



- **Compact & Lightweight Package**
- **Power Factor Corrected Input**
- **Low Cost Modular OEM Platform**
- **Rugged IGBT Inverter Design**
- **Auxiliary +24Vdc @ 2.2 Amp Output Provided**

[www.spellmanhv.com/manuals/CCM](http://www.spellmanhv.com/manuals/CCM)

Spellman's CCM capacitor charging module is designed to provide 3100 joules per second at an output voltage up to 4000 Volts. With a power density of 6.6 watts per cubic inch, the CCM packs more than 30% more power into the same volume when compared to other commercially available units. The power factor corrected AC input, small package size and comprehensive analog interface simplifies integrating the CCM into your OEM system design. Available in either positive or negative polarity, the CCM is fully arc, open and short circuit protected.

### TYPICAL APPLICATIONS

UV light sources for curing and sterilization  
Industrial and medical laser applications  
ICP-MS applications

### SPECIFICATIONS

#### Input Voltage:

Power factor corrected input  $\geq 0.98$   
180-264Vac @ 20.3A, 47-63Hz, fused via externally accessible fuses

#### Efficiency:

>85%

#### Output Power:

3100 Joules per second, average

#### Output Voltage:

4000 Volts, maximum

#### Output Polarity:

Positive

#### Pulse to Pulse Repeatability:

$\pm 0.6\%$  up to 120Hz

#### Temperature Coefficient:

$\leq 100$ ppm per degree C

#### Fault Diagnostic System:

Over Temperature, Over Voltage and Open Load sensing

#### Environmental:

Temperature Range:

Operating: 0°C to 40°C

Storage: -40°C to 85°C

Humidity:

10% to 90% RH, non-condensing

#### Cooling:

Forced air

#### Ground Stud:

M6 X10mm, M6 nut supplied

#### Input Line Connector:

2 position Phoenix HDFK4 connector

#### HV Output Connector:

Kings KV-79-15, Bulkhead mounted

#### +24Vdc Output Connector:

AMP #1-350942-0

#### Dimensions:

5.81" H X 5.8" W X 14" D (148mm x 147mm x 356mm)

#### Weight:

14.5lb. (6.6kgs)

#### Regulatory Approvals:

Compliant to the EEC EMC directive. Compliant to EEC low voltage directive.

## AUXILIARY +24VDC CONNECTOR J2 2 POSITION AMP CONNECTOR

PIN	SIGNAL	SIGNAL PARAMETERS
1	+24Vdc	+24Vdc @ 2.2 amps
2	Ground	Ground

## CCM ANALOG INTERFACE – J1 15 PIN FEMALE D CONNECTOR

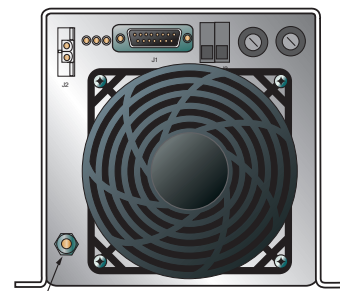
PIN	SIGNAL	SIGNAL PARAMETERS
1	Inhibit	Ground = HV ON, High = HV OFF
2	Temperature Fault	Fault = OV; no fault = +15Vdc through 6.8kΩ
3	General Fault	Fault = OV; no fault = +15Vdc through 6.8kΩ
4	HV ON Indicator	Ground = HV ON, +15Vdc = HV OFF +15Vdc through 6.8kΩ
5	Voltage Program	0 to 10Vdc = 0 to 100% Rated Output
6	Open Circuit Detector	Fault = OV; no fault = +15Vdc through 6.8kΩ
7	Peak Voltage Monitor	0 to 10Vdc = 0 to 100% Rated Output held for 10 seconds at peak level
8	Voltage Monitor	0 to 10Vdc = 0 to 100% Rated Output, Instantaneous output
9	+15Vdc Output	+15Vdc @ 150ma output, maximum
10	N/C	N/C
11	+15Vdc Output	+15Vdc @ 150ma output, maximum
12	+15Vdc Output	+15Vdc @ 150ma output, maximum
13	End of charge Indicator	Ground = End of Charge, High Impedance = Charging
14	Ground	Ground
15	Ground	Ground

### How to Order:

Standard: PART NO.: CCM4P3100

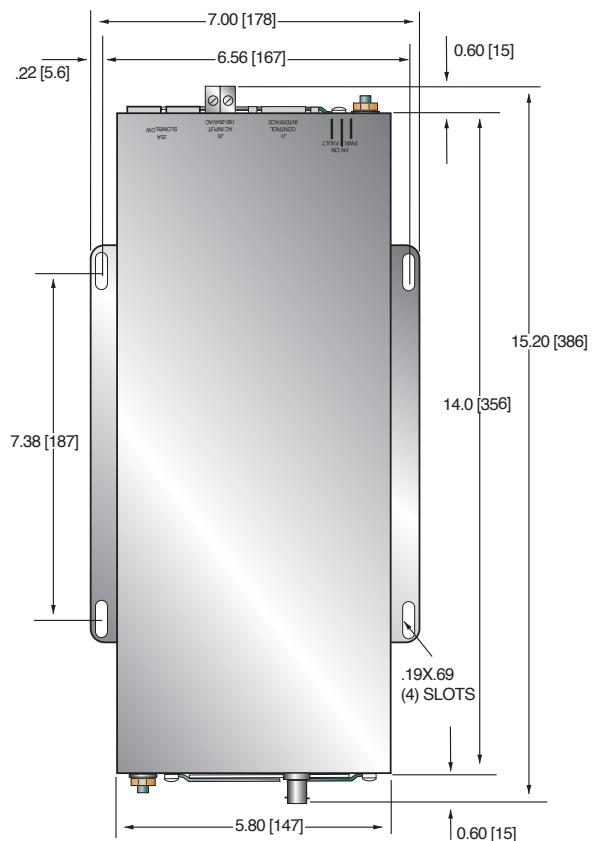
DIMENSIONS: in.[mm]

### FRONT VIEW

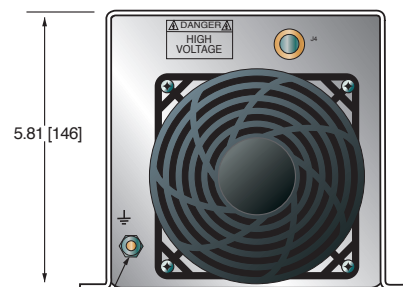


M6 X 10mm STUD  
M6 NUT SUPPLIED

### TOP VIEW



### BACK VIEW



M6 X 10mm STUD  
M6 NUT SUPPLIED

