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# WITH SPACE AT A PREMIUM...

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## Glassman Europe LV series 3000 watt low voltage DC power supplies

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- Standard 3kW models from 0 - 8VDC to 0 - 300VDC
- Remote analogue programming/monitoring for output voltage, output current and OVP
- Internal IEEE-488 interface available
- Remote sensing to compensate for power lead losses
- Adjustable OVP
- External TTL, AC or DC shutdown
- Ideal for magnetron sputtering, high power burn-in, magnets, ion sources, laser simmer, plasma ARC, ATE equipment

# ELECTRICAL SPECIFICATIONS

## INPUT

200-250V RMS, single phase, 47-63Hz.

## EFFICIENCY

Typically 85% at full load.

## OUTPUT

Continuous stable adjustment from 0-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)

1V/line (8V model 0.5V/line).

## REGULATION, LINE

0.1% of rated, for full range of input variation under the constant rated load.

## REGULATION, LOAD

0.1% of rated, over the full rated load range with a constant nominal line voltage.

## RIPPLE

See models chart

## STABILITY

0.05% per 8 hours; with constant line, load and temperature after 90 minute warm-up.

## OVERVOLTAGE PROTECTION

Programmable from 5% to 110% of rated voltage.

## TEMPERATURE COEFFICIENT

Voltage, 0.02% of rated voltage per °C; Current, 0.03% of rated current per °C

## AMBIENT TEMPERATURE

Operating, 0-50°C with full compliance to specifications, 50-70°C derate output 2% per °C. Storage -55 to +85°C.

## HUMIDITY RANGE

0 to 80% relative humidity non-condensing.

## VOLTAGE MODE TRANSIENT RESPONSE

1ms recovery to within 1% band for a 30% load step change from 70% to 100% or 100% to 70%.

## REMOTE ENABLE/DISABLE AND INTERLOCK

TTL-compatible input, contact closure, 12-250V AC or 12-130V DC.

## TIME DELAY FROM POWER ON UNTIL OUTPUT IS STABLE

2 seconds maximum

## SWITCHING FREQUENCY

100kHz nominal, 200kHz output ripple (>80V models: 80kHz typical, 160kHz output ripple).

## OUTPUT TERMINAL ISOLATION

600V DC from output to safety ground.

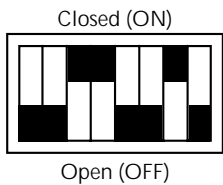
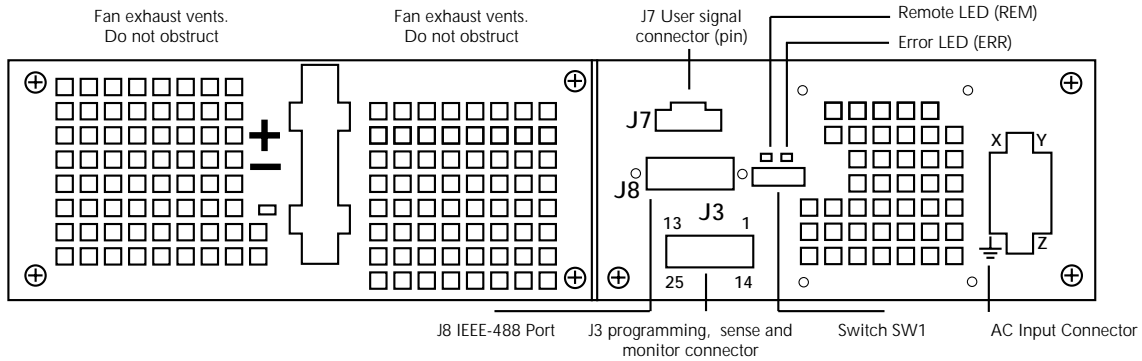
## LV Series 3000 watt models

Model	Output Voltage	Output Current	Ripple Voltage	Ripple Voltage	Ripple Current	Options
	VDC	A	p-p	RMS(20Hz-20MHz)	RMS(PARD)	
LV8-350	0-8	0-350	100mV	10mV	870mA	<b>ISOL:</b> Isolated interface for isolated analog remote programming control of either the units output or current <b>GPIB:</b> Internal GPIB interface provides 14-bit resolution and software calibration. <b>RS232:</b> Internal RS232 interface provides serial instrument programming using the RS232 protocol. <b>SAMI:</b> Single address multi channel interface provides the ability to connect up to 31 supplies at one IEEE-488 address.
LV12-250	0-12	0-250	100mV	10mV	400mA	
LV20-150	0-20	0-150	100mV	10mV	100mA	
LV40-75	0-40	0-75	100mV	10mV	75mA	
LV55-55	0-55	0-55	100mV	20mV	40mA	
LV60-50	0-60	0-50	100mV	20mV	33mA	
LV80-37	0-80	0-37	200mV	20mV	20mA	
LV150-20	0-150	0-20	200mV	30mV	10mA	
LV300-10	0-300	0-10	300mV	30mV	5mA	

