Genesy

New! 800V, 1000V, 1250V and 1500V models - 10kW/15kW - 208VAC/400VAC/480VAC **Programmable DC Power Supplies** Full-Rack 10kW/15kW in 3U Height Built in RS-232 & RS-485 Interface Parallel Operation (Basic or Advanced)

Optional Interfaces: LAN ([X] compliant w/ Multi-Drop) IEEE (488.2 & SCPI compliant w/ Multi-Drop) USB (2.0 w/ Multi-Drop) Isolated Analog (5V/10V or 4-20mA Pgm/Mon)



Genesys™ Family

GENH-1U 750W Half-Rack

GEN-1U 750W/1.5kW/2.4kW Full-Rack

GEN-2U 3.3kW/5.0kW Full-Rack GEN-3U 10kW/15kW Full-Rack

TDK·Lambda

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 full-rack 3U package
- High Output Current (up to 1000ADC)
- Popular worldwide 3Φ AC inputs, (208VAC, 400VAC, 480VAC)
- Power Factor 0.88 (Passive PFC on all 3Φ AC Inputs)
- Output Voltage from 7.5V (1000A) to 1500V (10A)
- Built-in RS-232/RS-485 Serial Interface (standard)
- Last Setting Memory, Safe/Auto-ReStart, Front Panel Lock/Unlock
- "Advanced Parallel" configuration reports total system current (up to four identical units)
- Global Commands for RS-232/RS-485 Serial Interface
- Continuous Encoders for Voltage and Current Adjustment (Coarse & Fine mode)
- Independent Remote SHUTOFF and Remote ENABLE/DISABLE
- 19" Rack Mounted for ATE and OEM Applications, zero-stack capability
- Optional Interfaces

Compliant LAN (Class C) w/ Multi-Drop capability: option for all models IEEE (488.2 & SCPI compliant) w/ Multi-Drop capability: option for all models

USB (2.0) w/ Multi-Drop capability: option for all models

Isolated Analog Programming and Monitoring Interface

0-5V/0-10V: option for models with Vout \leq 600V, standard for models with Vout \geq 800V

- 4-20mA: option for all models LabView™ and LabWindows™ Software Drivers
- Worldwide Safety Agency Approvals; UL Recognized and CE Mark for LV, EMC and RoHS2 Directives (208VAC (all models), 400VAC (all models) and 480VAC models (30V ≤ Vout ≤ 1500V))
- 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. This allows up to 30 Slave units to be used with the standard RS-485 Multi-Drop Serial 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 standard RS-485 and 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 DC 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 (7.5V \leq Vout \leq 25V)



- 1. AC ON/OFF Switch (circuit breaker for Vout < 25V; rocker switch for Vout > 30V models)
- 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:

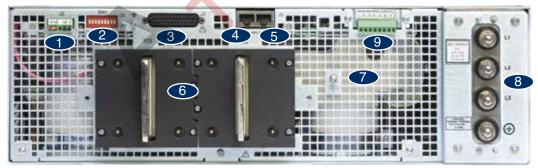
Foldback Mode

- Alarm
- Fine Control
- Remote Mode
- Output On

Preview Settings

- 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/Unlock.
 - Parallel Master/Slave (Basic and Advanced).
 - Set Output OVP and UVL Limits.
 - Set Output Current Foldback Protection.
 - Go to Local Mode and select unit Address and Baud rate.
 - Output ON/OFF and Safe-Start/Auto Re-Start mode.

Rear Panel Description (7.5V \leq Vout \leq 25V)



- 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.
- 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 where Vout < 30V, single hole busbars for 30V ≤ Vout ≤ 300V Output, and threaded-stud terminals for models where Vout > 300V.
- 7. Exit air assures reliable operation when zero-stacked.
- 8. Input Terminals L1, L2, L3, and Ground (threaded studs).
- 9. Optional location for LAN (LXI Class C), IEEE (488.2 & SCPI compliant), USB (2.0) or Isolated Analog Interface.



