

# HIGH VOLTAGE CAPACITOR CHARGER PL SERIES

2 kV max., 550 J/s., AC input



- Output voltages up to + or - 2.0 kV
- Fully programmable over entire voltage range
- 550 J/s peak (full-discharge cycle)
- 1000 W available continuous capacity for partial-discharge mode applications and/or very large capacitance loads
- 90 VAC to 265 VAC PFC input - full-discharge mode with repetition rates down to 0.2 Hz
- 180 VAC to 265 VAC PFC input - partial-discharge mode and/or repetition rates less than 0.2 Hz
- High efficiency (>85% typical @ max. power) converter topology
- Low-cost compact and lightweight modular design

## High Voltage Output

Voltage - full-scale voltages up to + or - 2 kV, full-range adjustable from less than 0.1 % to 100 % of full scale voltage  
Charge rate - 550 J/s max., full discharge mode.  
Continuous power capacity - 1000 W (180 VAC-265 VAC input)  
Line regulation - < 0.05 % typical  
Charge voltage temperature stability - +/-200 ppm/°C max., lower TCs available.

## Power Input

90 VAC to 265 VAC, 50 Hz / 60 Hz, 0.99 PF typ. at full load, or 180 VAC to 265 VAC, 50 Hz / 60 Hz, 0.99 PF typ. at full load.  
Built-in single-stage AC input EMI filter.

## Controls

Voltage input configuration - single-ended, ref. to signal ground  
Voltage programming - 0 to 5 V or 0 to 10 V program input for full range adjustment.  
Enable control - Active HI or LO

## Monitors

Voltage monitor and voltage peak monitor- 5 V or 10 V full scale.  
Status Indicators (open collector, 30 V max., 10 mA max.) :  
Over-temperature: active = ON  
Fault: active = ON  
End-of-charge: active = ON  
Auxiliary outputs: 24.00 V ±5 %, 200 mA max. (opt.)

## Environmental

Operating temperature: 0°C to 40°C ambient  
Storage temperature - -40°C to 70°C, storage  
Humidity - 90% RH max. non-condensing.

## Mechanical

Cooling - internal fan provides cooling air flow.  
Control/monitor connector - 15 position D-sub receptacle  
HV output connector - AMP 861611-1 LGH connector and ground-stud return, or customer specified interface.  
AC power input - Phoenix Contact GMSTBVA 2,5/2-G-7,62 (Mating connector GMSTB 2,5/2-ST-7,62 included with unit)  
Case material - aluminum alloy  
Finish - yellow iridite or clear chromate  
Case size - 6.05" W x 3.70" H x 9.15" D (excluding optional mounting flanges)  
Weight - 4.85 lbs. nom.

## Regulatory

AC input isolation  
Standard version - 2000VAC/2850VDC  
Low-leakage version - 4000VAC/5660VDC  
Enclosure leakage current  
Standard version - <1.5 mA  
Low-leakage version - <300uA

*The PL Series provides plenty of flexibility for application-specific requirements. Contact the factory with details of your application.*

