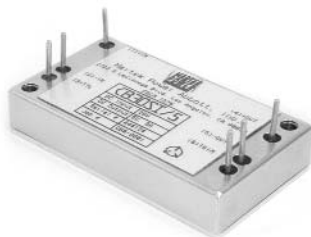


CB30S

30 Watts Output Power

SINGLE OUTPUT



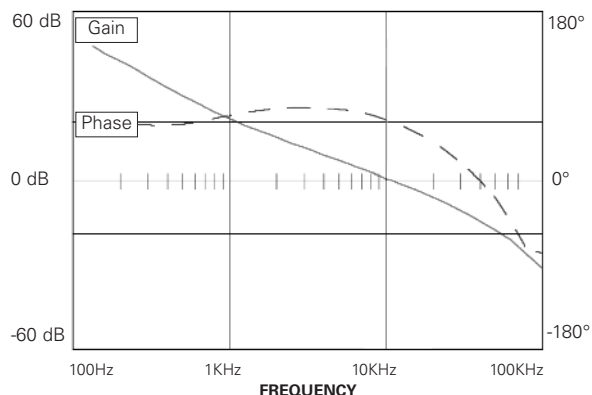
How to Order

CB	30	S	M	/	5	-	C	-	D
Series	Total Output Power	Single Output	Unscreened (I) or Screened (M)	Output Voltage: Maximum current as stated in selection chart	Options	Options: B - pins out bottom of unit C - pins out top of unit D - through hole inserts (.115 DIA) I - M2.5 inserts (STD 4 - 40 Inserts)			

INPUT CHARACTERISTICS

	Min.	Typ.	Max.	Units
Input Voltage	16	28	40	Vdc
Brown Out (100% of Full Load) [fig. I]*			13.5	Vdc
Logic Disable Current (Sink)			150	μ A
Logic Disable Power In		300		mW
Efficiency (FL) [fig. II, III]*				
>=5 Vdc Output (FL)	80			%
<5 Vdc Output (FL)	65			%
EMI: Units conform to MIL-STD-461D with companion filter module (CBF30)				
Input Transient: Units can withstand 50V transients for up to 100 ms per MIL-STD-704E				

STABILITY



FEATURES

- .38 Inch Profile
- Remote Turn On (TTL)
- Output Overvoltage Protection
- Output Overcurrent Protection
- Over Temperature Protection
- Output Voltage Trim
- 100% Environmental Screening (M Models)

SELECTION CHART

Nominal Output Voltage (Volts)	Output Current (Amps)	Model Number (Unscreened)	Model Number (Screened)
2	6.0	CB30SI/2-C	CB30SM/2-C
3.3	6.0	CB30SI/3.3-C	CB30SM/3.3-C
5	6.0	CB30SI/5-C	CB30SM/5-C
5.2	5.8	CB30SI/5.2-C	CB30SM/5.2-C
12	2.5	CB30SI/12-C	CB30SM/12-C
15	2.0	CB30SI/15-C	CB30SM/15-C
24	1.3	CB30SI/24-C	CB30SM/24-C
28	1.1	CB30SI/28-C	CB30SM/28-C

OUTPUT CHARACTERISTICS

	Min.	Typ.	Max.	Units
Set Point Accuracy ¹			50	mV
Load Regulation ²			20	mV
Line Regulation ³			20	mV
Ripple P - P ⁴ (10 MHz) [fig. IV]*			100	mV
Overvoltage Protection		125		% V _{out}
Transient Response (V _{out} 1%) Time/Overshoot [fig. V & VI]*				
20 - 80% Load at nominal line			500/500	μ S/mV
Low Line - High Line			500/500	μ S/mV
50 - 100% Load nominal line			500/500	μ S/mV
Temperature Drift		0.01	0.05	%/°C
Current Limit	105		150	% I _{out}
Short Circuit Current	25	50	75	% I _{out}
Trim Range	60 ⁵		110	% V _{out}
Turn On Time [fig. XI]*		5		mS
Logic Turn On Time [fig. IX]*		2.5		mS

¹ 1% or 50mV, whichever is greater

² or 0.2% maximum, whichever is greater from no load to full load

³ or 0.2% maximum, whichever is greater from low line to high line

⁴ or 1% maximum, whichever is greater

⁵ 80% for 2V and 3.3V

* see figures on page 13

All specifications are typical @+25°C with nominal input voltage and under full output load conditions, unless otherwise noted. Specifications are subject to change without notice.

