



CFB200-110S SERIES

200 WATT

DC-DC CONVERTERS



**Railway
System**

Preliminary

FEATURES

- * 200W Isolated Output
- * Efficiency to 86%
- * Low no load input power
- * 2:1 Input Range
- * Regulated Outputs
- * Remote ON/OFF
- * Over Temperature Protection
- * Over Voltage/Current Protection
- * Continuous Short Circuit Protection
- * Full Brick Size meet industrial standard
- * CE Mark Meets 2004/108/EC
- * Meet UL60950-1 Basic insulation
- * Meet EN50155



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	Capacitor Load max.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CFB200-110S12	66-160 VDC	12 VDC	0mA	16.6 A	25mA	2140mA	85	10000µF
CFB200-110S24	66-160 VDC	24 VDC	0mA	8.3 A	25mA	2114mA	86	4700µF
CFB200-110S48	66-160 VDC	48 VDC	0mA	4.16 A	25mA	2114mA	86	2200µF

NOTE: 1. Nominal Input Voltage 110VDC

Specifications

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

INPUT SPECIFICATIONS:

Input Voltage Range	110V	66-160V
Input Surge Voltage (100ms max.)	180Vdc max.	
Under voltage lockout	power up	64V
	power down	62V

Positive Logic Remote ON/OFF:

Logic Compatibility	Open Collector ref to -Input
Module ON	Open Circuit
Module OFF	< 1.8Vdc

Input Filter	PI Type
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OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.5% max.
Transient Response: 25% Step Load Change	<500u sec.
External Trim Adj. Range	±10%
Ripple & Noise, 20MHz BW(note 3)	
12V	60mVRMS., 150mVpk-pk max.
24V	100mVRMS, 240mVpk-pk max.
48V	200mVRMS, 480mVpk-pk max.
Temperature Coefficient	±0.03%/°C
Short Circuit Protection	Continuous
Line Regulation (note 1)	±0.2% max.
Load Regulation (note 2)	±0.2% max.
Over Voltage Protection trip Range ,% Vo nom.	115-140%
Current Limit	110% ~150% Nominal Output
Start up time	120ms typ.

GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	input/output
	3000V _{rms} min.
	input/case
	1500V _{rms} min.
	output/case
	500V _{rms} min.
Isolation Resistance	10 ⁹ Ohm min.
Isolation Capacitance	500pF typ.
Switching Frequency	250KHz typ.
Operating Case Temperature	-40°C to 100°C
Storage Temperature	-55°C to +105°C
Thermal Shutdown, Case Temp.	105°C typ.
Humidity	95% RH max. Non condensing
MTBF	MIL-HDBK-217F, GB, 25°C, Full Load
Safety	TBD
EMI	UL60950-1(Basic insulation), EN50155
Shock/Vibration	with external filter to meet EN55022 Class A/B
Environmental	meet EN50155(EN60068-2-1)
Dimensions	4.60×2.40×0.52 Inches (116.8x61.0x13.2 mm)
Case Material	Aluminum Baseplate with Plastic Case
Weight	220g

NOTE:

1. Measured from high line to low line
2. Measured from full load to zero load
3. Output Ripple and Noise measured with 10uF tantalum and 1uF ceramic capacitor across output
4. An external input capacitor 68uF for all models are recommended to reduce input ripple voltage.

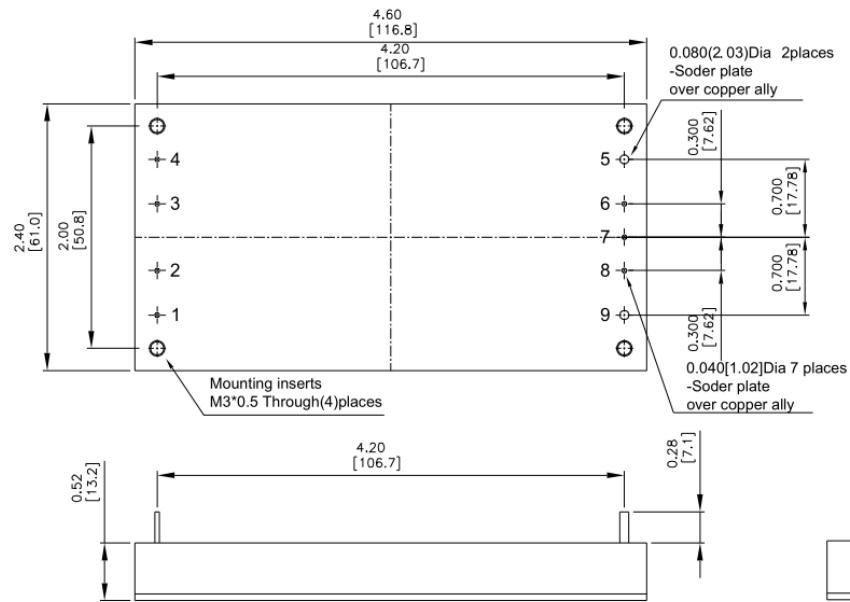
Case FB Dimensions:

NOTE: Pin Size is 0.02" Inch (0.5mm)DIA

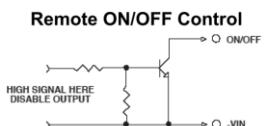
All Dimensions In Inches (mm)

Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010

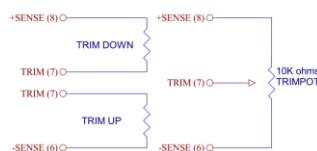
Millimeters: X.X= ±0.5 , X.XX=±0.25



PIN CONNECTION	
Pin	Function
1.	+ Vin
2.	ON / OFF
3.	NC
4.	- Vin
5.	- Vout
6.	- Sense
7.	Trim
8.	+ Sense
9.	+ Vout



EXTERNAL OUTPUT TRIM



Revision History

Revision Version	Date	Change Description	Signature
V01	2014/09/30	New release	Hugo