TM Genesy

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



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

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

Applications

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

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

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

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

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

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

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

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

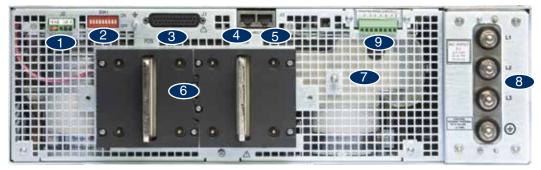
1 Genesys™ 3U 10/15kW

Front Panel Description



- 1. AC ON/OFF Switch
- 2. Air Intake allows zero stacking for maximum system flexibility and power density.
- 3. Continuous encoder controls Output Voltage, Address, OVP and UVL settings.
- 4. Voltage Display shows Output Voltage and directly displays OVP, UVL and Address settings.
- 5. Continuous encoder controls Output Current, sets Baud rate and Advanced Parallel mode.
- 6. Current Display shows Output Current and displays Baud rate. Displays total current in Parallel Master/Slave Mode.
- 7. Function/Status LEDs:
 - Alarm
 - Foldback Mode
- Fine Control
 Remote Mode
- Preview Settings
 Output On
- 8. Pushbuttons allow flexible user configuration
 - Coarse and Fine adjustment of Output Voltage/Output Current and Advanced Parallel Master or Slave select.
 - Preview Settings and set Voltage/Current with Output OFF, Front Panel Lock.
 - Parallel Master/Slave (Basic and Advanced).
 - Set OVP and UVL Limits.
 - Set Current Foldback Protection.
 - Go to Local Mode and select Address and Baud rate.
 - Output ON/OFF and Safe-Start/Auto Re-Start mode.

Rear Panel Description



- 1. Remote/Local Output Voltage Sense Connections.
- 2. DIP Switches select 0-5V or 0-10V Programming and other functions.
- 3. DB25 (Female) connector allows Analog Program and Monitor (non-isolated) and other functions.
- 4. RS-485 OUT to other Genesys[™] Power Supplies.
- 5. RS-232/RS-485 IN Remote Serial Programming.
- 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

TDK·Lambda |2

Genesys[™] 3U 10kW Specifications

1.0 MODEL	GEN	7.5-1000	<u>10-</u> 1000	12.5-800	20-500	25-400	30-333	40-250	50-200	60-167	80-125	100-100	125-80	T
1.Rated Output Voltage	VDC	7.5	10	12.5	20	25	30	40	50	60	80	100	125	╈
2.Rated Output Current	ADC	1000	1000	800	500	400	333	250	200	167	125	100	80	\top
3.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	10.0	\top
4.Efficiency (min) at low AC line, 100% Rated Load	%	77						83						╈
					C	ontact Fa	ctory for a	other mod	lels					1
1.1 CONSTANT VOLTAGE MODE (CV)														
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤	mV	7.5	10	10 5		25	20	4	5	6	8	10	12.5	Т
600V; 0.05% - 600V < Vor ≤ 1500V)	mv	7.5	10	12.5	20	25	30	4	5	0	8	10	12.5	
2. Max. Load Reg (0.1% - Vor \leq 30V; 0.02% - 30V < Vor \leq	mV	7.5	10	12.5	20	25	30	8	10	12	16	20	25	Τ
$600V; 0.1\% - 600V < Vor \le 1500V)$														╉
3. Ripple, rms, 5Hz~1MHz, CV (*1)	mV	20	20	20	20	20	20	20	20	20	25	25	25	\perp
4. Output Noise, p-p, (20MHz), CV (*1)	mV	60	60	60	60	60	60	60	75	75	100	100	125	\perp
S.Remote Sense Compensation / Wire	V	1	1	1	1	1	1.5	2	3	3	4	5	5	╇
5. Temperature Stability				<u>,</u>		er 30 mir	nute warm	n up (cons	stant Line	, Load &	Temperatu	ure)		╇
7. Temperature Coefficient	ppm / °C	± 200 (±	0.02% 0	f Vo Rateo	d) / °C			100						╇
3. Up-Prog. Response Time, 0 ~ Vomax, full-load	ms							100						╇
0. Up-Prog. Response Time, 0~Vomax, no-load	ms							50						╇
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 <	mA	1000	1000	800	500	400	333	125	100	83.5	62.5	50	40	
33A; 0.15% - lor < 17A)	IIIA	1000	1000	000		400	000	125	100	00.0	02.5		40	
. Max. Load Reg (0.1% - Ior \geq 333A; 0.075% - 17A \leq Ior <	mA	1000	1000	800	500	400	333	188	150	125	94	75	60	
33A; 0.2% - lor < 17A) (*3)														╀
. Ripple rms, 5Hz~1MHz, CC	mA	5300	4000	2560	1000	640	444	250	160	67	50	40	32	╀
. Temperature Stability						ər 30 min	ute warm	up (cons	tant Line,	Load & T	emperatu	re)		∔
. Temperature Coefficient	ppm/°C	± 300 (±	0.03% 0	f lo Rated	l) / °C									
3 PROTECTIVE FUNCTIONS														
OCP	%	0 ~ 100												Τ
. OCP type		Constan	t current											Т
. Foldback Protection (FOLD)		Output s	hutdown	Manual r	eset by fr	ont panel	OUT but	ton or Dig	ital comn	nunicatior	n, user-sel	ectable		Т
. Foldback Response Time	S	Less tha	ın 1 (Min	= 0.25 / N	1ax = 25 /	Default =	= 0.25); S	ettable via	a "FBD" co	ommand				Т
. OVP type		Inverter	shut-dow	n; Manua	reset by	AC On/O	ff recycle,	OUT but	ton, Rem	ote Analo	g or Digita	al commuine	cation	Ť
. OVP Programming Accuracy	%	± 5% of	Vo(rated)											Т
OVP Trip Point	v							of Vo(rat	ed) - 600'	$V < Vor \leq$	1500V; Sł	nall always b	be greater	T
	v				efault = 1									╇
B. OVP Response Time	ms				begin to o	rop) for ۱	/or ≤ 600	V; Less th	nan 2.0 (fo	or Output	to begin to	o drop) for		
			$Vor \le 150$											∔
Max. OVP Reset Time	s			f switch tu										╇
0. Over-Temperature Protection (OTP)				<u> </u>			<u> </u>		<u> </u>		de / Unlate	ched: Auto-r	mode)	╇
1. Phase-Loss Protection		res, pow	ver supply	/ shuldow	n (Latche	u: Sale-II	iode / Un	latched: P	ulo-mode	=)				
4 REMOTE ANALOG CONTROLS & SIGNALS				<u> </u>										Т
. Vout Voltage Programming	0~100%,								<u> </u>					╇
2. Iout Voltage Programming	0~100%,								<u> </u>	- 41)				╇
. Vout Resistor Programming	0~100%,													╇
. lout Resistor Programming	0~100%,			<u>,</u>					<u> </u>		(-+	、 、	╇
. Shut-Off (SO) Control (rear panel)								ct: Open =	= EIN, Sho	ort = DIS	(user-sele	ctable logic))	╇
. Output Current Monitor	0 ~ 5V or	,												╇
2 Output Voltage Monitor	0 ~ 5V or													╇
B. Power Supply OK (PS_OK) Signal	Yes. TTL I	-	-				<i>,</i>	(0 0 0) (╇
CV/CC Signal	CV: TTL F										= 10mA			╇
0. Enable/Disable	Dry conta		- ,	,						6V				╇
1. Remote/Local Selection	Selects R													╇
2. Remote/Local Signal	Signals o	perating m	iode; Ope	en collecto	or: Local =	Open (N	lax voltaç	je = 30V)	, Remote	= On (Ma	ax sink cur	rrent = 10m/	A)	
5 FRONT PANEL	Vout/ lout			eparate e	ncodore (coarse ai	nd fine ac			e)				L
														L
	OVP/UVL			0	ljust enco	der, Front		ock/Unloc	k					
	Address s	election b	y Voltage	Adjust er	ljust enco ncoder. # o	der, Front of addres:	ses = 31							
		election b	y Voltage	Adjust er	ljust enco ncoder. # o	der, Front of addres:	ses = 31			, Go-to-L	ocal			
	Address s	election b FF, Output	y Voltage t On/Off,	Adjust er Restart M	ljust enco ncoder. # o odes (Aut	der, Front of address o/Safe), F	ses = 31 ⁼ oldback	Control (C		, Go-to-L	ocal			E
	Address s AC ON/O RS-232/R Baud rate	election b FF, Output S-485, IEI selection	y Voltage t On/Off, I EE (IEME (RS-232)	Adjust er Restart M) and LA /RS-485 c	ljust enco ncoder. # d odes (Aut N selectio only): 1200	der, Front of address o/Safe), F n by rear 0, 2400, 4	ses = 31 ⁻ oldback panel DI 800, 960	Control (0 P-switch 0 and 19,	CV to CC) 200 (by c	urrent adj	just encod	ler)		
	Address s AC ON/O RS-232/R	election b FF, Output S-485, IEI selection	y Voltage t On/Off, I EE (IEME (RS-232)	Adjust er Restart M) and LA /RS-485 c	ljust enco ncoder. # d odes (Aut N selectio only): 1200	der, Front of address o/Safe), F n by rear 0, 2400, 4	ses = 31 ⁻ oldback panel DI 800, 960	Control (0 P-switch 0 and 19,	CV to CC) 200 (by c	urrent adj	just encod	ler)		
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Control Functions CDisplay Indications G DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy Lout Programming Accuracy Vout Programming Resolution Lout Programming Resolution Lout Programming Resolution	Address s AC ON/O RS-232/R Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of 0.02% of	election b FF, Output S-485, IEI selection Parallel N digits, Ac digits, Ac displays v D's: PREV ALRM (O rated Out rated Out vo(rated) lo(rated)	y Voltage t On/Off, I EE (IEME (RS-232, Master/Sla curacy: ± roltage at roltage at rilew, FO VP, OTP, put voltag put curre	Adjust er Restart M)) and LAI (RS-485 c ave: Hx = 0.5% of V 0.5% of I power su LD, REM FOLD, AC je nt for units	tjust enco ncoder. # d odes (Aut N selectio only): 1200 Master ur /o(rated) ± oply (Loc: /LOCAL, (C FAIL, EN s with lo <	der, Front of address o/Safe), F n by rear), 2400, 4 iit, where £1 count 1 count al sense) DUT ON/ IA, SO)	ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load OFF, CV/	Control ((P-switch 0 and 19, Slave unit d (Remote CC, FINE	CV to CC) 200 (by c s (0 to 4), e sense)	urrent adj , S = Slav	just encod e unit(s)	ler)		
Control Functions Display Indications 6 DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy Vout Programming Resolution Lout Programming Resolution Lout Programming Resolution Vout Readback Accuracy	Address s AC ON/O RS-232/R Baud rate Advanced Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Voltage: 4 Soft of the second the second second second the second second second second the second second second second the second second second second second the second second second second second the second second second second second second the second second second second second second second the second second second second second second second second the second se	election b FF, Output S-485, IEI selection I Parallel M digits, Ac digits, Ac	y Voltage t On/Off, I EE (IEME (RS-232, <u>Aaster/Sla</u> curacy: ± curacy: ± roltage at 'IEW, FO VP, OTP, <u>put voltag</u> <u>put voltag</u> <u>put voltag</u>	Adjust er Restart M)) and LAI (RS-485 c ave: Hx = 0.5% of V 0.5% of I power su LD, REM FOLD, AC ge nt for units of Vo(rate	tjust enco ncoder. # d odes (Aut N selectio only): 1200 Master ur o(rated) ± o(rated) ± o(rated) ± pply (Loca /LOCAL, (C FAIL, EN s with Io <	der, Front of address o/Safe), F n by rear), 2400, 4 iit, where £1 count 1 count al sense) DUT ON/ IA, SO)	ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load OFF, CV/	Control ((P-switch 0 and 19, Slave unit d (Remote CC, FINE	CV to CC) 200 (by c s (0 to 4), e sense)	urrent adj , S = Slav	just encod e unit(s)	ler)		
Control Functions Display Indications Indi	Address s AC ON/O RS-232/R Baud rate Advanced Voltage: 4 Voltage: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of 0.02% of ± 0.1% o	election b FF, Output S-485, IEI selection I Parallel N digits, Ac- digits, Ac	y Voltage t On/Off, I EE (IEME (RS-232, <u>Aaster/Sla</u> curacy: ± curacy: ± roltage at 'IEW, FO VP, OTP, <u>put voltag</u> <u>put voltag</u> <u>put voltag</u>	Adjust er Restart M)) and LAI (RS-485 c ave: Hx = 0.5% of V 0.5% of I power su LD, REM FOLD, AC ge nt for units of Vo(rate	tjust enco ncoder. # d odes (Aut N selectio only): 1200 Master ur o(rated) ± o(rated) ± o(rated) ± pply (Loca /LOCAL, (C FAIL, EN s with Io <	der, Front of address o/Safe), F n by rear), 2400, 4 iit, where £1 count 1 count al sense) DUT ON/ IA, SO)	ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load OFF, CV/	Control (C P-switch 0 and 19, Slave unit d (Remote CC, FINE	CV to CC) 200 (by c s (0 to 4), e sense)	urrent adj , S = Slav	just encod e unit(s)	ler)		
Control Functions Display Indications DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy Lout Programming Accuracy Lout Programming Resolution Lout Programming Resolution Lout Programming Resolution Lout Programming Resolution Lout Readback Accuracy Vout Readback Accuracy Vout Readback Resolution	Address s AC ON/O RS-232/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 0.04% of ± (0.1% o ± (0.1% o	election b FF, Output S-485, IEI selection Parallel N digits, Ac displays v D's: PREV ALRM (O rated Out rated Out rated Out vo(rated) lo(rated) f vo(actual f lo(actual Vo(rated)	y Voltage t On/Off, I EE (IEME (RS-232, <u>Aaster/Sla</u> curacy: ± curacy: ± roltage at 'IEW, FO VP, OTP, <u>put voltag</u> <u>put voltag</u> <u>put voltag</u>	Adjust er Restart M)) and LAI (RS-485 c ave: Hx = 0.5% of V 0.5% of I power su LD, REM FOLD, AC ge nt for units of Vo(rate	tjust enco ncoder. # d odes (Aut N selectio only): 1200 Master ur o(rated) ± o(rated) ± o(rated) ± pply (Loca /LOCAL, (C FAIL, EN s with Io <	der, Front of address o/Safe), F n by rear), 2400, 4 iit, where £1 count 1 count al sense) DUT ON/ IA, SO)	ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load OFF, CV/	Control (C P-switch 0 and 19, Slave unit d (Remote CC, FINE	CV to CC) 200 (by c s (0 to 4), e sense)	urrent adj , S = Slav	just encod e unit(s)	ler)		
I. S FRONT PANEL I. Control Functions I. Conterport Programming Accuracy I. Cont Programming Accuracy I. Cont Programming Resolution I. Cont Programming Resolution I. Cont Readback Accuracy I. Cont Readback Accuracy I. Cont Readback Accuracy I. Cont Readback Resolution I. Cont Readback Resoluti	Address s AC ON/O RS-232/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	election b FF, Output S-485, IEI selection Parallel N digits, Ac displays v D's: PREV ALRM (O rated Out rated Out rated Out vo(rated) lo(rated) f lo(actual vo(rated) lo(rated) lo(rated) lo(rated)	y Voltage t On/Off, EE (IEME (RS-232, Aaster/Sla curacy: ± curacy: ± curacy: ± roltage at /IEW, FO VP, OTP, put voltag put curre) + 0.2%	Adjust er Restart M)) and LA (RS-485 c ave: Hx = ave: Hx = 0.5% of I power su LD, REM FOLD, AC ge of Vo(rate of Io(rated	tjust enco ncoder. # o odes (Aut N selectio nnly): 1200 Master ur /o(rated) ± pply (Loc: /LOCAL, 0 C FAIL, EN s with lo < ed))	der, Front of address o/Safe), f n by rear), 2400, 4 i), 2400, 4 i), 2400, 4 i), 2400, 4 ii, where 1 count al sense) DUT ON/ JA, SO)	ses = 31 Foldback panel DI 800, 960 x = # of \$ or at load OFF, CV/ ± 0.7% of	Control (C P-switch 0 and 19, Slave unit d (Remote CC, FINE	CV to CC) 200 (by c s (0 to 4), s sense)	urrent adj , S = Slav	just encod e unit(s)	ler)		