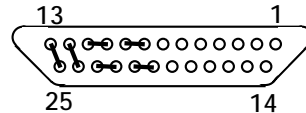
## Optional Internal GPIB/RS232 Interface Specifications

	Voltage mode		Current mode		OVP	
	Resolution	Accuracy	Resolution	Accuracy	Resolution	Accuracy
Program	0.01% of V max	0.20% of V max	0.01% of I max	0.20% of I max	0.01% of V max	1.0% of V max
Readback	0.01% of V max	0.25% of V max	0.01% of I max	0.25% of I max	---	---

# MECHANICAL SPECIFICATIONS

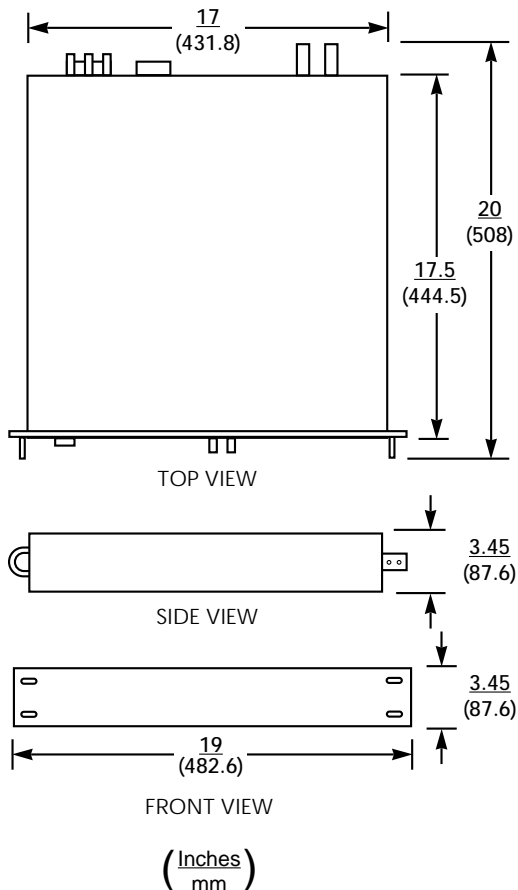


**S1 Programming Range Selector Switch**  
mounted internally on main PCB  
(set for local operation)



**J3 program, sense and monitor connector description**  
(connections shown for local operation)  
(D-subminiature 25-pin female)

## Dimensions



## Pin Function

- 1 AC/DC shutdown input (12 - 250V AC or 12 - 130V DC)
- 2 Return for shutdown input signals
- 3 OVP programming input
- 4 Remote programming indicator  
high = remote programming, low = local control
- 5 Operating mode indicator  
high = voltage mode, low = current mode
- 6 Auxiliary supply ground
- 7 Output current monitor (calibrated) 0-5V or 0-10V = 0 - 100%
- 8 5K Resistor for 0-1mA programming of output voltage  
jumpered to pin 9 in default configuration
- 9 Output voltage programming input switch selectable for 0-5V or 0-10V inputs, jumpered to pin 8 in default configuration
- 10 Remote current programming input (0-5V, 0-10V or 0- 100mV), jumpered to pin 11 in default configuration
- 11 5k Resistor for 0-1mA programming of output current limit, jumpered to pin 10 in default configuration
- 12 Return sense, jumpered to pin 24 for local sense (default configured)
- 13 Positive sense, jumpered to pin 25 for local sense (default configured) not connected on 150, 300 and 600V units
- 14 TTL shutdown input
- 15 +15V DC output (1kΩ source impedance)
- 16 Not used
- 17 OVP status  
High = OVP circuit activated low = OVP circuit off
- 18 Overtemperature signal  
high = OVP signal activated, low = OVP circuit off
- 19 Calibrated output voltage monitor 0-5V or 0-10V = 0 - 100%
- 20 Voltage control circuit remote/local switch  
jumpered to pin 21 in default configuration  
high = local mode, low = remote programming mode
- 21 1mA current source for voltage control circuit, jumpered to pin 20 in default configuration
- 22 1mA current source for current control circuit, jumpered to pin 23 in default configuration
- 23 Current control circuit remote/local switch, jumpered to pin 22 in default configuration, high = local programme mode, low = remote programming mode
- 24 Output return (for local sense connections only) jumpered to pin 12 in default configuration
- 25 Positive output (for local sense connections only) jumpered to pin 13 in default configuration, not connected on 150, 300 and 600V units

## 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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