm long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

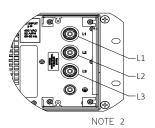
Outline Drawings: Genesys™ 15kW (800V to 1500V - 400VAC/480VAC)











NOTES:

- 1. Threaded stud terminals for 800V 1500V Output; M5 x 1".
- 2. Input Terminals M6 x 1" (3) + Ground M5 x 1" (2)
- 3. Mounting for Slide Mounts (not included).

 Recommend General Devices, Chassis Trak P/N C230-S-122.

 Secure with pan head screw M5 x 0.8-8mm long (max).

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

GEN 10 - 1000

Factory Options
Option: "----

3P208

Series Output Name Voltage (0~10V)

Output Current (0~1000A) "----" LAN IEMD IS510 IS420 AC Input Options
3P208 (Three-Phase 208VAC)
3P400 (Three-Phase 400VAC)
3P480 (Three-Phase 480VAC)

Model	Output Voltage (Vdc)	Output Current (Adc)	Output Power (kW)
GEN 7.5-1000	0~7.5	0~1000	7.5
GEN 10-1000	0~10	0~1000	10
GEN 12.5-800	0~12.5	0~800	10
GEN 20-500	0~20	0~500	10
GEN 25-400	0~25	0~400	10
GEN 30-333	0~30	0~333	10
GEN 30-500	0~30	0~500	15
GEN 40-250	0~40	0~250	10
GEN 40-375	0~40	0~375	15
GEN 50-200	0~50	0~200	10
GEN 50-300	0~50	0~300	15
GEN 60-167	0~60	0~167	10
GEN 60-250	0~60	0~250	15
GEN 80-125	0~80	0~125	10
GEN 80-187.5	0~60	0~187.5	15
GEN 100-100	0~100	0~100	10
GEN 100-150	U~ 100	0~150	15
GEN 125-80	0~125	0~80	10
GEN 125-120	U~ 125	0~120	15
GEN 150-66	0~150	0~66	10
GEN 150-100	0~150	0~100	15

Model	Output Voltage (Vdc)	Output Current (Adc)	Output Power (kW)
GEN 200-50	0~200	0~50	10
GEN 200-75	0~200	0~75	15
GEN 250-40	0~250	0~40	10
GEN 250-60	0~250	0~60	15
GEN 300-33	0~300	0~33	10
GEN 300-50	0~300	0~50	15
GEN 400-25	0~400	0~25	10
GEN 400-37.5	0~400	0~37.5	15
GEN 500-20	0.500	0~20	10
GEN 500-30	0~500	0~30	15
GEN 600-17	0.000	0~17	10
GEN 600-25	0~600	0~25	15
GEN 800-12.5	0.800	0~12.5	10
GEN 800-18.8	0~800	0~18.8	15
GEN 1000-10	0~1000	0~10	10
GEN 1000-15	0~1000	0~15	15
GEN 1250-8	0~1250	0~8	10
GEN 1250-12	U~1250	0~12	15
GEN 1500-6.7	0.1500	0~6.7	10
GEN 1500-10	0~1500	0~10	15

Factory options

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

P/N

"-----" LAN

IEMD

IS510 (standard on 800-1500V models)

IS420

Accessories

1. Serial Communication cable

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

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

2. Serial Link cable*

Daisy-chain up to 31 Genesys™ power supplies.

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

 $^{^{\}star}$ Included with GENESYS $^{\text{TM}}\text{-}1U, \ \text{-}2U$ power supply only.

Genesys™ Family - Output Voltage / Output Current

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

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

AC Inputs

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

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

Options (All Models)

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

⁽All options are factory installed and limited to one per power supply).

All specifications subject to change without notice.

