

GEN10-15KW SERIES

Laboratory Power Supplies: 10 ~ 15KW



Features

- High Power Density 10 / 15KW in 3U
- 3 phase input 208VAC or 415VAC
- Power Factor Correction
- Output voltage up to 600V, current up to 1,000A
- Built-in RS232 / RS-485 Interface Standard
- Last Setting Memory: Front Panel Lockout
- Advanced Parallel reports, with up to four units
- Reliable Encoders for Voltage & Current adjustment
- Optional Interfaces :
 - Isolated Analog Programming & Monitoring
 - IEEE Multi-Drop –SCPI, USB interface
 - Labview & LabWindows drivers

Specifications:

Input Voltage (3 phase)	208VAC (180 ~ 253) 400VAC (360 ~ 440) 480VAC (432 ~ 528)	Line Regulation	Model dependent refer to manual
No of Phases	Wye or Delta, 4 wire 3phase and one protective earth.	Load Regulation	Model dependent refer to manual
Input Frequency	47 ~ 63Hz	Safety	UL/CUL60960-1, EN60950-1, Units with IEMD or ISOL option are recognized up to 400V output, CE marked 208 & 400V models
Input Current	10KW: 45 / 23 / 20A 15KW: 64 / 32 / 27A	Cooling	Fan driven, airflow front to rear, supplemental vents on side. Suitable for zero stacking top or bottom.
Efficiency	Model dependent , typically 88%	Input Connectors	Four Threaded Studs and Terminal cover, strain relief optional.
Power Factor	0.88	Output Connectors	Up to & including 300V: Bus-bars Greater than 300V: Threaded stud terminals.
Leakage Current	3.5mA (EN60950)	Overload Protection	Constant Current with auto recovery
Input Protection	208V: Circuit Breaker 400 / 480V: Line Fuse	Foldback Protection	Output shutdown, manual reset by front panel OUT button, response time <1sec
Phase Imbalance	<5% on three phase input	Overvoltage Protection	Inverter shut-down, manual reset by ON/OFF recycle or by OUT button. OVP programming accuracy 5% full scale.
Parallel Operation	Up to four units may be connected in Master / Slave with "Single Wire" connection, refer to manual for further details.	Over Temperature Protection	If internal temperature exceeds safe levels. Latched in Safe Mode, Unlatched in Auto Mode.
Series Operation	YES, with external diodes	Phase Loss	Phase loss protection
Operating Temp.	0°C to +50°C at full load	Remote Analog Controls & Signals	Refer to manual
Operating Humidity	20 ~ 80% RH Non-condensing	Digital Programming & Readback	Refer to manual
Vibration & Shock		Dimensions	3U x 19in Rack mounting, slides or rear support required. 482 x 564 x 133mm (without connectors)
Altitude	Operating: Up to 3000m	Weight	43kg
Audible Noise	65dBA at full load, measured 1m from front panel		
ESD	EN61000-4-2		
Fast Transients	EN61000-4-4		
Surge Immunity	EN61000-4-5		
Conducted Immunity	EN61000-4-6		
Radiated Immunity	EN61000-4-3		
Conducted Emission	EN55011 Lev A		
Radiated Emission	EN55011 Lev A		

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Model	Output		Power
	V	A	
GEN7.5-1000	0-7.5V	0-1000A	7.5KW
GEN10-1000	0-10V	0-1000A	10KW
GEN12.5-800	0-12.5V	0-800A	10KW
GEN20-500	0-20V	0-500A	10KW
GEN25-400	0-25V	0-400A	10KW
GEN30-333	0-33V	0-333A	10KW
GEN40-250	0-40V	0-250A	10KW
GEN50-200	0-50V	0-200A	10KW
GEN60-167	0-60V	0-167A	10KW
GEN80-125	0-80V	0-125A	10KW
GEN100-100	0-100V	0-100A	10KW
GEN125-80	0-125V	0-80A	10KW
GEN150-66	0-150V	0-66A	10KW
GEN200-50	0-200V	0-50A	10KW
GEN250-40	0-250V	0-40A	10KW
GEN300-33	0-300V	0-33A	10KW
GEN400-25	0-400V	0-26A	10KW
GEN500-20	0-500V	0-20A	10KW
GEN600-17	0-600V	0-17A	10KW

