TMGenesys

New 15kW Models: 30V, 40V and 50V (400VAC/480VAC) Programmable DC Power Supplies 10kW/15kW in 3U Built in RS-232 & RS-485 Interface Advanced Parallel Operation

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



Genesys[™] Family GEN H 750W Half-Rack GEN 1U 750W/1500W/2400W Full-Rack GEN 2U 3.3kW/5kW GEN 3U 10kW/15kW

Identical User Interfaces

TDK·Lambda

www.us.tdk-lambda.com/hp

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

Features include:

- High Power Density 10kW/15kW in 3U package
- High Output Current up to 1000ADC
- Wide Range of popular worldwide 3Φ AC inputs, (208VAC, 400VAC, 480VAC)
- Power Factor 0.88 (Passive PFC on all AC Inputs)
- Output Voltage up to 600V; Output Current up to 1000A
- Built-in RS-232/RS-485 Interface Standard
- Last Setting Memory; Front Panel Lockout
- "Advanced Parallel" configuration reports total system current (up to four identical units)
- Global Commands for Serial RS-232/RS-485 Interface
- Continuous Encoders for Voltage and Current Adjustment
- Independent Remote ON/OFF and Remote ENABLE/DISABLE
- Reliable Modular and SMT Design
- 19" Rack Mounted for ATE and OEM Applications, zero-stack
- Optional Interfaces