Genesvs™	311	10kW	Speci	ficat	ions
GEHESVS	JU	IUNVV	JUEGI	IIGal	IUIIO

1.0 MODEL	GEN		10-1000			25-400	30-333	40-250	50-200		80-125	100-100	125-80	4
1.Rated Output Voltage	VDC	7.5	10	12.5	20	25	30	40	50	60	80	100	125	4
P.Rated Output Current	ADC	1000	1000	800	500	400	333	250	200	167	125	100	80	┸
3.Rated Output Power	kW	7.5	10.0	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						83						\perp
1 CONSTANT VOLTAGE MODE (CV)					C	ontact Fa	ctory for c	ther mod	els					丄
.1 CONSTANT VOLTAGE MODE (CV) . Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤														_
: Max. Line Reg (0.1% - Vol ≤ 30V, 0.01% - 30V < Vol ≤ 1500V; 0.05% - 600V < Vor ≤ 1500V)	mV	7.5	10	12.5	20	25	30	4	5	6	8	10	12.5	
2. Max. Load Reg (0.1% for Vor ≤ 30V; 0.02% for 30V < Vor	mV	7.5	10	12.5	20	25	30	8	10	12	16	20	25	T
600V; 0.1% for 600V < Vor ≤ 1500V); (*5)														1
3. Output Ripple, rms (5Hz~1MHz), CV mode; (*1)	mV	20	20	20	20	20	20	20	20	20	25	25	25	+
I. Output Noise, p-p (20MHz), CV mode; (*1)	mV V	60	60	60	60 1	60	60 1.5	60	75	75 3	100 4	100	125	╀
5.Remote Sense Compensation / Wire 5. Temperature Stability		1 . 0.05%	1	1		1 tor 20 min		2	3		Temperati	5	5	╀
Temperature Stability	ppm / °C		± 0.02% 0			ter 30 mil	iule warri	up (cons	Statil Little	, Luau a	remperan	iie)		十
B. Up-Prog. Response Time, 0 ~ Vomax, full-load	ms	± 200 (3	0.02 /6 0	i vo(ialec	1)) / C			100						+
D. Up-Prog. Response Time, 0~Vomax, no-load	ms							50						十
0. Transient Response Time (CV mode); (*2), (*4)	ms					-		s than 3						十
.2 CONSTANT CURRENT MODE (CC)	1													_
. Max. Line Reg. (0.1% - lor ≥ 333A; 0.050% - 17A < lor <														Т
33A; 0.15% - lor < 17A)	mA	1000	1000	800	500	400	333	125	100	83.5	62.5	50	40	
. Max. Load Reg (0.1% - Ior ≥ 333A; 0.075% - 17A ≤ Ior <	mA	1000	1000	800	500	400	333	188	150	125	94	75	60	T
333A; 0.2% - lor < 17A); (*3), (*5)	IIIA													\perp
B. Output Ripple, rms (5Hz~1MHz), CC mode	mA	5300	4000	2560	1000	640	444	250	160	67	50	40	32	Ţ
. Temperature Stability						ter 30 mi	nute warm	up (cons	stant Line	, Load &	Temperati	ure)		1
5. Temperature Coefficient	ppm/°C	± 300 (±	± 0.03% o	f lo(rated)) / °C		47							丄
.3 PROTECTIVE FUNCTIONS														
. OCP	%	0 ~ 100												Т
. OCP type			nt current											\perp
B. Foldback Protection (FOLD)							$\overline{}$				n, user-sel	ectable		┸
Foldback Response Time	S		an 1 (Min											ᆚ
5. OVP type					I reset by	AC On/O	ff recycle,	OUT but	ton, Rem	ote Analo	g or Digita	al commuin	cation	ᆚ
6. OVP Programming Accuracy	%		Vo(rated)											4
OVP Trip Point	V		05% of Vo								1500V			
- OVD D			an 10 (for						or vo(ia	iteuj	-			十
3. OVP Response Time	ms		an 2.0 (for						V					Т
9. Max. OVP Reset Time	s	7 (from	AC On/Of	f switch to	ırn On)									Τ
10. Over-Temperature Protection (OTP)											nlatched: /	Auto)		丄
11. Phase-Loss Protection		Yes, po	wer suppl	y shutdow	n (Latche	ed: Safe-S	tart / Unla	atched: Au	uto-Resta	ırt)				丄
1.4 REMOTE ANALOG CONTROLS & SIGNALS														
I. Vout Voltage Programming	0~100%,	0 ~ 5V or	0 ~ 10V, ı	user-selec	table., Ac	curacy &	Linearity:	±1% of V	o(rated)					Т
2. lout Voltage Programming	0~100%,	0 ~ 5V or	0 ~ 10V, ı	user-seled	table, Acc	curacy &	Linearity:	± 1% of le	o(rated)					Т
3. Vout Resistor Programming	0~100%,	0 ~ 5/10kg	ohm full-s	cale, use	r-selectab	le, Accura	cy & Line	arity: ± 1°	% of Vo(r	ated)				\perp
4. lout Resistor Programming	0~100%,	0 ~ 5/10kg	ohm full-s	cale, use	r-selectab	le, Accura	cy & Line	arity: ± 1°	% of lo(ra	ated)				\perp
5. Shut-Off (SO) Control (rear panel)								Open = El	NA, Shor	t = DIS (ι	ıser-select	able logic)		\perp
6. Output Current Monitor		0 ~ 10V, A												┸
7. Output Voltage Monitor		0 ~ 10V, A												┸
B. Power Supply OK (PS_OK) Signal		High = Ok												┸
9. CV/CC Signal		ligh (4 ~ !												\perp
10. Enable/Disable		ct; Open								acts = 6V				\perp
11 Demote/Least Coloctics	+	emote or												\perp
	Signals o	perating n	node; Ope	en collecte	or: Local =	Open (N	Max voltag	e = 30V),	Remote	= On (Ma	ax sink cu	rrent = 10m	A)	\perp
2. Remote/Local Signal 1.5 FRONT PANEL										ctable)				
2. Remote/Local Signal 1.5 FRONT PANEL		manual a								,				
2. Remote/Local Signal .5 FRONT PANEL	OVP/UVL	. manual a	adjust by \	OLTAGE	Adjust er	coder, Fr	ont Panel	Lock/Unl		,				┕
2. Remote/Local Signal .5 FRONT PANEL	OVP/UVL Address	. manual a selection b	adjust by V by VOLTA	/OLTAGE GE Adjust	Adjust er encoder.	ncoder, Fr # of Add	ont Panel esses = 3	Lock/Unl 1	ock	,				t
2. Remote/Local Signal .5 FRONT PANEL	OVP/UVL Address s AC ON/O	. manual a selection b FF, Outpu	adjust by V by VOLTAG It On/Off,	/OLTAGE GE Adjust Restart M	Adjust en encoder. lodes (Au	ncoder, Fr # of Addi to/Safe),	ont Panel esses = 3 Foldback (Lock/Unl 31 Control (C	ock	,	.ocal			
12. Remote/Local Signal 1.5 FRONT PANEL	OVP/UVL Address s AC ON/O RS-232/F	. manual a selection b FF, Outpu RS-485, LA	adjust by N by VOLTAG It On/Off, AN, IEEE	OLTAGE GE Adjust Restart M (IEMD) a	Adjust en encoder. lodes (Au nd USB s	# of Addi to/Safe), election b	ont Panel resses = 3 Foldback by rear par	Lock/Unl 31 Control (C nel DIP-sy	ock CV to CC) witch), Go-to-L				
2. Remote/Local Signal 1.5 FRONT PANEL	OVP/UVL Address AC ON/O RS-232/F Baud rate	manual a selection b FF, Outpu RS-485, LA se selection	adjust by Noy VOLTAG of VOLTAG of On/Off, AN, IEEE of (RS-232)	OLTAGE GE Adjust Restart M (IEMD) a /RS-485 o	Adjust en encoder. lodes (Auf nd USB s only): 1200	# of Addito/Safe), lelection b	ont Panel resses = 3 Foldback by rear pail 1800, 9600	Lock/Unl 31 Control (C nel DIP-sv D and 19,3	ock CV to CC; vitch 200 (by C), Go-to-L	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions	OVP/UVL Address: AC ON/O RS-232/F Baud rate Advanced	manual aselection before the selection before the selection of the selecti	adjust by Noy VOLTAG It On/Off, AN, IEEE I (RS-232 Master/Sl	/OLTAGE GE Adjust Restart M (IEMD) a /RS-485 d ave: Hx =	Adjust er encoder. lodes (Au nd USB s only): 1200 Master u	# of Addito/Safe), lelection book 2400, 4	ont Panel resses = 3 Foldback by rear pail 1800, 9600	Lock/Unl 31 Control (C nel DIP-sv D and 19,3	ock CV to CC; vitch 200 (by C), Go-to-L	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions	OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage: 4	manual a selection b FF, Outpu RS-485, LA selection d Parallel I digits, Ad	adjust by Noy VOLTAG at On/Off, AN, IEEE I (RS-232, Master/Sla ccuracy: ±	OLTAGE GE Adjust Restart M (IEMD) a (RS-485 of the content of the	Adjust er encoder. lodes (Aut nd USB s only): 1200 Master un Vo(rated)	# of Addi to/Safe), election b 0, 2400, 4 nit, where ±1 count	ont Panel resses = 3 Foldback by rear pail 1800, 9600	Lock/Unl 31 Control (C nel DIP-sv D and 19,3	ock CV to CC; vitch 200 (by C), Go-to-L	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions	OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4	manual asselection by FF, Output RS-485, LAsse selection digits, Action and digits, Actio	adjust by Noy VOLTAG by VOLTAG at On/Off, AN, IEEE I (RS-232 Master/Sla ccuracy: ±	/OLTAGE GE Adjust Restart M (IEMD) a /RS-485 c ave: Hx = 0.5% of 100.5% of 100.5% of 100.5% of 100.5%	Adjust en encoder. lodes (Aut nd USB s only): 1200 Master un Vo(rated) :	# of Addi to/Safe), election b 0, 2400, 4 nit, where ±1 count	ont Panel resses = 3 Foldback by rear par 8800, 9600 x = # of \$	Lock/Unl 31 Control (Conel DIP-sv Conel DIP-sv Conel 19,3 Conel 19,3 Conel 19,3	ock CV to CC witch 200 (by C s (0 to 4)), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display	OVP/UVL Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 VOLTAGE	manual aselection by FF, Output RS-485, LAse selection de Parallel I digits, Act digits, Act meter dis	adjust by \ by VOLTAG it On/Off, AN, IEEE i (RS-232) Master/Sli ccuracy: ± ccuracy: ± splays vol	OLTAGE GE Adjust Restart M (IEMD) a /RS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po	Adjust en encoder. lodes (Autority 1200): 1200 Master un vo(rated): 1000 mer supp	# of Addi to/Safe), lelection b 0, 2400, 4 nit, where ±1 count bly (Local	ont Panel resses = 3 Foldback by rear par 800, 9600 x = # of \$ sense) or	Lock/Unl t1 Control (Conel DIP-sv Conel DIP-sv Conel 19, Conel 19, Conel Cone	ock CV to CC; witch 200 (by Cs (0 to 4)), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display	OVP/UVL Address: AC ON/O RS-232/F Baud rate Advanced Voltage: VOLTAGE Green LE	manual asselection by FF, Output RS-485, LAsselection described Parallel I digits, Action digits	adjust by Noy VOLTAGE TO NO VOLTAGE TO NO VOLTAGE TO NO VOLTAGE TO	OLTAGE GE Adjust Restart M (IEMD) a /RS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po	Adjust en encoder. lodes (Aut nd USB s only): 1200 Master un Vo(rated) = lo(rated) = lower supp	# of Addi to/Safe), lelection b 0, 2400, 4 nit, where ±1 count by (Local	ont Panel resses = 3 Foldback (by rear pai 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-sv Conel DIP-sv Conel 19, Conel 19, Conel Cone	ock CV to CC; witch 200 (by Cs (0 to 4)), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
