

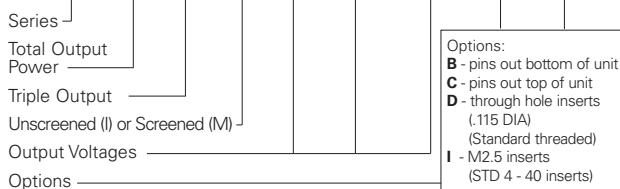
CB225T triple-output DC/DC converters

16 – 40Vin, 2 – 28Vout, 225 watts



How to Order:

CB 225 T M/ 5 / 15 / 24 - C - D

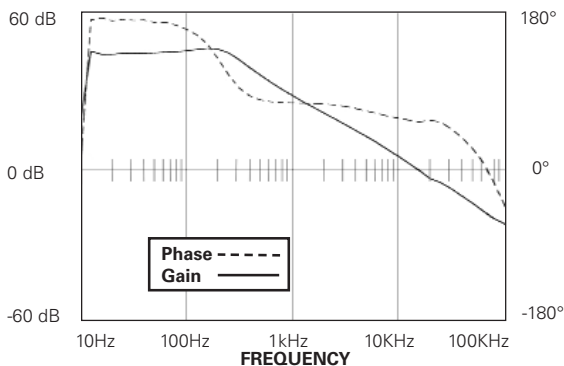


INPUT CHARACTERISTICS - PER CHANNEL

	Min.	Typ.	Max.	Units
Input Voltage	16	28	40	Vdc
Brown Out (75% of FL)		13.5	14.4	Vdc
No Load Power Dissipation		1.3		W
Input Inrush Charge			2.0	mc
Reflective Ripple Current		3		%
Input Ripple Rejection(120Hz, 5Vout)		70		dB
Input Ripple Rejection(800Hz, 5Vout)		50		dB
Logic Disable Current (Sink)			150	µA
Logic Disable Voltage (TTL)	0		.8	Vdc
Logic Disable Power In		175		mw
Sync Input Voltage	3.0	5.0	5.25	Vc
Sync Input Frequency	480	500	550	KHz
Sync Input Duty Cycle	30	35	55	%
Efficiency up to:				%
>= 5 Vdc output		84		
3.3 Vdc output		80		
2 Vdc output		72		

EMI: Units conform to MIL-STD-461D with companion filter (CBF75)
 Input Transient: Units can withstand 50Vdc transients for up to 100ms per MIL-STD-704E

STABILITY



FEATURES

- .50 Inch Profile
- Provides 3 Independent 75W outputs from 2V - 28V
- Remote Turn On / Output Status (TTL)
- Output Voltage Trim Pin
- Output Overvoltage Protection
- Output Overcurrent Protection
- Over Temperature Protection
- Fixed Frequency (500kHz) Conversion
- Synchronization Input
- High Temperature Burn-In
- 100% Environmental Screening (M Models)

SELECTION CHART

Nominal Output Voltage (Volts)	Output Current (Amps)
2	15
3.3	15
5	15
5.2	14.5
12	6.3
15	5.0
24	3.2
28	2.7

OUTPUT CHARACTERISTICS- PER CHANNEL

	Min.	Typ.	Max.	Units
Set Point Accuracy		25	50 ¹	mV
Load Regulation		5	10 ²	mV
Line Regulation		5	10 ³	mV
Ripple P-P (10 MHz)		60	100 ⁴	mV
Overvoltage Protection		125		% V _{out}
Transient Response Time - Overshoot				
20-80% Load (@ Nom. Line)		100/100	500/250 ⁵	µS/mV
Low Line - High Line (@ FL)		200/150	500/250 ⁵	µS/mV
50-100% Load (@ Nom.Line)		100/100	500/250 ⁵	µS/mV
Temperature Drift	0.02		0.05	%/°C
Long Term Drift	0.02		0.05	%/1KHrs
Current Limit	105	130	150	%
Short Circuit Current	20	25	75	%
Load Capacitance			30 ⁶	µF
Remote Sense Compensation			0.5	Vdc
Status "OK" (TTL)	2.4		5	Vdc
Status "Bad" (TTL)	0		0.8	Vdc
Trim Range	90		110	%
Turn On Time		6	10	mS
Logic Turn On Time		5	10	mS

¹ or 1 % Vout, whichever is greater

² or 0.2 % Vout, whichever is greater from No Load to Full Load with line constant

³ or 0.2 % Vout, whichever is greater from Low Line to High Line at Full Load

⁴ or 1 % Vout, whichever is greater measured at 10 MHz Bandwidth

⁵ or 5 % Vout, whichever is greater

⁶ or 3 x Co, whichever is greater



Powering Business Worldwide

For additional information, call 310.542.8561
 or e-mail: Orders-EP@eaton.com

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Industrial & military grade high density DC to DC converters

