Improved Specifications

# Genesys™

Programmable DC Power Supplies
3.3kW in 2U
Built in RS-232 & RS-485 Interface
Advanced Parallel Operation
Optional Interface:
LXI Compliant LAN
IEEE488.2 SCPI (GPIB) Multi-Drop
Isolated Analog Programming



Genesys™ Family GENH 750W Half Rack GEN1U 750/1500/2400W Full Rack GEN2U 3.3/5kW

TDK-Lambda

### 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 3.3kW in 2U
- Wide Range of popular worldwide AC inputs, 1ø (230VAC) & 3ø (208VAC, 400VAC)
- Active Power Factor Correction (Single-Phase & Three-Phase AC Input)
- Output Voltage up to 600V, Current up to 400A
- Built-in RS-232/RS-485 Interface Standard
- Global Commands for Serial RS-232/RS-485 Interface
- Auto-Re-Start / Safe-Start: user selectable
- Last-Setting Memory
- High Resolution 16 bit ADCs & DACs
- Low Ripple & Noise
- Front Panel Lock selectable from Front Panel or Software
- Reliable Encoders for Voltage and Current Adjustment
- Constant Voltage/Constant Current auto-crossover
- Parallel Operation with Active Current Sharing; up to four identical units.
- Advanced Parallel Master / Slave. Total Current is Programmed and Measured via the Master.
- Independent Remote ON/OFF and Remote Enable/Disable
- External Analog Programming and Monitoring (user selectable 0-5V & 0-10V)
- Reliable Modular and SMT Design
- 19" Rack Mount capability for ATE and OEM applications
- Optional Interfaces

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

### **L** Compliant LAN

- LabView® and LabWindows® drivers
- Five Year Warranty

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





#### **Applications**

Genesys™ power supplies have been designed to meet the demands of a wide variety of applications.

Test & Measurement systems, Component Device Testing.

Semiconductor Processing & Burn-In, Aerospace & Satellite Testing, Medical Imaging, Green Technology.

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.

Test Systems using the IEEE-488 bus may achieve significant cost savings by incorporating the Optional IEEE Multi-Drop Interface for a Master and up to 30 RS-485 Multi-Drop Slaves.

Higher power systems can be configured with up to four 3.3kW modules. Each module is 2U with zero space between them (zero stack).

Flexible configuration is provided by the complete Genesys™ Family: 1U 750W Half-Rack, 1U 750W, 1500W and 2400W Full-Rack. All are identical in Front Panel, Rear Panel Analog, and all Digital Interface Commands.

**OEM Designers** have a wide variety of Inputs and Outputs from which to select depending on application and location.

#### **Front Panel Description**



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

- Fine Control
- Preview Settings

- Foldback Mode
- Remote Mode
- Output On
- 8. Pushbuttons allow flexible user configuration
  - Coarse and Fine adjustment of Output Voltage/Current and Advanced Parallel Master or Slave
  - Preview settings and set Voltage/Current with Output OFF, Front Panel Lock
  - Parallel Master/Slave
  - Set OVP and UVL Limits
  - Set Current Foldback Protection
  - Go to Local Mode and select Address and Baud rate
  - Output ON/OFF and Auto-Re-Start/Safe-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 (Non-isolated) Analog Program and Monitor and other functions.
- 4. RS-485 OUT to other Genesys™ Power Supplies.
- 5. RS-232/RS-485 IN Remote Serial Programming.
- 6. Output Connections: Rugged busbars (shown) for up to 100V Output; wire clamp connector for Outputs >100V.
- 7. Exit air assures reliable operation when zero stacked.
- 8. Input: 230VAC Single Phase (shown), 208 & 400VAC Three Phase, 50/60 Hz AC Input Connector: PHOENIX CONTACT Power Combicon PC 6/... Series with strain relief.
- 9. Optional Interface Position for IEEE 488.2 SCPI (shown) or Isolated Analog Interface or LAN Interface.