2. Remote/Local Signal .5 FRONT PANEL .Control Functions 2. Display 3. Indications	OVP/UVL Address: AC ON/O RS-232/F Baud rate Advanced Voltage: VOLTAGE Green LE	manual aselection by FF, Output RS-485, LAse selection de Parallel I digits, Act digits, Act meter dis	adjust by Noy VOLTAGE TO NO VOLTAGE TO NO VOLTAGE TO NO VOLTAGE TO	OLTAGE GE Adjust Restart M (IEMD) a /RS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po	Adjust en encoder. lodes (Aut nd USB s only): 1200 Master un Vo(rated) = lo(rated) = lower supp	# of Addi to/Safe), lelection b 0, 2400, 4 nit, where ±1 count by (Local	ont Panel resses = 3 Foldback (by rear pai 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-sv Conel DIP-sv Conel 19, Conel 19, Conel Cone	ock CV to CC; witch 200 (by Cs (0 to 4)), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
2. Remote/Local Signal 3.5 FRONT PANEL Control Functions 2. Display 3. Indications 4. DIGITAL PROGRAMMING & READBACK	OVP/UVL Address: AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 VOLTAGE Green LE Red LED	manual a selection b FF, Output RS-485, LA selection b Parallel I digits, Ac digits, Ac meter dis D's: PREV: ALARM (adjust by \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	OLTAGE GE Adjust Restart M (IEMD) a /RS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po	Adjust en encoder. lodes (Aut nd USB s only): 1200 Master un Vo(rated) = lo(rated) = lower supp	# of Addi to/Safe), lelection b 0, 2400, 4 nit, where ±1 count by (Local	ont Panel resses = 3 Foldback (by rear pai 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-sv Conel DIP-sv Conel 19, Conel 19, Conel Cone	ock CV to CC; witch 200 (by Cs (0 to 4)), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy	OVP/UVL Address: AC ON/O RS-232/F Baud rate Advanced Voltage: VOLTAGE Green LE Red LED	manual a selection b FF, Output S-485, LA selection d Parallel II digits, Act digits, Act meter dis D's: PREV. ALARM (adjust by \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	/OLTAGE GE Adjust Restart M (IEMD) a /RS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po LD, REM P, FOLD, /	Adjust er e encoder. lodes (Au' nd USB s only): 1200 Master ui Vo(rated) : lo(rated) : ower supp I/LOCAL, AC FAIL, I	# of Addito/Safe), election b. 0, 2400, 4 nit, where ±1 count bly (Local OUT ON, ENA, SO)	ont Panel resses = 3 Foldback by rear panel 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-so c) and 19, Slave unit at load (I CC, FINE	ock CV to CC; witch 200 (by Cs (0 to 4))), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy	OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage: 4 VOLTAGE Green LE Red LED	manual a selection b FF, Output RS-485, L/L selection d Parallel II digits, Act digits, Act meter digit D's: PREE ALARM (Vorated)	adjust by \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	/OLTAGE GE Adjust Restart M (IEMD) a /RS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po LD, REM P, FOLD, /	Adjust er e encoder. lodes (Au' nd USB s only): 1200 Master ui Vo(rated) : lo(rated) : ower supp I/LOCAL, AC FAIL, I	# of Addito/Safe), election b. 0, 2400, 4 nit, where ±1 count bly (Local OUT ON, ENA, SO)	ont Panel resses = 3 Foldback by rear panel 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-so c) and 19, Slave unit at load (I CC, FINE	ock CV to CC; witch 200 (by Cs (0 to 4))), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Jout Programming Accuracy 3. Vout Programming Accuracy 3. Vout Programming Accuracy 3. Vout Programming Accuracy 3. Vout Programming Resolution	OVP/UVL Address: AC ON/O RS-232/F Baud rate Advanced Voltage: VOLTAGE Green LE Red LED ± 0.5% 0 ± 0.5% 0 0.02% of	manual a selection b FF, Output RS-485, L/s selection d Parallel I d digits, Act E meter dis D's: PRE: ALARM (Vo(rated) I lo(rated) Vo(rated)	adjust by \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	/OLTAGE GE Adjust Restart M (IEMD) a /RS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po LD, REM P, FOLD, /	Adjust er e encoder. lodes (Au' nd USB s only): 1200 Master ui Vo(rated) : lo(rated) : ower supp I/LOCAL, AC FAIL, I	# of Addito/Safe), election b. 0, 2400, 4 nit, where ±1 count bly (Local OUT ON, ENA, SO)	ont Panel resses = 3 Foldback by rear panel 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-so c) and 19, Slave unit at load (I CC, FINE	ock CV to CC; witch 200 (by Cs (0 to 4))), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 4. Iout Programming Resolution	OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage: 4 VOLTAGE Green LE Red LED ± 0.5% o ± 0.5% o 0.02% of 0.04% of	manual a selection b FF, Outpus RS-485, L/s e selection b Parallel II digits, Act digits, Act digits, Act Dis: PREE ALARM (F Vo(rated) Vo(rated) lo(rated) lo(rated)	adjust by Noy VOLTAGE TONOME,	/OLTAGE GE Adjust Restart M (IEMD) a (RS-485 c ave: Hx = 0.5% of 0.5% of tage at po LD, REM P, FOLD, /	Adjust er encoder. lodes (Au'n d USB s only): 1200 Master un vo(rated) do(rated) dower suppl/LOCAL, AC FAIL, I	# of Addito/Safe), election b. 0, 2400, 4 nit, where ±1 count bly (Local OUT ON, ENA, SO)	ont Panel resses = 3 Foldback by rear panel 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-so c) and 19, Slave unit at load (I CC, FINE	ock CV to CC; witch 200 (by Cs (0 to 4))), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy	OVP/UVL Address: AC ON/O RS-232/F Baud rate Advanced Voltage: Current: VOLTAGE Green LE Red LED ± 0.5% 0' ± 0.5% 0' 0.02% 0f 0.04% of ± (0.1% 0	manual a selection be FF, Output RS-485, L/s e selection be TF, Output RS-485, L/s e selection be TF, Output RS-485, L/s e selection be TF, Color BF, Color	adjust by Noy VOLTAGE to NO/Off, AN, IEEE in (RS-232, Master/Sli couracy: ± c	/OLTAGE GE Adjust Restart M (IEMD) a (IEMD) a (IFRS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po LD, REM vith Io < 1	Adjust er encoder. lodes (Au'n du USB s only): 1200 Master ui vo(rated) ± lo(rated) ± lower supplif. OCAL, AC FAIL, £ (187.5A; ± (187.5A; ± (199.5))	# of Addito/Safe), election b. 0, 2400, 4 nit, where ±1 count bly (Local OUT ON, ENA, SO)	ont Panel resses = 3 Foldback by rear panel 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-so c) and 19, Slave unit at load (I CC, FINE	ock CV to CC; witch 200 (by Cs (0 to 4))), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy 6. Iout Readback Accuracy 6. Iout Readback Accuracy	OVP/UVL Address: AC ON/O RS-232/F Baud rate Advanced Voltage: 4 VOLTAGE Green LE Red LED ± 0.5% o 0.02% of 0.02% of ± (0.1% o ± (0.1% o	manual a manual a manual a selection b FF, Outpur SS-485, LA selection d Parallel II digits, Ac digits, Ac digits, Ac meter dis D's: PRE\ ALARM (Vo(rated) i lo(rated) Vo(rated) of Vo(actual of Io(actual of Io(actu	adjust by Noy VOLTAGE to NO/Off, AN, IEEE in (RS-232, Master/Sli couracy: ± c	/OLTAGE GE Adjust Restart M (IEMD) a (IEMD) a (IFRS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po LD, REM vith Io < 1	Adjust er encoder. lodes (Au'n du USB s only): 1200 Master ui vo(rated) ± lo(rated) ± lower supplif. OCAL, AC FAIL, £ (187.5A; ± (187.5A; ± (199.5))	# of Addito/Safe), election b. 0, 2400, 4 nit, where ±1 count bly (Local OUT ON, ENA, SO)	ont Panel resses = 3 Foldback by rear panel 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-so c) and 19, Slave unit at load (I CC, FINE	ock CV to CC; witch 200 (by Cs (0 to 4))), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
11. Remote/Local Selection 12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy 7. Vout Readback Resolution	OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage: 4 VOLTAGE Green LE ± 0.5% 0 0.02% of 0.04% of ± (0.1% c 0.02% of	manual a man	adjust by Noy VOLTAGE to NO/Off, AN, IEEE in (RS-232, Master/Sli couracy: ± c	/OLTAGE GE Adjust Restart M (IEMD) a (IEMD) a (IFRS-485 c ave: Hx = 0.5% of 1 0.5% of 1 tage at po LD, REM vith Io < 1	Adjust er encoder. lodes (Au'n du USB s only): 1200 Master ui vo(rated) ± lo(rated) ± lower supplif. OCAL, AC FAIL, £ (187.5A; ± (187.5A; ± (199.5))	# of Addito/Safe), election b. 0, 2400, 4 nit, where ±1 count bly (Local OUT ON, ENA, SO)	ont Panel resses = 3 Foldback by rear panel 1800, 9600 x = # of \$ sense) or OFF, CV/	Lock/Unl t1 Control (Conel DIP-so c) and 19, Slave unit at load (I CC, FINE	ock CV to CC; witch 200 (by Cs (0 to 4))), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		
12. Remote/Local Signal 1.5 FRONT PANEL 1. Control Functions 2. Display 3. Indications 1.6 DIGITAL PROGRAMMING & READBACK 1. Vout Programming Accuracy 2. Iout Programming Accuracy 3. Vout Programming Resolution 4. Iout Programming Resolution 5. Vout Readback Accuracy 6. Iout Readback Accuracy 6. Iout Readback Accuracy 6. Iout Readback Accuracy	OVP/UVL Address : AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 VOLTAGE Green LE Red LED ± 0.5% o ± 0.5% o 0.02% of 0.04% of ± (0.11% o 0.02% of 0.02% of 0.02% of	manual a man	adjust by Noy VOLTAGE by VOLTAGE to On/Off, AN, IEEE in (RS-232) Master/SI; couracy: ± c	/OLTAGE GE Adjust Restart M (IEMD) a (IEMD) a (IEMS) a (I	Adjust er encoder. lodes (Au'n du SB s only): 1200 Master un vo(rated) : 100 (rated) :	# of Addi to/Safe), election b 0, 2400, 2 init, where ±1 count bly (Local OUT ON, ENA, SO)	ont Panel resses = 3 Foldback in your rear panel 800, 9600 x = # of \$ sense) or OFF, CV// or(rated) fo	Lock/Unit Control (Conel DIP-sv onel DIP-	ock EV to CC, witch 200 (by C s (0 to 4) Remote s), Go-to-L CURRENT , S = Slav	Γ Adjust er	ncoder)		