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

Genesys[™] 3U 10kW Specifications

1.0 MODEL	GEN	150-66	200-50		300-33	400-25	500-20		800-12.5	1000-10	1250-8	1500-6.7	
1.Rated Output Voltage	VDC	150	200	250	300	400	500	600	800*	1000*	1250*	1500*)
2.Rated Output Current	ADC	66	50	40	33	25	20	17	12.5	10	8.0	6.7	
3.Rated Output Power	kW	9.9	10.0	10.0	9.9	10.0	10.0	10.2	10.0	10.0	10.0	10.0	
4.Efficiency (min) at low AC line, 100% Rated Load	%				83					ę	93.5		
1.1 CONSTANT VOLTAGE MODE (CV)					Con	tact Facto	ry for othe	r models					
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤ 600V; 0.05% - 600V < Vor ≤ 1500V)	mV	15	20	25	30	40	50	60	400	500	625	750	;
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤	mV	30	40	50	60	80	100	120	800	1000	1250	1500	,
$600V; 0.1\% - 600V < Vor \le 1500V)$	mV	25	05	05	60	60	60	60	80	100	120	140	
3. Ripple, r.m.s, 5Hz~1MHz, CV (*1) 4. Output Noise, p-p (20MHz), CV (*1)	mv mV	150	35 175	35 200	200	300	350	350	700	800	120	140	
5. Remote Sense Compensation / Wire		5	5	5	200	5	5	5	5	5	5	5	┼─
6. Temperature Stability		· ·									emperature	-	
7. Temperature Coefficient	ppm / °C			Vo Rated		aller 30 mi	inute wan	nup (con	Starit Line,	LUAU & R	emperature)	┼─
3. Up-Prog. Response Time, 0~Vomax, full-load	mS	<u>± 200 ((</u>	0.02 /0 01	vo naleu	100				r –	1	7		┼─
9. Up-Prog. Response Time, 0~Vomax, no load	mS				50						7		┼─
10. Transient Response Time (CV mode) (*2)	mS				Less than	3					than 1		┼─
	1 110					0							
I.2 CONSTANT CURRENT MODE (CC) 1. Max. Line Reg. (0.1% - lor ≥ 333A; 0.050% - 17A < lor <	mA	33	25	20	17	13	10	9	19	15	12	10	Г
333A; 0.15% - lor < 17A) 2. Max. Load Reg (0.1% - lor ≥ 333A; 0.075% - 17A ≤ lor <	mA	50	38	30	25	19	15	13	25	20	15	14	┢
333A; 0.2% - lor < 17A) (*3)	ļ												
3. Ripple rms, 5Hz~1MHz, CC	mA	26	20	16	13	10	8	7	15	10	6	4	╞
4. Temperature Stability						fter 30 mir	nute warm	up (cons	stant Line,	Load & Te	mperature)		_
5. Temperature Coefficient	ppm / °C	± 300 (0	0.03% of	lo Rated)) / °C								
.3 PROTECTIVE FUNCTIONS													
I. OCP	%	0 ~ 100											Γ
2. OCP type		Constar	nt current										
B. Foldback Protection (FOLD)		Output	shut dow	n; Manua	I reset by	front pan	el OUT bu	tton or Di	gital comm	nunication	, user-selec	table	1
1. Foldback Response Time	S	Less the	an 1 (Min	= 0.25 /	Max = 25	/ Default	= 0.25); S	ettable vi	a "FBD" co	mmand			1
5. OVP type		Inverter	shut-dov	vn; Manu	al reset by	AC On/C	Off recycle	, OUT bu	tton, Remo	te Analog	or Digital c	omm.	Γ
6. OVP Programming Accuracy	%	± 5% of	Vo(rated)									Γ
? OVP Trip Point	v					600V; 109 105% of \		of Vo(rat	ted) - 600V	< Vor < 1	500V; Shall	l always be	grea
3. OVP response time	mS		an 10 (foi Vor <u>≤</u> 15		o begin to	drop) for	$Vor \le 600$	V; Less t	han 2.0 (fo	r Output to	o begin to d	rop) for	
9. Max. OVP reset time	S	7 (from	AC On/C	ff switch	turn On)								
10. Over-Temperature Protection (OTP)		Shut do	wn if inte	rnal temp	perature e	xceeds sa	afe operati	ng levels	(Latched:	Safe / Un	latched: Aut	to)	
11. Phase-Loss Protection		Yes, por	wer supp	ly shutdo	wn (Latch	ed: Safe-r	mode / Ur	latched: /	Auto-mode)			
1.4 REMOTE ANALOG CONTROLS & SIGNALS													
1. Vout Voltage Programming	0~100%,	0 ~ 5V or	0 ~ 10V,	user-sele	ectable, Ad	curacy &	Linearity:	± 1% of \	Vo(rated)				Γ
2. Iout Voltage Programming	0 ~ 100%	, 0∼5V or	0 ~ 10V,	user-sele	ectable. Ac	curacy &	Linearity	± 1% of lo	o(rated)				Γ
3. Vout resistor programming	0~100%,	0~5/10ko	hm full-so	cale, user	-selectabl	e. Accura	cy & Linea	arity ± 1%	of Vo(rate	d)			
4. lout Resistor Programming	0~100%,	0~5/10ko	hm full-so	cale, user	-selectabl	e. Accura	cy & Linea	arity ± 1%	of lo(rated	d)			
5. Shut-Off (SO) Control (rear panel)								ct : Open	= ENA, Sł	nort = DIS	(user-selec	table logic)	
6. Output Current Monitor	0 ~ 5V or	0 ~ 10V, /	Accuracy	: ± 1% of	lo(rated),	user-sele	ctable						
7. Output Voltage Monitor	0 ~ 5V or	0 ~ 10V, /	Accuracy	: ± 1% of	Vo(rated)	, user-sele	ectable						
B. Power Supply OK (PS_OK) Signal		high = OK	,	<u>`</u>		<u> </u>							
9. CV/CC Signal									'), Max sinl		= 10mA		
10. Enable/Disable	<u> </u>		,	,		<u> </u>			ontacts = 6	ΰV			
11. Remote/Local Selection							= Local /						
12. Remote/Local Signal	Signals o	perating r	node; Op	en collec	tor: Local	= Open (I	Max volta	ge = 30V)	, Remote =	= On (Max	sink currer	nt = 10mA)	
I.5 FRONT PANEL I.Control Functions	Vout/ In	monuel	diugthe	0000-01-	onocda	1000-000	nd fine -	liuotreact	ooloctot				Г
							and fine ad ht Panel L		selectable	")			
	Address s			0	,	,		JCK/UTIIOC	λ.				F
								Control (CV to CC),	Go-to-Lo	cal		
		n i , Ouipi							ον i0 00),	G0-10-L0	uu		\vdash
		S-485 1			AN SCIECU	UN DY IEd			000 //				
	RS-232/F				only) 120		4800 060				st encodor)		
	RS-232/F Baud rate	e selection	(RS-232	2/RS-485		00, 2400, 4							
2 Display	RS-232/F Baud rate Advanced	e selectior d Parallel	n (RS-232 Master/S	2/RS-485 lave: Hx =	= Master u	00, 2400, 4 unit, where	e x = # of				st encoder) lave unit(s)		
2.Display	RS-232/F Baud rate Advanced Voltage: 4	e selection d Parallel 1 digits, Ad	n (RS-232 Master/S ccuracy:	2/RS-485 lave: Hx = ± 0.5% o	= Master u f Vo(rated	00, 2400, 4 unit, where) ±1 coun	e x = # of t					-	E
2.Display	RS-232/F Baud rate Advanced Voltage: 4 Current: 4	e selection d Parallel 4 digits, Ad 4 digits, Ad	n (RS-232 Master/S ccuracy: ccuracy: :	2/RS-485 lave: Hx = ± 0.5% o ± 0.5% of	= Master u f Vo(rated lo(rated)	00, 2400, 4 unit, where) ±1 count ±1 count	e x = # of t	Slave uni	ts (0 to 4),				
	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	e selection d Parallel 4 digits, Ad 4 digits, Ad digits, Ad displays D's: PRE	n (RS-232 Master/S ocuracy: ocuracy: : voltage a VIEW, FC	2/RS-485 lave: Hx = ± 0.5% o ± 0.5% of t power s DLD, REM	= Master u f Vo(rated lo(rated) upply (Lo M/LOCAL	00, 2400, unit, where $\pm 1 \text{ count}$ cal sense OUT ON	e x = # of t	Slave uni d (Remot	ts (0 to 4), e sense)				
3.Indications	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	e selection d Parallel 4 digits, Ad 4 digits, Ad 7 digits, Ad	n (RS-232 Master/S ocuracy: ocuracy: : voltage a VIEW, FC	2/RS-485 lave: Hx = ± 0.5% o ± 0.5% of t power s DLD, REM	= Master u f Vo(rated lo(rated) upply (Lo M/LOCAL	00, 2400, unit, where $\pm 1 \text{ count}$ cal sense OUT ON	e x = # of t) or at loa	Slave uni d (Remot	ts (0 to 4), e sense)				
3.Indications	RS-232/F Baud rate Advanced Voltage: 4 Voltage: 4 Voltmeter Green LE Red LED	e selection d Parallel 4 digits, Ad 4 digits, Ad 7 digits, Ad 7 displays D's: PRE 2 ALRM (C	n (RS-232 Master/S couracy: couracy: voltage a VIEW, FC DVP, OTP	2/RS-485 lave: Hx = ± 0.5% of t power s DLD, REN FOLD, A	= Master u f Vo(rated lo(rated) upply (Lo M/LOCAL	00, 2400, unit, where $\pm 1 \text{ count}$ cal sense OUT ON	e x = # of t) or at loa	Slave uni d (Remot	ts (0 to 4), e sense)			· · · · · · · · · · · · · · · · · · · ·	
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy	RS-232/F Baud rate Advanced Voltage: 4 Voltage: 4 Voltmeter Green LE Red LED	e selection d Parallel 4 digits, Ad 4 digits, Ad digits, Ad digits, Ad displays D's: PRE ALRM (C	n (RS-232 Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTP	2/RS-485 lave: Hx = ± 0.5% o ± 0.5% of t power s DLD, REN FOLD, A	= Master u f Vo(rated lo(rated) upply (Lo M/LOCAL AC FAIL, E	00, 2400, - unit, where) ±1 count ±1 count cal sense , OUT ON ENA, SO)	e x = # of t) or at loa //OFF, CV/	Slave uni d (Remot CC, FINE	ts (0 to 4), e sense)	Slave = S	lave unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED ± 0.5% of ± 0.5% of	e selection d Parallel 4 digits, Ad 4 digits, Ad 7 displays D's: PRE 2 ALRM (C f rated Ou f rated Ou	n (RS-232 Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTP	2/RS-485 lave: Hx = ± 0.5% o ± 0.5% of t power s DLD, REN FOLD, A	= Master u f Vo(rated lo(rated) upply (Lo M/LOCAL AC FAIL, E	00, 2400, - unit, where) ±1 count ±1 count cal sense , OUT ON ENA, SO)	e x = # of t) or at loa //OFF, CV/	Slave uni d (Remot CC, FINE	ts (0 to 4), e sense)	Slave = S	lave unit(s)		
3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Jout Programming Accuracy 3. Vout Programming Resolution	RS-232/F Baud rate Advanced Voltage: 2 Current: 2 Voltmeter Green LE Red LED ± 0.5% of 0.02% of	e selectior d Parallel 4 digits, Ac 4 digits, Ac c displays D's: PRE : ALRM (C f rated Ou f rated Ou Vo(rated)	n (RS-232 Master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTP	2/RS-485 lave: Hx = ± 0.5% o ± 0.5% of t power s DLD, REN FOLD, A	= Master u f Vo(rated lo(rated) upply (Lo M/LOCAL AC FAIL, E	00, 2400, - unit, where) ±1 count ±1 count cal sense , OUT ON ENA, SO)	e x = # of t) or at loa //OFF, CV/	Slave uni d (Remot CC, FINE	ts (0 to 4), e sense)	Slave = S	lave unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Jout Programming Resolution 4. Jout 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	e selectior d Parallel d digits, Ad d digits	Master/S master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTP tput volta tput curre	2/RS-485 <u>ave: Hx =</u> ± 0.5% o t 0.5% of t power s DLD, REN , FOLD, A 	= Master u f Vo(rated lo(rated) upply (Lo M/LOCAL C FAIL, E	00, 2400, - unit, where) ±1 count ±1 count cal sense , OUT ON ENA, SO)	e x = # of t) or at loa //OFF, CV/	Slave uni d (Remot CC, FINE	ts (0 to 4), e sense)	Slave = S	lave 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	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED ± 0.5% of 0.02% of 0.02% of ± (0.1% c	e selectior d Parallel d digits, Ad d digits	Master/S master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTP tput volta tput volta tput volta tput volta al) + 0.2%	2/RS-485 lave: Hx = ± 0.5% o ⊧ 0.5% of t power s DLD, REN , FOLD, A ent for un	= Master (f Vo(rated lo(rated) upply (Lo W/LOCAL, KC FAIL, E its with lo	00, 2400, - unit, where) ±1 count ±1 count cal sense , OUT ON ENA, SO)	e x = # of t) or at loa //OFF, CV/	Slave uni d (Remot CC, FINE	ts (0 to 4), e sense)	Slave = S	lave unit(s)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Jout Programming Resolution 4. Jout Programming Resolution 5. Vout Readback Accuracy 6. Jout Readback Accuracy 7. Vout Readback Accuracy 7. Vout Readback Resolution	$\begin{array}{c} \text{RS-232/F} \\ \text{Baud rate} \\ \text{Advancee} \\ \text{Voltage: 4} \\ \text{Current: 4} \\ \text{Voltmeter} \\ \text{Green LE} \\ \text{Red LED} \\ \hline \\ \pm 0.5\% \text{ oi} \\ 0.02\% \text{ of} \\ 0.02\% \text{ of} \\ 0.04\% \text{ of} \\ \pm (0.1\% \text{ c} \\ \pm$	e selection d Parallel d digits, Ad d digits	Master/S master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTP tput volta tput volta tput volta tput volta al) + 0.2%	2/RS-485 lave: Hx = ± 0.5% o ⊧ 0.5% of t power s DLD, REN , FOLD, A ent for un	= Master (f Vo(rated lo(rated) upply (Lo W/LOCAL, KC FAIL, E its with lo	00, 2400, - unit, where) ±1 count ±1 count cal sense , OUT ON ENA, SO)	e x = # of t) or at loa //OFF, CV/	Slave uni d (Remot CC, FINE	ts (0 to 4), e sense)	Slave = S	lave unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Resolution 3. Vout Programming Resolution 5. Vout Readback Accuracy 5. Iout Readback Accuracy 7. Vout Readback Resolution	RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED ± 0.5% of 0.02% of 0.02% of ± (0.1% c	e selection d Parallel d digits, Ad d digits, Ad d digits, Ad d digits, Ad c displays D's: PRE' : ALRM (C f rated Out f rated f ra	Master/S master/S ccuracy: ccuracy: voltage a VIEW, FC DVP, OTP tput volta tput volta tput volta tput volta al) + 0.2%	2/RS-485 lave: Hx = ± 0.5% o ⊧ 0.5% of t power s DLD, REN , FOLD, A ent for un	= Master (f Vo(rated lo(rated) upply (Lo W/LOCAL, KC FAIL, E its with lo	00, 2400, - unit, where) ±1 count ±1 count cal sense , OUT ON ENA, SO)	e x = # of t) or at loa //OFF, CV/	Slave uni d (Remot CC, FINE	ts (0 to 4), e sense)	Slave = S	lave 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	RS-232/F Baud rate Advanced Voltage: 2 Voltmeter Green LE Red LED ± 0.5% of 0.02% of 0.02% of 0.04% of ± (0.1% c ± 0.1% c	e selection d Parallel I 4 digits, Ad 4 digits, Ad 4 digits, Ad 7 displays D's: PRE' 5D's: PRE' 5D's: PRE' 5D's: PRE' 5D's: PRE' 5D's: PRE' 5D's 7 (Constant) 10(rated) 10(rated) 10(rated) 10(rated) 10(rated)	(RS-232 Master/S) Master	2/RS-485 lave: Hx = ± 0.5% of t power s >LD, REN FOLD, A ge ent for un 6 of Vo(ra 6 of Vo(ra	= Master t f Vo(rated lo(rated) upply (Lo W/LOCAL, C FAIL, E its with lo its with lo	00, 2400, 4 unit, where) ±1 count ±1 count cal sense (OUT ON NA, SO)	<u>e x = # of</u> t) or at loa: /OFF, CV/ ± 0.7% o	Slave uni CC, FINE f rated Ou	e sense) E utput curre	Slave = S	lave unit(s)		
A. Indications A. DiGITAL PROGRAMMING & READBACK Vout Programming Accuracy Lout Programming Resolution Vout Programming Resolution Vout Readback Accuracy S. Vout Readback Accuracy Vout Readback Accuracy Vout Readback Resolution Jout Readback Resolution Jout Readback Resolution	RS-232/F Baud rate Advancer Voltage: 4 Voltmeter Green LE Red LED ± 0.5% of 0.02% of 0.04% of ± (0.1% c 0.02% of 0.02% of 0.02% of 200% ma	e selection d Parallel 1 4 digits, Ad 4 digits, Ad 4 digits, Ad 7 displays D's: PRE' 5D's: PRE' 5D's: PRE' 6 Tated Out f rated Out f roto(rated) lo(rated) lo(rated) lo(rated) lo(rated) lo(rated) lo(rated) lo(rated)	n (RS-232 Master/S couracy: couracy: couracy: voltage a VIEW, FC VVP, OTP tput volta tput volta tput volta tput volta al) + 0.2% al) + 0.4%	2/RS-485 lave: Hx = ± 0.5% of ± 0.5% of t power s DLD, REN FOLD, A ge ent for un 6 of Vo(ra 6 of Vo(ra 6 of Vo(ra	= Master L f Vo(rated) lo(rated) upply (Lo W/LOCAL, C FAIL, E its with lo its with lo itted)) itted))	00, 2400, 4 unit, where) ±1 count ±1 count cal sense OUT ON NA, SO) < 187.5A; E Limit ar	e x = # of t) or at loa: //OFF, CV/ ± 0.7% o	Slave uni CC, FINE f rated Ou	e sense) E utput curre	Slave = S	lave unit(s)		