### Genesys ™ 3.3kW Specifications

Rated output velhage(*1)	1.0 MODEL												ions in bl		
2.Rated Output Current(*21)	MODEL														
3															600
1.1 CONTANT VOLTAGE MODE															5.5
Mass.line regulation (0.01% offsated Yes 2mV) ("0") m/V   2.8   3   3.5   4   5   6   8   10   12   17   22   32   3.5   3.0		VV	3200	3300	3300	3300	3300	3400	3300	3300	3300	3300	3300	3300	3300
2 Aba Dai regulation (037% of rated Vers mit VF)   mV   6.2   6.5   7.22   8   9.5   11   14   17   20   275   35   50     3 Aligople and noise pp 20MHz (19   mV   50   55   55   55   55   55   55   5		mV	2.8	3	3.5	4	5	6	8	10	12	17	22	32	62
3   Single and notise p-2   20MHz (**)   19M   55   55   55   55   55   55   55															95
4															350
6		mV				7			7	20					80
27.00mb											5	5	5	5	5
Big		PPM/°C													
90.0													d & temp.		
10.Down-prog response   Null-lead (*19)   m5   800   600   700   800   1000   1000   1200   1500   2000   3000   3300   111			Less thai	n 0.05% o			tage+2m	V over 30	minutes			ار.	20		250
time			20			30		160		1.	50	200	20	0	250 500
Time from cutput voltage to recover within 0.5% offiss rated output for and ord change 10.9% of rated doutput Current 1.2 CONSTANT CURRENT MODE				600		800	900		1100	1200	1500		3000	3500	4000
Set-point: 10-1009s,   Joint:															
1.2 CORSTANT CURRENT MODE   Max   12   35   24   18.5   13   10.5   7.5   6.2   5.3   4.2   3.65   3.1	11.Transient response time	mS	set-noin	ουιραί να +· 10-100	% local s	anca Lac	than 1m	Sec for m	odels un	. 101 a 10a0 . to and ir	cluding	10-90%01 100V 2mg	rated outp	dels abov	اد.Outpt ہے ۱۸۸۷
IMaka (in regulation (0.02% for facted to be ZmA/(16) mA	1.2 CONSTANT CURRENT MODE		set-poin	t. 10-100	70, IOCal 3	CIISC, LCS.	tilali ili	isec ioi ii	ioueis up	to and ii	icidaling	100 v. 21113	sec ioi iiioi	ueis abov	E 100V
2   2   2   2   2   2   2   5   3   2   2   2   5   3   4   1   6   9   4   8   3   7   2   2   5   5   3   2   3   5   5   2   3   3   5   5   5   2   3   3   5   5   5   5   5   2   3   3   5   5   5   5   5   5   5   5		mΛ	//2	35	2/	19.5	12	10.5	7.5	6.2	5.3	12	3 65	2.1	2.6
3Ripple ms 5Hz-1MHz, (*12)															6.1
															8
STEPTIN, COEfficient		,													
Section   Sect		PPM/°C													
3.9ROTECTIVE FUNCTIONS			0.01% o	f rated lo	out over	8hrs. inte	rval follo	wing 30n	ninutes w	/arm-up.	Constant			ature.	
1.3 PROTECTIVE FUNCTIONS	7.Warm up drift														
1.OCP	·		30V~600	)V model	s: Less th	an ±0.259	% of rated	d output o	urrent o	ver 30 mi	nutes foll	owing po	wer On.		
2. OCP Foldback															
3.0VP type								,	11						
0.5-10V  (0.5-12V  1-18V  1-2-96V    2-86V    2-86V    3-80V    5-10V    5-130V    5-30V															
User selectable   Jakred or non-latched.			0.5~10V 0.5~12V 1~18V 1~24V 2~36V 2~44V 5~66V 5~88V 5~110V 5~165V 5~220V 5~330V 5~660V												
1.4 ANALOG PROGRAMMING AND MONITORING								. Prevent	s from ac	ijusting v	out belo	w iimit.		-	
1.0out Voltage Programming		DING	loser sere	ctable, i	atched o	i non-iato	neu.								
2.10ut Voltage Programming (*13)		KING	n~100%	0≈5V or	0~10\/ 11	car calact	Accurac	v and line	arity:+0	5% of rat	ad Vaut				
3															
About Resistor Programming (*13)															
Specification   Specifical															
Go-Upt Current monitor (*13)															
B.Power Supply OK signal			0~5V or 0~10V , Accuracy:±1% , user selectable.												
Quen collector, CC mode: On, CV mode: Off, Maximum voltage: 30V, maximum sink current: 10mA	7.Output Voltage monitor		0~5V or 0~10V ,Accuracy:±1% ,user selectable.												
10. Enable/Disable	8. Power Supply OK signal		TTL high (4~5V) -OK, 0V-Fail 500ohm series resistance.												
11. Local/Remote analog control   By electrical signal or Open/Short: 0-0.6V or short: Remote, 2-15V or open: Local.											ximum si	nk curren	t: 10mA		
1.5 FRONT PANEL			Dry contact. Open:off , Short: on. Max. voltage at Enable/Disable in: 6V.												
Vout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable).															
Nout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable).			Open co	llector, Lo	ocal: Off,	Remote:	On. Maxii	mum volt	age: 30V,	maximu	m sink cu	rrent: 10n	nA.		
1.Control functions	1.5 FRONT PANEL		I												
1.Control functions									e and fin	e adjustn	nent selec	ctable).			
