HiTek Power

Series CC1000
CAPACITOR CHARGING POWER SUPPLIES

FEATURES

- 1kW output power
- High efficiency zero current and voltage switching techniques
- Excellent pulse to pulse repeatability characteristics
- Positive or negative polarity
- Compact size
- Low weight
- CE marked

DESCRIPTION

The Series CC1000 is a range of high performance, high reliability, capacitor charging power supplies intended for use as a component power supply in various applications. These include industrial laser systems, non-contact medical environments, capacitor charging circuits, intense pulsed light systems, Nd:YAG and Er:YAG lasers. The Series CC1000 features high frequency switching techniques to combine a power factor corrector and resonant converter in a compact unit. This range has been designed to allow customisation to suit specific OEM applications.

SPECIFICATION

Output Power:
1kW output power.

Output Voltage:
0 to 2kV max depending on model.

Output Current:
4000mA max depending on model.

Input Voltage:
90-255V AC depending on model.

Input Current:
15A max.

Polarity:
Positive or negative to order.

Power Factor Correction:
Power factor corrected to meet the requirements of the EC EMC directive for line harmonics (BS EN61000-3-2).

Charging Rate:
1000 Joules per second average (equivalent to 1kW average). Peak power during the charging cycle may be up to double this. Peak charging rate up to 1100 J/s.

Stored Energy:
Less than 0.3 Joules.

Stability:
±0.2% per hour, after 1 hour warm-up.

Pulse to Pulse Repeatability:
±0.2% to 300Hz.
Please contact our sales team for ratings outside this range.

Line Regulation:
±0.2% of rated output.

Temperature Coefficent:
100ppm/°C over operating temperature range.

Operating Temperature:
0 to +45°C.

Storage Temperature:
-40°C to -85°C.

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Humidity:
90% maximum relative humidity non-condensing.

Altitude:
Sea level to 2000m (6500 ft).

Installation Category:
1 (BS EN61010-1)

Pollution Degree:
2 (BS EN61010-1)

Control:
The power supply is operated via the 15-way D-type connector situated on the rear panel. Full control and monitoring functions are available by this method.

Cooling:
Forced air cooling by an integrated fan. Air insulated HV section.

Protection:
The units are fully protected against flashover and continuous short circuit (no trip).

EMC:
The Series CC1000 is intended for installation as a component of a system. Basic EMC filtering is provided.

Safety:
The Series CC1000 meets the requirements of the Low Voltage Directive (LVD), 2006/95/EC by complying with BS EN61010 when it is installed as a component part of compliant equipment. It is CE marked accordingly.

RoHS:
The CC1000 is currently built to non-RoHS standard. This unit can, however, be configured to meet the requirements of RoHS where significant customer demand requires it, although please note that this will have an impact on delivery timescales.

Mechanical Specification:
Dimensions: See outline drawing.
Weight: 2.5kg (5.5 lb)

Outputs and Ordering Information:
The standard range of units available is as follows:

Model no	Output Voltage	Output Current
CC1000-501*	500V	4000mA
CC1000-102*	1kV	2000mA
CC1000-152*	1.5kV	1300mA
CC1000-202*	2kV	1000mA

* Please add suffix P (Positive) or N (negative) to the model number for the required polarity.

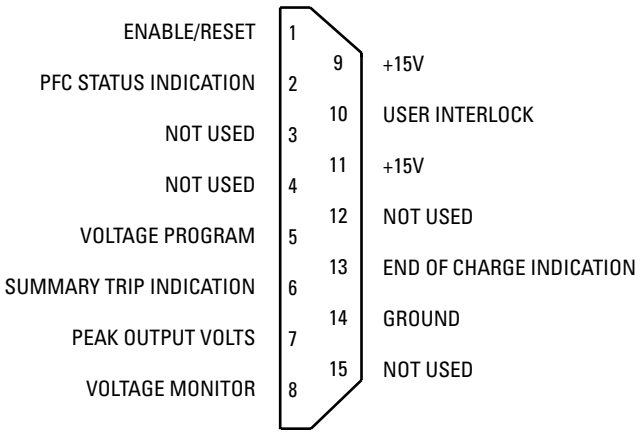
eg: part number for a 1kV positive unit: CC1000-102P.

For voltages not listed above, please contact our sales team.

If required, this unit can be configured to meet the requirements of RoHS providing a significant quantity is ordered - please contact our sales team.

Interface Connection:
Mains: Screw terminals.
Safety Earth: M5 stud.
HV Output: Flying coaxial lead.

Control interface via a 15-way female D-type connector:



CE These component power supplies meet the requirements of EC Directive 73/23/EEC (LVD).