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

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

Applications

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

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

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

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

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

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

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

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

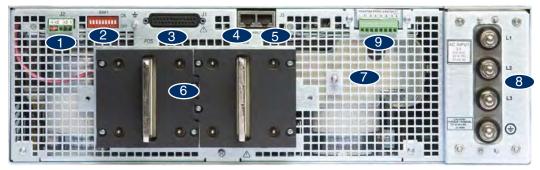
1 Genesys™ 3U 10/15kW

Front Panel Description



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

Rear Panel Description



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

LAN Interface complies with LXI Class C Specification



GenesusTM 311 10kW/15kW Specifications

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14 REMOTE ANALOS CONTROLS & SIGNALS 1 Vout Voltage Programming 0-100%, 0 - 5V or 0 - 10V, user-selectable, Accuracy & Linearity: ±1% of Vo(rated) X 2: Lout Voltage Programming 0-100%, 0 - 5V or 0 - 10V, user-selectable, Accuracy & Linearity: ±1% of Vo(rated) X 3: Vout Pesistor Programming 0-100%, 0 - 570kohm ful-scale, user-selectable, Accuracy & Linearity: ±1% of Vo(rated) X 4: Lout Resistor Programming 0-100%, 0 - 570kohm ful-scale, user-selectable, Accuracy & Linearity: ±1% of Vo(rated) X 4: Lout Resistor Programming 0-100%, 0 - 570kohm ful-scale, user-selectable, Accuracy & Inserty: ±1% of Vo(rated) X 5: Shut-Off (SO) Control (rear panel) By Voltage: 60% = Disable, 2:15% = Enable (default) or Dry Contact: Open = EN, Short = DIS (user-selectable logic) X 0: Output Voltage Monitor 0 - 5 V or 0 - 10V, Accuracy: ±1%, user-selectable X X 0: AcvCCC Signal CV: TTL High (- 40, V) - Fail (SOOhm series impedance) X X 10: Enable/Disable Dry Contact: Open - OI. Short - On: Max, voltage across Enable/Disable contacts = 60V X X 11: RemoteLocal Signal Signals operating mode; Deen Collector. Local - 0.69V = Local / 2 - 15V = Remote X X 12: RemoteLocal Signal Signals operating mode; Deen Collector. Local = 0.09V (Max sink current = 10mA) X	10. Over-temperature Protection		Shut dow	n if interna	al temperatu	ure exceed	ds safe o	perating le	vels (Lat	ched: Sa	fe / Unlat	ched: Auto	o)	Х	Х
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2. Iout Voltage Programming 0 - 100%, 0 - 5'V or 0 - 10V, user-selectable, Accuracy & Linearity: ± 1% of Voltated) X 3. Nout Pesistor Programming 0 - 100%, 0 - 5'V okom Tull-scale, user-selectable, Accuracy & Linearity: ± 1% of Voltated) X 4. Lout Resistor Programming 0 - 100%, 0 - 5'V okom Tull-scale, user-selectable, Accuracy & Linearity: ± 1% of Iortated) X 5. Shul-Off (SO) Control (rear panel) By Voltage: 0.6V = Disable, 2-15V = Enable (datal) of Dry Contact: Open = EN, Short = DIS (user-selectable logic) X 6. Output Current Monitor 0 - 5'V or 0 - 10V, Accuracy: ± 1%, user-selectable X X 9. OvCCC Signal 0 - 5'V or 0 - 10V, Accuracy: ± 1%, user-selectable X X 9. OVCCC Signal CV: TTL High (- 6, V) - Fail (SooMm series impedance) X X 9. OVCCC Signal CV: TTL High (- 6, V) - Fail (SooMm series impedance) X X 10. Enable/Disable Dry Contact, Open - off, Sort = On; Max: voltage = 30V), Femote = On (Max sink current = 10mA) X X 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Femote = On (Max sink current = 10mA) X X 13. FroNT PMEL T T X Z X <t< td=""><td>1.4 REMOTE ANALOG CONTROLS & SIGNALS</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	1.4 REMOTE ANALOG CONTROLS & SIGNALS														
3. Vourt Besistor Programming 0-100%, 0 - 57/0kohm full-scale, user-selectable, Accuracy & Linearity: ± 1% of Vo(rated) X 4. lout Resistor Programming 0-100%, 0 - 57/0kohm full-scale, user-selectable, Accuracy & Linearity: ± 1% of Io(rated) X 5. Shut-Off (SO) Control (rear panel) By Voitage: 0.6V = Disable, 2-15V = Enable (default) or Dry Contact: Open = EN, Short = DIS (user-selectable logic) X 6. Output Current Monitor 0 - 5V or 0 - 10V. Accuracy: ± 1%, user-selectable X 7. Output Voitage Monitor 0 - 5V or 0 - 10V. Accuracy: ± 1%, user-selectable X 8. Power Supply OK (PS_OK) Signal Ves. TTL High - 6K, 0V - Fail (SDOchm sories impedance) X X 9. CVICC Signal CV: TTL High - 6K, 0V - Fail (SDOchm sories impedance) X X X 10. Enable/Disable Dry Contact: Open = 0ff. Short = Or: Max voltage across Enable/Disable contacts = 6V X X 11. BaroteLocal Signal Signals operating mode: Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X X 12. Remotel/Local Signal Signals operating mode: Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X X 12. Remotel/Local Signal Signals operating mode: Open collector: Local = Open (Max volta															Х
1. but Beistor Programming 0-100%, 0 5/70kohm full-scale, user-selectable, Accuracy & Linearity: ± 1% of Io(rated) X 5. Shut-Off (SO) Control (rear panel) By Voltage: 0.6V = Disable, 2-15V = Enable (detault) or Dy Contact: Open = EN, Short = DIS (user-selectable logic) X 6. Output Current Monitor 0 - 5V or 0 - 10V. Accuracy: ± 1%, user-selectable X X 7. Output Voltage Monitor 0 - 5V or 0 - 10V. Accuracy: ± 1%, user-selectable X X 8. Power Supply OK (PS_OK) Signal Vers. TTL High - 40, 0V. 0V - Fail (Solomb sories impedance) X X 9. CVICC Signal CV: TTL High - 40, 0V. 0V - Fail (Solomb sories Enable/Dbasile contacts = 6V X X 10. Enable/Disable Dry Contact: Open = Off. Short = 0r. Max, voltage across Enable/Dbasile contacts = 6V X X 11. Remote/Local Selection Selects Remote or Local operation by Voltage: 0 - 0.6V = Local / 2 - 15V = Remote X X 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage across Faable/Dbasile contacts = 6V X X 12. Forot PANEL 1 Control Functions Vout/ tout manual adjust by Voltage Adjust encoder, Forot Panel Lock/Unlock X X 14. Octrol Functions Vout/ Vout ma		,		,		,	/	,	,	,					X