^{*1} Ripple and Noise at Vo(rated) and rated Load, Ta = +25C and nominal AC Input per EIJ R900A.

*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.

*4 Operating with a load that continuously pulses the current (or voltage) can reduce the operating life of the Power Supply. Please contact TDK-Lambda Sales/Technical Support to discuss the application in detail.

^{*5.} CV Mode: from 5% to 100% of Irated (over 5% to 100% of Prated); CC Mode: from 20% to 100% of Vrated (over 20% to 100% of Prated). All specifications subject to change without notice.

Genesys[™] 3U 10kW Specifications

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10 8.0 6.7 0.0 10.0 10.0 93.5 500 625 750 000 1250 1500 100 120 140 100 1400 100 15 5 10 5 10 17 17 17 Less than 1 15 12 10 20 15 14 10 6 4						
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and						
nalog or Digital comm.						
/or ≤ 1500V						
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						
e / Unlatched: Auto)						
(user-selectable logic)						
(doer delectable logic)						
rrent = 10mA						
= 6V						
(Max sink current = 10mA)						
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10kW

^{*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.

*4 Operating with a load that continuously pulses the current (or voltage) can reduce the operating life of the Power Supply. Please contact TDK-Lambda Sales/Technical Support to discuss the application in detail.

*5. CV Mode: from 5% to 100% of Irated (over 5% to 100% of Prated); CC Mode: from 20% to 100% of Vrated (over 20% to 100% of Prated).

All specifications subject to change without notice.