Address selection by Voltage (or current) adjust encoder. Number of addresses:31.	1.6								alla a al. a a	(C)	+- CC\ C				
Re-start modes (automatic restart, safe mode).   Baud rate selection: 1200,2400,4800,9600 and 19,200.	I.Control functions														
Baud rate selection: 1200,2400,4800,9600 and 19,200.   Voltage ±1 count.															
Voltage: 4 digits, Accuracy: 0.05% of rated output Voltage ±1 count.															-
Current: 4 digits, Accuracy: 0.2% of rated output current ±1 count.									Voltage	±1 cour	nt.				
Significations   Voltage, Current, Alarm, Fine, Preview, Foldback, Local, Output On, Front Panel Lock, CVCC.	2.Display														
1.6 Interface Specifications for the GENESYS Series with RS-232/RS-485 Or Optional GPIB/LAN Interface Installed  1. Remote Voltage Programming (16 bit) V 8 10 15 20 30 40 60 80 100 150 200 300 Resolution (0.002% of Vo Rated) mV 0.16 0.2 0.3 0.4 0.6 0.8 1.2 1.6 2 3 4 6 Accuracy (0.05% of Vo Rated) mV 4 5 8 10 15 20 30 40 50 75 100 150  2. Remote Current Programming (16 bit)  Resolution (0.002% of Io Rated) mA 8 6.6 4.4 3.3 2.2 1.7 1.1 0.84 0.66 0.44 0.33 0.22 Accuracy (0.2% of Io Rated) mA 1200 990 660 495 330 255 165 126 99 66 49.5 33  3. Readback Voltage  Resolution (% of Vo Rated) MV 0.16 1.10 1.05 1.20 1.20 1.20 1.20 1.60 11.00 10.50 12.00 12.00 12.00 4. Readback Voltage) mV 0.16 1.10 1.05 1.20 1.20 1.20 1.20 1.20 1.60 11.00 10.50 12.00 150  4. Readback Current  Resolution (% of Io Rated) MV 4 5 8 10 15 20 30 40 50 75 100 150  4. Readback Current  Resolution (% of Io Rated) MO 0.003 0.004 0.005 0.007 0.01 0.002 0.002 0.003 0.004 0.005 0.007 0.01 Resolution (% of Io Rated) MA 12.00 13.20 11.00 11.55 11.00 1.70 1.10 1.26 1.32 1.10 1.16 0.11 Accuracy (0.05% of Io Rated) MA 12.00 13.20 11.00 11.55 11.00 1.70 1.10 1.26 1.32 1.10 1.16 0.11 Accuracy (0.3% of Io Rated) MA 12.00 13.20 11.00 11.55 11.00 1.70 1.10 1.26 1.32 1.10 1.16 0.11 Accuracy (0.3% of Io Rated) (*13) MA 12.00 990 660 495 330 255 165 126 99 66 49.5 33.0 10 15 0.00 150 10 0.00 1	3.Indications										t Panel Lo	ock, CVCC			
1. Remote Voltage Programming (16 bit)		S Series													_
Resolution (0.002% of Vo Rated)											100	150	200	200	600
Accuracy (0.05% of Vo Rated) (*14)															600
2. Remote Current Programming (16 bit)    Resolution (0.002% of lo Rated)   mA   8   6.6   4.4   3.3   2.2   1.7   1.1   0.84   0.66   0.44   0.33   0.22     Accuracy (0.2% of lo Rated+0.1% of lo Actual Output) (*13)   mA   1200   990   660   495   330   255   165   126   99   66   49.5   33     3. Readback Voltage   Resolution (% of Vo Rated)   %   0.002   0.011   0.007   0.006   0.004   0.003   0.002   0.002   0.011   0.007   0.006   0.004     Resolution (Readback Voltage)   mV   0.16   1.10   1.05   1.20   1.20   1.20   1.20   1.20   1.60   11.00   10.50   12.00     Accuracy (0.05% of Vo Rated)   mV   4   5   8   10   15   20   30   40   50   75   100   150     4. Readback Current   Resolution (% of lo Rated)   %   0.003   0.004   0.005   0.007   0.01   0.002   0.002   0.003   0.004   0.005   0.007   0.01     Resolution (Readback Current)   mA   12.00   13.20   11.00   11.05   11.05   11.00   1.70   1.10   1.26   1.32   1.10   1.16   0.11     Accuracy (0.3% of lo Rated) (*13)   mA   1200   990   660   495   330   255   165   126   99   66   49.5   33.0     Resolution (0.1% of Vo Rated)   mV   8   10   15   20   30   40   60   80   100   150   200   300     Resolution (0.1% of Vo Rated)   mV   8   10   15   20   30   40   60   80   100   150   200   300															300
Resolution (0.002% of lo Rated)         mA         8         6.6         4.4         3.3         2.2         1.7         1.1         0.84         0.66         0.44         0.33         0.22           Accuracy (0.2% of lo Rated)         mA         1200         990         660         495         330         255         165         126         99         66         49.5         33           3. Readback Voltage         Resolution (% of Vo Rated)         %         0.002         0.011         0.007         0.006         0.004         0.003         0.002         0.011         0.007         0.006         0.004         0.003         0.002         0.011         0.007         0.006         0.004         0.003         0.002         0.011         0.007         0.006         0.004         0.003         0.002         0.011         0.007         0.006         0.004         0.003         0.002         0.011         0.007         0.006         0.004         0.002         0.011         0.007         0.006         0.004         1.20         1.20         1.20         1.20         1.20         1.20         1.20         1.20         1.20         1.20         1.20         1.20         1.20         1.20         1.20		1117				10			50	70		,,,	100	130	