5. Shurt-Off (SQ) Control (rear panel) By Voltage: 0.6V = Disable, 2-15V = Enable (default) or Dry Contact: Open = EN, Short = DIS (user-selectable logic) X X 6. Output Current Monitor 0 - 5V or 0 - 10V, Accuracy: ± 1%, user-selectable X X 7. Output Voltage Monitor 0 - 5V or 0 - 10V, Accuracy: ± 1%, user-selectable X X 8. Power Supply OK (PS_CK) Signal Yes. TTL High - OK, 0V - Fail (500chm series impedance) X X 9. CVICC Signal CV: TTL High - OK, 0V - Fail (500chm series impedance) X X 10. Enable/Disable Dry Contact; Open = Off, Short = On; Max, voltage across Enable/Disable contacts = 6V X X 11. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X X 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X X 15. FRONT PANEL Vout/ four manual adjust by voltage Adjust encoder, Fornt Panel Lock/Unlock X X X 14. Control Functions Vout/ four manual adjust by voltage Adjust encoder, Fornt Panel Lock/Unlock X X X 15. Sentor Fanuel Vout/ four manual adjust by voltage Adjust encoder, Fornt Panel Lock/Unlock							,				,				X
6. Output Current Monitor 0 - 5V or 0 - 10V, Accuracy: ± 1%, user-selectable X 7. Output Votage Monitor 0 - 5V or 0 - 10V, Accuracy: ± 1%, user-selectable X 8. Power Supply OK (PS_CK) Signal Yes. TTL High, 0-K, 0V - Eall (Stoohm series impedance) X 9. CVICC Signal CV: TTL High (4 - 5V), Max source current = 10mA; CC: TTL Low (0 - 0.4V), Max sink current = 10mA X 10. Enable/Disable Dry Contact; Open = Off, Short = 0r; Max. voltage across Enable/Disable contacts = 6V X 11. Remote/Local Selection Selects Remote or Local operation by Voltage: 0 - 0.6V = Local /2 - 15V = Remote X 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X 15. FRONT PANEL Vout/ Iout manual adjust by voltage Adjust encoder, Front Panel Lock/Unlock X 1. Control Functions Vout/ Iout manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock X 1. Control Functions Vout/ Iout manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock X 2. Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count X 2. Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count X 2 X <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>or colocto</td><td>bla lagia)</td><td></td><td>X X</td></td<>												or colocto	bla lagia)		X X
7. Output Voltage Monitor 0 - 5V or 0 - 10V, Accuracy: ± 1%, user-selectable X 8. Power Supply OK (PS_OK) Signal Yes. TTL High - OK, OV - Fail (5000hm series impedance) X 9. CV/CC Signal CV: TTL High - OK, OV - Fail (5000hm series impedance) X 10. Enable/Disable Dry Contact, Open - Off, Short = Ori, Max voltage across Enable/Disable contacts = 6V X 11. Remote/Local Selection Selects Remote or Local operation by Voltage: 0 - 0.9V = Local /2 - 15V = Remote X 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage across Enable/Disable contacts = 6V X 11. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X 14. Control Functions Vout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable) X X 15. FRONT PANEL 1 Control Functions Vout/ Jout ON/OFF, Restart Modes (Auto/Sale), Foldback Control (CV to CC), Go-to-Local X X 12. Object Voltage: A digits, Accuracy: to 0.5% of foldcated in 90 (1920 dig) (Current adjust encoder), Advanced Parallel Master/Slave) OI DIY (Joniaci. O	Dell = El	N, SHOIT =	= DIS (US	ei-seiecia	bie iogic)		X
8. Power Supply OK (PS_OK) Signal Yes. TTL High - 0K, 0V - Fail (500ohm series impedance) X X 9. CV/CC Signal CV: TTL High (4 – SV), Max source current = 10mA; CC: TTL Low (0 – 0.4V), Max sink current = 10mA X X 10. Enable/Disable Dry Contact; Open – Off, Short = On; Max voltage across Enable/Disable contacts = 6V X X 11. Remote/Local Selection Selects Remote or Local operation by Voltage: 0 – 0.6V = Local / 2 – 15V = Remote X X 12. Remote/Local Signal Signals operating mode; Open collector; Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X X 15. FRONT PANEL Vout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable) X X X 1. Control Functions Vout/ lout manual adjust by voltage Adjust encoder, # of addresses: 31 X															X
9. CV/CC Signal CV: TTL High (4 – 5V), Max source current = 10mA; CC: TTL Low (0 – 0.4V), Max sink current = 10mA X X 10. Enable/Disable Dry Contact; Open = Off, Short = On; Max. voltage across Enable/Disable contacts = 6V X X 11. Remote/Local Selection Selects Remote or Local operation by Voltage 0 – 0.6V = Local / 2 – 15V = Remote X X 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X X 13. FRONT PANEL Vout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable) X X 14. Control Functions Vout/ lout manual adjust by Voltage Adjust encoder, # of addresses: 31 X X 15. Control Functions Vout/ lout manual adjust by Voltage Adjust encoder, # of addresses: 31 X X 10. Control Functions Vout/ lout manual adjust by Voltage Adjust encoder, # of addresses: 31 X X 10. Control Functions Vout/ lout manual adjust by Voltage Adjust encoder, # of addresses: 31 X X 12. Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count X X 2. Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count X X 2. Signal				,			ance)								X
10. Enable/Disable Dry Contact; Open = Off, Short = On; Max. voltage across Enable/Disable contacts = 6V X 11. Remote/Local Selection Selects Remote or Local operation by Voltage: 0 - 0.6V = Local / 2 - 15V = Remote X X 12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X X 15. FRONT PANEL Vout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable) X X X 1. Control Functions Vout/ lout manual adjust by Voltage Adjust encoder, # of addresses: 31 X </td <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td> <td>,</td> <td>Low (0 ~</td> <td>0.4V), M</td> <td>ax sink c</td> <td>urrent = 1</td> <td>10mA</td> <td></td> <td></td> <td>X</td>				,			,	Low (0 ~	0.4V), M	ax sink c	urrent = 1	10mA			X
