
**JUST BECAUSE YOU'RE
PUSHED FOR SPACE...**



Glassman Europe LP series 1.2 kW low voltage DC power supplies

- Zero voltage "soft" switching for high efficiency, low noise and high reliability
- Analogue programming standard, optional ISOL card
- Optional internal 16-bit GPIB (IEEE 488) and RS-232 control
- OVP, current limit, thermal protection
- Labview® and LabWindows® drivers
- Remote sense, 5 V line loss compensation
- Constant voltage or constant current operation with automatic crossover mode indication

ELECTRICAL SPECIFICATIONS

INPUT

85-130 VAC or 190-264 VAC, 1 ϕ (17 A @ 120 VAC; 8.8 A @ 230 VAC typical), 47-63 Hz. Automatic range detect. 6V model: 95-130 VAC or 190-264 VAC, 1 ϕ .

EFFICIENCY

See models chart.

OUTPUT

Continuous stable adjustment from zero rated voltage and current by user-selectable external source (V,I or R), or panel-mounted 10-turn potentiometers, Analogue programming linearity <1%, potentiometer control resolution 0.02%.

REMOTE SENSE (Line drop compensation)

5 V/line (Line Drop is subtracted from total voltage available at supply output).

REGULATION, LINE

Voltage (0.01% of $V_{max}+2$ mV)
Current (0.01% of $I_{max}+2$ mA)

REGULATION, LOAD

Voltage (0.02% of $V_{max}+5$ mV)
Current (0.02% of $I_{max}+5$ mA)

RIPPLE

See models chart.

STABILITY

0.05% per 8 hours; with constant line, load and temperature after 30 minute warm-up.

OVERVOLTAGE PROTECTION

5% to 110% of V_{max} .

TEMPERATURE COEFFICIENT

Voltage: 0.02% of $V_{max}/^{\circ}C$.
Current: 0.03% of $I_{max}/^{\circ}C$.

AMBIENT TEMPERATURE

Operating: 0-50 $^{\circ}C$, 6 V model: Derate output current by 1.5 A per $^{\circ}C$ for operating temperatures 30-50 $^{\circ}C$. Storage: -20 to +70 $^{\circ}C$.

HUMIDITY RANGE

30 to 90% RH, non-condensing.

VOLTAGE MODE TRANSIENT RESPONSE

<3 ms for output voltage to recover to within 0.5% of its rated voltage after a step change in load current of up to 10% to 90% of rated output.

REMOTE ENABLE/DISABLE AND INTERLOCK

2.5-15 V signal or TTL-compatible input, selectable logic.

TIME DELAY FROM POWER ON UNTIL OUTPUT IS STABLE

7 s maximum.

SWITCHING FREQUENCY

Nominal 78 kHz (156 kHz output ripple)

OUTPUT TERMINAL ISOLATION

600V DC from output to safety ground.

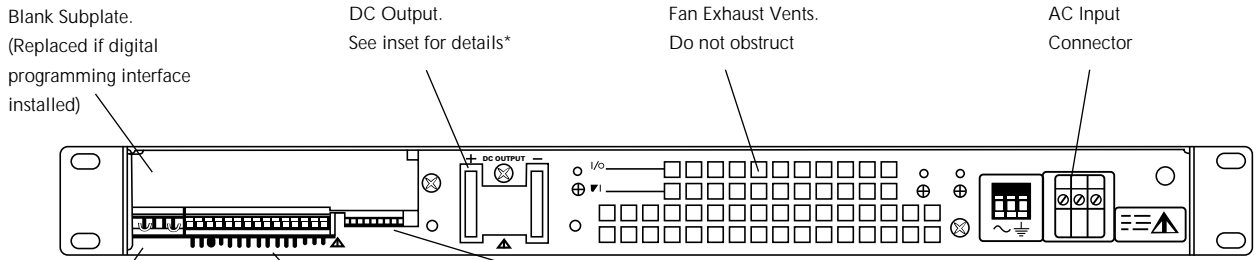
LP Series 1.2 kW models

Model	Output Voltage	Output Current	Ripple Voltage	Ripple Voltage	Ripple Current	Efficiency	Options
	VDC	A	p-p	RMS(20Hz-20MHz)	RMS		
LP6-200	0-6	0-200	75mV	10mV	750mA	75%	ISOL: Isolated Interface card provides isolated analogue control and read-back of output voltage and current. GPIB: Internal GPIB Interface card (16 bit) RS232: Internal RS-232 Interface card (16 bit) ISOL-420: 4-20 mA isolated analogue control. M13A: Locking knobs for front panel controls.
LP7.5-140	0-7.5	0-140	40mV	5mV	175mA	80%	
LP12-100	0-12	0-100	40mV	5mV	100mA	82%	
LP20-60	0-20	0-60	60mV	5mV	85mA	84%	
LP35-35	0-35	0-35	60mV	5mV	25mA	84%	
LP40-30	0-40	0-30	60mV	5mV	25mA	84%	
LP60-20	0-60	0-20	60mV	5mV	10mA	84%	
LP100-12	0-100	0-12	60mV	5mV	5mA	84%	
LP150-8	0-150	0-8	60mV	7mV	3mA	87%	
LP300-4	0-300	0-4	80mV	10mV	2mA	86%	
LP600-2	0-600	0-2	140mV	25mV	1mA	85%	