T1/		4-1-14			
Genesvs TM 3	3U	15kW	Speci	ticat	ions

.0 MODEL	GEN	N/A	N/A	N/A	N/A	N/A	30-500	40-375	50-300	60-250		100-150	125-120	\perp
Rated Output Voltage	VDC						30	40	50	60	80	100	125	ᆚ
.Rated Output Current	ADC						500	375	300	250	187.5	150	120	\perp
.Rated Output Power	kW						15.0	15.0	15.0	15.0	15.0	15.0	15.0	
Efficiency (min) at low AC line, 100% Rated Load	%									88				Т
					C	ontact Fa	ctory for c	ther mod	els					Ť
1 CONSTANT VOLTAGE MODE (CV)														
Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - 30V < Vor ≤	mV						30	4	5	6	8	10	12.5	T
00V; 0.05% - 600V < Vor ≤ 1500V)	1111												12.5	1
Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - 30V < Vor ≤	mV						30	8	10	12	16	20	25	
00V; 0.1% - 600V < Vor ≤ 1500V); (*5)														+
Output Ripple, rms (5Hz~1MHz), CV mode; (*1)	mV						20	20	20	20	25	25	25	+
Output Noise, p-p (20MHz), CV mode; (*1)	mV						60	60	75	75	100	100	125	4
Remote Sense Compensation / Wire	V						1.5	2	3	3	4	5	5	4
Temperature Stability						er 30 mi	nute warm	up (cons	tant Line	, Load &	Temperatu	re)		4
Temperature Coefficient	ppm / °C	± 200 (±	: 0.02% o	f Vo(rated)) / °C									4
Up-Prog. Response Time, 0 ~ Vomax, full-load	ms							100						4
Up-Prog. Response Time, 0~Vomax, no load	ms							50						4
7. Transient Response Time (CV mode); (*2), (*4)	ms						Les	s than 3						ᆚ
2 CONSTANT CURRENT MODE (CC)														
Max. Line Reg. (0.1% - Ior ≥ 333A; 0.050% - Ior < 333A)	mA						500	375	334	125	94	 75	60	Τ
Max. Load Reg (0.1% - Ior ≥ 333A; 0.075% - 25A ≤ Ior <	A						500	075	204	100	111			Т
33A; 0.2% - lor < 25A); (*3), (*5)	mA						500	375	334	188	141	113	90	\perp
Ripple, rms (5Hz~1MHz), CC mode	mA						350	200	150	100	100	100	50	J
Temperature Stability		± 0.05%	of lo(rate	ed) over 8	hours aft	er 30 mir	nute warm	up (cons	tant Line,	Load & 7	Temperatur	e)		I
Temperature Coefficient	ppm/°C	± 300 (±	0.03% 0	f lo(rated)) / °C									Ι
3 PROTECTIVE FUNCTIONS														_
OCP	%	0 ~ 100												Т
OCP type			nt current					-						+
Foldback Protection (FOLD)				Manualr	eset by fr	ont page	OUT hot	on or Dia	ital comp	nunication	n, user-sele	ectable		+
Foldback Response Time							= 0.25); Se				i, user-seie	Clable		+
OVP type	S										g or Digital		notion	+
			Vo(rated)	n; Manuai	reset by	AC On/C	ni recycle,	OUT but	on, Rem	ole Anaio	g or Digital	communic	cation	+
OVP Programming Accuracy	%			Vo(rated)	- for Vor	> 600\/:	10% to 10	5% of Vol	ratad) - 6	001/ < 1/0	r ≤ 1500V			+
OVP Trip Point	V						ng); Defau				1 ≤ 1500 V			
							Vor ≤ 600'		o or vo(ia	ieu)				$^{+}$
OVP Response Time	ms						600V < V		V					
Max. OVP Reset Time	s	7 (from /	AC On/Of	f switch tu	ırn On)									Т
D. Over-temperature Protection (OTP)		Shut do	wn if inter	nal tempe	rature ex	ceeds sa	fe operati	ng levels	(Latched:	Safe / Ur	nlatched: A	uto)		Т
I. Phase-Loss Protection		Yes, pov	ver supply	shutdow	n (Latche	d: Safe-S	Start / Unla	atched: A	ıto-Resta	rt)				T
4 REMOTE ANALOG CONTROLS & SIGNALS														
Vout Voltage Programming	0~100%,	0 ~ 5V or	0 ~ 10V I	iser-selec	table Ac	curacy &	Linearity:	+1% of \	o(rated)					т
Iout Voltage Programming	0~100%,													t
Vout Resistor Programming	0~100%,									ated)				+
lout Resistor Programming	0~100%,													+
Shut-Off (SO) Control (rear panel)			$\overline{}$								r-selectable	- logic)		+
Output Current Monitor	0 ~ 5V or								, Onort =	DIO (000)	JOICOIGDIC	, logio,		+
Output Voltage Monitor	0 ~ 5V or													+
Power Supply OK (PS_OK) Signal		High = OK												+
CV/CC Signal			,				TTL Low	0 0 41/	Movesin	k ourront	- 10m A			+
D. Enable/Disable							across E							+
I. Remote/Local Selection	Selects R									acis = ov				+
										0= (14		10	<u> </u>	+
2. Remote/Local Signal	Signals o	perating in	поае; Оре	n collecto	r: Locai =	Open (i	viax voitag	e = 30v)	Remote	= On (Ma	ax sink curr	rent = 10m.	A)	_
5 FRONT PANEL														
	1						E and FIN	-		ctable)				L
Control Functions	I OVP/UV	manual a	djust by \	/OLTAGE	Adjust en	coder, F	ront Panel		ock					L
Control Functions	001/002							14						ſ
Control Functions	Address s	election b	y VOLTA	SE Adjust	encoder.	# of Add	resses = 3	1		. Go-to-L	ocal			ſ
Control Functions			-						CV to CC)	,				г
Control Functions	Address s	FF, Outpu	t On/Off,	Restart M	odes (Aut	o/Safe),	Foldback	Control (C		,				L
Control Functions	Address s AC ON/O RS-232/R	FF, Outpu S-485, LA	t On/Off, AN, IEEE	Restart M (IEMD) ar	odes (Aut nd USB se	o/Safe), election l	Foldback by rear pai	Control (C nel DIP-si	vitch		ljust encod	er)		ŀ
Control Functions	Address s AC ON/O RS-232/R	FF, Outpu S-485, LA selection	t On/Off, AN, IEEE (RS-232	Restart M (IEMD) ar 'RS-485 o	odes (Aut nd USB se nly): 1200	o/Safe), election I), 2400, 4	Foldback by rear pai 1800, 960	Control (C nel DIP-si c) and 19,	vitch 200 (by C	current Ad	•	er)		ŀ
	Address s AC ON/O RS-232/F Baud rate Advanced	FF, Outpu S-485, LA selection	t On/Off, AN, IEEE (RS-232 Master/Sla	Restart M (IEMD) ar 'RS-485 o ave: Hx =	odes (Aut nd USB se nly): 1200 Master ur	o/Safe), election I), 2400, 4 hit, where	Foldback by rear par 4800, 9600 b x = # of S	Control (C nel DIP-si c) and 19,	vitch 200 (by C	current Ad	•	er)		<u> </u>
	Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4	FF, Outpu S-485, LA selection I Parallel N	t On/Off, AN, IEEE (RS-232) Master/Sla ccuracy: ±	Restart M (IEMD) ar 'RS-485 o ave: Hx = 0.5% of \	odes (Aut nd USB se nly): 1200 Master ur /o(rated) :	o/Safe), election I 0, 2400, 4 hit, where £1 count	Foldback of rear part 1800, 9600 or x = # of S	Control (C nel DIP-si c) and 19,	vitch 200 (by C	current Ad	•	er)		-
	Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4	FF, Output S-485, LA selection Parallel M digits, Ac	t On/Off, AN, IEEE (RS-232) Master/Slaccuracy: ±	Restart M (IEMD) ar (RS-485 o ave: Hx = 0.5% of \ 0.5% of \	odes (Aut nd USB se nly): 1200 Master ur /o(rated) : /o(rated) :	o/Safe), election I 0, 2400, hit, where ±1 count	Foldback of rear part 1800, 9600 or x = # of S	Control (C nel DIP-sv D and 19, Blave unit	vitch 200 (by C s (0 to 4);	current Ad	•	er)		
Display	Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 VOLTAGE	FF, Output IS-485, LA selection I Parallel M digits, Ac digits, Ac meter dis	t On/Off, AN, IEEE (RS-232) Master/Sla ccuracy: ± ccuracy: ± cplays vol	Restart M (IEMD) ar (RS-485 of ave: Hx = 0.5% of vector) (0.5% of vector)	odes (Aut nd USB so nly): 1200 Master ur /o(rated) : /o(rated) : wer supp	o/Safe), election I o, 2400, 4 hit, where ±1 count ±1 count ly (Local	Foldback by rear part 4800, 9600 e x = # of \$ sense) or	Control (Conel DIP-son and 19, Slave unit	vitch 200 (by C s (0 to 4)	current Ad	•	er)		
Display	Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4	FF, Outpur IS-485, LA selection I Parallel M digits, Ac digits, Ac meter dis D's: PREV	t On/Off, AN, IEEE (RS-232) Master/Slacuracy: ± curacy: ± curacy: ± splays vol /IEW, FO	Restart M (IEMD) ar (RS-485 o ave: Hx = 0.5% of \ 0.5% of \ tage at po LD, REM	odes (Aut and USB so anly): 1200 Master ur /o(rated) : /o(rated) : wer supp	o/Safe), election I 0, 2400, 4 hit, where ±1 count ±1 count ly (Local	Foldback opy rear part 4800, 9600 ox = # of \$ sense) or 1/OFF, CV	Control (Conel DIP-son and 19, Slave unit	vitch 200 (by C s (0 to 4)	current Ad	•	er)		
Display	Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 VOLTAGE Green LE	FF, Outpur IS-485, LA selection I Parallel M digits, Ac digits, Ac meter dis D's: PREV	t On/Off, AN, IEEE (RS-232) Master/Slacuracy: ± curacy: ± curacy: ± splays vol /IEW, FO	Restart M (IEMD) ar (RS-485 o ave: Hx = 0.5% of \ 0.5% of \ tage at po LD, REM	odes (Aut and USB so anly): 1200 Master ur /o(rated) : /o(rated) : wer supp	o/Safe), election I 0, 2400, 4 hit, where ±1 count ±1 count ly (Local	Foldback opy rear part 4800, 9600 ox = # of \$ sense) or 1/OFF, CV	Control (Conel DIP-son and 19, Slave unit	vitch 200 (by C s (0 to 4)	current Ad	•	er)		
Display Indications 6 DIGITAL PROGRAMMING & READBACK	Address s AC ON/O RS-232/R Baud rate Advanced Voltage: 4 Current: 4 VOLTAGE Green LE Red LED:	FF, Outpur IS-485, LA Is selection I Parallel N I digits, Ac I digits, Ac I meter dis D's: PREV LALARM (t On/Off, AN, IEEE (RS-232) Master/Sla ccuracy: ± ccuracy: ± splays vol /IEW, FO	Restart M (IEMD) ar (RS-485 o ave: Hx = 0.5% of \ 0.5% of \ tage at po LD, REM	odes (Aut and USB so anly): 1200 Master ur /o(rated) : /o(rated) : wer supp	o/Safe), election I 0, 2400, 4 hit, where ±1 count ±1 count ly (Local	Foldback opy rear part 4800, 9600 ox = # of \$ sense) or 1/OFF, CV	Control (Conel DIP-son and 19, Slave unit	vitch 200 (by C s (0 to 4)	current Ad	•	er)		
Display Indications 6 DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy	Address s AC ON/O RS-232/R Baud rate Advanced Voltage: 4 VOLTAGE Green LE Red LED:	FF, Outpur IS-485, LA Is selection I Parallel M I digits, Ac I digits, Ac I meter dis D's: PREV .ALARM (t On/Off, AN, IEEE (RS-232, Master/Slaceuracy: ± ceuracy: ± splays vol /IEW, FO	Restart M (IEMD) ar (RS-485 of ave: Hx = 0.5% of aveing at potential potenti	odes (Aut nd USB so nly): 1200 Master ur /o(rated) : /o(rated) : wer supp ./LOCAL, AC FAIL, I	o/Safe), election I 0, 2400, 4 nit, where ±1 count ±1 count ly (Local OUT ON ENA, SO	Foldback opy rear paid 1800, 9600 ox = # of \$ sense) or 1/OFF, CV/	Control (Conel DIP-son and 19, Slave united at load (If CC, FINE	witch 200 (by C s (0 to 4); Remote s	current Ad	•	er)		
Display Indications 6 DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy lout Programming Accuracy	Address s AC ON/O RS-232/F Baud rate Advance: Voltage: 4 Current: 4 VOLTAGE Green LE Red LED: ± 0.5% of ± 0.5% of	FF, Outpur IS-485, LA selection I Parallel M digits, Ac digits, Ac meter dis D's: PREV ALARM (Vo(rated)	t On/Off, AN, IEEE (RS-232, Master/Slaceuracy: ± ceuracy: ± splays vol /IEW, FO	Restart M (IEMD) ar (RS-485 of ave: Hx = 0.5% of aveing at potential potenti	odes (Aut nd USB so nly): 1200 Master ur /o(rated) : /o(rated) : wer supp ./LOCAL, AC FAIL, I	o/Safe), election I 0, 2400, 4 nit, where ±1 count ±1 count ly (Local OUT ON ENA, SO	Foldback opy rear paid 1800, 9600 ox = # of \$ sense) or 1/OFF, CV/	Control (Conel DIP-son and 19, Slave united at load (If CC, FINE	witch 200 (by C s (0 to 4); Remote s	current Ad	•	er)		
Display Indications 6 DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy lout Programming Accuracy Vout Programming Resolution	Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 VOLTAGE Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of	FF, Outpu IS-485, LA selection I Parallel M digits, Ac digits, Ac meter dis D's: PREV .ALARM (Vo(rated) Vo(rated)	t On/Off, AN, IEEE (RS-232, Master/Slaceuracy: ± ceuracy: ± splays vol /IEW, FO	Restart M (IEMD) ar (RS-485 of ave: Hx = 0.5% of aveing at potential potenti	odes (Aut nd USB so nly): 1200 Master ur /o(rated) : /o(rated) : wer supp ./LOCAL, AC FAIL, I	o/Safe), election I 0, 2400, 4 nit, where ±1 count ±1 count ly (Local OUT ON ENA, SO	Foldback opy rear paid 1800, 9600 ox = # of \$ sense) or 1/OFF, CV/	Control (Conel DIP-son and 19, Slave united at load (If CC, FINE	witch 200 (by C s (0 to 4); Remote s	current Ad	•	er)		
Display Indications 6 DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy Iout Programming Accuracy Vout Programming Resolution Iout Programming Resolution	Address s AC ON/O RS-232/F Baud rate Advanced Voltage: 4 Current: 4 VOLTAGE Green LE Red LED: ± 0.5% of 0.02% of 0.04% of	FF, Outpu S-485, LA selection I Parallel N digits, Ac digits, Ac meter dis D's: PREV .ALARM (Vo(rated) lo(rated) lo(rated)	t On/Off, AN, IEEE (RS-232: Master/Sla ccuracy: ± ccuracy: ± splays vol /IEW, FO (OVP, OTI	Restart M (IEMD) ar RS-485 of ave: Hx = 0.5% of \ 0.5% of \ lage at po LD, REM P, FOLD, A with lo < 1	odes (Authord USB signly): 1200 Master un (o(rated): /o(rated): /o(rated): /o(rated): /o(rated): /o(rated): /ower supp. /LOCAL, AC FAIL, E	o/Safe), election I 0, 2400, 4 nit, where ±1 count ±1 count ly (Local OUT ON ENA, SO	Foldback opy rear paid 1800, 9600 ox = # of \$ sense) or 1/OFF, CV/	Control (Conel DIP-son and 19, Slave united at load (If CC, FINE	witch 200 (by C s (0 to 4); Remote s	current Ad	•	er)		
Display Indications 6 DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy lout Programming Accuracy Vout Programming Resolution lout Programming Resolution Vout Readback Accuracy	Address s AC ON/O RS-232/F Baud rate Advancec Voltage: 4 VOLTAGE Green LE Red LED: ± 0.5% of 0.02% of 0.04% of ± (0.1% o	FF, Outpur IS-485, LA selection I Parallel N digits, Ac digits, Ac meter dis D's: PREV .ALARM (Vo(rated) lo(rated) lo(rated) f Vo(actual	t On/Off, AN, IEEE (RS-232, Master/Sla couracy: ± coura	Restart M (IEMD) ar RS-485 of ave: Hx = 0.5% of \ 0.5% of \ lage at pc LD, REM \ P, FOLD, \(A \)	odes (Author (Author)	o/Safe), election I 0, 2400, 4 nit, where ±1 count ±1 count ly (Local OUT ON ENA, SO	Foldback opy rear paid 1800, 9600 ox = # of \$ sense) or 1/OFF, CV/	Control (Conel DIP-son and 19, Slave united at load (If CC, FINE	witch 200 (by C s (0 to 4); Remote s	current Ad	•	er)		
Display Indications 6 DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy Lout Programming Accuracy Vout Programming Resolution Lout Programming Resolution Vout Readback Accuracy Lout Readback Accuracy	Address s AC ON/O RS-232/F Baud rate Advancec Voltage: 4 Current: 4 VOLTAGE 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	FF, Outpu IS-485, LA selection I Parallel N digits, Ac digits, Ac digits, Ac meter dis D's: PREV .ALARM (Vo(rated) lo(rated) Vo(rated) Io(rated) f Vo(actual	t On/Off, AN, IEEE (RS-232, Master/Sla couracy: ± coura	Restart M (IEMD) ar RS-485 of ave: Hx = 0.5% of \ 0.5% of \ lage at pc LD, REM \ P, FOLD, \(A \)	odes (Author (Author)	o/Safe), election I 0, 2400, 4 nit, where ±1 count ±1 count ly (Local OUT ON ENA, SO	Foldback opy rear paid 1800, 9600 ox = # of \$ sense) or 1/OFF, CV/	Control (Conel DIP-son and 19, Slave united at load (If CC, FINE	witch 200 (by C s (0 to 4); Remote s	current Ad	•	er)		
Control Functions Display Indications 6 DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy Lout Programming Accuracy Vout Programming Resolution Lout Programming Resolution Vout Readback Accuracy Lout Readback Accuracy Lout Readback Accuracy Vout Readback Accuracy Vout Readback Resolution	Address s AC ON/O RS-232/F Baud rate Advancec Voltage: 4 Current: 4 VOLTAGE Green LE Red LED: ± 0.5% of ± 0.5% of 0.02% of ± (0.1% o ± (0.1% o 0.02% of	FF, Outpu IS-485, LA selection I Parallel N digits, Ac digits, Ac digits, Ac meter dis D's: PREV .ALARM (Vo(rated) lo(rated) Vo(rated) if Vo(actual Vo(rated)	t On/Off, AN, IEEE (RS-232, Master/Sla couracy: ± coura	Restart M (IEMD) ar RS-485 of ave: Hx = 0.5% of \ 0.5% of \ lage at pc LD, REM \ P, FOLD, \(A \)	odes (Author (Author)	o/Safe), election I 0, 2400, 4 nit, where ±1 count ±1 count ly (Local OUT ON ENA, SO	Foldback opy rear paid 1800, 9600 ox = # of \$ sense) or 1/OFF, CV/	Control (Conel DIP-son and 19, Slave united at load (If CC, FINE	witch 200 (by C s (0 to 4); Remote s	current Ad	•	er)		
Display Indications 6 DIGITAL PROGRAMMING & READBACK Vout Programming Accuracy Lout Programming Accuracy Vout Programming Resolution Lout Programming Resolution Vout Readback Accuracy Lout Readback Accuracy	Address s AC ON/O RS-232/F Baud rate Advancec Voltage: 4 Current: 4 VOLTAGE 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	FF, Outpu IS-485, LA selection I I Parallel N digits, Ac meter dis D's: PREV .ALARM (Vo(rated) lo(rated) Vo(rated) if Vo(actual Vo(rated) lo(rated) of I o(actual Vo(rated) lo(rated)	t On/Off, AN, IEEE (RS-232, Master/Sla couracy: ± couracy: ± splays vol /IEW, FO (OVP, OTI for units v I) + 0.2% I) + 0.4%	Restart M (IEMD) ar RS-485 o ave: Hx = 0.5% of V tage at potting the lost of Vo(rate of Io(rate of	odes (Author (Author)	o/Safe), election II 0, 2400, 4 hit, where II count II count IV (Local OUT ON ENA, SO	Foldback by rear paid 1800, 9600 8 x = # of \$ sense) or 1/OFF, CV.	Control (Conel DIP-son Dipole DIP-son Dipole DIP-son Dipole Dipo	witch 200 (by C s (0 to 4))	current Ad	•	er)		