12. Remote/Local Signal Signals operating mode; Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA) X 1.5 FRONT PANEL Volt/ lout manual adjust by separate encoders (coarse and fine adjustment selectable) X X 1. Control Functions Volt/ lout manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock X X Address selection by Voltage Adjust encoder, # of addresses: 31 X X X AC On/Off, Output ON/OFF, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local X X X RS-232/RS-485 and IEEE (IEMD) selection by IEEE Enable DIP switch X X X X Baud rate selection: 1200, 2400, 4800, 9600 and 19,200 (by Current adjust encoder). X X X X 2.Display Voltage: 4 digits, Accuracy: ± 0.5% of fo(rated) ±1 count X X X X 3.Indications Green LED's: PREVIEW, FOLD, REM.LOCAL, OUT ON/OFF, CC/CV, FINE X X X X 1.Vout Programming Accuracy ± 0.5% of fo(rated) ±1 count X X X X X 2.Indications Green LED's: PREVIEW, FOLD, REM.LOCAL, OUT ON/OFF, CC/CV, FINE X X X X X X </td <td></td> <td>Х</td>															Х
1.5 FRONT PANEL Vout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable) X X 1.Control Functions Vout/ lout manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock X X Address selection by Voltage Adjust encoder, # of addresses: 31 X X X AC On/Off, Output DN/OFF, Restart Modes (Auto/Sate), Foldback Control (CV to CC), Go-to-Local X X X RS-232/RS-485 and IEEE (IEMD) selection by IEEE Enable DIP switch X X X X Baud rate selection: 1200, 2400, 4800, 9600 and 19,200 (by Current adjust encoder). X<															Х
1. Control Functions Vout/ lout manual adjust by separate encoders (coarse and fine adjustment selectable) X X 0. OVP/UVL manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock Address selection by Voltage Adjust encoder, Front Panel Lock/Unlock X X Address selection by Voltage Adjust encoder, Forth Panel Lock/Unlock X		Signals o	perating m	ode; Open	collector: L	ocal = Op	en (Max	voltage =	30V), Re	mote = C	On (Max s	ink currer	nt = 10mA)	Х	Х
OVP/UVL manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock X X Address selection by Voltage Adjust encoder, # of addresses: 31 X X AC On/Off, Output ON/OFF, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local X X RS-232/RS-485 and IEEE (IEMD) selection by IEEE Enable DIP switch X X X Baud rate selection: 1200, 2400, 4800, 9600 and 19,200 (by Current adjust encoder). X X X Advanced Parallel Master/Slave: Hx = Master unit, where x = # of Slaves (0 to 4), S = Slave unit X X X 2.Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count X X X X 3.Indications Green LED's: PREVIEW, FOLD, REM./LOCAL, OUT ON/OFF, CC/CV, FINE X X X X 1. Vout Programming Accuracy ± 0.5% of rated Output outrent for units with lo < 187.5A; ± 0.7% of rated Output current for lo ≥187.5A															
Address selection by Voltage Adjust encoder. # of addresses: 31 X X AC On/Oft, Output ON/OFF, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local X X RS-232/RS-485 and IEEE (IEMD) selection by IEEE Enable DIP switch X X X Baud rate selection: 1200, 2400, 4800, 9600 and 19,200 (by Current adjust encoder). X	1.Control Functions					•		,		ectable)					X
AC On/Off, Output ON/OFF, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local X X RS-232/RS-485 and IEEE (IEMD) selection by IEEE Enable DIP switch X X Baud rate selection: 1200, 2400, 4800, 9600 and 19,200 (by Current adjust encoder). X X Advanced Parallel Master/Slave: Hx = Master unit, where x = # of Slaves (0 to 4), S = Slave unit X X 2.Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count X X Current: 4 digits, Accuracy: ± 0.5% of lo(rated) ±1 count X X X Voltage: A Gigts, Accuracy: ± 0.5% of lo(rated) ±1 count X X X S.Indications Green LED's PREVIEW, FOLD, REM./LOCAL, OUT ON/OFF, CC/CV, FINE X X X 1.Vout Programming Accuracy ± 0.5% of rated Output voltage X X X X 2. lout Programming Resolution 0.02% of Vo(rated) X X X X X X X X 3. Vout Programming Resolution 0.04% of Io(rated) 0.02% of Vo(rated)) X X X X X X X X X X X X X X X X					0,	,			INIOCK						X
RS-232/RS-485 and IEEE (IEMD) selection by IEEE Enable DIP switch X X Baud rate selection: 1200, 2400, 4800, 9600 and 19,200 (by Current adjust encoder). X X Advanced Parallel Master/Slave: Hx = Master unit, where x = # of Slaves (0 to 4), S = Slave unit X X 2.Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count X X X Current: 4 digits, Accuracy: ± 0.5% of lo(rated) ±1 count X X X X X 3.Indications Green LED's: PREVIEW, FOLD, REM./LOCAL, OUT ON/OFF, CC/CV, FINE X <td></td> <td>o to Looo</td> <td></td> <td></td> <td></td> <td>X</td>											o to Looo				X
Baud rate selection: 1200, 2400, 4800, 9600 and 19,200 (by Current adjust encoder). X </td <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td> <td><i>, , , , , , , , , ,</i></td> <td></td> <td>`</td> <td>u uu), G</td> <td>0-10-L0C8</td> <td>u</td> <td></td> <td></td> <td>X X</td>				,			<i>, , , , , , , , , ,</i>		`	u uu), G	0-10-L0C8	u			X X
Advanced Parallel Master/Slave: Hx = Master unit, where x = # of Slaves (0 to 4), S = Slave unit X X 2.Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count Current: 4 digits, Accuracy: ± 0.5% of lo(rated) ±1 count Voltmeter displays Voltage at power supply (Local sense) or at load (Remote sense) X X 3.Indications Green LEDs: PREVIEW, FOLD, REM./LOCAL, OUT ON/OFF, CC/CV, FINE Red LED: ALRM (OVP, OTP, FOLD, AC FAIL, ENA, SO) X X 1.6 DIGITAL PROGRAMMING & READBACK ± 0.5% of rated Output voltage X X X 2. lout Programming Accuracy ± 0.5% of rated Output voltage X X X X 3. Vout Programming Resolution 0.02% of Vo(rated) 0.02% of Vo(rated) X X X X X 4. lout Programming Resolution 0.04% of lo(rated) 0.02% of Vo(rated) X					,					oder)					X
2.Display Voltage: 4 digits, Accuracy: ± 0.5% of Vo(rated) ±1 count Current: 4 digits, Accuracy: ± 0.5% of lo(rated) ±1 count Voltmeter displays Voltage at power supply (Local sense) or at load (Remote sense) X X 3.Indications Green LED's: PREVIEW, FOLD, REM./LOCAL, OUT ON/OFF, CC/CV, FINE Red LED: ALRM (OVP, OTP, FOLD, AC FAIL, ENA, SO) X X 1.6 DIGITAL PROGRAMMING & READBACK X X X X 2. lout Programming Accuracy ± 0.5% of rated Output voltage X X X 2. lout Programming Resolution 0.02% of Vo(rated) X X X X 4. lout Programming Resolution 0.04% of lo(rated) X X X X 5. Vout Readback Accuracy ± (0.1% of Vo(actual) + 0.2% of Vo(rated)) X X X X 6. lout Readback Resolution 0.02% of lo(rated) X X X X X 7. Vout Readback Resolution 0.02% of lo(rated) X X X X X X X 9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X X X X										,	ave unit				X