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

TDK·Lambda 14

Genesys[™] 3U 15kW Specifications

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	15k
1.Rated Output Voltage	VDC						30*	40*	50*	60	80	100	125	>
2.Rated Output Current	ADC						500	375	300	250	187.5	150	120	>
3.Rated Output Power	kW						15.0	15.0	15.0	15.0	15.0	15.0	15.0	>
4.Efficiency (min) at low AC line, 100% Rated Load	%									88				>
4. Emolency (mm) at low no mile, 100 /0 hated Eodd							ctory for c	ther mod	els)
1.1 CONSTANT VOLTAGE MODE (CV)	L					///////////////////////////////////////			010					<u> </u>
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor <														Т
600V; 0.05% - 600V < Vor ≤ 1500V)	mV						30	4	5	6	8	10	12.5	>
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤									40	10	40		05	Τ.
600V; 0.1% - 600V < Vor ≤ 1500V)	mV						30	8	10	12	16	20	25	>
3. Ripple, rms, 5Hz~1MHz, CV (*1)	mV						20	20	20	20	25	25	25	>
4. Output Noise, p-p, (20MHz), CV (*1)	mV						60	60	75	75	100	100	125	>
5.Remote Sense Compensation / Wire	V						1.5	2	3	3	4	5	5	>
6. Temperature Stability		± 0.05%	of Vo(rat	ed) over 8	3 hours aft	er 30 mi	nute warm	up (cons	tant Line	, Load &	Temperatu	re))
7. Temperature Coefficient	ppm / °C	± 200 (±	: 0.02% o	f Vo(rated)) / °C									>
8. Up-Prog. Response Time, 0 ~ Vomax, full-load	ms							100)
9. Up-Prog. Response Time, 0~Vomax, no load	ms							50)
10. Transient Response Time (CV mode) (*2)	ms						Les	s than 3)
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	
	IIIA						500	375	334	120	94			+ '
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	2
3. Ripple, rms, 5Hz~1MHz, CC	mA						350	200	150	100	100	100	50	
4. Temperature Stability											Temperatur		- 50	
5. Temperature Coefficient	ppm/°C			f lo(rated)			ate warri		an LING,	LUQU & I	omperatur	~/		
•	L hhink.C	L = 300 (±	. 0.03% 0	no(lated)	,, 0									<u> </u>
1.3 PROTECTIVE FUNCTIONS														
1. OCP	%	0 ~ 100												
2. OCP type		Constan												
3. Foldback Protection (FOLD)		Output s	shutdown	Manual r	reset by fro	ont pane	I OUT butt	on or DIg	ital comn	nunicatior	n, user-sele	ectable		
4. Foldback Response Time	s						= 0.25); Se							
5. OVP type		Inverter	shut-dow	n; Manua	I reset by	AC On/C	off recycle,	OUT butt	on, Rem	ote Analo	g or Digital	communi	cation	
6. OVP Programming Accuracy	%		Vo(rated)											
7. OVP Trip Point	v								rated) - 6	00V < Vo	r <u><</u> 1500V;	Shall alwa	iys be	
	<u> </u>						5% of Vo(
8. OVP Response Time	ms				begin to o	drop) for	Vor $\leq 600^{\circ}$	V; Less th	an 2.0 (fo	or Output	to begin to	o drop) for		2
			Vor <u><</u> 150											
9. Max. OVP Reset Time	s	<u> </u>		switch tu										
10. Over-temperature Protection (OTP)							<u> </u>				de/ Unlatch	ned: Auto-r	node)	
11. Phase-Loss Protection		Yes, pov	ver supply	shutdow	n (Latche	d: Safe-r	node / Unl	atched: A	uto-mode	e)				
1.4 REMOTE ANALOG CONTROLS & SIGNALS														
1. Vout Voltage Programming	0~100%,	0 ~ 5V or	0 ~ 10V, ı	iser-selec	table., Aco	curacy &	Linearity:	±1% of V	o(rated)					
2. lout Voltage Programming	0~100%,	0 ~ 5V or	0 ~ 10V, i	iser-selec	table, Acc	uracy &	Linearity:	± 1% of lo	o(rated)					
3. Vout Resistor Programming	0~100%,	0 ~ 5/10kc	ohm full-s	cale, user	-selectabl	e, Accura	acy & Line	arity: ± 19	% of Vo(ra	ated)				
4. lout Resistor Programming	0~100%,	0 ~ 5/10kc	ohm full-s	cale, user	-selectabl	e, Accura	acy & Line	arity: ± 19	% of lo(ra	ited)				
5. Shut-Off (SO) Control (rear panel)	By Voltag	e: 0.6V = I	Disable, 2	-15V = EI	nable (def	ault) or D	Dry Contac	t: Open =	EN, Sho	ort = DIS	(user-selec	table logic)	
6. Output Current Monitor	0 ~ 5V or								,		<u>`</u>		,	
7. Output Voltage Monitor	0 ~ 5V or				<u> </u>									
8. Power Supply OK (PS_OK) Signal	Yes. TTL I													
9. CV/CC Signal	CV: TTL H						,	$(0 \sim 0.4V)$. Max sir	k current	= 10mA)
10. Enable/Disable	Dry conta													
11. Remote/Local Selection	<u> </u>	emote or l	,	,		<u></u>								
12. Remote/Local Signal				,						– On (Ma	ax sink curr		<u>Δ)</u>	
	Signals 0	perating i	ioue, ope		JI. LUCAI -	Open (i	viax vuitay	e = 30v),	nemote				~)	<u> </u>
1.5 FRONT PANEL														
1.Control Functions		manual a		•						e)				
		. manual a		•	ljust enco	der. Fron	t Panal I c	ck/Unlock	<					
	Address s	selection b	w Voltano											
			y vonage	Adjust er	ncoder. # c						ocal			
	AC ON/O	FF, Outpu		•		of addres	ises = 31	Control (C	V to CC)	, Go-to-L	ooui			
			t On/Off,	Restart M	odes (Aut	of addres o/Safe),	ses = 31 Foldback (CV to CC)	, Go-to-L				
	AC ON/O RS-232/F	RS-485, IE	t On/Off, EE (IEMI	Restart M) and LA	odes (Aut N selectio	of addres o/Safe), n by rea	ses = 31 Foldback (r panel DIF	P-switch	,		just encode	ər)		
	AC ON/O RS-232/F	S-485, IE selection	t On/Off, EE (IEMI (RS-232	Restart M) and LA RS-485 c	odes (Aut N selectio only): 1200	of addres o/Safe), n by rea , 2400, 4	ses = 31 Foldback (r panel DII 1800, 960(D-switch and 19,2	200 (by c	urrent adj	just encode	ər)		
2.Display	AC ON/O RS-232/R Baud rate	RS-485, IE selection Parallel M	t On/Off, EE (IEMI (RS-232, Master/Sla	Restart M) and LA RS-485 c ave: Hx =	odes (Aut N selectio only): 1200 Master un	of address o/Safe), n by reas 0, 2400, 4 hit, where	ses = 31 Foldback (r panel DIF 4800, 960(e x = # of S	D-switch and 19,2	200 (by c	urrent adj	just encode	er)		
	AC ON/O RS-232/F Baud rate Advanced Voltage: 4	RS-485, IE selection Parallel M	t On/Off, EE (IEMI (RS-232) Master/Sla curacy: ±	Restart M) and LA RS-485 c ave: Hx = 0.5% of V	odes (Aut N selectio only): 1200 <u>Master un</u> /o(rated) ±	of addres o/Safe), n by real 0, 2400, 4 hit, where ±1 count	ses = 31 Foldback (r panel DIF 4800, 960(e x = # of \$	D-switch and 19,2	200 (by c	urrent adj	just encode	ər)		
	AC ON/O RS-232/F Baud rate Advanced Voltage: 4	S-485, IE selection Parallel M digits, Ac digits, Ac	t On/Off, EE (IEMI (RS-232) Master/Sla curacy: ± curacy: ±	Restart M) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \	odes (Aut N selectio only): 1200 <u>Master un</u> /o(rated) ± /o(rated) ±	of addres o/Safe), n by rea , 2400, 4 it, where 1 count 1 count	sees = 31 Foldback (r panel DIF 4800, 9600 2 x = # of S	P-switch 0 and 19,2 8 ave units	200 (by c s (0 to 4);	urrent adj	just encode	er)		
	AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4	S-485, IE selection Parallel M digits, Ac digits, Ac displays v	t On/Off, EE (IEME (RS-232, Master/Sla curacy: ± curacy: ± voltage at	Restart M) and LA RS-485 c ave: Hx = 0.5% of N 0.5% of N power su	odes (Aut N selectio only): 1200 Master un /o(rated) = /o(rated) = pply (Loca	of addres o/Safe), n by real 0, 2400, 4 hit, where 1 count 1 count al sense)	ses = 31 Foldback (r panel DII 4800, 9600 a x = # of S or at load	P-switch and 19,2 Blave units	200 (by c s (0 to 4); sense)	urrent adj	just encode	ər)		
2.Display	AC ON/O RS-232/R Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	S-485, IE selection Parallel M digits, Ac digits, Ac displays v	t On/Off, EE (IEME (RS-232, Master/Sla curacy: ± curacy: ± voltage at /IEW, FO	Restart M) and LA RS-485 c ave: Hx = 0.5% of V 0.5% of V power su LD, REM	odes (Aut N selectio only): 1200 Master un /o(rated) = /o(rated) = pply (Loca ./LOCAL,	of addres o/Safe), n by read 0, 2400, 4 1, where 1 count 1 count al sense) OUT ON	ses = 31 Foldback (r panel DII 4800, 9600 a x = # of S or at load	P-switch and 19,2 Blave units	200 (by c s (0 to 4); sense)	urrent adj	just encode	er)		