^{*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.

*4. Operating with a load that continuously pulses the current (or voltage) can reduce the operating life of the Power Supply. Please contact TDK-Lambda Sales/Technical Support to discuss the

application in detail.

*5. CV Mode: from 5% to 100% of Irated (over 5% to 100% of Prated); CC Mode: from 20% to 100% of Vrated (over 20% to 100% of Prated).

All specifications subject to change without notice.

necveTM 211 15kW Specifications

Select Column Vision Select Column Sel	enesys [™] 3U 15kW Spe	GEN	150-100			300-50	400-37.5	500-30	600-25	800-18 0	1000-15	1250-12	1500-10	15
Reference County Coun														
State of Comparison State						_		_						
Section Sect														_
11.00MSTWYOLTAGE MODE (CV)			15.0	15.0	15.0		15.0	15.0	15.0	15.04			15.0	
Table Time Fig. 17% Ver. 5070 (107% - 207		%					tact Facto	ry for oth	or modele		9	3.5		H
Section Content						Cor	laci Facio	ry ior oure	er models					느
6000 pt 10		mV	15	20	25	30	40	50	60	400	500	625	750	
3. Output Propie rims (SH-1-MHz), C-Vmodel; (**1) 4. Alput Nobes, pp. (19th) 2		mV	30	40	50	60	80	100	120	800	1000	1250	1500	
C. Oughan Khein, ppr (2004/etc.)		mV	25	35	35	60	60	60	60	80	100	120	140	\vdash
Empendature Stability														H
7.		V	5	5	5	5	5	5	5	5	5	5	5	Ħ
Sup-Pring Response Time, 0-Voranax, full-load ms	6. Temperature Stability		± 0.05%	6 of Vo(ra	ated) over	8 hours,	after 30 m	inute war	m up, cor	nstant Line	, Load & Te	emperature		
10 - Prog. Response Time, O-Yenda, no load		ppm / °C	200 (0.	02% of V	o(rated))	_								
10, Transent Response Time (CV mode); (*C); (**)		-								<u> </u>				_
12 CONSTANT CURRENT MODE (CC) Max. Lime Rips (1) 15 - 167 2 3334 (300 500 - 167 4 3334) mA 50 38 30 25 19 15 13 28 23 18 15 23 23 24 20 20 20 20 20 20 20		-					. 0			-				-
Max. Lun Reg (01 % - for 2 333A) (050% - for 2 333A) mA 50 38 30 25 19 15 13 28 23 18 15		ms	<u>. </u>			Less than	13	-		!	Less ti	nan i		
2. Max Load Reg (0.1% - for z \$3354.07% - 25A ≤ for <														_
338A (2.9° to "c 2.5A), (*3), (*5) MA 75 74 49 88 28 31 19 89 02 42 20 14. Temperature (5tability)		mA	50	38	30	25	19	15	13	28	23	18	15	
3. Output Ripple, rms (SHz-1MHz), CC mode	3 (mA	75	57	45	38	28	23	19	38	30	24	20	
Temperature Stability		mA	50	20	20	20	10	10	10	15	10	6	4	\vdash
5. Remperature Coefficient 1. PROTECTIVE FUNCTIONS 1. OP 100 2. OFF type		! 											•	-
13 PROTECTIVE FUNCTIONS 1 Comment 1	<u> </u>			<u>_</u>					-1- (,		,		-
COPP Sp. 0 - 100 Sp.	· · · · · · · · · · · · · · · · · · ·		(- 2,2	. ,	., -								_
2. OCP type		%	0 ~ 100	<u> </u>										Г
3. Foldback Protection		-			t									\vdash
S. Less than 1 (Min = 0.25) Max = 25 (Defaull = 0.25); Setable via "FBB" command 5 (OVP Programming Accuracy % ± 5% of Vo(rated)						al reset by	front pan	el OUT bi	utton or D	Igital comr	nunication.	user-select	able	_
Four-Pipe Fou		s												_
2.	·	•										igital comm	nunication	Г
Shall always be greater than 105% of Vo(cetting), Default = 105% of Vo(cated)	6. OVP Programming Accuracy	%	± 5% o	f Vo(rated	i)									
Aust. CVP response time	7. OVP Trip Point	V										≤ 1500V		
s	8. OVP response time	Less than 10 (for Output to begin to drop) for Vor ≤ 600V												
10. Over temperature Protection	9 Max OVP reset time	-		$\overline{}$.о ц.ор/ .о							╁
11. Phase Loss Protection			_ `				exceeds sa	fe operat	ina levels	(Latched:	Safe / Unla	tched: Auto)	┢
1. Vout Voltage Programming	11. Phase Loss Protection												,	T
1.Vout Voltage Programming	14 REMOTE ANALOG CONTROLS & SIGNALS													
2. lout Voltage Programming		0~100%,	0 ~ 5V or	0 ~ 10V,	user-sele	ectable, A	ccuracy &	Linearity	± 1% of	Vo(rated)				Г
4. lout Resistor Programming 0-100%, 0-5/16kohm full-scale, user-selectable. Accuracy & Linearity ± 1% of lo(rated) 8. Shut-Off (SO) Control (rear panel) 8. Shut-Off (SO) Control (rear panel) 8. Output Current Monitor 9-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 1% of lo(rated), user-selectable 10-5V or 0-10V, Accuracy: ± 0-5V of 10-6V or														Г
By Voltage: 0.6V = DIS, 2-15V = ENA (default) or Dry Contact: Open = ENA, Short-DIS (user-selectable logic)	Vout resistor programming	0~100%,	0~5/10ko	hm full-so	cale, use	r-selectab	le. Accura	cy & Line	arity ± 1%	of Vo(rate	ed)			
6. Output Current Monitor O = 5V or 0 − 10V, Accuracy: ± 1% of lo(rated), user-selectable 7. Output Voltage Monitor O = 5V or 0 − 10V, Accuracy: ± 1% of lo(rated), user-selectable Vest. TIL. High = OK, 0V = Fall (S000hm series impedance) 9. CV/CC Signal CV: TIL. High = OK, 0V = Fall (S000hm series impedance) 9. CV/CC Signal CV: TIL. High = OK, 0V = Fall (S000hm series impedance) 10. Enable/Disable Dry contact, Open = OFF, Short = ON; Max. voltage across Enable/Disable contacts = 6V 11. Remote/Local Selection Selects Remote or Local operation by voltage: 0 − 0.6V = Local / 2 - 15V = Remote 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) 1.5 FRONT PANEL 1. Control Functions Vout/ lout manual adjust by separate encoders (COARSE and FINE adjustment selectable) OVP/UVL manual adjust by voLTAGE Adjust encoder, Front Panel Lock/Unlock Address selection by VoLTAGE Adjust encoder, Front Panel Lock/Unlock Address selection by VoLTAGE Adjust encoder, Front Panel Lock/Unlock Address selection by VoLTAGE Adjust encoder, Footh panel Lock/Unlock Address selection by VoLTAGE Adjust encoder, Footh panel Lock/Unlock Address selection by RS-232/RS-485, LAN, IEEE (IEMD) and USB 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) Advanced Parallel Master/Slave: Hx = Master unit, where x = # of Slave units (0 to 4); S = Slave unit(s) Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ± 1 count Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ± 1 count VoLTAGE meter displays Voltage at power supply (Local sense) or at load (Remote sense) 3. Indications Green LED's: PREVIEW, FOLD, REM.LOCAL, OUT ON/OFF, CV/CC, FINE Red LED: ALARM (OVP, OTF, FOLD, AC FAIL, ENA, SO) 1. Out Programming Accuracy ± 0.5% of Vo(rated) 1. Out Readback Accuracy ± 0.1% of Vo(rated) 1. Out Readback Resolution 0.02% of Vo(rated) 1. Out Readback Resolution	4. lout Resistor Programming													
7. Output Voltage Monitor 8. Power Supply OK (PS_OK) Signal 9. Vices Signal 10. Enable/Disable 10. Enable/Disable contacts = 6V 11. Enemote/Local Signal 10. Enable/Disable 10. Enable/Disable 10. Enable/Disable 10. Enable/Disable contacts = 6V 11. Enemote/Local Signal 10. Enable/Disable contacts = 6V 11. Enemote/Local Signal 12. Enemote/Local Signal 13. Enable/Disable contacts = 6V 14. Enable/Disable contacts = 6V 15. Enable/Disable contacts = 6V 16. Enable/Disable contacts = 6V 17. Enable/Disable contacts = 6V 18. Enable/Disable contacts = 6V 19. Enable/Disable contacts = 6V 19. Enable/Disable contacts = 6V 10. Enable/Disable enable/Disable contacts = 6V 10. Enable/Disable enable/Disable contacts = 6V 10. Enab									en = ENA	A, Short-DI	S (user-sel	ectable logi	c)	
8. Power Supply OK (PS_OK) Signal 9. CV/CD Signal 9. CV/CD Signal 9. CV/CD Signal 9. CV/TTL High (4 - 5V), Max source current = 10mA, CC:TTL Low (0 - 0.4V), Max sink current = 10mA 10. Enable/Disable 9. Dry contact; Open = OFF, Short = ON; Max. voltage across Enable/Disable contacts = 6V 11. Remote/Local Selection 9. Selects Remote or Local operation by voltage: 0 - 0.6V = Local / 2 - 15V = Remote 12. Remote/Local Signal 13. FRONT PANEL 11. Control Functions 12. Vout/ lout manual adjust by separate encoders (COARSE and FINE adjustment selectable) 0. OVP/UVL manual adjust by VOLTAGE Adjust encoder, Front Panel Lock/Unlock Address selection by VOLTAGE Adjust encoder, if of Addresses = 31 AC ON/OFF, Output On/Onn, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local RS23/RS-485, LAN, IEEE (IEMD) and USB selection by vear panel DIP-switch Baud rate selection (RS-232/RS-485, LAN) = 100, 2400, 4800, 9600 and 19/200 (by CUBRENT Adjust encoder) Advanced Parallel Master/Slave: Hx = Master unit, where x = # of Slave units (0 to 4); S = Slave unit(s) 2. Display 2. Display 3. Indications 4. Out/TAGE meter displays Voltage at power supply (Local sense) or at load (Remote sense) 3. Indications 4. Out/TAGE meter displays Voltage at power supply (Local sense) or at load (Remote sense) 4. Out/TAGE meter displays Voltage at power supply (Local sense) or at load (Remote sense) 4. Out Programming Accuracy 4. 0.5% of Io(rated) for units with lo < 187.5A; +/-0.7% of Io(rated) for Io ≥187.5A 4. Out Programming Resolution 5. Out Readback Accuracy 4. 0.1% of Vo(rated) 6. Iout Readback Accuracy 4. (0.1% of Vo(rated) 6. Iout Readback Resolution 6. Out-Sed To(rated) 7. Vout Readback Resolution 7. Out-Sed To(rated) 7. Out Readback Resolution 7. Out-Sed To(rated) 7. Out-Sed To(•													╙
CV: TTL High (4 - 5V), Max source current = 10mA; CC: TTL Low (0 - 0.4V), Max sink current = 10mA											_			_
10. Enable/Disable 11. Remote/Local Selection 12. Remote/Local Selection 13. Remote/Local Signal 14. Selects Remote or Local operation by voltage: 0 ~ 0.69 × Local / 2 ~ 150 × Remote 15. Remote/Local Signal 15. Remote/Local Signal 15. Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) 15. FRONT PANEL 1. Control Functions 15. Vout/ lout manual adjust by separate encoders (COARSE and FINE adjustment selectable) 16. OVP/UVL manual adjust by VOLTAGE Adjust encoder, Front Panel Lock/Unlock 17. Addresses = 31 18. AC ON/OFF, Output On/Onn, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local 18. RS232/RS-485, LAN, IEEE (IEMD) and USB selection by rear panel DIP-switch 18. Baud rate selection (RS-232/RS-485 only): 1200, 2400, 4800, 9600 and 19,200 (by CURRENT Adjust encoder) 18. Advanced Parallel Master/Slave: Hx = Master unit, where x = # of Slave units (0 to 4); S = Slave unit(s) 29. Loisplay 19. Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count 20. Current: 4 digits, Accuracy: ± 0.5% of									(0 0 4)	0. 14	1	10		┡
11. Remote/Local Selection Selects Remote or Local operation by voltage: 0 ~ 0.6V = Local / 2 - 15V = Remote 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) 1.5 FRONT PANEL 1. Control Functions Vout/ lout manual adjust by separate encoders (COARSE and FINE adjustment selectable) OVP/UVL manual adjust by VOLTAGE Adjust encoder, Front Panel Lock/Unlock Address selection by VOLTAGE Adjust encoder. # of Addresses = 31 AC ON/OFF, Output On/Onn, Restant Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local RS232/RS-485, LAN, IEEE (IEMD) and USB 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) Advanced Parallel Master/Slave: Hx = Master unit, where x = # of Slave units (0 to 4); S = Slave unit(s) 2. Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count Current: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count VOLTAGE meter displays Voltage at power supply (Local sense) or at load (Remote sense) 3. Indications Green LEDs: PREVIEW, FOLD, REM/LOCAL, OUT ON/OFF, CV/CC, FINE Red LED: ALARM (OVP, OTP, FOLD, AC FAIL, ENA, SO) 1. Out Programming Accuracy ± 0.5% of Vo(rated) ± 0.5% of Vo(rated) ± 0.5% of Vo(rated) 2. Lout Programming Resolution 0.02% of Vo(rated) 4. (0.1% of Vo(actual) + 0.2% of Vo(rated)) 5. Vout Readback Accuracy ± (0.1% of Vo(actual) + 0.2% of Vo(rated)) 6. Lout Readback Accuracy ± (0.1% of Vo(actual) + 0.4% of Io(rated)) 7. Vout Readback Resolution 0.02% of Vo(rated) 8. Lout Readback Resolution												IUMA		
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Set OVP/UVL limits, Set Local/Remote, Operating parameters and Status, Get Identity

^{*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.

*4. Operating with a load that continuously pulses the current (or voltage) can reduce the operating life of the Power Supply. Please contact TDK-Lambda Sales/Technical Support to discuss the

application in detail.
*5. CV Mode: from 5% to 100% of Irated (over 5% to 100% of Prated); CC Mode: from 20% to 100% of Vrated (over 20% to 100% of Prated).

*TDK-Lambda
| All specifications subject to change without notice.

