Digital Power®
Flexible Power Solutions

(877) 634-0982
www.digipwr.com

DPCC Series

Capacitor Charger / Laser Driver Power Supplies 350–9000W

Product Specification

For Laser Medical and Industrial Applications

Intertek

Key Product Features

- Ideal for OEM Laser applications
- EN55011 Class A, no external filter is needed
- IEC 60601-1 3rd edition and cETLus approval
- High efficiency, 88% typical
- Fast response and low noise
- Fully isolated input to output, allowing connection directly to an AC line
- Load fault watchdog timer can be modified upon customer request
- Customized voltage and power output up to 1.6KV and up to 9000W
- Power factor correction 0.99

Applications

- Medical (surgical) lasers
- Laser aesthetics systems
- Flash lamp pumped lasers
- Pulsed UV curing systems
- Sterilization systems
- Other products that deliver bursts of pulsed energy

Description

The Digital Power Capacitor Charger power supplies are designed to meet the unique requirements of medical, medical aesthetic, and industrial pulsed energy systems. The modular design of these highly efficient and flexible devices leads to lower cost, higher reliability, and rapid delivery time for a wide variety of customized applications.

Model Selection

Model	Size	Pout	Vout	Input Voltage	Input Current
DPCC352-XXX	S	350W	300V to 1KV	90–264VAC	5.2A @ 115VAC
DPCC402-XXX	S	400W	300V to 1KV	90–264VAC	7.8A @ 115VAC
DPCC502-XXX	S	500W	300V to 1KV	90–264VAC	10.5A @ 115VAC
DPCC602-XXX	S	600W	300V to 1KV	90–264VAC	6.5A @ 220VAC
DPCC752-XXX	S	750W	300V to 1KV	180–264VAC	8.2A @ 220VAC
DPCC802-XXX	S	800W	300V to 1KV	90–264VAC	16.1A @ 115VAC
DPCC1002-XXX	S	1000W	300V to 1KV	180–264VAC	11A @ 220VAC
DPCC500-XXX	A	500W	400V to 1KV	180–264VAC	16.5A @ 220VAC
DPCC750-XXX	A	750W	400V to 1KV	180–264VAC	20A @ 220VAC
DPCC1000-XXX	A	1000W	400V to 1KV	180–264VAC	35A @ 220VAC
DPCC1250-XXX	A	1250W	400V to 1KV	90–264VAC	5.2A @ 115VAC
DPCC1500-XXX	A	1500W	400V to 1KV	90–264VAC	7.8A @ 115VAC
DPCC1510-XXX	B	1500W	400V to 1.6KV	90–264VAC	10.5A @ 115VAC
DPCC2000-XXX	B	2000W	400V to 1.6KV	180–264VAC	6.5A @ 220VAC
DPCC3010-XXX	B	3000W	400V to 1.6KV	180–264VAC	8.2A @ 220VAC
DPCC6010-XXX	BX	6000W	400V to 1.6KV	90–264VAC	16.1A @ 115VAC
DPCC3000-XXX	E	3000W	400V to 1.6KV	180–264VAC	11A @ 220VAC
DPCC4000-XXX	E	4000W	400V to 1.6KV	180–264VAC	16.5A @ 220VAC
DPCC6000-XXX	E	6000W	400V to 1.6KV	180–264VAC	20A @ 220VAC
DPCC9000-XXX	E	9000W	400V to 1.6KV	180–264VAC	35A @ 220VAC

XXX- indicates the max. Output voltage; For example 050=500V, 075=750V, 100=1000V
**We are able to provide any needs of voltage & power up to 6KW and 10KW*
**Interface configuration can be modified per customer request*

Electrical Specifications

Input

Input Voltage	90–264Vac 47–63Hz for up to 1500J/Sec, 200–264Vac 47–63Hz for over 9000J/Sec
Power Factor	0.99 typical
Inrush Current	<25A @ 220Vac
Leakage Current	<120uA