# HIGH VOLTAGE POWER SUPPLY PL SERIES

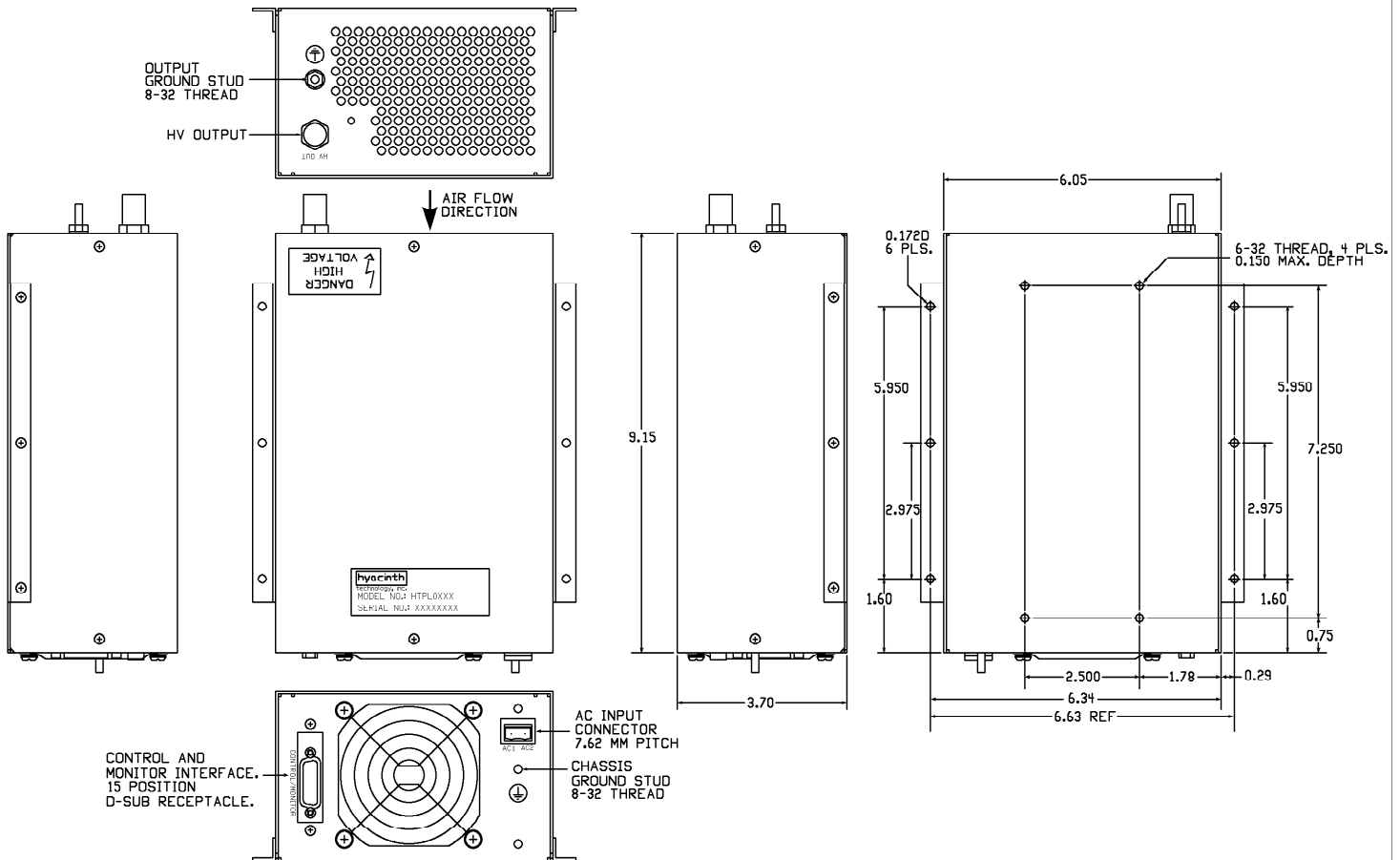
2 kV max., 550 J/s., AC input

## Control and Monitor Interface Pin Designations

PIN	FUNCTION	DESCRIPTION OF FUNCTION
1	Charge enable	Active low or active high options for enabling output
2	Spare	
3	Over-temperature	Open collector output, active when an over-temperature condition is detected
4	Spare	
5	Voltage control	Output charge voltage program input
6	Fault	Open collector output, active when internal fault or power-up cycle is detected
7	Current monitor	Scaled indicator of output current (optional).

PIN	FUNCTION	DESCRIPTION OF FUNCTION
8	Voltage monitor	Scaled indicator of output voltage.
9	Spare	
10	+24 VDC output	Provides a regulated supply for interface circuits (optional).
11	Spare	
12	Spare	
13	End-of-charge	Open collector output, active when output voltage regulation is detected
14, 15	Signal ground	Control circuit ground. It is also connected to chassis and output ground.

## HTPL Series Mechanical Outline (with optional mounting flanges).



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