Accuracy (0.2% of lo Rated + 0.1% of lo Actual Output) (*13)   mA   1200   990   660   495   330   255   165   126   99   66   49.5   33						2.2	2.2	4 7	4.4	001	0.55	0	0.22	0.00	0.11
3. Readback Voltage  Resolution (% of Vo Rated)															0.11
Resolution (% of Vo Rated)		mA	1200	990	000	495	330	255	105	126	99	00	49.5	33	16.5
Resolution (Readback Voltage)         mV         0.16         1.10         1.05         1.20         1.20         1.20         1.20         1.20         1.00         10.00         10.00         12.00															т.
Accuracy (0.05% of Vo Rated)   mV   4   5   8   10   15   20   30   40   50   75   100   150															0.002
4. Readback Current         Resolution (% of lo Rated)       %       0.003       0.004       0.005       0.007       0.01       0.002       0.002       0.003       0.004       0.005       0.007       0.01         Resolution (Readback Current)       mA       12.00       13.20       11.00       11.55       11.00       1.70       1.10       1.26       1.32       1.10       1.16       0.11         Accuracy (0.3% of lo Rated) (*13)       mA       1200       990       660       495       330       255       165       126       99       66       49.5       33.0         S. OVP/UVL Programming       Resolution (0.1% of Vo Rated)       mV       8       10       15       20       30       40       60       80       100       150       200       300															12.00
Resolution (% of lo Rated )   %   0.003   0.004   0.005   0.007   0.01   0.002   0.002   0.003   0.004   0.005   0.007   0.01   Resolution (Readback Current )   mA   12.00   13.20   11.00   11.55   11.00   1.70   1.10   1.26   1.32   1.10   1.16   0.11   Accuracy (0.3% of lo Rated) (*13)   mA   1200   990   660   495   330   255   165   126   99   66   49.5   33.0   55.0VP/UVL Programming   Resolution (0.1% of Vo Rated)   mV   8   10   15   20   30   40   60   80   100   150   200   300	Accuracy (0.05% of Vo Rated)	mV	4	5	8	10	15	20	30	40	50	75	100	150	300
Resolution (% of lo Rated)         %         0.003         0.004         0.005         0.007         0.01         0.002         0.002         0.003         0.004         0.007         0.01           Resolution (Readback Current)         mA         12.00         13.20         11.00         11.55         11.00         1.70         1.10         1.26         1.32         1.10         1.16         0.11           Accuracy (0.3% of lo Rated) (*13)         mA         1200         990         660         495         330         255         165         126         99         66         49.5         33.0           5. OVP/UVL Programming         Resolution (0.1% of Vo Rated)         mV         8         10         15         20         30         40         60         80         100         150         200         300	4. Readback Current														
Resolution (Readback Current)         mA         12.00         13.20         11.00         11.55         11.00         1.70         1.10         1.26         1.32         1.10         1.16         0.11           Accuracy (0.3% of lo Rated) (*13)         mA         1200         990         660         495         330         255         165         126         99         66         49.5         33.0           5. OVP/UVL Programming           Resolution (0.1% of Vo Rated)         mV         8         10         15         20         30         40         60         80         100         150         200         300		%	0.003	0.004	0.005	0.007	0.01	0.002	0.002	0.003	0.004	0.005	0.007	0.01	0.002
Accuracy (0.3% of lo Rated) (*13)   mA   1200   990   660   495   330   255   165   126   99   66   49.5   33.0		mA	12.00			11.55		1.70	1.10				1.16	0.11	0.11
Resolution (0.1% of Vo Rated) mV 8 10 15 20 30 40 60 80 100 150 200 300	Accuracy (0.3% of lo Rated) (*13)														16.5
Resolution (0.1% of Vo Rated) mV 8 10 15 20 30 40 60 80 100 150 200 300															
		mV	8	10	15	20	30	40	60	80	100	150	200	300	600
100   1															6000
			, 50			,								, 2300	

