



## CH-A100 Series

## Aviation Grade AC/DC Power Supply



### FEATURES

- Efficiency : > 85% typical @full load
- 100W Output Power
- Conduction cooled
- Optional secondary voltages
- 47~63Hz; 400~800 Hz input Frequency
- Mil-Grade Dsub Connectors
- 200 msec holdup time

INPUT			
Voltage/ Freq	Vrms	AC 85~264/ 47~63Hz, 400~800 Hz	
Current	A(rms)	5A (typical at maximum output power)	
Inrush Current	A	1~3 Amp peak	
Power Factor	-	> .98 @ 115vac 400Hz; > .99@230vac @ full load	
Leakage Current	mArms	< 3.3 mArms @ 115 VAC in, 400 Hz	

		Unit	CH-A100-12	CH-A100-24	CH-A100-28
<b>OUTPUT</b>	Voltage (Primary)	VDC	12	24	28
	Efficiency (Full Load, Typ)	%	85.5	85.5	85.5
	Current	A	8.3	4.16	3.57
	Max Power (Primary Output)	W	100	100	100
	Regulation	%	+/-1.5	+/-1.5	+/-1.5
	Ripple/Noise	% Pk-Pk	1.00	1.00	1.00
	Hold-up Time	mS	>200mS @ full load, 115 VAC		
	Insulation And Dielectric *	Primary-Secondary	4242 VDC (3000 VAC) Reinforce Grade Insulation		
		Primary to Ground (Mounting holes or chassis)	2152 VDC (1500 VAC) Basic Grade Insulation		

Note: Full performance data information available upon request.





<b>Protection</b>	Overvoltage	Shutdown and latch off; AC recycle to restart
	Overload	Constant current for 1 second, Auto recovery
	Over temperature	Output shutoff until base plate temp reaches 85C, Thermal cutoff is 90~105C (measured at baseplate )
	Short Circuit	Auto Recovery
<b>Environment</b>	Operating Temp	-45~85C
	Storage Temp	-55 to +100 C
	Operating Humidity	10~95% , non-condensing
	MTBF MIL HDBK-217F Ground MIL HDBK-217F Airborne	>840,000 hrs.@ 70C ambient temp. >105,000 hrs # 70C ambient temp
<b>Standards</b> *See note 2	Input Voltage	Airbus ABD0100.1.8, RTCA/DO-160G
	Switching Transients	Airbus ABD0100.1.8, RTCA/DO-160G, EN61000-4-4, EN61000-4-5
	Voltage Spikes	Airbus ABD0100.1.8, RTCA/DO-160G, EN61000-4-6
	Frequency Transients	Airbus ABD0100.1.8, RTCA/DO-160G
	Harmonic Content	Airbus ABD0100.1.8, RTCA/DO-160G, EN61000-3-2, MIL-STD-1399
	DC Content on Input Voltage	Airbus ABD0100.1.8, RTCA/DO-160G
	Audio Frequency Conducted Susceptibility	RTCA/DO-160G
	Audio Frequency Conducted Emissions	RTCA/DO-160G
	Induced Signal Susceptibility	RTCA/DO-160G, EN61000-4-6
	Conductive Emissions	RTCA/DO-160G, EN55011/22
	Magnetic Effect	RTCA/DO-160G, EN61000-4-11
	Radiated Emissions	RTCA/DO-160G, EN61000-4-3
	Electrostatic Discharge	RTCA/DO-160G, EN61000-4-2
	Electrical Bonding and Grounding	D6-44588, UL 60950-1
Lightning Requirements	D6-16050-5, RTCA/DO-160G	
<b>Size</b>	Inches/lbs	8" x 5" x 2.60" / 3.5 lbs (with single output and Dsub connectors)

1. Ripple and noise are measured at oscilloscope 20MHz bandwidth by a 10uF electrolytic capacitor and a 0.1uF ceramic capacitor in parallel at output connector.