Optional Internal GPIB/RS232 Interface Specifications

	Voltage mode		Current mode	
	Resolution	Accuracy	Resolution	Accuracy
Program	0.01% of V max	0.20% + 10mV	0.01% of I max	0.30% + 10mA
Readback	0.01% of V max	0.20% + 20mV	0.01% of I max	0.30% + 20mA

MECHANICAL SPECIFICATIONS



J10 Sense Connector

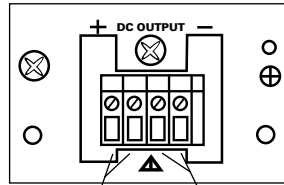
1. Return Sense
2. Negative Output (Return)
3. No Contact (N/C)
4. Positive Output
5. Postive Sense

J2 Programming and Monitoring Connector

1. Remote Output Voltage Programming Select
2. Remote Output Current Limit Programming Select
3. Control Ground
4. N/C
5. Voltage Program Signal Return
6. Output Voltage Program Input
7. Current Program Signal Return
8. Output Current Limit Programming Input
9. Voltage Monitor Signal Return
10. Output Voltage Monitor
11. Current Monitor Signal Return
12. Output Current Monitor
13. N/C
14. TTL Shutdown Signal Return (-)
15. TTL Input Monitor (+)

SW1 Switch

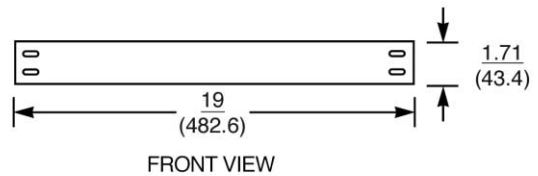
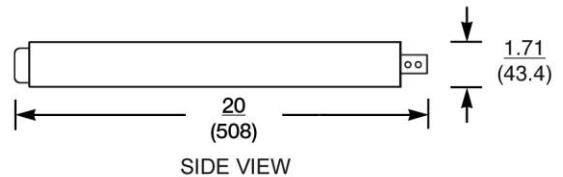
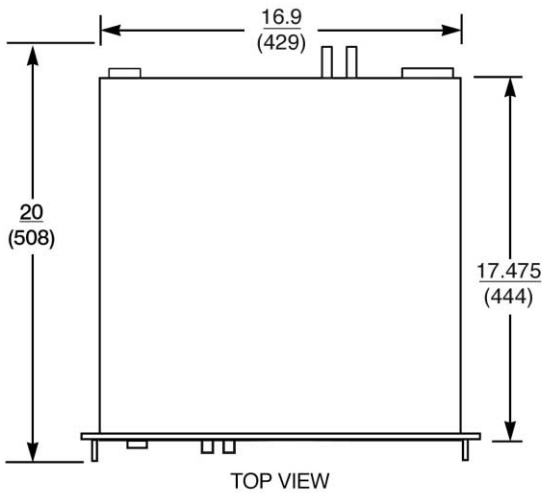
1. Resistive Programming of Output Voltage
2. Resistive Programming of Output Current Limit
3. Output Voltage Programming Source Range
4. Output Current Limit Programming Source Range
5. Output Voltage Monitor Range
6. Output Current Monitor Range
7. Remote Shutdown Logic
8. Overtemperature Reset Mode



Positive Output (+)
Return (-)

*Output Voltage Connector
For High Voltage
(60V to 600V) Models

Dimensions



(Inches
mm)

Warranty

Glassman Europe Limited warrants standard power supplies to be free from defects in materials and workmanship for three years from the date of shipment. The Company agrees to replace or repair any power supply that fails to perform as specified within the warranty period. Formal warranty available.



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The 1.2kW LP series uses state of the art zero voltage, 'soft switching' technology, delivering significant benefits, such as very low noise levels.

Heat generation is greatly reduced, increasing efficiency levels and reducing component stresses, leading to enhanced reliability.

ACTUAL SIZE



AC mains Power Switch

...DOESN'T MEAN YOU HAVE TO COMPROMISE ON PERFORMANCE

Setting Preview Switch (OVP CHECK)

Local Voltage & Current Limit Setting
Preview Switch (V/I CHECK)

Standby Switch

Return to Local Programming (LOCAL)
(For units with digital programming
interface installed)

OVP Adjustment Potentiometer (OVP SET)

OVP Shutdown LED (OVP)

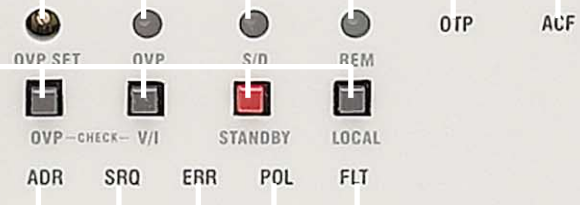
Shutdown LED (S/D)



VOLTAGE



CURRENT



LP 600-2 DC POWER SUPPLY 0-600V 0-23A

Output Voltage Control Knob

Output Current Control Knob

To complement the local controls and indicators, there are an equally impressive number of remote control/status interface points for optimum flexibility. Not only do we provide you with full remote analogue control capability as standard, we also

provide an internal switch to select the format or full-scale control range. Output voltage and current can be controlled (0-full scale) via resistance (0-5k Ω); voltage (0-5V DC) or (0-10V DC); or current (0-1mA).

- Remote Programming LED (REM)
- Over Temperature Protection LED (OTP)
- AC Fail LED (ACF)
- 3 $\frac{1}{2}$ -digit LED displays for both voltage and current



Remote Programming LEDs.
(For units with digital programming interface installed)