Current: 4 digits, Accuracy: ± 0.5% of lo(rated) ±1 count X X Voltmeter displays Voltage at power supply (Local sense) or at load (Remote sense) X X 3.Indications Green LED's: PREVIEW, FOLD, REM./LOCAL, OUT ON/OFF, CC/CV, FINE Red LED: ALRM (OVP, OTP, FOLD, AC FAIL, ENA, SO) X X 1.6 DIGITAL PROGRAMMING & READBACK X X X X 1. Vout Programming Accuracy ± 0.5% of rated Output voltage X X X 2. lout Programming Accuracy ± 0.5% of rated Output current for units with lo < 187.5A; ± 0.7% of rated Output current for lo ≥187.5A	2.Display									,,					X
Voltmeter displays Voltage at power supply (Local sense) or at load (Remote sense) X X 3.Indications Green LED's: PREVIEW, FOLD, REM./LOCAL, OUT ON/OFF, CC/CV, FINE Red LED: ALRM (OVP, OTP, FOLD, AC FAIL, ENA, SO) X X 1.6 DIGITAL PROGRAMMING & READBACK 1. Voltmeter displays Voltage X X 2. lout Programming Accuracy ± 0.5% of rated Output voltage X X X 3. Vout Programming Resolution 0.02% of vo(rated) X X X 4. lout Programming Resolution 0.04% of lo(rated) X X X 5. Vout Readback Accuracy ± (0.1% of Vo(actual) + 0.2% of Vo(rated)) X X X 6. lout Readback Resolution 0.02% of Vo(rated) X X X X 7. Vout Readback Resolution 0.02% of Vo(rated) X X X X 8. lout Readback Resolution 0.02% of Vo(rated) X X X X 9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X X X	· · ·					,									X
Red LED: ALRM (OVP, OTP, FOLD, AC FAIL, ENA, SO)X1.6 DIGITAL PROGRAMMING & READBACK1. Vout Programming Accuracy $\pm 0.5\%$ of rated Output voltageX2. lout Programming Accuracy $\pm 0.5\%$ of rated Output current for units with lo < 187.5A; $\pm 0.7\%$ of rated Output current for lo $\geq 187.5A$ X3. Vout Programming Resolution 0.02% of Vo(rated)XX4. lout Programming Resolution 0.04% of lo(rated)XX5. Vout Readback Accuracy $\pm (0.1\%$ of Vo(actual) + 0.2\% of Vo(rated))XX6. lout Readback Accuracy $\pm (0.1\%$ of Vo(rated)XX7. Vout Readback Resolution 0.02% of Vo(rated)XX8. lout Readback Resolution 0.02% of Io(rated)XX9. OV Response Time20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On)XX										nse)				Х	Х
1.6 DIGITAL PROGRAMMING & READBACK 1. 1. Vout Programming Accuracy ± 0.5% of rated Output voltage X X 2. lout Programming Accuracy ± 0.5% of rated Output current for units with lo < 187.5A; ± 0.7% of rated Output current for lo ≥ 187.5A	3.Indications							F, CC/CV,	FINE					х	х
1. Vout Programming Accuracy \pm 0.5% of rated Output voltage X X 2. lout Programming Accuracy \pm 0.5% of rated Output current for units with lo < 187.5A; \pm 0.7% of rated Output current for lo ≥187.5A X X 3. Vout Programming Resolution 0.02% of Vo(rated) X X X 4. lout Programming Resolution 0.04% of lo(rated) X X X 5. Vout Readback Accuracy \pm (0.1% of Vo(rated)) X X X 6. lout Readback Accuracy \pm (0.1% of lo(actual) + 0.2% of Vo(rated)) X X X 7. Vout Readback Resolution 0.02% of Vo(rated) X X X 8. lout Readback Resolution 0.02% of Vo(rated) X X X 9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X X		Red LED	: ALKM (O\	/P, UTP, F(JLD, AC FA	IL, ENA,	50)								<u> </u>
2. lout Programming Accuracy ± 0.5% of rated Output current for units with lo < 187.5A; ± 0.7% of rated Output current for lo ≥187.5A		. 0.50/	f roted Out											v	v
3. Vout Programming Resolution 0.02% of Vo(rated) X X 4. lout Programming Resolution 0.04% of lo(rated) X X 5. Vout Readback Accuracy ± (0.1% of Vo(actual) + 0.2% of Vo(rated)) X X 6. lout Readback Accuracy ± (0.1% of Vo(actual) + 0.4% of lo(rated)) X X 7. Vout Readback Resolution 0.02% of Vo(rated) X X 8. lout Readback Resolution 0.02% of lo(rated) X X 9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X X						th $l_0 < 10^{\circ}$	7540	7% of rot-	d Outrou	Lourrent	for lo > 10	754			X X
4. lout Programming Resolution 0.04% of lo(rated) X X X 5. Vout Readback Accuracy ± (0.1% of Vo(actual) + 0.2% of Vo(rated)) X X X 6. lout Readback Accuracy ± (0.1% of Vo(actual) + 0.4% of lo(rated)) X X X 7. Vout Readback Resolution 0.02% of Vo(rated) X X X X 9. lout Readback Resolution 0.02% of Vo(rated) X X X X 9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X X X				ou current	IUT UTITS WI	u i i i i i i i i i i i i i i i i i i i	r.əa; ± 0.	1 70 UI rate	u Outpu	current	01 IU ≥18	n.5A			X
5. Vout Readback Accuracy ± (0.1% of Vo(actual) + 0.2% of Vo(rated)) X X 6. lout Readback Accuracy ± (0.1% of lo(actual) + 0.4% of lo(rated)) X X 7. Vout Readback Resolution 0.02% of Vo(rated) X X 8. lout Readback Resolution 0.02% of lo(rated) X X 9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X X									X						
6. lout Readback Accuracy ± (0.1% of lo(actual) + 0.4% of lo(rated)) X X X 7. Vout Readback Resolution 0.02% of Vo(rated) X X X X 8. lout Readback Resolution 0.02% of lo(rated) X X X X 9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X X X										X					
7. Vout Readback Resolution 0.02% of Vo(rated) X X 8. lout Readback Resolution 0.02% of lo(rated) X X 9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X X	•	<u>`</u>	,	,	,										X
8. lout Readback Resolution 0.02% of lo(rated) X X 9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X X	•	<u>`</u>	. ,		- (X
9. OV Response Time 20ms maximum (between Vout exceeding IEEE Limit and supply inhibit turning On) X 2															X
10. Other Functions Set OVP/UVL limits. Set Local/Remote. Operating parameters and status. Get Identity. etc. X	9. OV Response Time	20ms ma	ximum (bet												Х
30V, 40V and 50V models (15kW) only available with 400VAC and 480VAC. For 208VAC Input models pleasing parameters and states, Ger Henning, etc. A 3	10. Other Functions								us, Get I	dentity, e	tc.			Х	Х