<sup>\*1:</sup> Minimum voltage is guaranteed to maximum 0.2% of rated output voltage.
\*2: Minimum current is guaranteed to maximum 0.4% of rated output current.
\*3: For cases where conformance to various safety standards (UL, IEC, etc.) is required, to be described as 190-240Vac (50/60Hz) for single phase and 3-Phase 208V models, and 380~415Vac (50/60Hz) for 3-Phase 400V models.

<sup>\*4:</sup> Single-Phase and 3-Phase 208V models: At 208Vac input voltage, 3-Phase 400V: At 380Vac input voltage. With rated output power.
\*5: Not including EMI filter inrush current, less than 0.2mSec.

<sup>\*6:</sup> Single-Phase and 3-Phase 208V models: 170~265Vac, constant load. 3-Phase 400V models: 342~460Vac, constant load.
\*7: From No-Load to Full-Load, constant input voltage. Maximum drop in Remote Sense.

<sup>\*8:</sup> For 8V~300V models: Measured with JEITA RC-9131A (1:1) probe.

For 600V model: Measured with 10:1 probe.
\*9: From 10% to 90% or 90% to 10% of Rated Output Voltage, with rated, resistive load.

<sup>\*10:</sup>From 90% to 10% of Rated Output Voltage.
\*11: For load voltage change, equal to the unit voltage rating, constant input voltage.