Model	Output		Power
	V	A	
GEN60-250	0-60V	0-250A	15KW
GEN80-187.5	0-80V	0-187.5	15KW
GEN100-150	0-100V	0-150A	15KW
GEN125-120	0-125V	0-120A	15KW
GEN150-100	0-150V	0-100A	15KW
GEN200-75	0-200V	0-75A	15KW
GEN250-60	0-250V	0-60A	15KW
GEN300-50	0-300V	0-50A	15KW
GEN400-37.5	0-400V	0-37.5A	15KW
GEN500-30	0-500V	0-30A	15KW
GEN600-25	0-600V	0-25A	15KW

Input AC voltage Codes / Options

Programming Codes / Options

Controls & Signals

Front Panel Controls

Vout / Iout manual adjust by separate encoders, Fine and Coarse selectable.
 OVP/UVL manual adjust by Voltage Adjust encoder, Front Panel Lock / Unlock
 Address selection by Voltage Adjust encoder. No of addresses:31
 AC ON / OFF, Output ON */ OFF, Restart Modes (Auto/Safe), Foldback Control (CV to CC), Go to Local
 RS232/485 and IEEE488.2 selection by IEEE enable switch and DIP switch
 Baudrate selection by Current adjust encoder.
 Parallel Master Slave: Hx, where x = Slaves 0 up to four.

Front Panel Display

Vout: 4 Digits, Accuracy: 0.5% +/- 1 Count
 Iout: 4 Digits, Accuracy: 0.5% +/- 1 Count
 Voltmeter is user selectable to read either local voltage (at power supply) or remote voltage (at the load).
 ADDR., OVP/UVL, V/A, FOLD, REM ./LOCAL, OUT ON/OFF, LFP/UFP, CC/CV : GREEN LED's. ALRM (OVP,OTP,FOLD,AC FAIL): RED LED

Remote Analog & Controls

Vout voltage programming 0~1 00%, 0~5V or 0~1 0V, user selectable. Accuracy & Linearity +/-1% of Rated Vo.
 Iout voltage programming 0~1 00%, 0~5V or 0~1 0V, user selectable. Accuracy & Linearity +/-1% of Rated Io.
 Vout resistor programming 0~100%, 0~5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Vo.
 Iout resistor programming 0~100%, 0~5/10kohm full scale, user selectable. Accuracy & Linearity +/-1% of Rated Io.
 On/Off control (rear panel) By Voltage: 0.6V = Disable, 2-1 5V = enable (default) or dry contact, user selectable logic
 Output current monitor 0~5V or 0~1 0V , accuracy:1 % , user selectable
 Output voltage monitor 0~5V or 0~1 0V , accuracy:1 % , user selectable
 Power supply OK signal Yes. TTL high-OK, 0V (500ohm impedance)-Fail
 CV/CC signal CV: TTL high (4~5V) source: 10mA, CC: TTL low (0~04V):10mA
 Enable/Disable Dry contact. Open: Off , Short: On. Max. voltage at Enable/Disable Contacts 6V
 Remote/Local selection Selects Remote or Local operation by Voltage: 0~0.6V/2~1 5V, <0.6V = Local 2-1 5V = Remote
 Remote/Local signal Signals operating mode in use.

3phase 208VAC) - **3P208**

3phase 400VAC) (Australian Standard) -**3P400**

3phase 480VAC) - **3P480**

RS232 / RS-485 Interface built-in (Standard)

GPIB (Multi-Drop Master Interface) – **IEMD**

Multi-Drop Slave Interface - **MD**

Voltage Programming Isolated Analag Interface – **IS510**

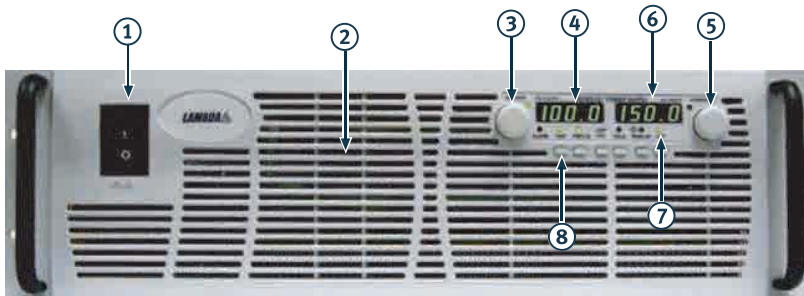
Current Programming Isolated Analog Interface - **IS420**