*30V, 40V and 50V models (15kW) only available with 400VAC and 480VAC. For 208VAC Input models please conact the factory. *1. Ripple and Noise at Vo(rated) and rated Load, Ta = 25C and nominal AC input, per EIJ R9002A. *2. Time for the Output voltage to recover within 2% of rating for a load current change of 50~100% or 100~50% of lo(rated).

All specifications subject to change without notice.

Genesvs[™] 3U 10kW/15kW Specifications

Genesys'™ 3U 10kW/15	KVV .	specifications	10kW	15kW			
1.0 MODEL	GEN	125-80 150-66 200-50 250-40 300-33 400-25 500-20 600-17	X	1			
1.Rated Output Voltage	VDC	125 150 200 250 300 400 500 600	Х				
2.Rated Output Current	ADC	80 66 50 40 33 25 20 17	Х				
3.Rated Output Power	kW	10.0 9.9 10.0 10.0 9.9 10.0 10.0 10.2	Х				
4.Efficiency (min) at low line, 100% Rated Load	%	83	Х				
1.0 MODEL	GEN	125-120 150-100 200-75 250-60 300-50 400-37.5 500-30 600-25		X			
1.Rated Output Voltage	VDC	125 150 200 250 300 400 500 600		X			
2.Rated Output Current	ADC	120 100 75 60 50 37.5 30 25		X			
3.Rated Output Power	kW	15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0		X			
4.Efficiency (min) at low line, 100% Rated Load	%	88		X			
	/0	Contact Factory for other models					
1.1 CONSTANT VOLTAGE MODE (CV)				1 1/			
1. Max. Line Reg (0.1% - Vor ≤ 30V; 0.01% - Vor > 30V)	mV	<u>12.5 15 20 25 30 40 50 60</u>	X	X			
2. Max. Load Reg (0.1% - Vor ≤ 30V; 0.02% - Vor > 30V) 3. Ripple r.m.s, 5Hz~1MHz, CV (*1)	mV mV	25 30 40 50 60 80 100 120 25 25 35 35 60 60 60 60	X X	X			
4. Output Noise p-p (20MHz), CV (*1)	mV	125 150 175 200 200 300 350 350	X	x x			
5.Remote Sense Compensation / Wire	V	5 5 5 5 5 5 5 5 5	X	X			
6. Temperature Stability		± 0.05% of Vo(rated) over 8 hours after 30 minute warm up (constant Line, Load & Temperature)	X	X			
7. Temperature Coefficient	ppm / °C	± 200 (± 0.02% of Vo(rated) / °C)	Х	X			
8. Up-Prog. Response Time, 0~Vomax, full-load	ms	100	Х	X			
9. Up-Prog. Response Time, 0~Vomax, no load	ms	50	Х	X			
10. Transient Response Time (CV mode) (*2)	ms	Less than 3	Х	X			
1.2 CONSTANT CURRENT MODE (CC)							
1. Max. Line Reg (0.1% - Ior ≥ 333A; 0.05% - Ior < 333A)	mA	40 33 25 20 17 13 10 9	Х				
2. Max. Load Reg (0.1% - Ior ≥ 333A; 0.075% - Io < 333A)	mA	60 50 38 30 25 19 15 13	Х				
1. Max. Line Reg (0.1% - Ior ≥ 333A; 0.050% - Ior < 333A)	mA	60 50 38 30 25 19 15 13		Х			
2. Max. Load Reg (0.1% - Ior ≥ 333A; 0.075% - Ior <333A)	mA	90 75 56 45 38 28 23 19		Х			
3. Ripple r.m.s, 5Hz~1MHz, CC	mA	32 26 20 16 13 10 8 7	Х				
3. Ripple r.m.s, 5Hz~1MHz, CC	mA	50 50 20 20 20 10 10 10		X			
4. Temperature Stability		± 0.05% of Io(rated o)ver 8 hours after 30 minute warm up (constant Line, Load & Temperature)	X	X			
5. Temperature Coefficient	ppm / °C	± 300 (± 0.03% of lo(rated) / °C)	Х	Х			
1.3 PROTECTIVE FUNCTIONS							
1. OCP	%	0 ~ 100	Х	X			
2. OCP type		Constant current	Х	Х			
3. Foldback Protection		Output shut down; Manual reset by front panel OUT button or digital communication, user-selectable	Х	X			
4. Foldback Response Time	s	Less than 1 (Min = 0.25 / Max = 25 / Default = 0.25); Settable via "FBD" command	X X	X			
5. OVP type		Inverter shut-down; Manual reset by AC On/Off recycle, OUT button, Remote Analog or Digital comm.					
6. OVP Programming Accuracy	%	± 5% of Vo(rated)					
7. OVP Trip Point	V	5% to 105% of Vo(rated). Shall always be greater than 105% of Vout(setting). Default = 105% of Vo(rated)					
8. OVP response time	ms	Less than 10 (for Output voltage to begin to drop)					
9. Max. OVP reset time 10. Over temperature Protection	s 	7 (from AC On/Off switch turn On) Shut down if internal temp. exceeds safe operating levels. (Latched: Safe / Unlatched: Auto)					
11. Phase Loss Protection		Yes, power supply shutdown (Latched: Safe-mode / Unlatched: Auto-mode)					
	1		Х	X			
1.4 REMOTE ANALOG CONTROLS & SIGNALS 1. Vout Voltage Programming	0.100%	0 ~ 5V or 0 ~ 10V, user-selectable, Accuracy & Linearity: ± 1% of Vo(rated)	х	X			
2. lout Voltage Programming		$0 \sim 5V$ or $0 \sim 10V$, user-selectable, Accuracy & Linearity $\pm 1\%$ of voltated) $0 \sim 5V$ or $0 \sim 10V$, user-selectable. Accuracy & Linearity $\pm 1\%$ of lo(rated)	X	X			
3. Vout resistor programming		0~5/10kohm full-scale, user-selectable. Accuracy & Linearity ± 1% of Vo(rated)	X	X			
4. lout Resistor Programming		0~5/10kohm full-scale, user-selectable. Accuracy & Linearity ± 1% of lo(rated)	X	X			
5. Shut-Off (SO) Control (rear panel)		e: 0.6V = Disable, 2-15V = Enable (default) or Dry Contact: Open = EN, Short= DIS (user-selectable logic)	Х	X			
6. Output Current Monitor	0 ~ 5V or	0 ~ 10V, Accuracy: ± 1%, user-selectable	Х	Х			
7. Output Voltage Monitor		0 ~ 10V, Accuracy: ± 1%, user-selectable	Х	X			
8. Power Supply OK (PS_OK) Signal		ligh - OK, 0V - Fail (500ohm series impedance)	Х	X			
9. CV/CC Signal		ligh (4 ~ 5V), Max source current = 10mA, CC: TTL Low (0 ~ 0.4V), Max sink current: = 10mA.	X	X			
10. Enable/Disable 11. Remote/Local Selection	<u> </u>	ct; Open = Off, Short = On; Max. voltage across Enable/Disable contacts = 6V emote or Local operation by Voltage: 0 ~ 0.6V = Local / 2 ~ 15V = Remote	X X	X X			
12. Remote/Local Signal		perating mode: Open collector: Local = Open (Max voltage = 30V), Remote = On (Max sink current = 10mA)	X	X			
1.5 FRONT PANEL	Signais 0	relating mode. Open collector. Local – Open (Max Voltage – 30V), Hemote – On (Max sink current – TomA)					
1.Control Functions	Vout/ Iout	manual adjust by separate encoders (coarse and fine adjustment selectable)	Х	X			
		manual adjust by Voltage Adjust encoder, Front Panel Lock/Unlock	Х	X			
	Address	election by Voltage Adjust encoder. # of addresses: 31	Х	X			
	AC On/O	, Output ON/OFF, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go-to-Local	Х	Х			
	1	S-485 and IEEE (IEMD) selection by IEEE Enable DIP switch	Х	Х			
		selection: 1200, 2400, 4800, 9600 and 19,200 (by Current adjust encoder).	Х	X			
	+	Parallel Master Slave: Hx = Master unit, where x = # of slaves (0 to 4), S = Slave unit	X	X			
2.Display		digits, Accuracy: ± 0.5% of Vo(rated) ±1 count	X	X			
		digits, Accuracy: $\pm 0.5\%$ of lo(rated) ± 1 count	X	X			
3.Indications		displays Voltage at power supply (Local sense) or at load (Remote sense). D's: PREVIEW, FOLD, REM./LOCAL, OUT ON/OFF, CC/CV, FINE	X	X			
o.indications		ALRM (OVP, OTP, FOLD, AC FAIL, ENA, SO)	х	X			
1.6 DIGITAL PROGRAMMING & READBACK							
1. Vout Programming Accuracy	± 0.5% of	rated Output Voltage	Х	X			
2. lout Programming Accuracy		rated Output current for units with Io < 187.5A; ± 0.7% of rated Output current for Io ≥187.5A	X	X			
3. Vout Programming Resolution	0.02% of		Х	X			
4. Iout Programming Resolution	0.04% of	04% of lo(rated)					
5. Vout Readback Accuracy	<u> </u>	% of Vo(actual) + 0.2% of Vo(rated))					
6. lout Readback Accuracy	<u> </u>	Vo(actual) + 0.4% of lo(rated))	X	X			
7. Vout Readback Resolution	0.02% of		X	X			
8. lout Readback Resolution 9. OV Response Time	0.02% of		X X	X			
	I ZUINS MA	Oms maximum (between Vout exceeding IEE Limit and supply inhibit turning On)					