2.Display 3.Indications	AC ON/O RS-232/R Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE	RS-485, IE selection d Parallel N digits, Ac digits, Ac displays v D's: PREV	t On/Off, EE (IEME (RS-232, Master/Sla curacy: ± curacy: ± voltage at /IEW, FO	Restart M) and LA RS-485 c ave: Hx = 0.5% of V 0.5% of V power su LD, REM	odes (Aut N selectio only): 1200 Master un /o(rated) = /o(rated) = pply (Loca ./LOCAL,	of addres o/Safe), n by read 0, 2400, 4 1, where 1 count 1 count al sense) OUT ON	ses = 31 Foldback (r panel DII 4800, 9600 a x = # of S or at load	P-switch and 19,2 Blave units	200 (by c s (0 to 4); sense)	urrent adj	just encode	ər)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK	AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED:	RS-485, IE selection Parallel M digits, Ac digits, Ac displays v D's: PREV ALRM (C	t On/Off, EE (IEMI (RS-232, Master/Sla curacy: ± curacy: ± voltage at /IEW, FO VP, OTP,	Restart M b) and LA RS-485 c ave: Hx = 0.5% of V 0.5% of V power su LD, REM FOLD, AC	odes (Aut N selectio only): 1200 Master un /o(rated) = /o(rated) = pply (Loca ./LOCAL,	of addres o/Safe), n by read 0, 2400, 4 1, where 1 count 1 count al sense) OUT ON	ses = 31 Foldback (r panel DII 4800, 9600 a x = # of S or at load	P-switch and 19,2 Blave units	200 (by c s (0 to 4); sense)	urrent adj	just encode	ər)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy	AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of	RS-485, IE selection d Parallel N digits, Ac displays v D's: PREV .ALRM (C	t On/Off, EE (IEME (RS-232, Master/Sla couracy: ± couracy: ± couracy: ± voltage at VIEW, FO DVP, OTP,	Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC	odes (Aut N selectio only): 1200 Master un /o(rated) = /o(rated) = ./LOCAL, C FAIL, EN	of address o/Safe), n by real 2400, 2 it, where 1 count 1 count al sense) OUT ON NA, SO)	ses = 31 Foldback (r panel DIF 4800, 960(e x = # of S 0 or at load	P-switch 0 and 19,2 Slave units I (Remote CC, FINE	200 (by c s (0 to 4); sense)	urrent adj ; S = Slav	just encode e unit(s)	ər)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy	AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of	RS-485, IE selection d Parallel N digits, Ac displays v D's: PREV .ALRM (C rated Out rated Out	t On/Off, EE (IEME (RS-232, Master/Sla couracy: ± couracy: ± couracy: ± voltage at VIEW, FO DVP, OTP,	Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC	odes (Aut N selectio only): 1200 Master un /o(rated) = /o(rated) = ./LOCAL, C FAIL, EN	of address o/Safe), n by real 2400, 2 it, where 1 count 1 count al sense) OUT ON NA, SO)	ses = 31 Foldback (r panel DIF 4800, 960(e x = # of S 0 or at load	P-switch 0 and 19,2 Slave units I (Remote CC, FINE	200 (by c s (0 to 4); sense)	urrent adj ; S = Slav	just encode e unit(s)	ər)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Accuracy 3. Vout Programming Resolution	AC ON/O RS-232/R Baud rate Advanced Voltage: 4 Voltage:	RS-485, IE selection d Parallel M digits, Ac digits, Ac displays v D's: PREV ALRM (C rated Out vo(rated)	t On/Off, EE (IEME (RS-232, Master/Sla couracy: ± couracy: ± couracy: ± voltage at VIEW, FO DVP, OTP,	Restart M)) and LA RS-485 c ave: Hx = 0.5% of \ 0.5% of \ power su LD, REM FOLD, AC	odes (Aut N selectio only): 1200 Master un /o(rated) = /o(rated) = ./LOCAL, C FAIL, EN	of address o/Safe), n by real 2400, 2 it, where 1 count 1 count al sense) OUT ON NA, SO)	ses = 31 Foldback (r panel DIF 4800, 960(e x = # of S 0 or at load	P-switch 0 and 19,2 Slave units I (Remote CC, FINE	200 (by c s (0 to 4); sense)	urrent adj ; S = Slav	just encode e unit(s)	er)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Resolution 4. lout Programming Resolution	AC ON/O RS-232/F Baud rate Advancec Voltage: 4 Current: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of	RS-485, IE selection d Parallel N digits, Ac displays v D's: PREV .ALRM (C rated Out rated Out vo(rated) lo(rated)	t On/Off, EE (IEMI (RS-232, Master/Ski curacy: ± curacy: ± roltage at /IEW, FO WP, OTP, tput voltage	Restart M) and LA RS-485 c ave: Hx = 0.5% of V 0.5% of V power su LD, REM FOLD, AC ge	odes (Aut N selectio nhly): 1200 Master un /o(rated) = /o(rated) = /pply (Loca ./LOCAL, C FAIL, EN s with Io <	of address o/Safe), n by real 2400, 2 it, where 1 count 1 count al sense) OUT ON NA, SO)	ses = 31 Foldback (r panel DIF 4800, 960(e x = # of S 0 or at load	P-switch 0 and 19,2 Slave units I (Remote CC, FINE	200 (by c s (0 to 4); sense)	urrent adj ; S = Slav	just encode e unit(s)	er)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy	AC ON/O RS-232/R Baud rate Advancec Voltage: 4 Voltage: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of 0.02% of ± 0.1% o	S-485, IE selection Parallel N digits, Ac displays V D's: PREV .ALRM (C) rated Out rated Out rated Out frated Out frated Out frated Out frated Out	t On/Off, EE (IEMI (RS-232, Master/Sla ccuracy: ± ccuracy: ± voltage at /IEW, FO WP, OTP, put voltag pput voltag pput curre	Restart M)) and LA RS-485 c ave: Hx = 0.5% of V 0.5% of V power su LD, REM FOLD, AC pe int for unit: of Vo(rate	odes (Aut N selectio only): 1200 Master un /o(rated) = //o(rated) = ipply (Loca ./LOCAL, C FAIL, EN s with Io < ed))	of address o/Safe), n by real 2400, 2 it, where 1 count 1 count al sense) OUT ON NA, SO)	ses = 31 Foldback (r panel DIF 4800, 960(e x = # of S 0 or at load	P-switch 0 and 19,2 Slave units I (Remote CC, FINE	200 (by c s (0 to 4); sense)	urrent adj ; S = Slav	just encode e unit(s)	er)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Jout Programming Resolution 4. Jout Programming Resolution 5. Vout Readback Accuracy 6. Jout Readback Accuracy	AC ON/O RS-232/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% o ± (0.1% o	AS-485, IE selection Parallel M digits, Ac digits, Ac displays V D's: PREV. .ALRM (C) rated Out rated Out Vo(rated) lo(rated) f Vo(actual f lo(actual	t On/Off, EE (IEMI (RS-232, Master/Sla ccuracy: ± ccuracy: ± voltage at /IEW, FO WP, OTP, put voltag pput voltag pput curre	Restart M)) and LA RS-485 c ave: Hx = 0.5% of V 0.5% of V power su LD, REM FOLD, AC pe int for unit: of Vo(rate	odes (Aut N selectio only): 1200 Master un /o(rated) = //o(rated) = ipply (Loca ./LOCAL, C FAIL, EN s with Io < ed))	of address o/Safe), n by real 2400, 2 it, where 1 count 1 count al sense) OUT ON NA, SO)	ses = 31 Foldback (r panel DIF 4800, 960(e x = # of S 0 or at load	P-switch 0 and 19,2 Slave units I (Remote CC, FINE	200 (by c s (0 to 4); sense)	urrent adj ; S = Slav	just encode e unit(s)	er)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy 7. Vout Readback Resolution	AC ON/O RS-232/R Baud rate Advanced Voltage: 4 Voltage: 4 Voltmeter Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of 0.04% of ± (0.1% o ± (0.1% o 0.02% of	IS-485, IE selection Parallel N digits, Ac displays v Ds: PREV .ALRM (C rated Out rated Out Vo(rated) lo(rated) f Vo(actual f lo(actual Vo(rated)	t On/Off, EE (IEMI (RS-232, Master/Sla ccuracy: ± ccuracy: ± voltage at /IEW, FO WP, OTP, put voltag pput voltag pput curre	Restart M)) and LA RS-485 c ave: Hx = 0.5% of V 0.5% of V power su LD, REM FOLD, AC pe int for unit: of Vo(rate	odes (Aut N selectio only): 1200 Master un /o(rated) = //o(rated) = ipply (Loca ./LOCAL, C FAIL, EN s with Io < ed))	of address o/Safe), n by real 2400, 2 it, where 1 count 1 count al sense) OUT ON NA, SO)	ses = 31 Foldback (r panel DIF 4800, 960(e x = # of S 0 or at load	P-switch 0 and 19,2 Slave units I (Remote CC, FINE	200 (by c s (0 to 4); sense)	urrent adj ; S = Slav	just encode e unit(s)	ər)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy 6. lout Readback Accuracy 7. Vout Readback Resolution 8. lout Readback Resolution 8. lout Readback Resolution	AC ON/O RS-232/R Baud rate Advancec Voltage: 4 Voltage: 4 Voltmeter Green LE Red LED: $\pm 0.5\%$ of 0.02% of 0.04% of $\pm (0.1\%$ o 2.02% of 0.02% of 0.02% of	IS-485, IE selection d Parallel N d digits, Ac d digits, Ac d digits, Ac displays v D's: PREV. .ALRM (C rated Out rated Out rated Out f rated Out f rated Out f rated Out f vo(actual Vo(rated) lo(rated) lo(rated) lo(rated)	t On/Off, EE (IEMI (RS-232 Master/SIa curacy: ± curacy: ± curacy: ± roltage at /IEW, FO VP, OTP, tput voltag put voltag put voltag (put curre	Restart M) and LA RS-485 c ive: Hx = 0.5% of V 0.5% of V power su LD, REM FOLD, AC pe of Vo(rate of Io(rate	odes (Aut N selectio Master un /o(rated) = /o(rated) = /pply (Loca ./LOCAL, C FAIL, EN s with Io < ed))	of address o/Safe), n by rear o/Safe), 2400, 4 iit, where 1 count 1 count al sense) OUT ON NA, SO)	ses = 31 Foldback (panel DII 4800, 9600 9 x = # of § 0 or at loace 1/OFF, CV/ ± 0.7% of	P-switch) and 19,2 Slave units I (Remote (CC, FINE rated Out	200 (by c s (0 to 4); sense)	urrent adj ; S = Slav	just encode e unit(s)	ər)		
2.Display 3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy 7. Vout Readback Resolution	AC ON/O RS-232/R Baud rate Advancec Voltage: 4 Voltage: 4 Voltmeter Green LE Red LED: $\pm 0.5\%$ of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of 20.02% of 20.02% of 20.02% of 20.02% of	IS-485, IE selection d Parallel N d digits, Ac d digits, Ac d digits, Ac displays v D's: PREV. .ALRM (C rated Out rated Out rated Out f rated Out f rated Out f rated Out f vo(actual Vo(rated) lo(rated) lo(rated) lo(rated)	t On/Off, EE (IEMI (RS-232, Master/Sla ccuracy: ± voltage at /IEW, FO VP, OTP, ovvP, OTP, put voltage put curree al) + 0.2% (I) + 0.4%	Restart M)) and LA RS-485 c ive: Hx = 0.5% of N power su LD, REM FOLD, AC ge of Vo(rate of Vo(rate of Vo(rate of Vo(rate	odes (Aut N selectio mly): 1200 Master un /o(rated) = /o(rated) =	of address o/Safe), n by rea n, 2400, 4 iit, where ±1 count al sense) OUT ON VA, SO)	ses = 31 Foldback (panel DII 4800, 9600 a x = # of \$ or at loace //OFF, CV/ 	P-switch D and 19,2 Slave units I (Remote CC, FINE rated Out nhibit turn	200 (by c s (0 to 4); sense)	urrent adj ; S = Slav	just encode e unit(s)	ər)		

