

High Voltage Power Solutions

High Voltage Power Supply with Dynamic Focus Amplifier

GES SERIES

High Voltage Power Supplies

- ◆ 15kV to 32kV output voltage
- ◆ Up to 30 watts total output power
- ◆ Three auxiliary outputs
 - Focus (local & programmable adjust)
 - G2 (local & programmable adjust)
 - G1 / Cathode (fixed)
- ◆ Dynamic focus amplifier DC to 500Vp-p
- ◆ Tightly regulated anode, focus & G2 outputs
- ◆ Excellent voltage stability .05%/1K hours
- ◆ Precision output current sense
- ◆ Precision overvoltage protection
- ◆ Precision overcurrent protection
- ◆ Remote on/off (TTL compatible)
- ◆ MTBF >1.4 Million hours
- ◆ UL, CSA, TUV certified models
- ◆ Customer-specified input and output voltages, other options available
- ◆ Designed for digital imaging, photographic printing, film recording applications



The Rantec GES Series high voltage power supply is designed to power the unique CRT's used in digital imaging, photographic printing and film recording applications.

These sophisticated, low cost power supplies feature very tightly regulated outputs, including adjustable anode output (via multi-turn pot), adjustable focus output (local and programmable adjustment), adjustable G2 output (local and programmable adjustment), and an optional fixed cathode / G1 output. The internal dynamic focus amplifier is capable of providing DC to 500V peak to peak modulation of the focus output, with adjustable gain control. The unit can also accept an external dynamic focus signal (up to 1500V), if required. Two separate oscillators ensure frequency separation of >20kHz, minimizing any potential beat frequencies, and providing excellent voltage stability, low noise and no cross-talk under varying load conditions.

The GES Series units also provide precision anode output current sense, TTL-compatible remote on/off, precision overvoltage and precision overcurrent protection circuits.

The GES Series incorporates surface-mount technology, and this highly reliable design has an MTBF greater than 1.4 million hours. Many models are UL, CSA and TUV agency certified.

**Rantec Power Teaming
Engineers Offer Technical
Assistance to:**

Evaluate Power System Requirements
Develop Power System Architecture
Reduce Time to Market



Rantec Power Systems Inc.

GES SERIES

High Voltage Power Supplies

INPUTS			
Supply voltage	±15, ±5%	Vdc	Options available
Supply current	±1.3	A	Typical
Dynamic focus amplifier	0-10	V	Adjustable gain Options available
Focus voltage adjustment	0-10	V	Options available
G2 voltage adjustment	0-10	V	Options available
Remote on/off			TTL compatible

OUTPUTS			
ANODE			
Output voltage	Up to 32	kV	Customer-specified
Adjustment range	±500	V	Via multi-turn pot
Output current	Up to 1.0	mA	
Ripple	10	Vp-p	Typical
Line regulation	.05	%	
Static load regulation	.05	%	
Dynamic load regulation	10-15	Vp	Typical, at full load
Temperature coefficient	200	ppm/° C	Options available

FOCUS			
Output voltage	Up to 15	kV	Customer-specified
Adj. range - local	±1.5	kV	Via multi-turn pot
Adj. range - programmable	0-500	V	Minimum
Output current	Up to 500	μA	Customer-specified
Ripple	7.0	Vp-p	Typical
Line regulation	.05	%	
Static load regulation	.1	%	

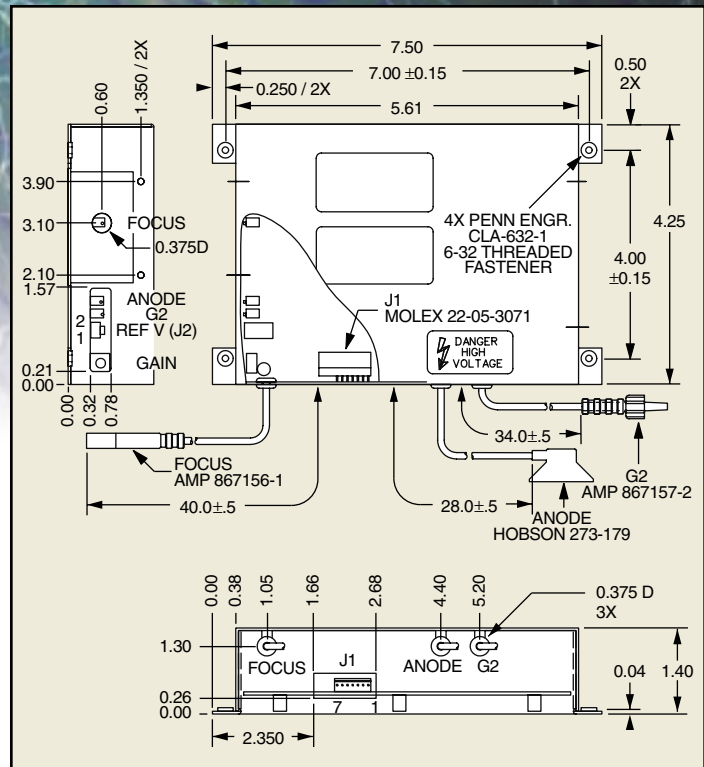
DYNAMIC FOCUS AMPLIFIER			
Focus output modulation	DC to 300 -3db, 100kHz	Vp-p	Customer-specified choose one
	DC to 500 -3db, 60kHz	Vp-p	

G2			
Output voltage	Up to 1500	V	Customer-specified
Adj. range - local	±500	V	Via multi-turn pot
Adj. range - programmable	0-500	V	Minimum
Output current	Up to 150	μA	Customer-specified
Ripple	1.0	Vp-p	Typical
Line regulation	.2	%	
Static load regulation	.2	%	

G1			
Output voltage, fixed	Up to ±500	V	Customer-specified, tolerance ±10%
Output current	Up to 200	μA	Customer-specified

ENVIRONMENTAL			
Operating temperature, case	0° C to +65° C		
Storage temperature, ambient	-35° C to +85° C		
Operating altitude	0 to 10,000 ft		

ADDITIONAL FEATURES	
Excellent stability	.05% / 1K hours Anode, focus & G2, after 0.5 hour warm-up
Fast G2 response	.025V/μsec – Slew rate, typical 10 msec – Settling time
Precision overvoltage protection circuit	Settable to within 1kV of maximum anode output voltage
Precision overcurrent protection circuit	Settable to within 50μA of maximum anode output current
Arc and short circuit protection	All outputs
Input / Output connectors	Customer-specified options available



J1 PINOUT			
PIN	FUNCTION	PIN	FUNCTION
1	CATHODE / G1	6	DYN FOC IN
2	R/S	7	GND
3	+15VDC INPUT	8	FOCUS PROG INPUT
4	GND	9	G2 PROG INPUT
5	-15VDC INPUT		

J2 PINOUT			
1	GND	2	BEAM SENSE

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DSHV-GES REV-A 011219

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