LAN Interface (complies with LXI Class C) - **LAN**

USB Interface - **USB**

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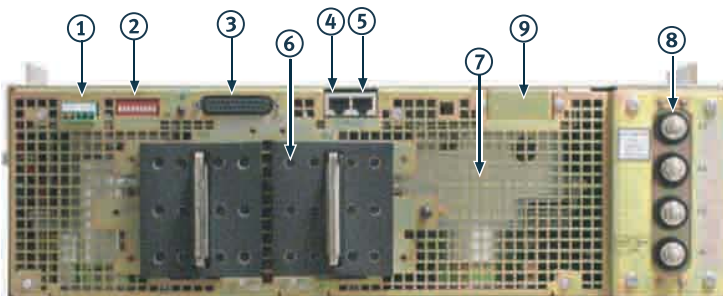
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Front Panel Description

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 Baudrate. Displays total current in Parallel Master/Slave Mode
7. Function/Status LEDs:
 - Alarm
 - Foldback Mode
 - Fine Control
 - Remote Mode
 - Preview Settings
 - Output On
8. Pushbuttons allow flexible user configuration
 - Coarse and fine Adjustment of Output Voltage/Current and Advanced Parallel Master or Slave select
 - 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 Baudrate
 - 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 2 hole busbars (shown) for up to 80V Output, single hole busbars 100 to 300V Output, threaded stud terminals above 300V Output
7. Exit air assures reliable operation when zero stacked
8. Input Terminals L1, L2, L3, Ground, threaded studs.
9. Optional Interfaces Position for IEEE 488.2 (GPIB), Isolated Analog Interface, LAN Interface or USB Interface

LAN Interface complies with **LXI** Class C Specification

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.

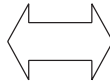


Series operation

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 Interface with or without Multi-Drop option.



Programming Options (Factory installed)

New IEEE Multi-Drop Interface

P/N: IEMD

- Allows IEEE Master to control up to 30 (Multi-Drop equipped) slaves over RS-485 daisy-chain
- Only the Master needs to 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

New Multi-Drop Slave Option

P/N: MD

- Slaves need to be equipped with the MD Slave (RS-485) option

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.

P/N: IS510

- Voltage Programming, user-selectable 0-5V or 0-10V signal.
Power supply Voltage and Current Programming Accuracy $\pm 1\%$
Power supply Voltage and Current Monitoring Accuracy $\pm 1.5\%$
- Current Programming with 4-20mA signal.
Power supply Voltage and Current Programming Accuracy $\pm 1\%$
Power supply Voltage and Current Monitoring Accuracy $\pm 1.5\%$