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

Genesys[™] 3U 15kW Specifications

1.0 MODEL	GEN	150-100	200-75	250-60	300-50	400-37.5	500-30	600-25	800-18.8	1000-15	1250-12	1500-10	15k
1.Rated Output Voltage	VDC	150	200	250	300	400	500	600	800*	1000*	1250*	1500*	X
2.Rated Output Current	ADC	100	75	60	50	37.5	30	25	18.8	15	12	10	X
3.Rated Output Power	kW	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.04	15.0	15.0	15.0	×
4.Efficiency (min) at low AC line, 100% Rated Load	%				88					ç	93.5		
1.1 CONSTANT VOLTAGE MODE (CV)					Con	tact Factor	y for othe	r models					×
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤	mV	15	20	25	30	40	50	60	400	500	625	750	
600V; 0.05% - 600V < Vor ≤ 1500V) 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)	mV	25	35	35	60	60	60	60	80	1000	1250	140	
4. Output Noise p-p (20MHz), CV (*1)	mV	150	175	200	200	300	350	350	700	800	1000	140	\vdash
5.Remote Sense Compensation / Wire	V	5	5	5	5	5	5	5	5	5	5	5	\pm
6. Temperature Stability				-	-		-				emperature		
7. Temperature Coefficient	ppm / °C			o Rated)							_ ·		
8. Up-Prog. Response Time, 0~Vomax, full-load	mS				100					1			
9. Up-Prog. Response Time, 0~Vomax, no load	mS				50						7		
10. Transient Response Time (CV mode) (*2)	mS				Less than	3				Less	than 1		
1.2 CONSTANT CURRENT MODE (CC)													
1. 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% - lor ≥ 333A; 0.075% - 25A ≤ lor < 333A; 0.2% - lor < 25A) (*3)	mA	75	57	45	38	28	23	19	38	30	24	20	;
3. Ripple r.m.s, 5Hz~1MHz, CC	mA	50	20	20	20	10	10	10	15	10	6	4	
4. Temperature Stability				-	-	-	-		-	-	mperature)	-	
5. Temperature Coefficient	ppm / °C	<u>.</u>		of lo(rate					,				
1.3 PROTECTIVE FUNCTIONS													
1. OCP	%	0 ~ 100											
2. OCP type			nt curren	t									\pm
3. Foldback Protection					I reset by	front pane	el OUT bu	tton or DI	gital comm	nunication	user-selec	table	
4. Foldback Response Time	s	<u> </u>							a "FBD" co				5
5. OVP type											Digital comr	nunication	,
6. OVP Programming Accuracy	%		Vo(rated										
7. OVP Trip Point	v					r <u><</u> 600V;); Default =				00V < Vor	<u><</u> 1500V; Sł	hall always	,
8. OVP response time	ms	Less th	an 10 (fo	r Output t						r Output to	begin to d	rop) for	,
9. Max. OVP reset time	s		$Vor \le 15$ AC On/C	00V Off switch	turn On)							-	
10. Over temperature Protection		, ì			,	xceeds sa	fe operat	na levels	(Latched:	Safe/ Unla	tched: Auto)	,
11. Phase Loss Protection							· ·	-	Auto-mode			/	×
1.4 REMOTE ANALOG CONTROLS & SIGNALS										,			
1. Vout Voltage Programming	0~100%	0 ~ 5V or	0 ~ 10V	user-sele	ectable A	ccuracy &	l inearity.	+ 1% of \	/o(rated)				
2. lout Voltage Programming						ccuracy &							5
3. Vout resistor programming									of Vo(rate	d)			
4. lout Resistor Programming						-			of lo(rated				
5. Shut-Off (SO) Control (rear panel)	By Voltag	e: 0.6V =	Disable,	2-15V = I	Enable (d	efault) or D	Dry Conta	ct: Open	=EN, Shor	t-DIS (use	r-selectable	e logic)	
6. Output Current Monitor						user-sele							
7. Output Voltage Monitor		,				, user-sele							>
8. Power Supply OK (PS_OK) Signal						impedanc							>
9. CV/CC Signal		<u> </u>				,), Max sinl		10mA		>
10. Enable/Disable									ontacts = 6	ίV			
11. Remote/Local Selection	<u> </u>					0 ~ 0.6V =	-			0. "	- let		
12. Remote/Local Signal	Signals o	perating r	node; Op	pen collec	tor: Local	= Open (I	viax volta	ge = 30V)	, Hemote =	= On (Max	sink currer	1t = 10mA)	
1.5 FRONT PANEL													
1.Control Functions	1			•				-	selectable	e)			
				•		oder, Fror		ock/Unloc	к				
		selection	ov Voltad	e Adiust e					014-00) Catal			
						f of addres		1. Contra 1		1. GO-TO-L	101121		
	AC ON/C	FF, Outpu	ut On/On	n, Restar	t Modes (Auto/Safe)	, Foldbac			,,	ocai		- ·
	AC ON/C RS232/R	FF, Outpu S-485, IE	ut On/On EE (IEM	n, Restar D) and LA	t Modes (N selection	Auto/Safe) on by rear	, Foldbac panel DII	P-switch					
	AC ON/C RS232/R Baud rate	FF, Outpu S-485, IE e selectior	ut On/On EE (IEM n (RS-23)	n, Restar D) and LA 2/RS-485	t Modes (N selection only): 120	Auto/Safe) on by rear 00, 2400, 4	, Foldbac panel DII 1800, 960	P-switch 0 and 19	200 (y cur	rent adjus	t encoder)		
2 Display	AC ON/C RS232/R Baud rate Advance	FF, Outpu S-485, IE selectior d Parallel	ut On/On EE (IEM n (RS-23 Master/S	n, Restar D) and LA 2/RS-485 Blave: Hx =	t Modes (. N selection only): 120 Master (Auto/Safe) on by rear 00, 2400, 4 unit, where	, Foldbac panel DII 4800, 960 e x = # of	P-switch 0 and 19		rent adjus	t encoder)		;
2.Display	AC ON/C RS232/R Baud rate Advanced Voltage: 4	FF, Outpu S-485, IE selectior d Parallel 4 digits, A	ut On/On EE (IEM n (RS-23 Master/S ccuracy:	n, Restar D) and LA 2/RS-485 Blave: Hx = ± 0.5% 0	t Modes (N selection only): 120 Master (f Vo(rated	Auto/Safe) on by rear 00, 2400, 4 unit, where I) ±1 coun	, Foldbac panel DII 4800, 960 e x = # of	P-switch 0 and 19	200 (y cur	rent adjus	t encoder)		
2.Display	AC ON/C RS232/R Baud rate Advanced Voltage: 4 Current: 4	FF, Outpu S-485, IE selection <u>d Parallel</u> digits, Ad digits, Ad	ut On/On EE (IEM n (RS-23) Master/S ccuracy: ccuracy:	n, Restar D) and LA 2/RS-485 Slave: Hx ± 0.5% of ± 0.5% of	t Modes (N selection only): 120 Master (f Vo(rateon f Io(rateon)	Auto/Safe) on by rear 00, 2400, 4 unit, where I) ±1 count ±1 count	, Foldbac panel DII 4800, 960 e x = # of	P-switch 0 and 19 Slave uni	200 (y cur ts (0 to 4);	rent adjus	t encoder)		
	AC ON/C RS232/R Baud rate Advanced Voltage: 4 Current: 4 Voltmeter	FF, Outpu S-485, IE selectior d Parallel d digits, Au digits, Au digits, Au	ut On/On EE (IEM n (RS-23) Master/S ccuracy: ccuracy: Voltage a	n, Restar D) and LA 2/RS-485 slave: Hx = ± 0.5% of ± 0.5% of at power s	t Modes (N selection only): 120 Master (f Vo(rated) supply (Lc	Auto/Safe) on by rear 00, 2400, 4 unit, where I) ±1 coun	, Foldbac panel DII 4800, 960 e x = # of t	P-switch 0 and 19 Slave uni d (Remot	200 (y cur ts (0 to 4); e sense)	rent adjus	t encoder)		
	AC ON/C RS232/R Baud rate Advanced Voltage: 4 Current: 4 Voltmeted Green LE	FF, Outpu S-485, IE selection d Parallel d digits, Ad d digits, Ad digits, Ad displays D's: PRE	ut On/On EE (IEM Master/S ccuracy: ccuracy: Voltage a VIEW, FO	n, Restar D) and LA 2/RS-485 slave: Hx = $\pm 0.5\%$ of $\pm 0.5\%$ of at power s DLD, REI	t Modes (N selections): 120 Master (f Vo(rated) (supply (Lo M./LOCAL	Auto/Safe) on by rear 00, 2400, 4 unit, where I) ±1 count ±1 count ocal sense	, Foldbac panel DII 4800, 960 e x = # of t	P-switch 0 and 19 Slave uni d (Remot	200 (y cur ts (0 to 4); e sense)	rent adjus	t encoder)		