TEMPERATURE CHARACTERISTICS

	Min.	Typ.	Max.	Units
Operating (Baseplate)	-55		+100	°C
Storage (Ambient)	-55		+125	°C
Thermal Resistance (Baseplate to Ambient)		8		°C/W
OverTemperature Shutdown		105		°C

ENVIRONMENTAL SCREENING - M MODEL

Stabilization Bake:	+125°C for 24 hours similar to MIL-STD-883, M1008.2, Condition B
Temperature Cycling:	10 cycles at -55°C to +125°C (transition 5°C/minute) similar to MIL-STD-883, M1010, Condition B
Burn in:	160 hours @ 85°C minimum with V_{in} = 28Vdc and output at full load
Final Testing	

ENVIRONMENTAL SCREENING - I MODEL

Burn in:	16 hours @ 85°C minimum with V_{in} =28Vdc and output at full load
Final Testing	

See "Guide to Operation" for full details

ISOLATION CHARACTERISTICS

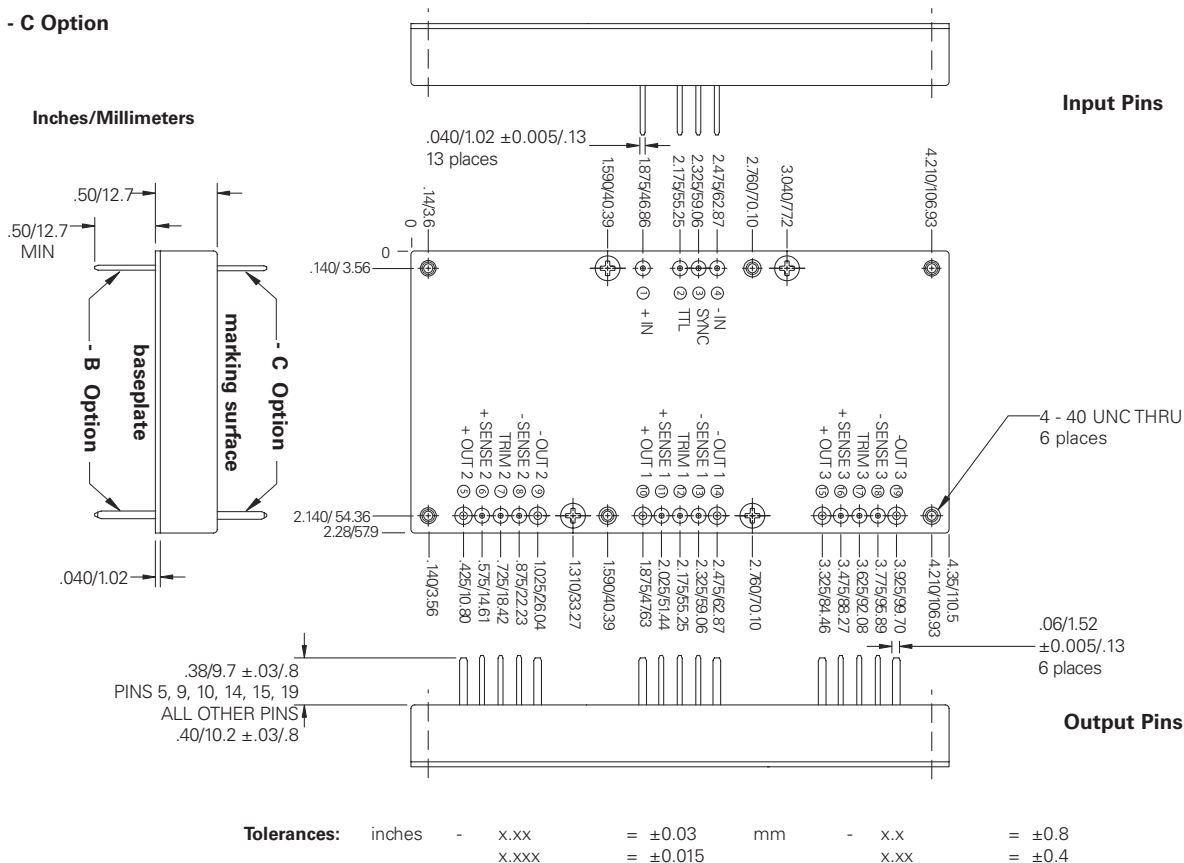
	Min.	Units
Isolation:		
Input to Output	500	Vdc
Output to Base	250	Vdc
Input to Base	250	Vdc
Insulation Resistance (@50 Vdc)	50	MOhm

MECHANICAL CHARACTERISTICS

Weight		oz. grams
Size	2.28 x 4.35 x .50 inch 57.9 x 110.5 x 12.7 mm	
Volume	4.96 inch ³ 81.2 cm ³	
Material	Pin Baseplate Case	Brass (Solder Plating) Aluminum 5052-H32 28 GA Steel (Nickel Plating)
Mounting	Standard D Option I Option	4 - 40 inserts in baseplate 0.115 DIA thru hole inserts M2.5 inserts in baseplate

CASE DRAWINGS

- C Option



For additional information, call 310.542.8561
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