<sup>\*12:</sup> For 8V~15V models the ripple is measured from 2V to rated output voltage and rated output current. For other models, the ripple is measured at 10~100% of rated output voltage and rated

<sup>\*13:</sup> The Constant Current programming readback and monitoring accuracy does not include the warm-up and Load regulation thermal drift.
\*14: Measured at the sensing point.

## General Specifications Genesys™ 3.3kW

	-												,	,	
2.1 INPUT CH	ARACTERISTICS	GEN		10-330				40-85	60-55	80-42	100-33	150-22	200-16.5	300-11	600-5.5
				nase,230V				Hz							
<ol> <li>Input voltage</li> </ol>	/freq. (*3)	VAC	3-Phase, 208V models: 170~265Vac, 47~63Hz												
				400V mod			1							,	
2. Maximum	Single Phase, 230V models:		24	24	24	24	23	24	23	23.5	23	23	23	23	23
	3-Phase, 208V models:	Α	14.5	14.5	14.5	14.5	14	14.5	13.6	14	13.7	13.7	13.7	13.8	13.9
	3-Phase, 400V models:		7.2	7.2	7.2	7.2	7.0	7.2	6.8	7.0	6.8	6.8	6.8	6.9	7.0
<ol><li>Power Factor</li></ol>				1					1	nodels: 0.9	1	1	· ·	· -	
4. Efficiency (*4		%	82	83	83	83	86	86	88	88	88	87	87	87	87
5. Inrush Currer		Α	3-Phase	hase and 3 400V mod	els: Less t	han 20A									
5. Hold-up time	1 717	mS	10mSec	for Single-	Phase an	d 3-phase	208V mc	dels, 6mS	ec for 3-P	hase 400\	/ models.	Rated out	tput powe	er.	
	JPPLY CONFIGURATION														
1. Parallel Opera			1 1 1 1 1	dentical u											
<ol><li>Series Operat</li></ol>			Up to 2 i	dentical u	nits. with	external o	diodes. 60	0V Max to	Chassis o	ground					
	MENTAL CONDITIONS														
<ol> <li>Operating ter</li> </ol>			-	100% load	l										
<ol><li>Storage temp</li></ol>			-20~85°C												
<ol><li>Operating hu</li></ol>			_	RH (non-o		<u>J</u> ,									
4. Storage hum	dity			RH (non-c											
5. Vibration				, method					surface.						
6. Shock				ո 20G , hal											
7. Altitude				ıg: 10000f 00m abov						ove 2000i	m, Alterna	atively, de	rate maxir	num ambie	ent temp
8. RoHS Compli	ance		Complie	s with the	requirem	ents of Ro	HS direct	ive.							
2.4 EMC			•		•										
1.Applicable Sta	andards:														
2.ESD			IEC1000-	4-2. Air-d	sch8KV,	contact d	lisch4KV								
3.Fast transient	S		IEC1000-	-4-4. 2KV											
4.Surge immun	ity		IEC1000-	4-5. 1KV l	ne to line	, 2KV line	to groun	d							
5.Conducted im	munity		IEC1000-	-4-6, 3V											
6.Radiated imm			IEC1000-	-4-3, 3V/m											
7. Magnetic field	limmunity		EN61000	-4-8, 1A/r	n										
8.Voltage dips			EN61000	-4-11											
9.Conducted er	nission		EN55022	A, FCC pa	rt 15-A, V(	CCI-A.									
10. Radiated em	ission		EN55022	A, FCC pa	rt 15-A, V	CCI-A.									
2.5 SAFETY															
1.Applicable sta	ındards:		UL 60950	0-1, CSA 22	2.2 No. 60	950-1,IEC	60950-1,	EN 60950	-1						
				with Vout Programn					on/control	l interface	s (RS232/	485, IEEE,	Isolated A	Analog, LA	N, Sense
2.Interface class	sification		Remote	vith 60V V Programir !5) are Haz	ng and Mo	: Output is onitoring	Hazardo (pins 1-3,	us, comm pins14-16	unication are SELV	/control ii /, Sense, R	nterfaces: emote Pr	: RS232/48 ogrammir	35, IEEE, Iso ng and Mo	olated Ana onitoring ( <sub> </sub>	log, LAN pins 8-13
				with 400V							trol inter	faces (RS2	32/485, IE	EE, Isolate	d Analog
				V model ound: 282			(SELV):	4242VDC	1min, Ir	nput-com	municat	ion/cont	rol (SELV	'): 4242VD	OC 1min
3.Withstand vol	tage		60V <vout (hazardous):="" (selv):="" 100v="" 1200vdc="" 1900vdc="" 1min,="" 1min.<="" 2600vdc="" 2828vdc="" 4242vdc="" control="" input-communication="" input-ground:="" input-output="" models:="" output(hazardous)-ground:="" output(hazardous)-selv:="" td=""></vout>												
			4242VD0	out 600V r I 1min, Ha Hazardous	zardous. (	Output-co	mmunica	ation/cont	rol(SELV):	n, Input-c : 4242VDC DC 1min.	ommunio 1min,	ation/con	itrol (SELV	'):	
3.Insulation res	stance		More tha	n 100Mol	nm at 25°0	C , 70% RF	l.				-				
	CAL CONSTRUCTION														
1. Cooling			Forced a	ir flow: fro	m front to	o rear. No	ventilatio	n holes at	t the top o	r bottom	of the ch	assis; Varia	able fan sp	peed.	
2. Dimensions (	WxHxD)									s, handles					
3. Weight	·		13 kg.				<u> </u>								
		\	Single Pl	nase,230V	models, F	Power Cor	nbicon Po	C 6-16/3-C	F-10,16 se	eries, with	Strain rel	ief.			
4. AC Input con	nector (with Protective Cove	er)								6 series, w			-		
5.Output conne	ectors		8V to 100	OV models	: Bus-bars	(hole Ø 1	0.5mm).	150V to 60	00V mode	ls: wire cla	mp conn	ector, Pho	enix P/N:	FRONT-4-H	H-7.62
2.7 RELIABILI															
1. Warranty			5 years.												
	s subject to change withou	t notice													