P/N: IS420

LAN Interface

LXI Compliant to Class C

P/N: LAN

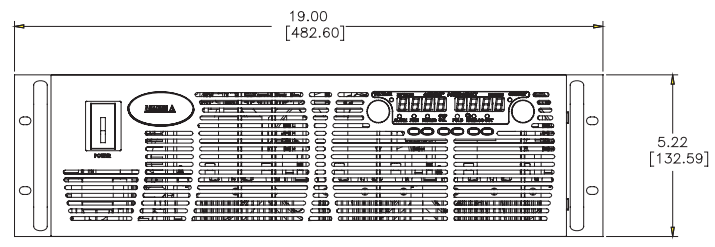
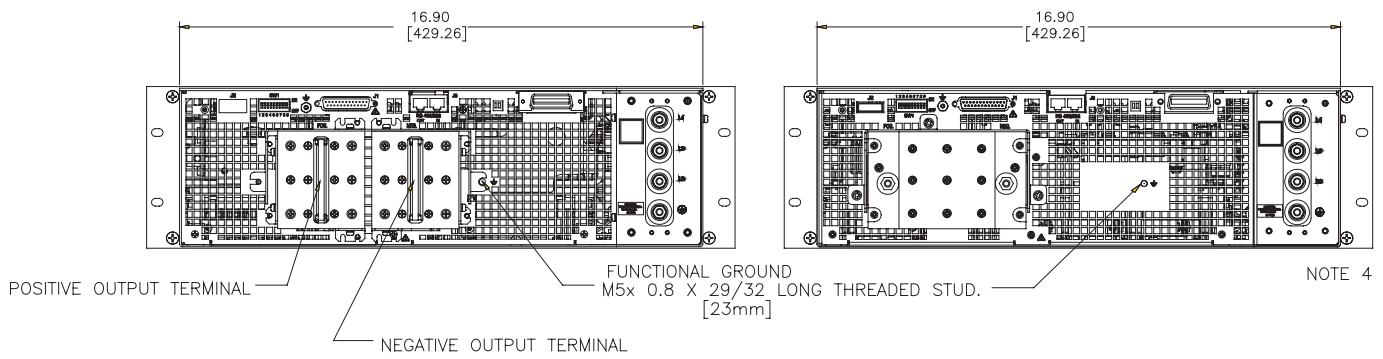
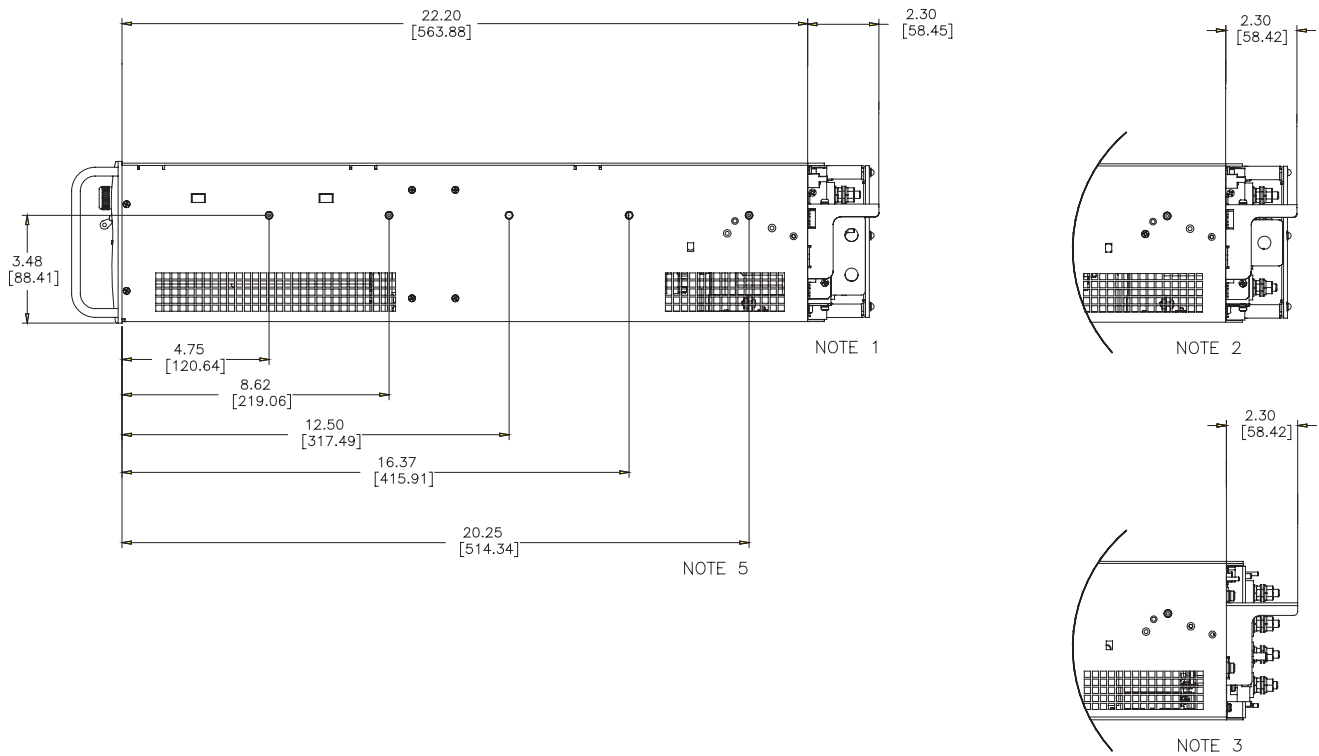
- Meets all LXI-C Requirements
- Address Viewable on Front Panel
- Fixed and Dynamic Addressing
- Fast Startup
- VISA & SCPI Compatible
- LAN Fault Indicators
- Auto-detects LAN Cross-over Cable
- Compatible with most standard Networks

USB Interface

P/N: USB

- Allows Serial Connection to USB Port on computer
- Serial commands same as (standard) RS-232/RS-485 Interface

Outline Drawings Genesys™ 3U - 10/15kW



- NOTES:
1. For models up to 80VDC Output two holes 0.42" Dia (10.72mm)
 2. For models 100-300VDC Output one hole 0.42" Dia (10.72mm)
 3. For models above 300V Output threaded stud terminal
 4. Input Terminals M6x1 (3 + GND)
 5. 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.