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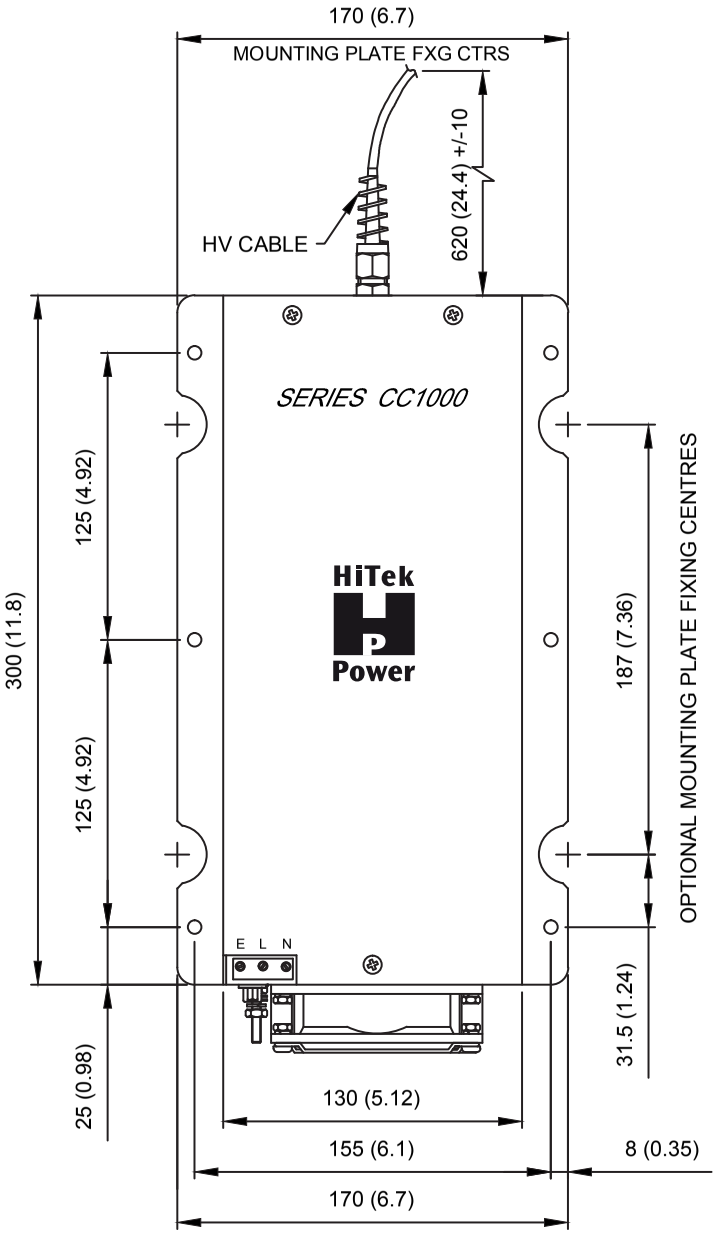

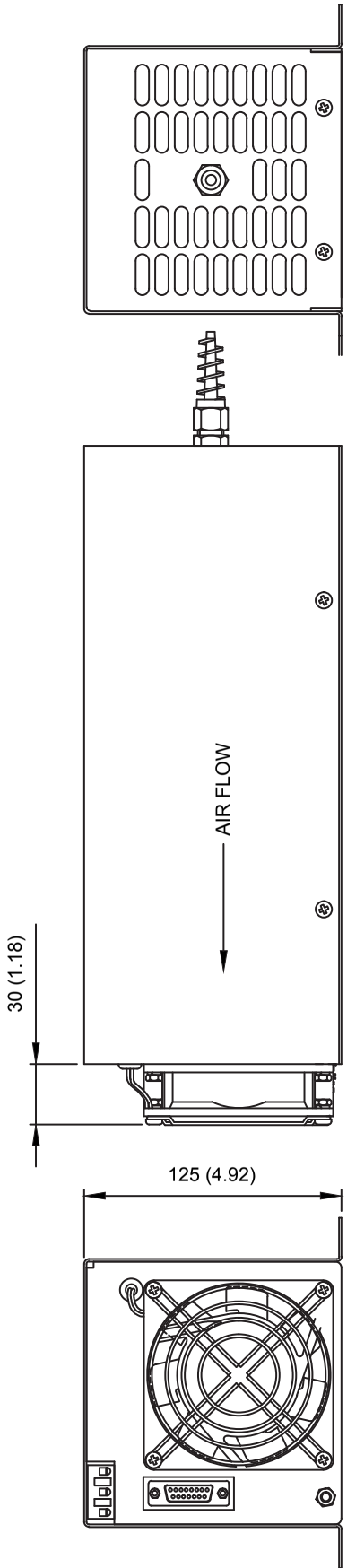

Drawing dimensions are in mm (inches)
Design developments may result in specification changes

HiTek Power

The Power Supply Pioneer

UK
HiTek Power Ltd
Hawthorn Road, Littlehampton
West Sussex BN17 7LT
UK
Tel: **+44 (0) 1903 712400**
Fax: **+44 (0) 1903 712500**
e-mail: sales.uk@hitekpower.com

USA
HiTek Power Inc
124 Jewett Street, Unit #2
Georgetown, MA 01833-1868
USA
Tel: **+1 (978) 352-9100**
Fax: **+1 (978) 352-9133**
e-mail: sales.us@hitekpower.com

GERMANY
HiTek Power GmbH
Joh.-Friedr.-Boettger-Str. 21
D-63322 Roedermark
Germany
Tel: **+49 (0) 6074 69285 0**
Fax: **+49 (0) 6074 69285 10**
e-mail: sales.de@hitekpower.com

JAPAN
HiTek Power Japan
1-5-13 Kyutaroumachi
Chou-ku, Osaka 541-0056
Japan
Tel: **+81 (6) 6271 8180**
Fax: **+81 (6) 6271 8190**
e-mail: info@hitekpowerjapan.co.jp

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