All specifications subject to change without notice.

### TDK·Lambda

#### **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.

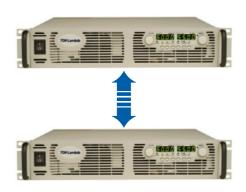
In Advanced Parallel Master/Slave Mode, total current is programmed and reported by the Master, Up to four supplies act as one.

#### **Series operation**

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

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

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



P/N:IEEE

#### **Programming Options (Factory installed)**

#### Digital Programming via IEEE Multi-Drop Interface

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

- Program Current
- Measure Current
- Current Foldback shutdown

#### **Isolated Analog Programming**

Four Channels to Program and Monitor Voltage and Current. Isolation allows operation with floating references in harsh electrical environments. Choose between programming with Voltage or Current.

Connection via removable terminal block: Phoenix MC1,5/8-ST-3.81.

Voltage Programming, user-selectable 0-5V or 0-10V signal.
 Power supply Voltage and Current Programming Accuracy ±1%
 Power supply Voltage and Current Monitoring Accuracy ±1.5%

Current Programming with 4-20mA signal.
 Power supply Voltage and Current Programming Accuracy ±1%
 Power supply Voltage and Current Monitoring Accuracy ±1.5%

## P/N: LAN • VISA & SCPI Compatible

- LAN Fault Indicators
- Auto-detects LAN Cross-over Cable

P/N: IS510

P/N: IS420

Fast Startup

## LAN Interface Compliant to Class C

- Meets all LXI-C Requirements
- · Address Viewable on Front Panel
- Fixed and Dynamic Addressing
- Compatible with most standard Networks
- TCP / UDP Socket Programming

#### Power Supply Identification / Accessories How to order

GEN	8	400	<u></u>	<u>-</u>
			Factory Options:	Factory AC Input Options:
Series	Output	Output	Option: IEEE	1P230 (Single Phase 170~265VAC)
Name	Voltage	Current	IS510	3P208 (Three Phase 170~265VAC)
	(0~8V	(0~400A)	IS420	3P400 (Three Phase 342~460VAC)
			LAN	