3.Indications	AC ON/C RS232/R Baud rate Advanced Voltage: 4 Current: 4 Voltmeted Green LE	FF, Outpu S-485, IE selection d Parallel d digits, Ad d digits, Ad digits, Ad displays D's: PRE	ut On/On EE (IEM Master/S ccuracy: ccuracy: Voltage a VIEW, FO	n, Restar D) and LA 2/RS-485 slave: Hx = $\pm 0.5\%$ of $\pm 0.5\%$ of at power s DLD, REI	t Modes (N selections): 120 Master (f Vo(rated) Supply (Lo M./LOCAL	Auto/Safe) on by rear 00, 2400, 4 unit, where 1) ±1 count ±1 count ocal sense , OUT ON	, Foldbac panel DII 4800, 960 e x = # of t	P-switch 0 and 19 Slave uni d (Remot	200 (y cur ts (0 to 4); e sense)	rent adjus	t encoder)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK	AC ON/C RS232/R Baud rate Advanced Voltage: 4 Voltage: 4 Voltmetel Green LE Red LED	FF, Outpu S-485, IE selection d Parallel d digits, Ad d digits, Ad digits, Ad displays D's: PRE	ut On/On EE (IEMI Master/S ccuracy: ccuracy: Voltage a VIEW, FC DVP, OTF	n, Restar D) and LA 2/RS-485 $slave: Hx = 0.5\% of \pm 0.5\% of \pm 0.5\% of at power soDLD, REIP, FOLD, A$	t Modes (N selections): 120 Master (f Vo(rated) Supply (Lo M./LOCAL	Auto/Safe) on by rear 00, 2400, 4 unit, where 1) ±1 count ±1 count ocal sense , OUT ON	, Foldbac panel DII 4800, 960 e x = # of t	P-switch 0 and 19 Slave uni d (Remot	200 (y cur ts (0 to 4); e sense)	rent adjus	t encoder)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy	AC ON/C RS232/R Baud rate Advanced Voltage: 4 Current: 4 Voltmeted Green LE Red LED	FF, Outpu S-485, IE selection d Parallel d digits, Ad d digits, Ad d digits, Ad d digits, Ad c displays D's: PRE :.ALRM (0	AT On/On EE (IEM) (RS-23: Master/S ccuracy: ccuracy: Voltage a VIEW, F(DVP, OTF	n, Restar D) and LA 2/RS-485 slave: Hx = $\pm 0.5\%$ of at power s DLD, REI P, FOLD, A age	t Modes (N selection only): 120 Master (f Vo(rated) supply (Lo M./LOCAL AC FAIL, I	Auto/Safe) on by rear 00, 2400, 4 unit, where ±1 count ±1 count ocal sense , OUT ON ENA, SO)	, Foldbac panel DII 4800, 960 9 x = # of 1 0 or at loa	P-switch 0 and 19 Slave uni d (Remot //CC, FIN	200 (y cur ts (0 to 4); e sense)	rent adjus S = Slave	t encoder) unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy	AC ON/C RS232/R Baud rate Advanced Voltage: 4 Current: 4 Voltmeted Green LE Red LED	FF, Outpu S-485, IE e selection d Parallel 4 digits, Ar 4 digits, Ar 4 digits, Ar 5 displays D's: PRE :.ALRM ((f rated Out rated Out	AT On/On EE (IEM) (RS-23: Master/S ccuracy: ccuracy: Voltage a VIEW, F(DVP, OTF	n, Restar D) and LA 2/RS-485 slave: Hx = $\pm 0.5\%$ of at power s DLD, REI P, FOLD, A age	t Modes (N selection only): 120 Master (f Vo(rated) supply (Lo M./LOCAL AC FAIL, I	Auto/Safe) on by rear 00, 2400, 4 unit, where ±1 count ±1 count ocal sense , OUT ON ENA, SO)	, Foldbac panel DII 4800, 960 9 x = # of 1 0 or at loa	P-switch 0 and 19 Slave uni d (Remot //CC, FIN	200 (y cur ts (0 to 4); e sense) E	rent adjus S = Slave	t encoder) unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Resolution 4. lout Programming Resolution	AC ON/C RS232/R Baud rate Advanced Voltage: 4 Current: 4 Voltmetel Green LE Red LED ± 0.5% of ± 0.5% of 0.02% of 0.04% of	FF, Outpu S-485, IE e selectior d Parallel 4 digits, A4 d digits, A4 d digits, A4 d digits, A7 displays D's: PRE :.ALRM (0 f rated Out vo(rated) lo(rated)	t On/On EE (IEMI n (RS-23: Master/S ccuracy: ccuracy: Voltage a VIEW, FC DVP, OTF	n, Restar D) and LA 2/RS-485 slave: Hx = $\pm 0.5\%$ of $\pm 0.5\%$ of at power s DLD, REI P, FOLD, A age ent for uni	t Modes (, N selecti only): 12(= Master (f Vo(ratec) f Io(rated) supply (Lc M./LOCAL AC FAIL, I ts with Io	Auto/Safe) on by rear 00, 2400, 4 unit, where ±1 count ±1 count ocal sense , OUT ON ENA, SO)	, Foldbac panel DII 4800, 960 9 x = # of 1 0 or at loa	P-switch 0 and 19 Slave uni d (Remot //CC, FIN	200 (y cur ts (0 to 4); e sense) E	rent adjus S = Slave	t encoder) unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy	AC ON/C RS232/R Baud rata Advance: Voltage: 4 Voltage:	FF, Outpu S-485, IE a selection d Parallel 4 digits, A4 4 digits, A4 4 digits, A7 50's: PRE ::ALRM ((rated Out Vo(rated) 10(rated) 0.2% of r	ated Out	n, Restar D) and LA 2/RS-485 slave: Hx = ± 0.5% of ± 0.5% of at power s DLD, RE P, FOLD, / age put voltag	t Modes (, N selection only): 120 <u>– Master n</u> f Vo(rateor lo(rateor) supply (Lo M./LOCAL AC FAIL, § ts with Io je	Auto/Safe) on by rear 00, 2400, 4 unit, where ±1 count ±1 count ocal sense , OUT ON ENA, SO)	, Foldbac panel DII 4800, 960 9 x = # of 1 0 or at loa	P-switch 0 and 19 Slave uni d (Remot //CC, FIN	200 (y cur ts (0 to 4); e sense) E	rent adjus S = Slave	t encoder) unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy 6. lout Readback Accuracy	AC ON/C RS232/R Baud rate Advancer Voltage:	FF, Outpu S-485, IE a selection d Parallel 4 digits, A4 digits, A4 digits, A4 digits, A7 displays D's: PRE :.ALRM ((frated Out Vo(rated) I0(rated) 0.2% of r 0.4% of r	ated Out	n, Restar D) and LA 2/RS-485 slave: Hx = ± 0.5% of ± 0.5% of at power s DLD, RE P, FOLD, / age put voltag	t Modes (, N selection only): 120 <u>– Master n</u> f Vo(rateor lo(rateor) supply (Lo M./LOCAL AC FAIL, § ts with Io je	Auto/Safe) on by rear 00, 2400, 4 unit, where ±1 count ±1 count ocal sense , OUT ON ENA, SO)	, Foldbac panel DII 4800, 960 9 x = # of 1 0 or at loa	P-switch 0 and 19 Slave uni d (Remot //CC, FIN	200 (y cur ts (0 to 4); e sense) E	rent adjus S = Slave	t encoder) unit(s)		
1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Resolution 3. Vout Programming Resolution 5. Vout Readback Accuracy 6. lout Readback Accuracy 7. Vout Readback Resolution	AC ON/C RS232/R Baud rate Advanced Voltage: 2 Voltage: 4 Voltmeter Green LE Red LED $\pm 0.5\%$ of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of 0.02% of	FF, Outpu S-485, IE 9 selection d Parallel 4 digits, A4 digits, A4	ated Out	n, Restar D) and LA 2/RS-485 slave: Hx = ± 0.5% of ± 0.5% of at power s DLD, RE P, FOLD, / age put voltag	t Modes (, N selection only): 120 <u>– Master n</u> f Vo(rateor lo(rateor) supply (Lo M./LOCAL AC FAIL, § ts with Io je	Auto/Safe) on by rear 00, 2400, 4 unit, where ±1 count ±1 count ocal sense , OUT ON ENA, SO)	, Foldbac panel DII 4800, 960 9 x = # of 1 0 or at loa	P-switch 0 and 19 Slave uni d (Remot //CC, FIN	200 (y cur ts (0 to 4); e sense) E	rent adjus S = Slave	t encoder) unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy 6. lout Readback Accuracy 7. Vout Readback Resolution 8. lout Readback Resolution 8. lout Readback Resolution	AC ON/C RS232/R Baud rata Advanced Voltage: - Voltmetel Green LE Red LED $\pm 0.5\%$ of 0.02% of 0.04% of $\pm 0.1\%$ + $\pm 0.1\%$ + $\pm 0.1\%$ + 0.02% of 0.02% of 0.02% of	FF, Output S-485, IE selection d Parallel digits, A4 digits, A4 di	ated Out	n, Restar D) and LA 2/RS-485 slave: Hx = 4 2/RS-485 of at power s DLD, REIE DLD, REIE P, FOLD, / age put voltag put voltag	t Modes (, N selection only): 121 = Master of f Vo(rateo f lo(rated) supply (Lc M./LOCAL AC FAIL, to ts with lo	Auto/Safe) on by rear 00, 2400, - unit, where 1) ±1 count ±1 count ±1 count ±1 count ±1 count ×1 count	, Foldbac panel DII 4800, 960 2 x = # of 1 0 or at loa 1/OFF, CV	P-switch 0 and 19, Slave uni d (Remot /CC, FIN	200 (y cur is (0 to 4); e sense) E	rent adjus S = Slave	t encoder) unit(s)		
3.Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. lout Programming Resolution 4. lout Programming Resolution 5. Vout Readback Accuracy 6. lout Readback Accuracy 7. Vout Readback Resolution	AC ON/C RS232/R Baud rata Advance: Voltage: - Voltmete: Green LE Red LED ± 0.5% of 0.02% of 0.04% of ± 0.1% + 0.1% + 0.02% of 0.02% of 20mS ma	FF, Outpu S-485, IE selectior d Parallel digits, Ai digits, Ai dig	ated Out	n, Restar D) and LA 2/RS-485 slave: Hx = ± 0.5% of ± 0.5% of at power s DLD, RE P, FOLD, / age put voltag put voltag put curren	t Modes (, N selection only): 121 = Master of f Vo(rateo i lo(rated) supply (Lc M./LOCAL AC FAIL, to ts with lo generation generation ts with lo generation generation ts with lo	Auto/Safe) on by rear 00, 2400, - unit, where I) ±1 count ±1 count ±1 count ±1 count ±1 count <1875A; <1875A; P Limit an	, Foldbac panel DII 4800, 96C a x = # of t o or at loa l/OFF, CV +/-0.7% c	P-switch 0 and 19, Slave uni d (Remot /CC, FIN f rated Ou	200 (y cur is (0 to 4); e sense) E	rent adjus S = Slave	t encoder) unit(s)		

