

### 400 Watts

- 400 W Convection-cooled
- Conduction Cooling For Higher Ambient Operation
- 94% Efficiency
- 85 VAC to 264 VAC Input
- 5V Standby
- <1W Standby Power
- IT & Medical Safety Approvals
- Power Fail & Inhibit Signals
- 3 Year Warranty



The universal AC input CCL400 provides 400W of convection cooled output power over the temperature range -40°C to +50°C with derating to +70°C. The temperature range can be extended by the use of conduction cooling to the full 400W at +70°C. Approved for IT and Medical and with a feature set including a 5V standby output, <0.5W standby power, power fail and inhibit signals the CCL400 is ideal for a wide range of applications where fan cooling is not desirable.

#### Dimensions:

##### CCL400:

7.00 x 3.95 x 1.57" (178 x 100 x 40 mm)

##### CCL400-C:

7.39 x 4.04 x 1.92" (189.9 x 107.3 x 48.9 mm)

### Models & Ratings

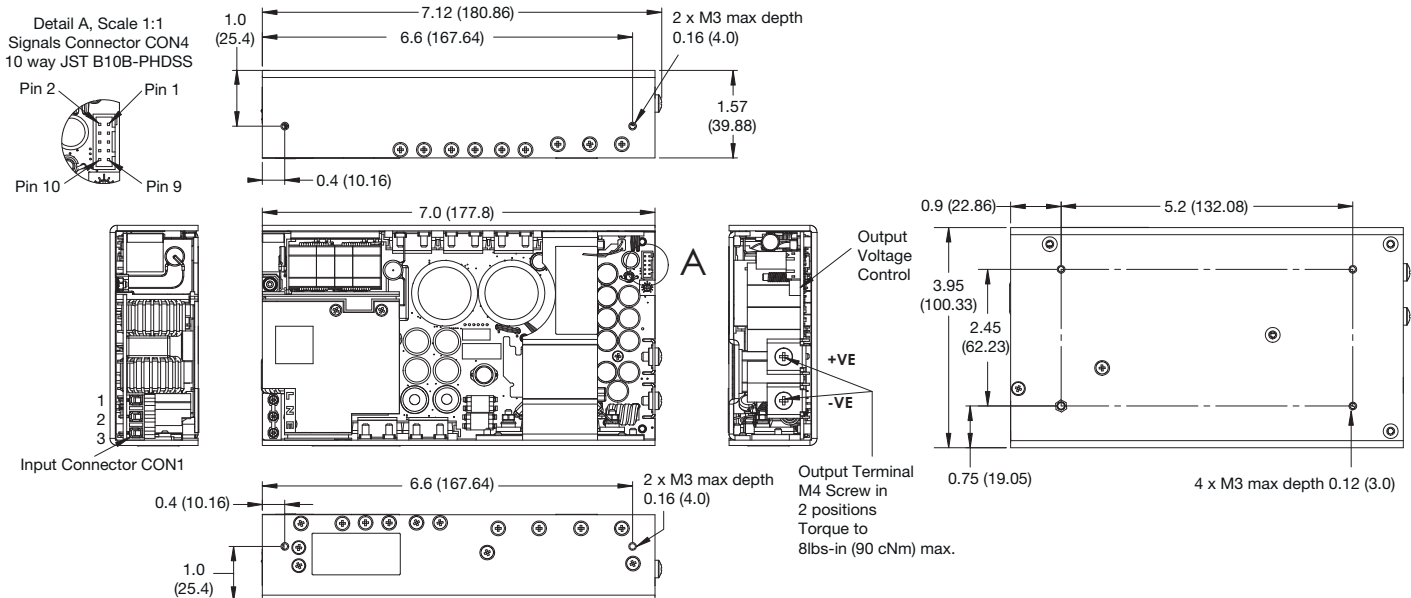
Output Voltage 1	Output Current V1	Standby Supply V2	Output Power	Model Number <sup>(1,2)</sup>
12 V	33.3 A	5.0 V / 0.5 A	400 W	CCL400PS12
24 V	16.6 A	5.0 V / 0.5 A	400 W	CCL400PS24
30 V	13.3 A	5.0 V / 0.5 A	400 W	CCL400PS30
48 V	8.3 A	5.0 V / 0.5 A	400 W	CCL400PS48

### Notes

1. Add suffix '-C' for cover version e.g. CCL400PS24-C

2. Add suffix '-SC' for a right angled input screw terminal connector on a covered version e.g. CCL400PS24-SC.

### Mechanical Details

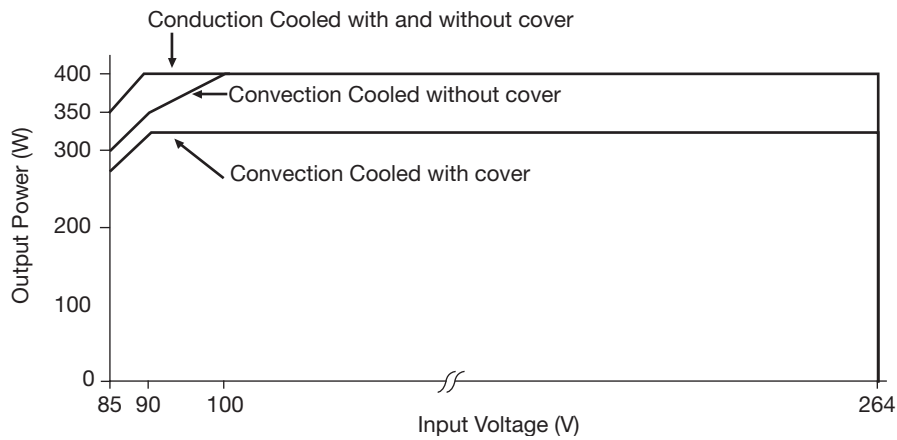


### Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	85	115/230	264	VAC	Derate output power < 100 VAC for convection cooling or <90 VAC for conduction cooling. See fig. 1
Input Voltage - Fault Condition			300	VAC	5 seconds max
Input Frequency	47	50/60	63	Hz	Agency approval, 47-63 Hz
Power Factor		>0.95			EN61000-3-2 class A compliant EN61000-3-2 class C for loads ≥10%
Input Current - Full Load		3.8/1.9		A	115/230 VAC
No Load Input Power			1	W	All models, when inhibit activated
Inrush Current		35	60	A	230 VAC
Earth Leakage Current		90/180	250	µA	Typ. 115/230 VAC 50 Hz, Max 264 VAC 60 Hz
Input Protection	F10.0 A 250 V internal fuse in both AC lines				

### Input Voltage Derating

Figure 1



### Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage	12		48	VDC	See Models and Ratings table
Initial Set Accuracy			±0.5	%	50% load, 115/230 VAC
Output Voltage Adjustment			±3	%	
Minimum Load	0			A	
Start Up Delay		1.5	2.0	s	115/230 VAC full load from input AC turn on
Hold Up Time		30		ms	
Drift			±0.2	%	After 20 min warm up
Line Regulation			0.5	%	
Load Regulation			0.5	%	
Transient Response			<4	%	Recovery within 1% in less than 500 µs for a 50-75%-50% load change
Ripple & Noise			1	% pk-pk	20 MHz bandwidth
Overvoltage Protection	115		140	%	Vnom DC. Output 1, recycle input to reset
Overload Protection	110		150	%	Trip & Restart characteristic V1
Short Circuit Protection					Shutdown and auto recovery
Temperature Coefficient			0.05	%/°C	
Overtemperature Protection					Shutdown and auto recovery