Set Over-Voltage Limit, Set Local/Remote, Operating parameters and status, Get Identity, etc.

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All specifications subject to change without notice.

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

2.1 INPUT CHARACTERISTICS						
1. Input Voltage / Frequency (range)		208VAC (180-253), 400VAC (360-440, 342-440 (15kW-30V-50V models), 480VAC (432-528); 47-63Hz (all)				
2. No. of phases		3-Phase (Wye or Delta) 4 wire total (3-Phase and 1 protective Earth ground)				
B. Dropout Voltage	V	180 / 360, 342 (15kW-30V-50V models) / 432				
Input Current (180VAC / 360VAC / 432VAC)	Arms	10kW - 45 / 23 / 20; 15kW - 64 / 32 / 27; All at full rated Output power				
. Inrush Current	A	Not to exceed full rated Input current (see para. above)				
. Power Factor		0.88 Passive (typical)				
Leakage Current	mA	3.5 (EN60950) max.				
. Input Protection		208VAC: circuit breaker; 400VAC, 480VAC - line fuse				
. Input Overvoltage Protection		Unit shall not be damaged by line overvoltage of 120% nominal AC input vitage with maximum duration of 100usec.				
0. Phase Imbalance	%	< 5% on Three-Phase Input				
.2 POWER SUPPLY CONFIGURATION						
Parallel Operation	current of	(4) identical units may be connected in Master/Slave Mode with single wire connection (*3). In Advanced-Parallel mode, the Master unit multiplied by number of units connected in parallel is available via digital interface and displayed on the front ne Master unit. Remote Analog current monitor of the Master is scaled to the Output current of the Master unit (only).				
. Series Operation	Possible (with external diodes); Up to two identical units with total Output voltage not to exceed \pm 600V from Chassis ground.				
.3 ENVIRONMENTAL CONDITIONS						
Operating Temperature	0 ~ +50°C	2, 100% load				
. Storage Temperature	-20 ~ +70					
B. Operating Humidity		RH (non-condensing)				
. Storage Humidity		RH (non-condensing)				
5. Vibration & Shock		169, Standard Practice for Performance Testing of Shipping Containers and Systems, Shipping Unit: Single Package				
	Assurance	test, standard Practice for Performance resulting of Singping Containers and Systems, Singping Onit: Single Package e Level: Level II; Accepted II; Acceptence Criterion 1 - No product damage Criterion 2 - Packaging is intact, Distribution Cycle: 12 - ity) and motor freight (local), unitized is used				
5. Altitude		: +50°C up to 7500 ft. (2500m), +45°C from 7501 to 10,000ft (2501m - 3000m), Non-Operating 40,000 ft (12,000m)				
Audible Noise	65dBA at	lo(rated) (measured 1m from front panel)				
2.4 EMC (*4)						
. 208VAC Input	CE Mark					
. ESD		4-2 (IEC 801-2): Air-discharge ± 8kV , Contact-discharge ± 4kV				
P. Fast Transients		4-4 (IEC 1000-4-3)				
. Surge Immunity						
. Conducted Immunity	EN61000-4-5 (IEC 1000-4-5) EN61000-4-6 (IEC 1000-4-6)					
. Radiated Immunity						
5. Power Frequency Magnetic Field	EN61000-4-3 (IEC 1000-4-3) EN61000-4-8					
Conducted Emissions	EN5100-4-6 EN55011A, FCC part 15J-A					
3. Radiated Emissions	EN55011A, FCC part 15J-A EN55011A, FCC part 15J-A					
. 400VAC Input	CE Mark					
I. ESD		4-2 (IEC 801-2): Air-discharge ± 8kV , Contact-discharge ± 4kV				
2. Fast Transients		4-2 (IEC 801-2): All-discharge ± 8kV , Contact-discharge ± 4kV 4-4 (IEC 1000-4-3)				
3. Surge Immunity		4-4 (IEC 1000-4-5) 4-5 (IEC 1000-4-5)				
4. Conducted Immunity		4-6 (IEC 1000-4-6)				
5. Radiated Immunity						
,		4-3 (IEC 1000-4-3)				
6. Power Frequency Magnetic Field	EN61000- IEC 61000					
Voltage Dips, Short Interruptions and Voltage /ariations Immunity Test (400VAC models Only). Conducted Emissions		A, FCC part 15J-A				
 B. Conducted Emissions B. Radiated Emissions 		A, FCC part 15J-A				
	LINGGUITA	, roopartion A				
2.5 SAFETY						
1.Applicable Standards:		0950-1, EN60950-1 recognized, CB Scheme, CE Mark (208VAC & 400VAC Inputs only)				
		ut < 400V: Output is Hazardous; LAN/IEEE/Isolated Analog are SELV but < 600V: Output is Hazardous; LAN/IEEE/Isolated Analog are not SELV				
2. Withstand Voltage	Vout <u><</u> 30 Hazardou	Dut ≤ 600V: Output is Hazardous; LAN/IEE/Isolated Analog are not SELV 0V models: Input - Ground: 2900VDC for 1min, Input-Hazardous Output: 3500VDC for 1min, Input - SELV: 2900VDC for 1min s Output - SELV: 2121VDC for 1min, Hazardous Output - Ground: 2121VDC for 1min it < 600V models: Input-Ground: 2900VDC for 1min, Input-Hazardous Output: 3900Vdc for 1min, Input-SELV: 2900Vdc for 1min				
	Hazardou	s Output - SELV: 2688Vdc for 1min, Hazardous Output - Ground: 2688Vdc for 1min				
Insulation Resistance	> 100Meg	ohms at 500VDC, +25C				
.6 MECHANICAL CONSTRUCTION						
Cooling		n (variable speed for 15kW, 30V-50V models), Airflow from front to rear. Supplemental vents on side shall not be blocked. mounting, stackable. "Zero Stackable" top and bottom. Chassis slides or suitable rear support required.				
. Dimensions (WxHxD)	Width: 42	9mm / 16.9," Height: 3U - 133mm / 5.22," Depth - 564mm / 22.2" (excluding connectors, encoders, handles, etc.)				
. Weight	43kg / 97l					
AC Input connector (with Protective Cover)		1" threaded studs and terminal cover.				
.Output Connectors		including 300V models: bus-bars. Models greater than 300V: threaded-stud terminals.				
S.Control Connectors		ogramming: DB25, plastic connector, AMP747461-5, Female on Supply, Male on Mating connector 747321. 25 pin Sub-D connec				
Mounting Method		9" Rack-Mount, provision for standard chassis slides. Side/Rear support is required (do not mount by front panel only).				
3. Output Ground Connection		readed stud				
•						
2.7 WARRANTY 1. Warranty	Five (5) ve					

 1. Warranty
 Five (5) years

 *3. GENESYS™ 30V - 50V models (15kW) require a Two-Wire Parallel Master/Slave connection. See the Product User's Manual for details.

 *4 30V, 40V and 50V (15kW) models with 480VAC input have CE Mark.

 All specifications subject to change without notice.



Genesys[™] Power Parallel and Series Configurations

Parallel operation - Master/Slave:

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



Series operation

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





Programming Options (Factory installed)

IEEE Multi-Drop Interface

- Allows IEEE Master to control up to 30 (standard) Slaves over RS-485 daisy-chain
- Only the Master needs be equipped with IEEE Interface
- IEEE 488.2 & SCPI Compliant
- **Program Voltage**
- Measure Voltage • Over Voltage setting and shutdown
- Measure Current •
 - Current Foldback shutdown

Program Current

• Error and Status Messages

Multi-Drop Slave Option is Standard

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

Isolated Analog Programming

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

LXI Compliant to Class C LAN Interface

- VISA & SCPI Compatible Meets all LXI Class C Requirements • Address Viewable on Front Panel
 - LAN Fault Indicators
- Fixed and Dynamic Addressing
- Auto-detects LAN Cross-over Cable

• Fast Startup

P/N: IEMD

P/N: "-----"

