



CFB750-300 SERIES 750 WATT 2:1 INPUT DC-DC CONVERTERS

FEATURES

- * 750W Isolated Output
- * Efficiency to 91%
- * Fixed Switching Frequency
- * Input Under-Voltage Protection
- * Over Temperature Protection
- * Over Voltage/Current Protection
- * Remote On/Off
- * Industry Full-Brick Package
- * Single Wire Parallel
- * Meets UL 60950-1
- * Fully Isolated 3000VAC



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% Eff.	CAPACITIVE LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CFB750-300S12	200-425VDC	12VDC	0 mA	62.5 A	10 mA	2.84 A	89	10000uF
CFB750-300S15	200-425VDC	15VDC	0 mA	50 A	10 mA	2.84 A	89	10000uF
CFB750-300S24	200-425VDC	24VDC	0 mA	31.2 A	10 mA	2.78 A	90	10000uF
CFB750-300S28	200-425VDC	28VDC	0 mA	26.7 A	10 mA	2.78 A	90	10000uF
CFB750-300S36	200-425VDC	36VDC	0 mA	20.8 A	10 mA	2.78 A	90	8000uF
CFB750-300S48	200-425VDC	48VDC	0 mA	15.6 A	10 mA	2.78 A	91	8000uF

NOTE:

1. Nominal input voltage 300 VDC
2. The output terminal required a minimum capacitor 1000uF to maintain specified regulation.
3. Measure at nominal input voltage

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range	300V	200-425V
Input Over Voltage Protection	Module on	480V
	Module off	500V
Under Voltage Lockout	300Vin power up	195V
	300Vin power down	180V
Positive Logic Remote On/Off (note5&6)		
Input Filter		C Type

OUTPUT SPECIFICATIONS:

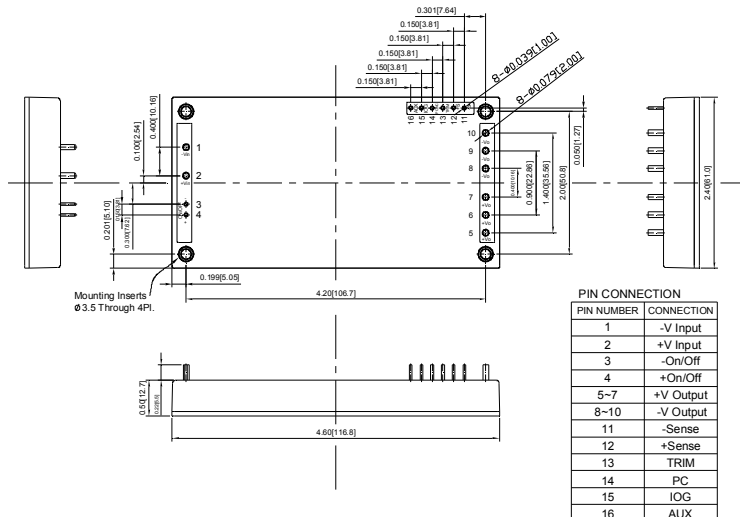
Voltage Accuracy	±1.0% max.
Transient Response:25% Step Load Change	<500us
External Trim Adj. Range (note4)	60-110%
Load share Accuracy	±10% at 50% to 100% Full Load
Auxiliary Output Voltage/current	10±3Vdc/20mA max.
Ripple & Noise, 20MHz BW (note3)	

12V&15V	150mV RMS, 300mV pk-pk max.
24V&28V	300mV RMS, 600mV pk-pk max.
36V	300mV RMS, 650mV pk-pk max.
48V	350mV RMS, 750mV pk-pk max.

Temperature Coefficient	±0.03%/°C
Short Circuit Protection	Continuous
Line Regulation (note 1)	±0.2% max.
Load Regulation (note 2)	±0.5% max.
Over Voltage Protection trip Range, % Vo nom	115-140%
Current Limit	105-125% Nominal Output

CASE FB

All Dimensions in Inches[mm]
 Tolerance Inches:x.xx=±0.02 , x.xxx=±0.01
 Millimeters:x.x=±0.5 , x.xx=±0.25



The output voltage can be determined by below equations:

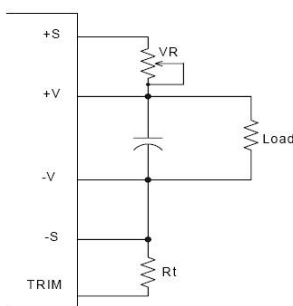
$$V_f = \frac{1.24 \times \left(\frac{R_t \times 33}{R_t + 33} \right)}{7.68 + \frac{R_t \times 33}{R_t + 33}}$$

$$V_{out} = (V_o + V_R) \times V_f$$

Unit: KΩ

Vo: Nominal Output Voltage

Fig.1 The schematic of output voltage adjusted by using external resistor and/or variable resistor.

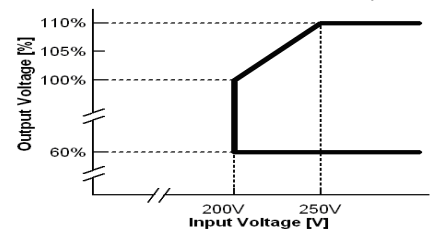


GENERAL SPECIFICATIONS:

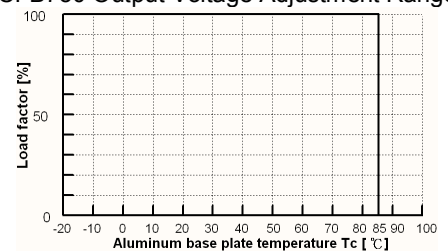
Efficiency	See Table
Isolation Voltage	Input/Output 3000VAC min.
	Input/Case 2500VAC min.
	Output/Case 500VAC min.
Isolation Resistance	10 ⁷ ohm min.
Switching Frequency	200KHz typ.
Operating Case Temperature	-40°C to 85°C
Storage Temperature	-55°C to +105°C
Thermal Shutdown, Case Temp.	95°C typ.
Humidity	95% RH max. Non condensing
MTBF	MIL-HDBK-217F, GB 370Khrs typ.
Dimensions	4.60×2.40×0.50 inches(116.8×61.0×12.7 mm)
Case Material	Aluminum Baseplate with Plastic Case
Weight	230g typ.

NOTE :

- Measured from high line to low line.
- Measured from full load to zero load.
- Output ripple and noise measured with 1uF ceramic capacitor and 1000uF aluminum capacitor across output.
- The output adjustment circuit and trim equations show as Figure1 and Figure2.
- Logic compatibility.....open collector refer to -Vin
 Module on >3.5Vdc to 75Vdc or Open Circuit
 Module off 0 to <1.2Vdc
- Suffix "N" to the model number with negative logic remote on/off
 Module on 0 to <1.2Vdc
 Module off >3.5Vdc to 75Vdc or Open Circuit



CFB750 Output Voltage Adjustment Range



CFB750-300SXX Derating

Output Voltage = TRIM
 Terminal Voltage * Nominal
 Output Voltage

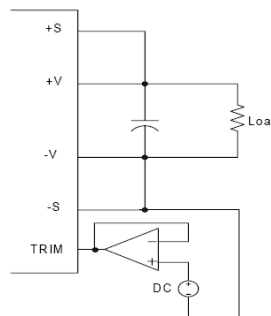


Fig.2 The schematic of output voltage adjusted by using external DC voltage.