2. Unit uses aviation grade components for pressurized cabin use and is designed to meet standards listed.





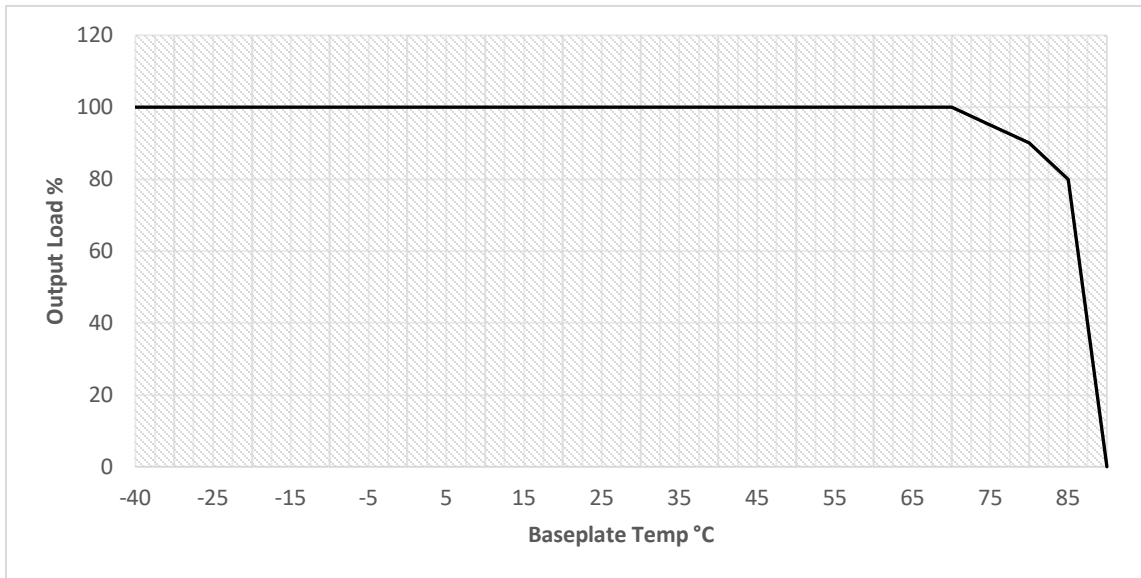
## OPTIONS

Secondary Voltages					
Note: only one secondary output voltage available in package. Secondary voltage is floating and isolated from primary voltage. Additional voltages available with NRE.					
<b>2nd Voltage</b>	VDC	5		12	
<b>2nd Current</b>	A	2	5	2.4	2.08
<b>Designation</b>	Suffix	-105	-205	-112	-212

Connectors
Customer may request connector change with MOQ, D38999 or equivalent MIL/SAE 5015 or equivalent

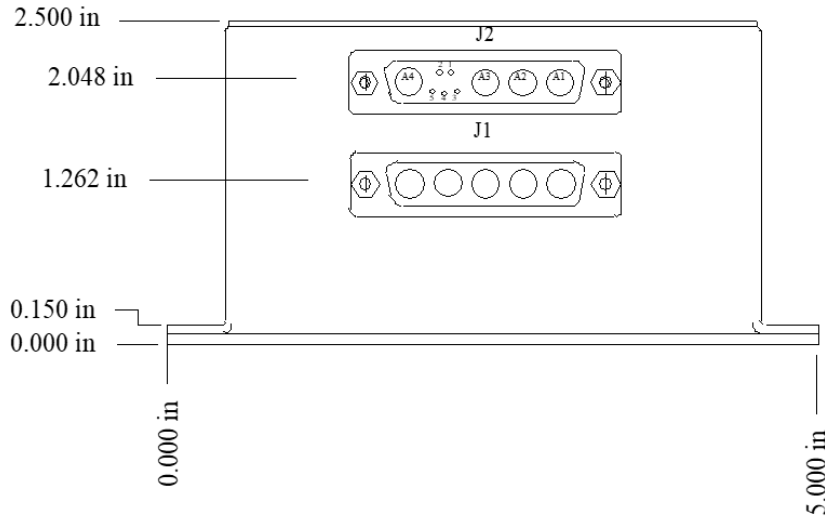
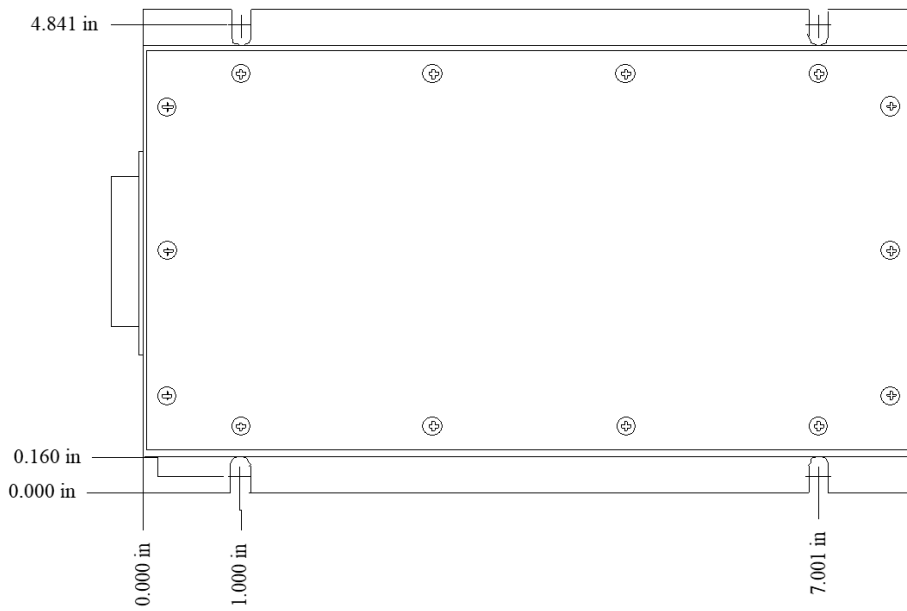
MIL-STD-198 (section 200), and MIL-HDBK-5400 compliance
Contact ETA-USA for MIL-STD-198 (section 200), and MIL-HDBK-5400 compliant version of the product (no electrolytic capacitors)

## DERATING CURVE





## DIMENSIONAL DRAWING



**J1: ITT Cannon # DBMM5W5P**

- J1-A1,A2: N/C
- J1-A3: Line
- J1-A4: Neutral
- J1-A5: Ground

**J2: ITT Cannon # DBMMD9W4S**

- J2-A1: Primary +Vout
- J2-A2: Primary RTN
- J2-A3: Secondary +Vout
- J2-A4: Secondary RTN
- J2-1~5: N/C

*\*Specifications Subject to Change Without Notice*