Output

Output Voltage	Configurable from 50Vdc to Vmax
Output Power Range	500W to 9KW
Polarity	Positive
Efficiency	Typically 88% at maximum load

Interface

Connector	Molex 4 pin/15 pin D-type
Voltage program	0–10V for 0 to Max. Voltage
Voltage monitor	0–10V for 0 to Max. Voltage
Inhibit ON/OFF	0–0.6V or short- output ON, 5-15V or open- output OFF
End of charge status	Active LOW when the output voltage is within 5% of the programmed voltage level
Over voltage/Temperature	Latch shut down

Environmental Specifications

Operating Temperature	0°C to +50°C / 32°F to 122°F
Storage	-20°C to +85°C / -4°F to 185°F
Humidity	Operating 10–90%RH, Storage 10–95%RH
Cooling	Internal Fan
Safety	EN60601-1 3rd edition, CE Mark
MTBF	50,000 hours @ 30°C

Mechanical

Size A, S	AC input connector	2 position Phoenix connectors DMKDS2.5
	Interface Connector	4 pins Molex 70553-003
	HV Output*	Coax Cable RG58A/U 50Ω ended with terminal ring PV14-14R-C.
	AC Earth	10–32 GND stud
Size B, E	AC Input Connector	Terminal Block
	Interface Connector	D-Type 15pin
	HV Output*	Coax Cable RG58A/U 50Ω ended with terminal ring PV14-14R-C.
	AC Earth	10–32 GND stud

**instead coax cable we can provide coaxial connector like KING 1707-1or eqv.*

A Size Pin Assignment - Molex 70553-003 4Pin

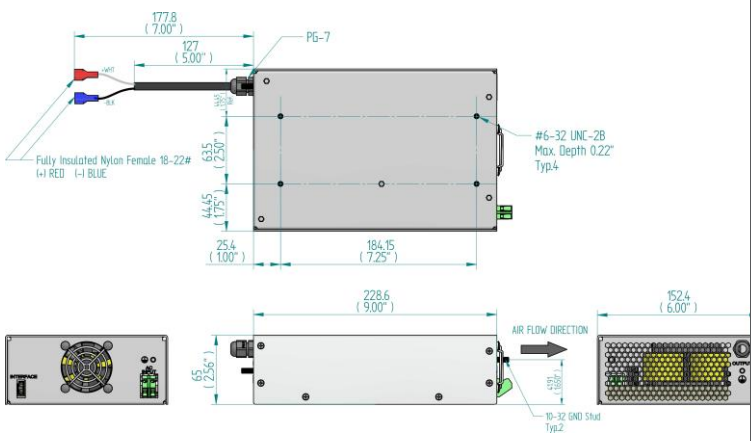
Pin #	Signal Name	Remarks
1	Inhibit (ON/OFF)	Turn the output to ON and OFF
2	Chassis GND	Connected to all output returns and tied to the chassis
3*	Voltage Program	Output voltage programming: 0 to 10V for 0 to 100% off rated output voltage
4	N/C	N/C