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

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

2.1 INPUT CHARACTERISTICS		200/AC (190.252) 400/AC (260.440, 240.440 (colort 10/A/(5)/AL models)) 400/AC (400.500), 47.00 (c. (1))
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 15kW - 64/32/27 (Vout ≤ 600V); N/A/32/27 (800V ≤ Vout ≤ 1500V) - at full rated Output power
5. Inrush Current	A	Not to exceed full rated Input current (see para. above)
6. Power Facto		0.88 Passive (typical)
7. Leakage Current	mA	3.5 (EN60950) max.
8. Input Protection		208VAC: circuit breaker (Vout ≤ 600V); 400VAC/480VAC (all models) - line fuse
9. Input Overvoltage Protection		Unit shall not be damaged by line overvoltage of 120% nominal AC input voltage with maximum duration of 100usec.
10. Phase Imbalance	%	5% on Three-Phase Input
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
2.2 POWER SUPPLY CONFIGURATION 1. Parallel Operation	current of	(4) identical units may be connected in Master/Slave Mode with single wire connection (*3). In Advanced-Parallel feature, the Master unit multiplied by number of units connected in parallel, is available via digital interface and displayed on the front play of the Master unit. Remote Analog current monitor of the Master is scaled to the Output current of the Master unit (only).
2. Series Operation	Possible (with external diodes); Up to two identical units with total Output voltage not to exceed \pm 600V from Chassis ground (for Vor \leq 600V eed \pm 1500V from Chassis ground (for 600V < Vor \leq 1500V).
2.3 ENVIRONMENTAL CONDITIONS	1	<u></u>
1. Operating Temperature		2. 100% load
· · · ·		
2. Storage Temperature	-20 ~ +70	
3. Operating Humidity		RH (non-condensing)
4. Storage Humidity 5. Vibration & Shock	<u> </u>	RH (non-condensing)
5. VIDPATION & SHOCK	Assurance Air (interc	169, Standard Practice for Performance Testing of Shipping Containers and Systems, Shipping Unit: Single Package e Level: Level II; Acceptance Criteria: Criterion 1 - No product damage Criterion 2 - Packaging is intact, Distribution Cycle: 12 - ity) and motor freight (local), unitized is used.
6. Altitude		: +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		-4-2 (IEC 801-2): Air-discharge ± 8kV , Contact-discharge ± 4kV
2. Fast Transients		-4-4 (IEC 1000-4-3)
3. Surge Immunity		4-5 (IEC 1000-4-5)
4. Conducted Immunity	<u> </u>	4-6 (IEC 1000-4-6)
5. Radiated Immunity		
6. Power Frequency Magnetic Field	EN61000-	
7. Conducted Emissions		A, FCC part 15J-A
8. Radiated Emissions		A, FCC part 15J-A
		A, FOO part 150-A
2. 400VAC/480VAC (*4) Input	CE Mark	
1. ESD		-4-2 (IEC 801-2): Air-discharge ± 8kV, Contact-discharge ± 4kV
2. Fast Transients		-4-4 (IEC 1000-4-3)
3. Surge Immunity		-4-5 (IEC 1000-4-5)
4. Conducted Immunity		4-6 (IEC 1000-4-6)
5. Radiated Immunity		-4-3 (IEC 1000-4-3)
6. Power Frequency Magnetic Field	EN61000-	
7. Voltage Dips, Short Interruptions and Voltage Variations Immunity Test (400VAC Only).	IEC 6100	
8. Conducted Emissions		A, FCC part 15J-A
9. Radiated Emissions	EN55011/	A, FCC part 15J-A
2.5 SAFETY		
1.Applicable Standards:	7.5V <u><</u> Voi 400V < Vo	0950-1, EN60950-1 recognized, CB Scheme, CE Mark (208VAC & 400VAC inputs only) ut ≤ 400V: Output is Hazardous; LAN/IEEE/Isolated Analog/USB are SELV but ≤ 600V: Output is Hazardous; LAN/IEEE/Isolated Analog/USB are not SELV but ≤ 1500V: Output is Hazardous; LAN/IEEE/Isolated Analog/USB are SELV
2. Withstand Voltage	Hazardou 300 < Vou Hazardou 600 < Vou Hazardou	10V models: Input - Ground: 2900VDC for 1min, Input-Hazardous Output: 3500VDC for 1min, Input - SELV: 2900VDC for 1min s Output - SELV: 2121VDC for 1min, Hazardous Output - Ground: 2121VDC for 1min tt ≤ 600V models: Input-Ground: 2900VDC for 1min, Input-Hazardous Output: 3900VDC for 1min, Input-SELV: 2900VDC for 1min s Output - SELV: 2688VDC for 1min, Hazardous Output - Ground: 2688VDC for 1min tt ≤ 1500V models: Input-Ground: 2900VDC for 1min, Input-Hazardous Output: 5040VDC for 1min, Input-SELV: 2900VDC for 1min s Output - SELV: 2500VDC for 1min, Hazardous Output - Ground: 2500VDC for 1min, Input-SELV: 2900VDC for 1min s Output - SELV: 2500VDC for 1min, Hazardous Output - Ground: 2500VDC for 1min
3.Insulation Resistance	> 100Meg	johms at 500VDC, +25°C
2.6 MECHANICAL CONSTRUCTION		
1. Cooling		n, Airflow from front to rear. Fan speed control on 10kW (800V-1500V models) and 15kW (30V-50V, and 800V-1500V models). ckable" top and bottom. Vents on side shall not be blocked. Chassis slides or suitable rear support required. EIA rack mounting.
2. Dimensions (W x H x D)	Width: 42	9mm / 16.9", Height: 3U - 133mm / 5.22", Depth - 564mm / 22.2" (excluding connectors, encoders, handles, etc.)
3. Weight	<u> </u>	lbs (Vout < 600V); 32kg / 70lbs (600V < Vout < 1500V)
4. AC Input connector (with Protective Cover)		1" threaded studs (L1, L2, L3 and Chassis GND) and terminal cover.
5.Output Connectors	<u> </u>	including 300V models: bus-bars (one and two-hole). Greater than 300V models: M6 x 0.5" threaded-stud terminals.
6.Control Connectors	Analog Pr	ogramming: DB25, plastic connector, AMP747461-5, Female on Supply; Male on Mating connector, 747321, 25 pin Sub-D connec
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		threaded-stud
2.7 WARRANTY	· · · ·	
	E 1/2017	
1. Warranty	5 years	
*3 GENESYS [™] 30V-50V (15kW) and 800V-1500V (10 *4. 30V-50V (15kW) and 800V-1500V (10kW/15kW) m All specifications subject to change without notice		ndoels require a Two-Wire Parallel Master-Slave connection. See the Product USer's Manual for details. 80VAC Input have CE Mark.