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

2.1 INPUT CHARACTERISTICS		
Input Voltage / Frequency (range)		208VAC (180-253), 400VAC (342-440 for Vout ≥ 30V; 360-440 for Vout < 30V), 480VAC (432-528); 47-63Hz (all)
2. No. of phases		3-Phase (Wye or Delta) 4 wire total (3 phases and 1 Protective Earth (PE) ground)
3. Dropout Voltage	٧	180 / (342/360) / 432
4. Input Current (180VAC/342VAC or 360VAC/432VAC)	Arms	10kW - 45/23/20 (Vout ≤ 600V); 40/23/20 (800V ≤ Vout ≤ 1500V) - at full rated Output power 15kW - 64/32/27 (Vout ≤ 600V); 55/32/27 (800V ≤ Vout ≤ 1500V) - at full rated Output power
5. Inrush Current	Α	Not to exceed full rated Input current (see 2.1.4 (Input Current))
6. Power Factor, passive (typical)		Vout < 600V: 0.88 (passive), 10kW/15kW (208VAC, 400VAC, 480VAC) Vout > 600V: 0.90/0.93 - 10kW/15kW (208VAC), 0.89/0.92 - 10kW/15kW (400VAC), 0.84/0.88 - 10kW/15kW (480VAC)
7. Leakage Current	mA	3.5 maximum (EN60950)
8. Input Protection		Circuit breaker: 208VAC, (Vout ≤ 30V); Line fuse: 208VAC (Vout ≥ 30V) and 400VAC/480VAC (all models)
10. Phase Imbalance	%	≤ 5% on three-phase Input

2.2 POWER SUPPLY CONFIGURATION

1. Parallel Operation; (*6)	Up to four (4) identical units may be connected in Master/Slave Mode with Single-Wire/Two-Wire connection. In "Advanced-Parallel", 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 Master unit is scaled to the Output current of the Master unit (only)
2. Series Operation (*6)	Possible (with external diodes); Up to two identical units with total Output voltage not to exceed ± 600V from Chassis ground (for Vor ≤ 600V) or not to exceed ± 1500V from Chassis ground (for 600V < Vor ≤ 1500V)

2.3 ENVIRONMENTAL CONDITIONS

2.5 ENVINORMENTAL CONDITIONS	
Operating Temperature	0 to +50°C, 100% load
2. Storage Temperature	-20 to +70°C
3. Operating Humidity	20 to 80% RH (non-condensing)
4. Storage Humidity	10 to 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 7500ft. (2500m), +45°C from 7501 to 10,000ft (2501m - 3000m), Non-Operating 40,000ft (12,000m)
7. Audible Noise	70dBA at lo(rated) (measured 1m from front panel) for Vout < 30V; 65dBA at lo(rated) (measured 1m from front panel) for Vout ≥ 30V

2.4 EMC	
1. 208VAC Input (all models)	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. Conducted Emissions	EN55011A, FCC part 15J-A
8. Radiated Emissions	EN55011A, FCC part 15J-A
2. 400VAC (all models) /480VAC Input (Vout ≥ 30V)	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
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 and 480VAC) 7.5V ≤ Vout ≤ 400V: Output is Hazardous; LAN/IEEE/USB/Isolated Analog are SELV 400V < Vout ≤ 600V: Output is Hazardous; LAN/IEEE/USB/Isolated Analog are not SELV 600V < Vout ≤ 1500V: Output is Hazardous; LAN/IEEE/USB/Isolated Analog are SELV
2. Withstand Voltage: (208VAC/400VAC/480VAC; for 60 seconds); (*7)	Vout < 80V: Input - Ground: 2200VDC/2900VDC, Input-Hazardous Output: 2200VDC/3100VDC, Input - SELV: 2200VDC/2900VDC; Hazardous Output - SELV: 900VDC/900VDC, Hazardous Output - Ground: 900VDC/900VDC/900VDC, Input - SELV: 2200VDC/3500VDC, Input - SELV: 2200VDC/2900VDC, Input - Ground: 900VDC/900VDC/3500VDC, Input - SELV: 2200VDC/2900VDC, Input - Ground: 900VDC/900VDC, Input - Ground: 900VDC/900VDC/900VDC, Input - SELV: 2200VDC/2900VDC, Hazardous Output - SELV: 900VDC/900VDC, Hazardous Output - Ground: 900VDC/900VDC, Input-SELV: 2200VDC/2900VDC, Input-Hazardous Output - Ground: 900VDC/900VDC, Input-SELV: 2200VDC/2900VDC, Input-SELV: 2200VDC/2900VDC, Input-SELV: 2200VDC/2900VDC, Input-SELV: 2200VDC/2900VDC, Input-SELV: 2500VDC/2900VDC, Input-SELV: 2500VDC/2900VDC, Input-SELV: 2500VDC/2900VDC, Input-SELV: 2500VDC/2900VDC, Input-SELV: 2500VDC/2500VDC, Input-SELV: 2500VDC/250
3.Insulation Resistance	20Megohms (typical) at 500VDC, Ta = +25°C

2.6 MECHANICAL CONSTRUCTION

2.6 MECHANICAL CONSTRUCTION	
1. Cooling	Fan-driven with airflow from front to rear. Fan-speed control on models with Vout ≥ 30V "Zero Stackable" 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: 429mm / 16.9"; Height: 3U - 133mm / 5.22" Depth: 564mm / 22.2" for Vout ≤ 600V, 581mm / 22.9" for 800V ≤ Vout ≤ 1500V; excluding connectors, encoders, handles, etc.
3. Weight	43kg / 97 lbs (Vout ≤ 600V); 32kg / 70lbs (Vout > 600V)
4. AC Input connector (with Protective Cover)	M6 x 1" (25.4mm) threaded studs (L1, L2, L3 and Chassis GND) and terminal cover.
5.Output Connectors (busbar)	Busbars: Vout \leq 25V: (two-hole busbars); $30V \leq Vout \leq 300V$: busbars (one hole busbars) Threaded-stud terminals: $400V \leq Vout \leq 600V$: M6 x 0.5" (12.7mm) threaded-stud; $800V \leq Vout \leq 1500V$: M6 x 1.0" (25.4mm) threaded-stud
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 0.91" (23mm) threaded-stud

2.7 WARRANTY 1. Warrant

ı	i. warranty		5 years							
-										

*6. Please contact TDK-Lambda Sales/Technical Support to discuss your Parallel or Series application in more detail.
*7 Please contact TDK-Lambda Sales/Technical Support to discuss your System-Level Withstand Voltage requirements in more detail.

All specifications subject to change without notice.



Genesys™ Power Parallel and Series Configurations

Parallel Operation - Master/Slave (*6)

Active current sharing allows up to four identical units to be connected in an Auto-parallel configuration for the Output power. In Advanced Parallel Master/Slave Mode, total current is programmed and reported by the Master, Up to four 10kW/15kW Power Supplies in parallel act as one 40kW/60kW Power Supply.



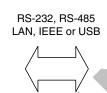
Series Operation (*6)

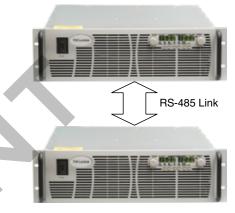
Up to two units may be connected in series to increase the Output voltage or to provide bipolar output. (Max 600V to Chassis GND for Vor < 600V; Max 1500V to Chassis GND for 600V < Vor < 1500V).

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 or optional LAN, USB or IEEE Interface.







P/N: "----"

P/N: LAN (for all models)

P/N: IEMD (for all models)

P/N: USB (for all models)

Programming Options (Factory installed)

Standard RS-232/RS-485 (Multi-Drop) Interface

- Standard Units are equipped with the RS-485 Multi-Drop function
- Allows RS-232 or RS-485 Master unit to control up to 30 (standard) Slave units using RS-485 daisy-chain

LAN Interface (LXI Compliant w/ Multi-Drop)

- 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

IEEE (Multi-Drop) Interface

- IEEÈ 488.2 & SCPI compliant
- Allows IEEE Master to control up to 30 (standard) Slave units using RS-485 daisy-chain
- Program/Measure Voltage
- Over-Voltage setting and shutdown
- Error and Status Messages

- Program/Measure Current
- Current Foldback shutdown

USB (Multi-Drop) Interface

- USB 2.0 compliant
- Allows serial connection to computer USB port
- Allows USB Master to control up to 30 (standard) Slaves using RS-485 daisy-chain
- Uses same command set as standard RS-232/RS-485 interface

Isolated Analog Programming

- Option for models with Vout ≤ 600V (IS510 & IS420); IS510 built-in for models where 800V ≤ Vout ≤ 1500V
- Four Channels total (Two channels to Program Voltage and Current; Two channels 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: ±1.0% Power supply Voltage and Current Monitoring Accuracy: ±1.5%

Current Programming with 4-20mA signal

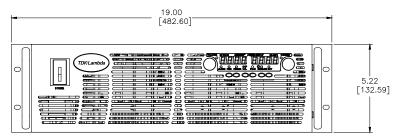
Power supply Voltage and Current Programming Accuracy: ±1.0% Power supply Voltage and Current Monitoring Accuracy: ±1.5%

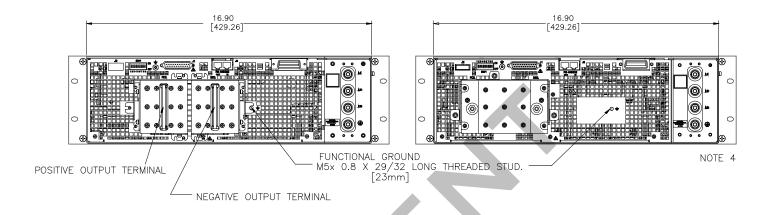
P/N: IS510 (for Vout ≤ 600V)

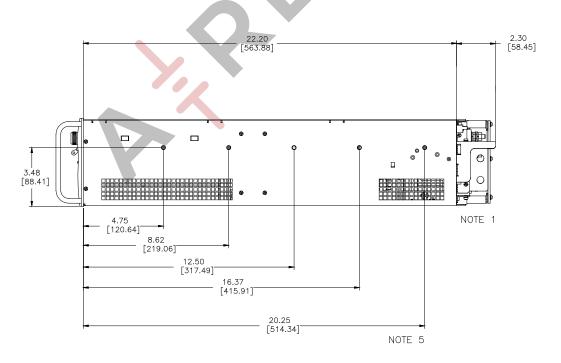
P/N: IS420 (for all models)

IDK-Lambda |

Outline Drawing: Genesys™ 10kW/15kW (7.5V to 25V - 208VAC/400VAC/480VAC)







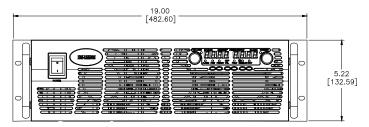
NOTES:

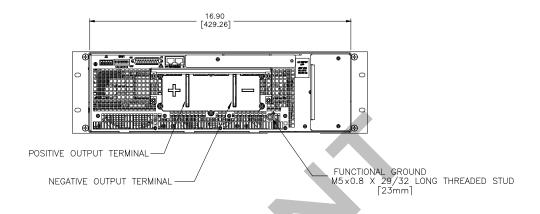
- 1. Busbars for models where Vout < 30V Output: two holes 0.42" (10.72mm) diameter.
- 2. N/A
- 3. N/A
- 4. Input Terminals: M6 x 1" (Qty = 3); Ground Terminal: M5 x 1" (Qty = 2)
- 5. Mounting for Slide Mounts (not included).

