

### 1 Watt

- +12VDC Input [11.5 to 16V]
- Voltage Regulated
- Output Voltages from 100V to 8000V
- 0 to 100% Programmable Output
- High Reliability 2.6Mhrs MTBF
- <50ppm/°C Temperature Coefficient
- Shielded Case for Low EMI
- Low Ripple - down to 0.002%
- 3 Year Warranty



The C Series is a line of miniature, regulated high voltage power supplies. Each model is programmed from 0 to 100% of rated output via a 0 to +5 volt, DAC-compatible, high-impedance programming input voltage. An externally accessible potentiometer provides adjustable gain trim, allowing for individual calibration of units.

These converters exhibit very low ripple, noise, and EMI/RFI by utilizing a quasi-sinewave oscillator, shielded transformer, excellent filtering techniques and an isolated steel enclosure featuring a separate grounding pin. A proprietary encapsulation process and a custom UL 94 V-0 listed, high-performance formula are used to achieve excellent high voltage and thermal properties. Temperature drift is typically less than 50ppm/°C.

#### Dimensions:

- C01 - C20:** 1.40 x 1.11 x 0.50" (35.6 x 28.2 x 12.7mm)
- C25 - C40:** 1.75 x 1.11 x 0.50" (44.4 x 28.2 x 12.7mm)
- C50 - C60:** 2.10 x 1.11 x 0.50" (53.3 x 28.2 x 12.7mm)
- C80:** 2.50 x 1.25 x 0.60" (76.2 x 31.75 x 15.24mm)

#### Key Applications:

- Photo Multiplier Tube
- Solid State Detectors
- Electrophoresis
- Piezo Devices
- Capacitor Charging
- EO Lenses

#### Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage Range	11.5	13.75	16	VDC	Works with nominal 12V or 15V supply
Input Current, Full Load			250	mA	
Input Current, No Load			100	mA	
Programming Inputs	0		5	VDC	Analog DC Voltage Controls Output 0 to 100%
Input Capacitance		440		µA	Low ESR

#### Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage			8000	VDC	See Models and Ratings Table
Output Current			10	mA	See Models and Ratings Table
Output Programming	0		100	%	Output Voltage programmable via Analog DC Programming Voltage Input
Setpoint Accuracy <sup>(4)</sup>		±1		%	@ Max Vpgm, No Load
Gain Adjust <sup>(5)</sup>		±5		%	Potentiometer, See Signals & Controls
Linearity: Output vs Program <sup>(6)</sup>			±1	%	15 to 100% Output
Minimum Load	No minimum load required				
Start Up Response			250	msec	At Max Vout, Full Load
Line Regulation	0.05		1.0	%	100% Vpgm, Full Load, [Min to Max Input]
Load Regulation	0.07		0.75	%	100% Vpgm, 13.75Vin, [NL to FL]
Ripple and Noise	0.002		0.75	%	1MHz bandwidth, See Models and Ratings Table
Temperature Coefficient		50		ppm/°C	
Stability			100	ppm/hr	After 30 minute warm up

#### Notes

1. Maximum current is available at maximum output voltage.
2. Specifications after 1 hour warm-up, full load, 25°C, unless otherwise noted.
3. Proper thermal management techniques are required to maintain safe case temperature.
4. SET POINT ACCURACY refers to the ability of the unit to accurately deliver the programmed voltage.
5. GAIN ADJUST refers to the ability to alter the gain of the circuit to allow for set-point accuracy error.
6. LINEARITY refers to how much the transfer function can deviate from a straight line in the absence of any set-point error.

Distribution:

# hivolt.de

hivolt.de GmbH & Co. KG  
 Oehleckerring 40 • D-22419 Hamburg • Germany  
 +49 40 537122-0  
 info@hivolt.de • www.hivolt.de

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