HIGH DENSITY DC TO DC CONVERTERS

TEMPERATURE CHARACTERISTICS

	Min.	Typ.	Max.	Units
Operating (Case)	-55		+100	°C
Storage (Ambient)	-55		+125	°C
Thermal Resistance Case (Ambient)		13		°C/W

ENVIRONMENTAL SCREENING - M MODEL

Stabilization Bake:	+125°C for 24 hours similar to MIL-STD-883, M1108, Condition B
Temperature Cycling:	10 cycles at -55°C to +125°C (transition 5°C/min.) similar to MIL-STD-883, M1010, Condition B
Burn in:	160 hours @ 85°C minimum with $V_m=28V_{dc}$ and output at full load
Final Testing	

ENVIRONMENTAL SCREENING - I MODEL

Burn in:	16 hours @ 85°C minimum with $V_m=28V_{dc}$ and output at full load
Final Testing	
See "Guide to Operation" for full details	

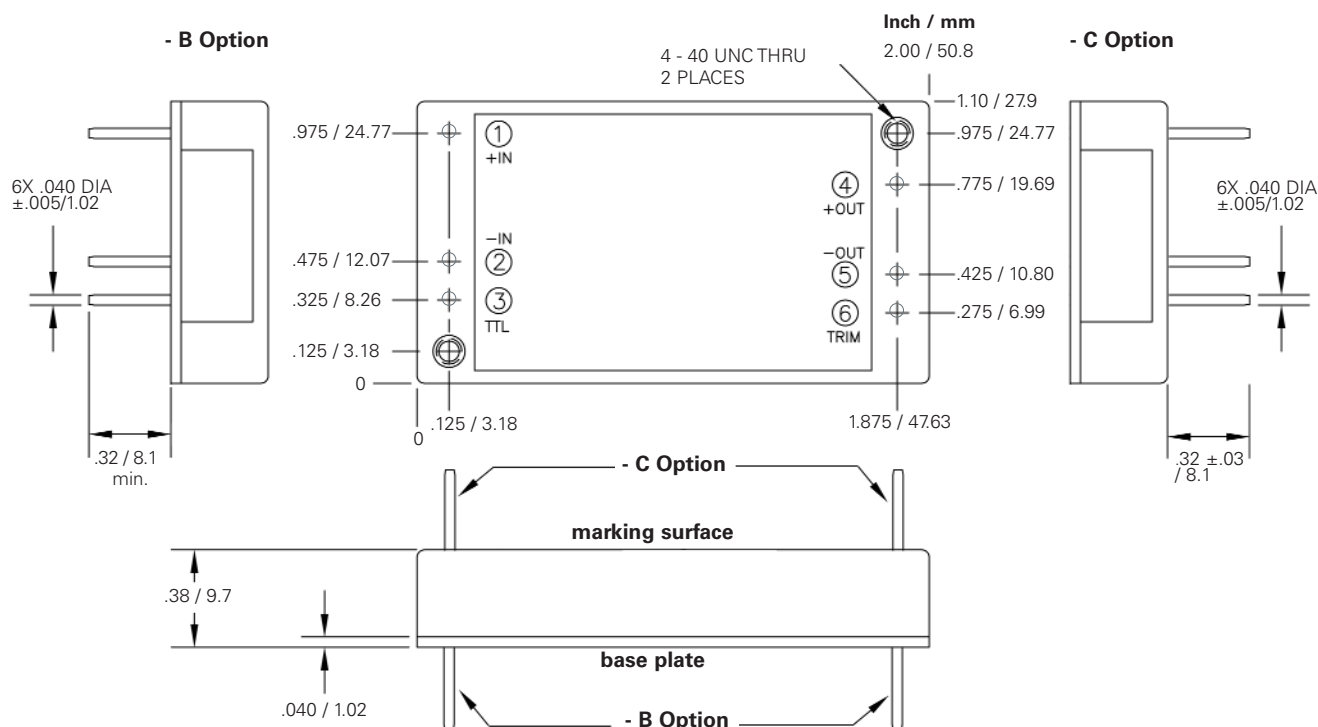
ISOLATION CHARACTERISTICS

	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	1.59 4.5	oz. maximum grams maximum
Size	1.1 x 2.0 x 0.38 27.9 x 50.8 x 9.7	inch mm
Volume	0.84 13.75	inch ³ cm ³
Material	Pin Base Case	Brass (Solder Plating) Aluminum 5052-H32 28 GA CRS (Nickel Plating)
Mounting	Standard I Option D Option	4-40 inserts in baseplate M2.5 metric inserts in baseplate 0.115 DIA thru holes in baseplate