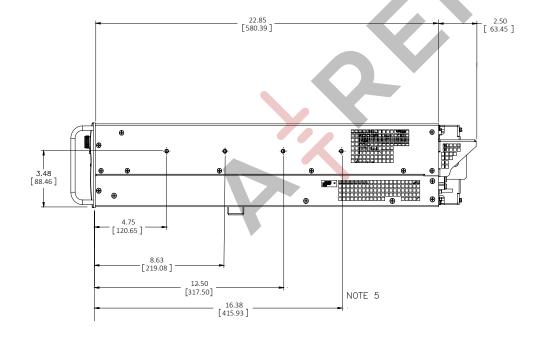
 Recommend: General Devices, Chassis Trak P/N C230-S-122; Verify requirements with slide manufacturer.

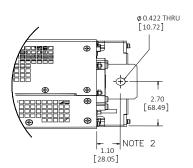
 Secure with pan head screw: M5 x 0.8-8mm long (max).

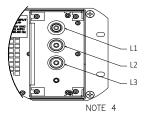
Outline Drawing: Genesys™ 10kW/15kW (30V to 300V - 208VAC/400VAC/480VAC)











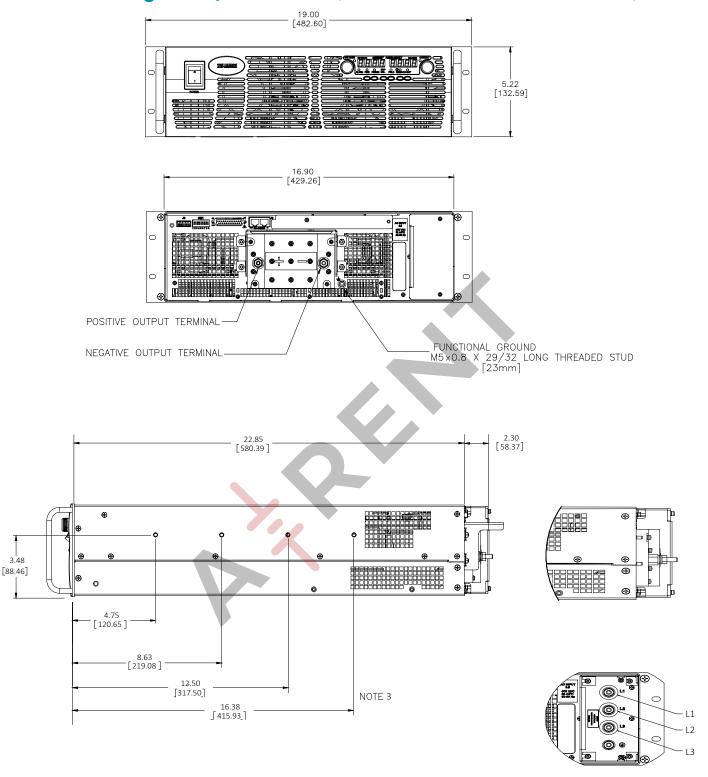
NOTES:

- 1 N/A
- 2. Bus bars for models 30-300V Output (10kW/15kW): one hole 0.42" (10.72mm) diameter.
- 3. N/A
- 4. Input Terminals: M6 x 1" (Qty = 3) + Ground M5 x 1" (Qty = 2)
- 5. Mounting for Slide Mounts (not included).

 Recommend General Devices, Chassis Trak P/N C230-S-122; Verify requirements with slide manufacturer.

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

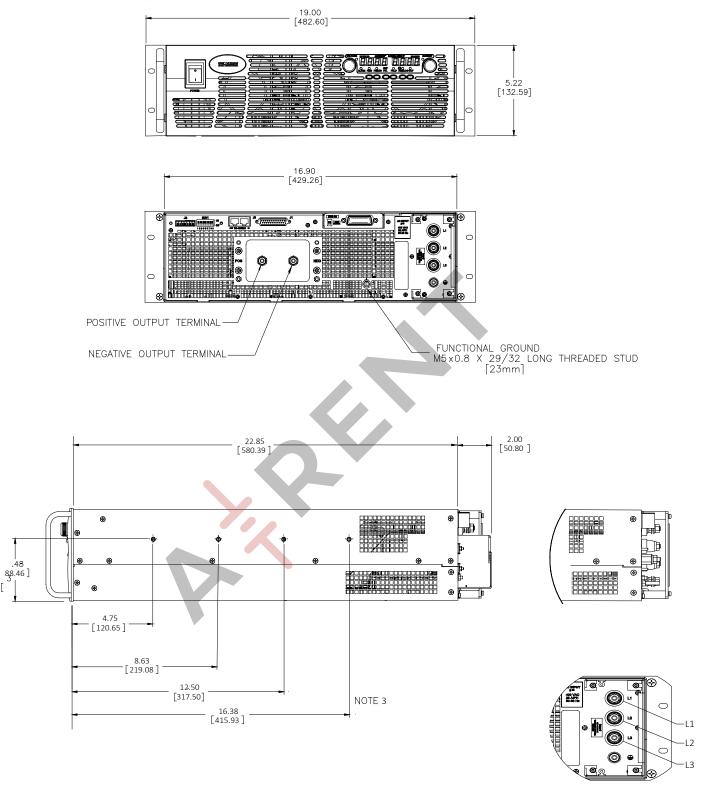
Outline Drawing: Genesys™ 10kW/15kW (400V to 600V - 208VAC/400VAC/480VAC)



NOTES:

- 1. N/A
- 2. N/A
- 3. Threaded-stud terminals for models with 300V < Vout \leq 600V (M5 x 1").
- 4. Input Terminals M6 x 1" (Qty = 3) + Ground M5 x 1" (Qty = 2)
- 5. Mounting for Slide Mounts (not included). Recommend General Devices, Chassis Trak P/N C230-S-122; Verify requirements with slide manufacturer. Secure with pan head screw: M5 x 0.8-8mm long (max).

Outline Drawing: Genesys™ 10kW/15kW (800V to 1500V - 208VAC/400VAC/480VAC)



NOTES:

- 1. N/A
- 2. N/A
- 3. Threaded stud terminals for models with $800V \le Vout \le 1500V$ Output (M5 x 1").
- 4. Input Terminals M6 x 1" (Qty = 3) + Ground M5 x 1" (Qty = 2)
- 5. Mounting for Slide Mounts (not included).
 Recommend General Devices, Chassis Trak P/N C230-S-122; Verify requirements with slide manufacturer.

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



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

GEN 10 1000 Series Output Output Name Voltage Current

(0~1000A)

(0~10V)

Factory Options Option: LAN **IEMD** USB IS510 IS420

LAN

3P208

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	0~80	0~187.5	15
GEN 100-100	0~100	0~100	10
GEN 100-150	0~100	0~150	15
GEN 125-80	0~125	0~80	10
GEN 125-120	0~125	0~120	15
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	0~600	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	0.4050	0~8	10
*GEN 1250-12	0~1250	0~12	15
*GEN 1500-6.7	0.4500	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 w/ Multi-Drop) GPIB (488.2 w/ Multi-Drop) Interface USB (2.0 w/ Multi-Drop) Interface Isolated Analog Interface (Voltage Program/Monitor) Isolated Analog Interface (Current Program/Monitor)

P/N

LAN **IEMD USB**

IS510 *(built-in standard on 800-1500V models) **IS420**

Accessories

1. Serial Communication cable (optional)

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-9F	
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 (optional)

Daisy-chain up to 31 Genesys™ power supplies.

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

Genesys™ Family - Output Voltage / Output Current

Model	GENH		GEN-1U		GE	N-2U	GI	EN 3U
Rated Power	750W	750W	1.5kW	2.4kW	3.3kW	5.0kW	10kW	15kW
Voltage Range				Output	Current Rang	ge		
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 (15kW) - NEW !	0~25A	0~25A	0~50A	0~80A	0~110A	0~170A	0~333A	0~500A
0~40V (15kW) - NEW !	0~19A	0~19A	0~38A	0~60A	0~85A	0~125A	0~250A	0~375A
0~50V (15kW) - NEW !			0~30A				0~200A	0~300A
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 - NEW !					0~16.5A	0~25A	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 (5.0kW) - NEW!						0~12.5A	0~25A	0~37.5A
0~500V (5.0kW) - NEW !						0~10A	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 - NEW !							0~12.5A ⁽⁵⁾	0~18.8A (5)
0~1000V - NEW !							0~10A ⁽⁵⁾	0~15A (5)
0~1250V - NEW !							0~8A ⁽⁵⁾	0~12A (5)
0~1500V - NEW !							0~6.7A ⁽⁵⁾	0~10A ⁽⁵⁾
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 ⁽⁶⁾

^{(6) 800}V - 1500V models only (10kW/15kW)

AC Inputs

85-265Vac, 1Ø	• (1)	• (1)	• (1)					
230Vac, 1Ø				• (1	• (1)			
208Vac, 3Ø				• (1	• (1)	• (1)	• (3)	• (3)
400Vac, 3Ø					• (1)	• (1)	• (3)	• (3)
480Vac, 3Ø					• ⁽²⁾ - NEW !	• ⁽²⁾ - NEW !	• (3), (4)	• (3), (4)

⁽¹⁾ UL Listed; CE Mark (RoHS2); (2) UL Listed (RoHS2); (3) UL Recognized, CE Mark (RoHS2) - (Vout \geq 25V); 4) UL Recognized, RoHS2 (Vout < 25V)

Options (All Models)

""	Standard RS-232/RS-485 Master with RS-485 Multi-Drop capability installed
LAN	LXI Compliant LAN Interface (Class C) with RS-485 Multi-Drop capability installed
IEMD	IEEE Master (IEEE 488.2 & SCPI compliant) with RS-485 Multi-Drop capability installed
USB	USB (2.0) Master with RS-485 Multi-Drop capability installed
IS510	Isolated Analog Program/Monitor (0-5V or 0-10V, user-selectable) for 6V-600V models; *(5)
IS420	Isolated Analog Program/Monitor (4-20mA)

All "Options" are factory installed and limited to one "option" per power supply *(5) Isolated 5V/10V (IS510) Interface is bulit-in standard for 800V-1500V models All specifications are subject to change without notice



