### SINGLE OUTPUT HIGH VOLTAGE MODULES

# **CP SERIES** Constant Power High Voltage Supply

The CP series of high-voltage regulated DC-DC converters is optimized for "tri-mode" operation in bias applications, charging applications, and pulsed power applications and provides excellent line and load regulation, dynamic response, and stability. The CP Series operates in constant-voltage, constant-current, or constant-power modes and features buffered current, voltage, and power monitors. <u>Typical applications</u> for these modules include strike-and-run, plasma, and electrophoresis.

- 6 models from 0 to 1kV through 0 to 15kV
- 10W maximum output power level
- 0 to +10V remote programming for all modes
- +10V compensated reference

- Tight line and load regulation
- Operates in constant-voltage, constant-current, or constant-power modes

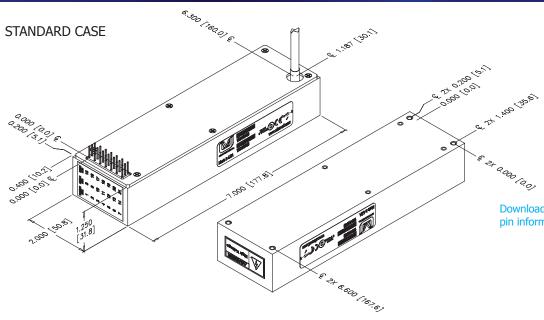
PARAMETER	CONDITIONS			MOD	ELS			UNITS
INPUT		ALL TYPES						
Voltage Range	Full Power		+24 ± 10%					
Current	Standby / Disable		< 70					
Current	Full Load, Max Eout	< 925						mA
Current	No Load, Max Eout	< 375 mA						mA
AC Ripple Current	Nominal Input, Full Load	< 30 mA						mA p-p
OUTPUT		1CP	2CP	4CP	6CP	10CP	15CP	
Voltage Range		0 to 1,000	0 to 2,000	0 to 4,000	0 to 6,000	0 to 10,000	0 to 15,000	VDC
Power	Nominal Input, Max Eout	10				W		
Current	Vout = Eout Max	10	5	2.5	1.67	1	0.67	mA
Current	Vout = 10% Eout Max	100	50	25	16.7	10	6.7	mA
Ripple	Full load, Max Vout	TBD	TBD	TBD	TBD	50	55	V р-р
Ripple	Full load, Max lout	TBD	TBD	TBD	TBD	60	55	V р-р
Line Regulation	Vin Min to Vin Max, Max Eout	< 0.01 %						VDC
Load Regulation	No Load to Full Load, Max Eout	< 0.01%					VDC	
PROGRAMMING & CONTROLS		ALL TYPES						
Input Impedance Normal Operating Conditions, All Inputs		10						
Enable/Disable		0 to +2 Disable, +3 to 10 Enable (Default = Enable)						
Output Voltage	T=+25°C, Initial Value	$10.5 \pm 0.2\%$				VDC		
Output Impedance	T=+25°C	Buffered, low impedance, 3mA max						-
Stability	Over Full Temperature	5 PPM/°						PPM/°C
ENVIRONMENTAL		ALL TYPES						
Operating	Full Load, Max Eout, Case Temp.	-40 to +65					0°	
Coefficient	Over the Specified Temperature	±100						PPM/°C
Thermal Shock	Mil-Std 810, Method 503-4, Proc. II	-40 to +65						0°
Storage	Non-Operating, Case Temp.	-55 to +105						°C
Humidity	All Conditions, Standard Package	O to 95% non-condensing						-
Altitude	Standard Package, All Conditions	Sea Level through Vacuum						-
Shock	Mil-Std-810, Method 516.5, Proc. IV	20					G's	
Vibration	Mil-Std-810, Method 514.5, Fig.14.5C-3	10 0					G's	

Specifications subject to change without notice.



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# **CP SERIES** Constant Power High Voltage Supply



#### CONSTRUCTION

Epoxy-filled Aluminum Alloy Box, Anodized Gold

#### SIZE

Volume 17.5in<sup>3</sup> (286.77 cc) Weight 1.4lb (0.64kg)

### TOLERANCE

Overall ±0.050" (1.27) Pin to Pin  $\pm 0.015''$  (0.38) Mounting hole location  $\pm 0.025''$  (0.64)

Downloadable drawings (complete with mounting & pin information) and 3D models are available online.

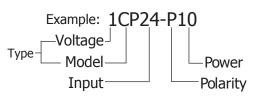


Non-RoHS compliant units are available. Please contact the **COMPLIANT** factory for more information.

Manufactured in USA

CP SERIES PIN ASSIGNMENTS AND FUNCTIONS							
PIN	FUNCTION	DESCRIPTION					
1	Power Ground	Input Power Return					
2	Input Power	Input Power (+24V $\pm$ 10%)					
3	Current Monitor	0 to 10V is equal to 0 to full rated output current					
4	Enable	High to enable, low to disable, default or open is enabled					
5	Signal Ground	Monitor and Programming Return, return the monitor and programming circuitry to this pin					
6	Voltage Programming	0 to 10V programs 0 to full rated output voltage					
7	Reference Voltage	10.5V precision voltage reference					
8	Power Ground	Input Power Return					
9	Input Power	Input Power (+24V $\pm$ 10%)					
10	N/C						
11	Current Mode Indicator	Open drain indicator, active (pulled low) when unit is in current regulation					
12	Voltage Mode Indicator	Open drain indicator, active (pulled low) when unit is in voltage regulation					
13	Current Programming	0 to 10V programs 0 to full rated output current					
14	Voltage Monitor	0 to 10V is equal to 0 to full rated output voltage					
15, 16, 17, & 18	N/C						
19	Power Mode Indicator	Open drain indicator, active (pulled low) when unit is in power regulation					
20	Power Monitor	0 to 10V is equal to 0 to full rated power					
21	Power Programming	0 to 10V programs 0 to full rated output power					

ORDERING INFORMATION						
	0 to 1,000 VDC Output	1CP				
	0 to 2,000 VDC Output	2CP				
Tuno	0 to 4,000 VDC Output	4CP				
Туре	0 to 6,000 VDC Output	6CP				
	0 to 10,000 VDC Output	10CP				
	0 to 15,000 VDC Output	15CP				
Input	24VDC Nominal					
Delarity	Positive Output	-P				
Polarity	Negative Output	-N				
Power	10 Watt Output	10				



Popular accessories ordered with this product include CONN-KIT-CP and our full range of high voltage output connectors (see Accessories & Connectors datasheet).



Making High Voltage Easier!®