**can be modified upon customer request*

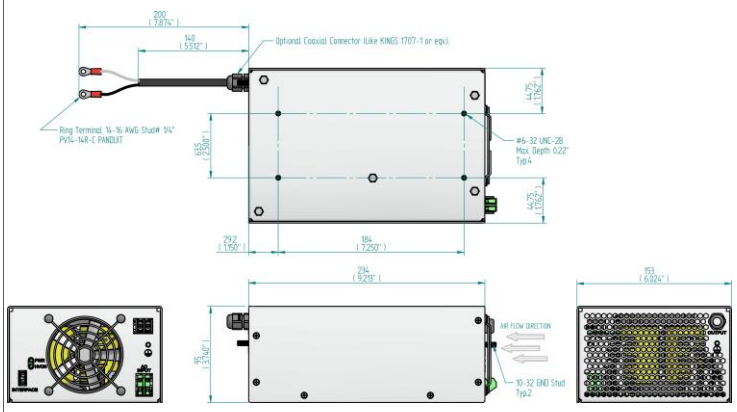
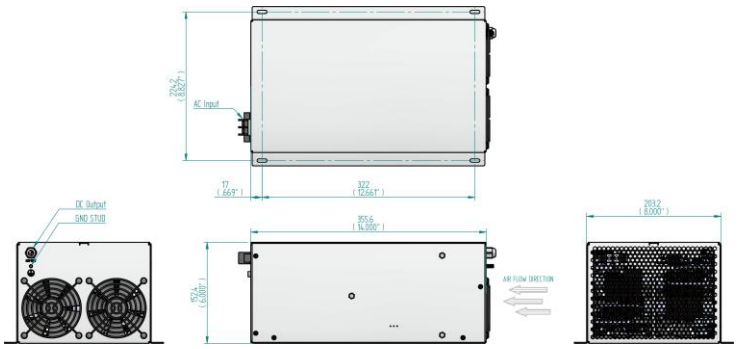
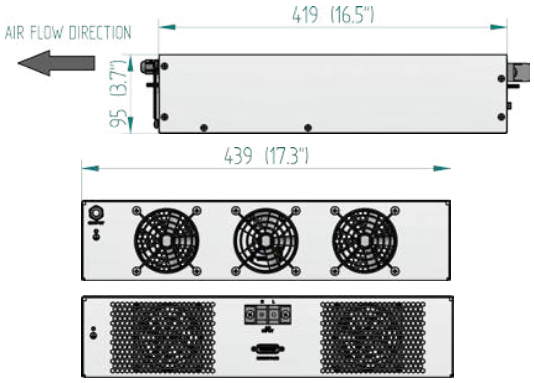
A Size Pin Assignment - Molex 70553-003 4Pin

Pin #	Signal Name	Remarks
1	Inhibit (ON/OFF)	Turn the output to ON and OFF
2	Fault Warning	Open collector, 10K pull-up resistor, Active Low
3	Sum Fault	Open collector, 10K pull-up resistor, Active Low when internal fault is present.
4	HVON	Open collector, 10K pull-up resistor, Active Low
5	Voltage Program	Output is programmed externally with a 0 to +10V signal for 0 to 100% of rated output voltage
6	Fault Indication	Open collector, 10K pull-up resistor, Active Low when the output under 80% of its output rate
7	Voltage Monitor - Peak	Monitor output voltage peak, 0 to 10V for 0–Vout max
8	Voltage Monitor	Monitor output voltage 0 to 10V for 0–Vout max.
9, 11, 12	15V Reference	Provide +15V 50mA output
10	Not Connected	N.C
13	End of Charge	Open Collector "LOW" indication output voltage is within 5% of the programmed voltage level
14,15	Chassis GND	Connected to all output returns and tied to chassis

Mechanical Outline

Size	Outline Drawing	Dimensions	Wight
S		9" × 6" × 2.56" 22.8 × 15.2 × 6.5cm	4.4lb 2kg

Mechanical Outline

Size	Outline Drawing	Dimensions	Wight
A		9.13″ × 6″ × 3.7″ 23.2 × 15.2 × 9.4cm	5.5lb 2.5kg
B/BX		B: 12.7" × 5.75" × 4.1" 32.2 × 14.6 × 10.4cm BX: 14.1" × 7.8" × 5.2" 36 × 20 × 15cm	B: 6.6lb 3kg BX: 12lb 6kg
E		16.5" × 17.3" × 3.7" 41.9 × 43.9 × 9.4cm	22lb 10kg

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TOG TECHNOLOGIES

Digital Power Corporation designs and manufactures full custom, value added and standard comprehensive power solutions for the most demanding applications in defense, healthcare, telecommunications, and industrial markets.