#### Models 3.3kW

Model	Output Voltage VDC	Output Current ( A )	Output Power (W)
GEN 8-400	0~8V	0~400	3200
GEN 10-330	0~10V	0~330	3300
GEN 15-220	0~15V	0~220	3300
GEN 20-165	0~20V	0~165	3300
GEN 30-110	0~30V	0~110	3300
GEN 40-85	0~40V	0~85	3400

Model	Output Voltage VDC	Output Current ( A )	Output Power ( W )
GEN 60-55	0~60V	0~55	3300
GEN 80-42	0~80V	0~42	3360
GEN 100-33	0~100V	0~33	3300
GEN 150-22	0~150V	0~22	3300
GEN 200-16.5	0~200V	0~16.5	3300
GEN 300-11	0~300V	0~11	3300
GEN 600-5.5	0~600V	0~5.5	3300

#### P/N **Factory option**

RS-232/RS-485 Interface built-in Standard

**GPIB** Interface **IEEE** Voltage Programming Isolated Analog Interface IS510 Current Programming Isolated Analog Interface IS420 LAN Interface (Complies with LAN Class C) LAN

#### 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 Communication Cable Power Supply Connector	DB-9F Shield Ground L=2m EIA/TIA-568A (RJ-45)	DB-9F Shield Ground L=2m EIA/TIA-568A (RJ-45)	DB-25F Shield Ground L=2m 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<sup>™</sup> power supplies.

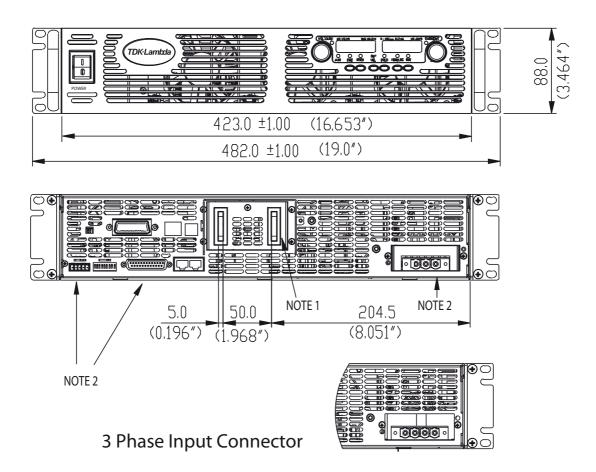
Mode	Power Supply Connector	Communication Cable	P/N
RS-485	EIA/TIA-568A (RJ-45)	Shield Ground L=50cm	GEN/RJ45

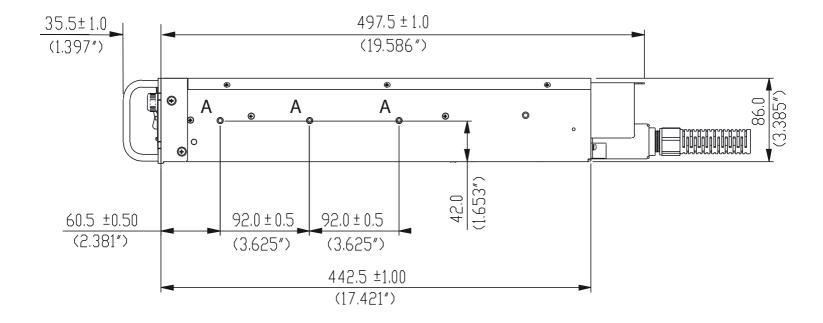
\* Included with power supply



Also available, Genesys™ 1U Half Rack 750W 1U full Rack 750W/1500W/2400W **2U full Rack 5000W** 

## Outline Drawing Genesys™ 3.3kW Units





#### **NOTE**

- 1. Bus bars for 8V to 100V models (shown) Wire clamp connector for 150V to 600V models
- 2. Plug connectors included with the power supply
- 3. Chassis slides mounting holes #10-32 marked "A" GENERAL DEVICES P/N: C-300-S-116 or equivalent

## **GLOBAL NETWORK**

## TDK-Lambda

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