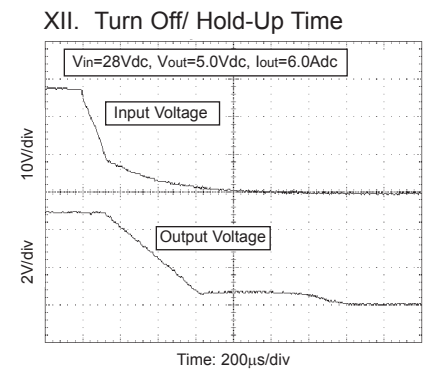
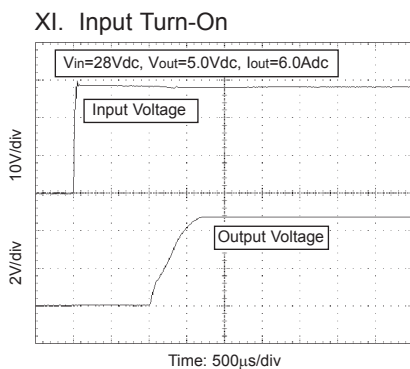
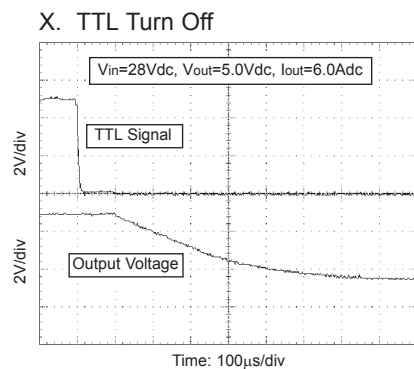
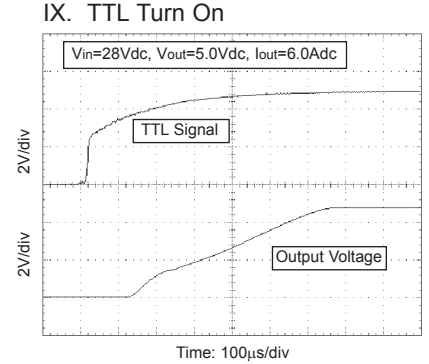
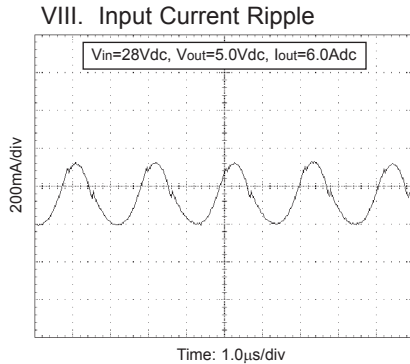
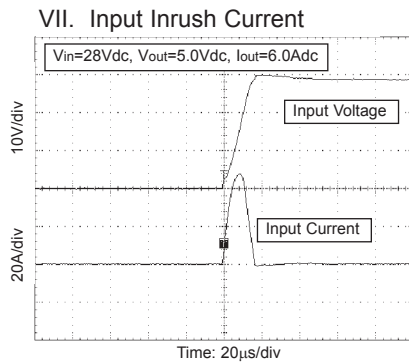
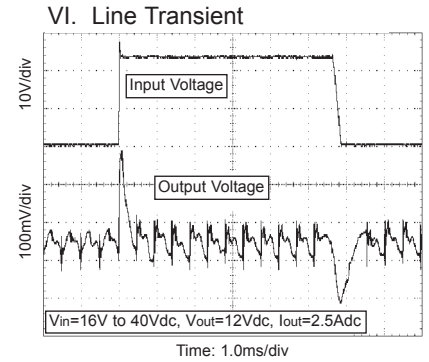
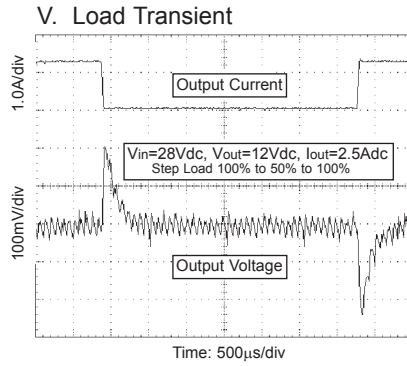
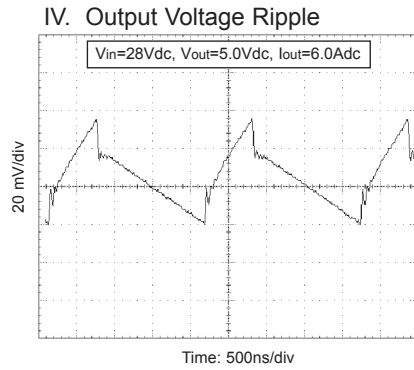
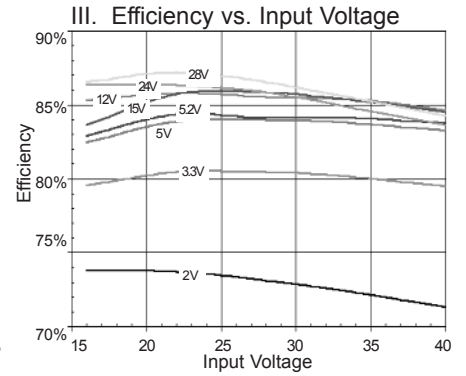
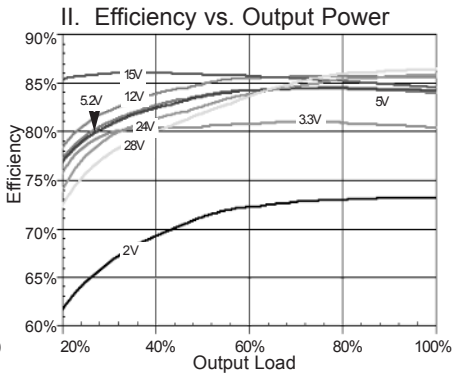
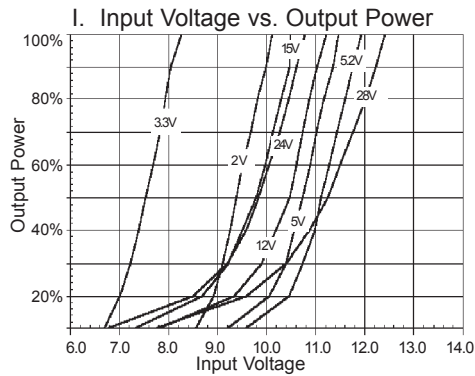
CASE DRAWINGS



Tolerances: inches - x.xx = ±0.02 mm - x.x = ±0.5
x.xxx = ±0.010 x.xx = ±0.25

All specifications are typical @+25°C with nominal input voltage and under full output load conditions, unless otherwise noted. Specifications are subject to change without notice.

PERFORMANCE CHARACTERISTICS: CB30S



All specifications are typical @+25°C with nominal input voltage and under full output load conditions, unless otherwise noted. Specifications are subject to change without notice.