Genesys[™] Power Parallel and Series Configurations

Parallel operation - Master/Slave:

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

Series operation

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

Remote Programming via RS-232 & RS-485 Interface

Standard Serial Interface allows 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 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

- ٠ 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
- P/N: IS510 • 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% P/N: IS420
- Current Programming with 4-20mA signal. Power supply Voltage and Current Programming Accuracy: ±1%

LXI Compliant to Class C LAN Interface

- Meets all LXI Class C Requirements • Address Viewable on Front Panel
- VISA & SCPI Compatible LAN Fault Indicators

Program Current

•

Measure Current

Current Foldback shutdown

- Fixed and Dynamic Addressing
- Fast Startup

٠

- Auto-detects LAN Cross-over Cable
- Compatible with most standard Networks



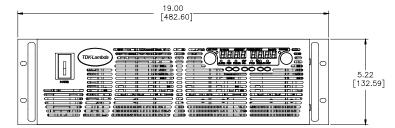


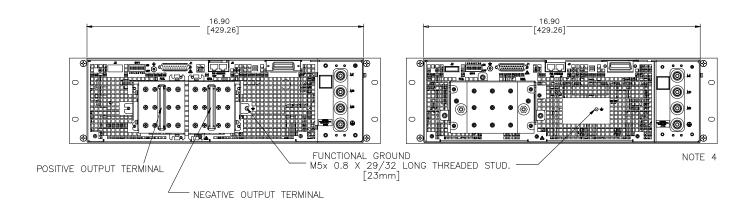
P/N: LAN

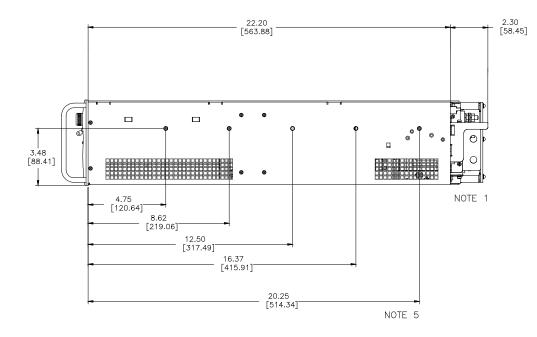
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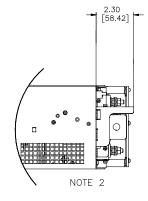


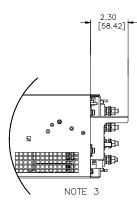
Outline Drawings: Genesys™ 10kW (All - 208VAC), 10kW/15kW (60V to 600V - 208/400/480VAC)







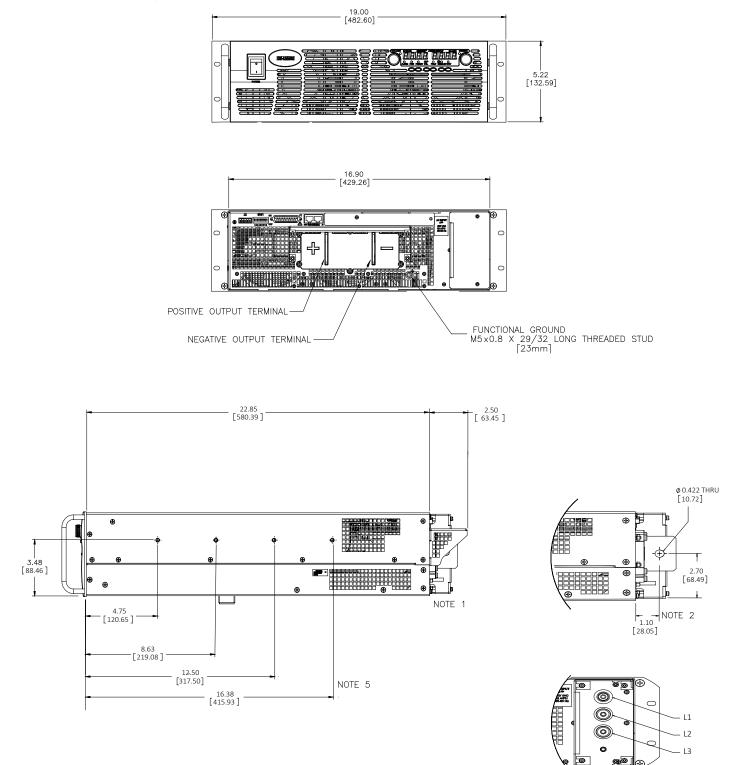




NOTES:

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

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



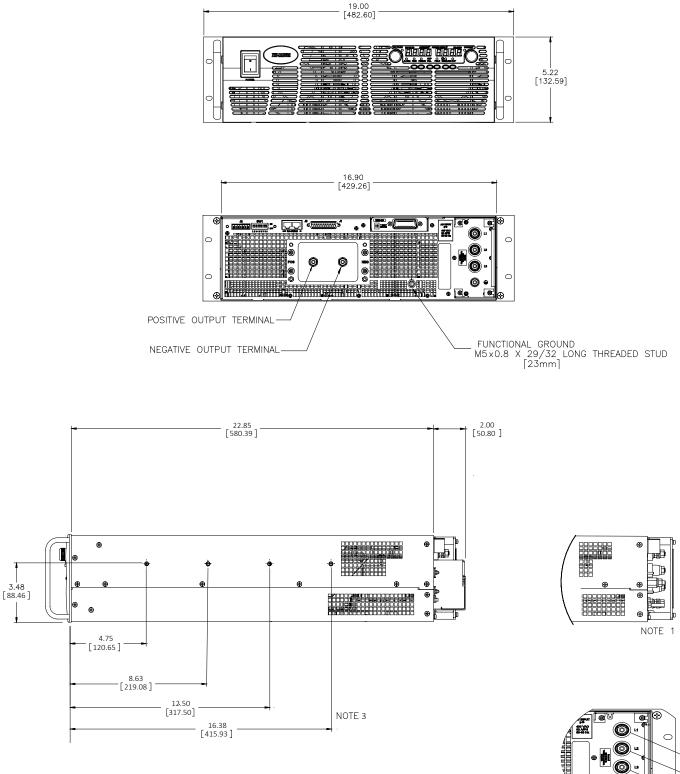
NOTES:

- 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).

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NOTE 4

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).



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L3

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

	<u>GEN</u>	<u> 10 </u>	<u>1000</u> ·	- <u>LAN</u> -	3P208		
		Voltage	Output Current (0~1000A)	Option: "" LAN	AC Input Options 3P208 (Three-Pha 3P400 (Three-Pha 3P480 (Three-Pha	se 400VAC)	
Model	Output Voltage (Vdc)	Output Current (Adc)	Output Power (kW)	Model	Output Voltage (Vdc)	Output Current (Adc)	Output Power (kW)
GEN 7.5-1000	0~7.5	0~1000	7.5	GEN 20	00-50	0~50	10
GEN 10-1000	0~10	0~1000	10	GEN 20	0~200	0~75	15
GEN 12.5-800	0~12.5	0~800	10	GEN 25	50-40	0~40	10
GEN 20-500	0~20	0~500	10	GEN 25	0~250 50-60	0~60	15
GEN 25-400	0~25	0~400	10	GEN 30	0-33 0~300	0~33	10
GEN 30-333	0~30	0~333	10	GEN 30	0~300	0~50	15
GEN 30-500	0~30	0~500	15	GEN 40	00-25 0~400	0~25	10
GEN 40-250	0~40	0~250	10	GEN 40	0~400	0~37.5	15
GEN 40-375	0~40	0~375	15	GEN 50	00-20 0~500	0~20	10
GEN 50-200	0~50	0~200	10	GEN 50	0~500	0~30	15
GEN 50-300	0~50	0~300	15	GEN 60	00-17 0~600	0~17	10
GEN 60-167	0~60	0~167	10	GEN 60	0~000	0~25	15
GEN 60-250	0~00	0~250	15	GEN 80	00-12.5 0~800	0~12.5	10
GEN 80-125	0~80	0~125	10	GEN 80	0~800	0~18.8	15
GEN 80-187.5	0~80	0~187.5	15	GEN 10	000-10 0~1000	0~10	10
GEN 100-100	0~100	0~100	10	GEN 10	00-15	0~15	15
GEN 100-150	0~100	0~150	15	GEN 12	250-8	0~8	10
GEN 125-80	0~125	0~80	10	GEN 12	0~1250	0~12	15
GEN 125-120	0~125	0~120	15	GEN 15	600-6.7	0~6.7	10
GEN 150-66	0~150	0~66	10	GEN 15	0~1500	0~10	15
GEN 150-100	0~150	0~100	15				

Factory options

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

LAN

P/N "____"

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

* Included with GENESYS[™]-1U, -2U power supply only.

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Genesys[™] Family - Output Voltage / Output Current

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

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

AC Inputs

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

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

Options (All Models)

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

(All options are factory installed and limited to one per power supply). All specifications subject to change without notice.

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