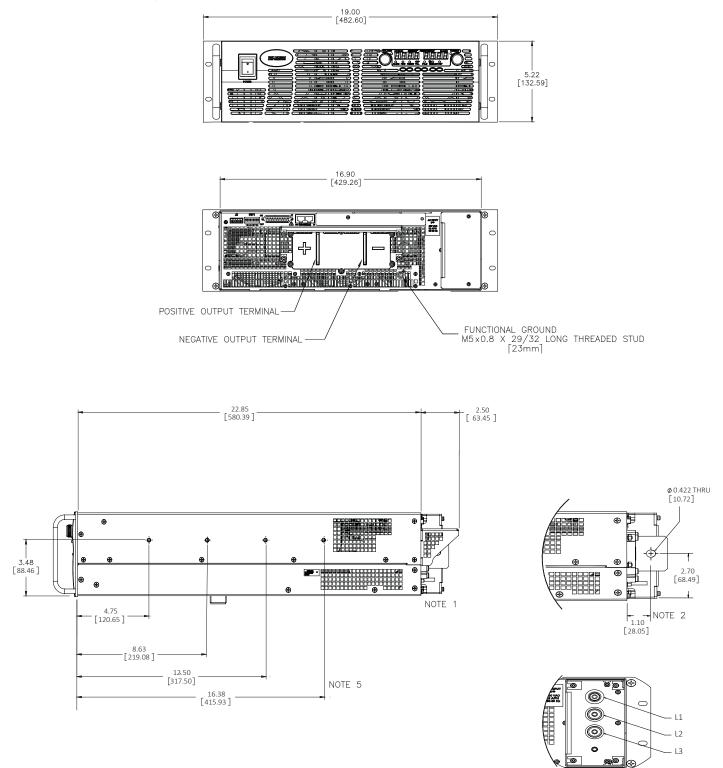
P/N: IS510

P/N: IS420

P/N: LAN



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

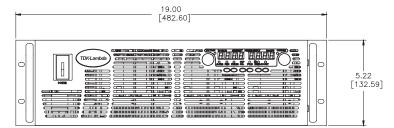


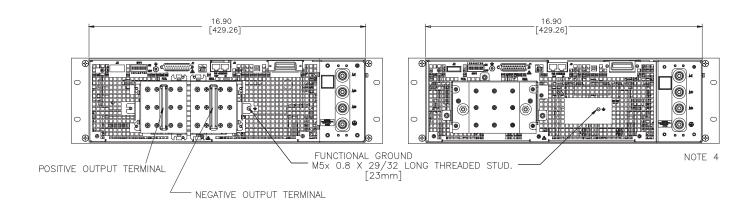
NOTE 4

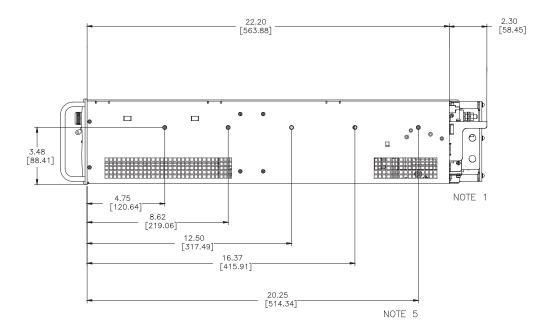
NOTES:

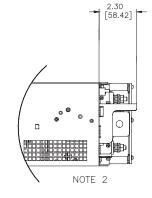
- 1. N/A
- 2. Busbars for models 30V-50V Output: one hole, 0.42" (10.72mm) diameter.
- 3. N/A
- 4. Input Terminals M6 x 1" (3) + Ground M5 x 1" (2).
- Mounting for Slide Mounts (not included). Recommend General Devices, Chassis Trak P/N C230-S-122. Secure with pan head screw M5 x 0.8-8mm long (max).

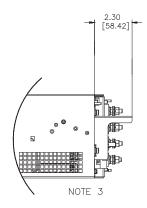
Outline Drawings: Genesys[™] 10kW (All - 208VAC) , 10kW/15kW (60V to 600V - 208/400/480VAC)











TDK·Lambda 18

NOTES:

- 1. Busbars for models < 30V Output: two holes, 0.42" 10.72mm) diameter.
- 2. Busbars for models 60V-300V Output: one hole 0.42" (10.72mm) diameter.
- 3. Threaded stud terminals for models > 300V Output.
- 4. Input Terminals M6 x 1" (3) + Ground M5 x 1" (2).
- Mounting for Slide Mounts (not included). Recommend General Devices, Chassis Trak P/N C230-S-122. Secure with pan head screw M5x0.8-8mm long (max).

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

<u>GEN</u>	10	- <u>1000</u> -	LAN	- <u>3P208</u>
Series Name	Output Voltage (0~10V)	Output Current (0~1000A)	Factory Options Option: "" LAN IEMD IS510 IS420	AC Input Options 3P208 (Three-Phase 208VAC) 3P400 (Three-Phase 400VAC) 3P480 (Three-Phase 480VAC)

Models 10kW/15kW

Model	Output Voltage (VDC)	Output Current (A)	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	0~00	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	0~120	0~120	15

Model	Output Voltage (VDC)	Output Current (A)	Output Power (kW)
GEN 150-66	0~150	0~66	10
GEN 150-100	0~150	0~100	15
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	0~000	0~25	15

Factory options

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

P/N

-----LAN IEMD IS510 IS420

Accessories

1. Serial Communication cable

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

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

2. Serial Link cable*

Daisy-chain up to 31 Genesys[™] power supplies.

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

* Included with GENESYSTM-1U, -2U power supply

Genesys[™] Family - Output Voltage / Output Current

Model	GENH		GEN-1U		GEN	-2U	GE	EN 3U
Rated Power	750W	750W	1500W	2400W	3300W	5000W	10kW	15kW
Voltage Range				Output	Current Range	e		
0~6V	0~100A	0~100A	0~200A					
0~7.5V							0~1000A	
0~8V	0~90A	0~90A	0~180A	0~300A	0~400A	0~600A		
0~10V				0~240A	0~330A	0~500A	0~1000A	
0~12.5V	0~60A	0~60A	0~120A				0~800A	
0~15V					0~220A			
0~16V				0~150A		0~310A		
0~20V	0~38A	0~38A	0~76A	0~120A	0~165A	0~250A	0~500A	
0~25V							0~400A	
0~30V	0~25A	0~25A	0~50A	0~80A	0~110A	0~170A	0~333A	0~500A ^{(3), (4)}
0~40V	0~19A	0~19A	0~38A	0~60A	0~85A	0~125A	0~250A	0~375A ^{(3), (4)}
0~50V			0~30A				0~200A	0~300A ^{(3), (4)}
0~60V	0~12.5A	0~12.5A	0~25A	0~40A	0~55A	0~85A	0~167A	0~250A
0~80V	0~9.5A	0~9.5A	0~19A	0~30A	0~42A	0~65A	0~125A	0~187.5A
0~100V	0~7.5A	0~7.5A	0~15A	0~24A	0~33A	0~50A	0~100A	0~150A
0~125V							0~80A	0~120A
0~150V	0~5A	0~5A	0~10A	0~16A	0~22A	0~34A	0~66A	0~100A
0~200V					0~16.5A	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							0~25A	0~37.5A
0~500V							0~20A	0~30A
0~600V	0~1.3A	0~1.3A	0~2.6A	0~4A	0~5.5A	0~8.5A	0~17A	0~25A
Weight (kg/lb)	4.5 / 9.9	7 / 15	8.5 / 18	10 / 22	13 / 29	16 / 35	43 / 97	43 / 97

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

AC Inputs

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

(1) UL Listed; CE Mark, RoHs (2) UL Recognized; CE Mark (3) UL Recognized only (CE Mark for select 15kW (30V-50V) models).

Options (All Models)

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

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

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