



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

FEATURES

- * 750W Isolated Output
- * Efficiency to 90%
- * Fixed Switching Frequency
- * Input Under-Voltage Protection
- * Over Temperature Protection
- * Over Voltage/Current Protection
- * Remote On/Off
- * Industry Full-Brick Package
- * Meets UL 60950-1
- * Fully Isolated 3000VAC
- * Off-Line Systems Using PFC Front-Ends



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	88	10000uF
CFB750-300S15	200-425VDC	15VDC	0 mA	50 A	10 mA	2.84 A	88	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	90	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	±1.5% max.
Transient Response:25% Step Load Change	<500u sec.
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 max., 300mV pk-pk max.
24V&28V	300mV RMS max., 600mV pk-pk max.
36V	300mV RMS max., 650mV pk-pk max.
48V	350mV RMS max., 750mV pk-pk max.
Temperature Coefficient	±0.03%/°C
Short Circuit Protection	Continuous
Line Regulation (note1)	±0.2% max.
Load Regulation (note2)	±0.5% max.
Over Voltage Protection trip Range, % Vo nom	115-140%
Current Limit	105-125% Nominal Output

GENERAL SPECIFICATIONS:

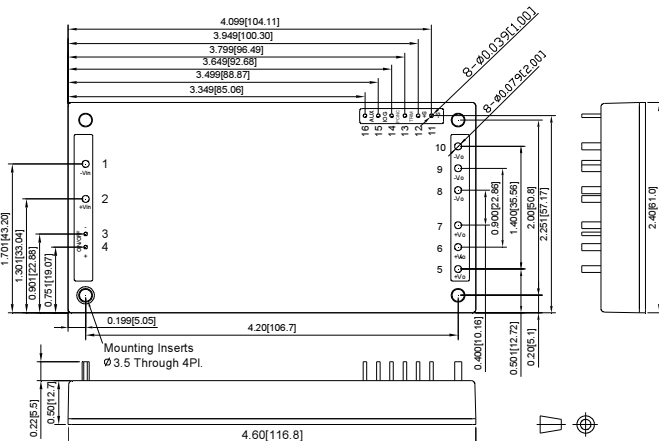
Efficiency	See Table
Isolation Voltage	Input/Output 3000VAC min.
	Input/Case 2500VAC min.
	Output/Case 500VAC min.
Isolation Resistance	10 ⁷ ohm min.
Switching Frequency	200KHz typ.
Operating Case Temperature	-40°C to 85°C
Storage Temperature	-55°C to +105°C
Thermal Shutdown, Case Temp.	95°C typ.
Humidity	95% RH max. Non condensing
MTBF	MIL-STD-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 :

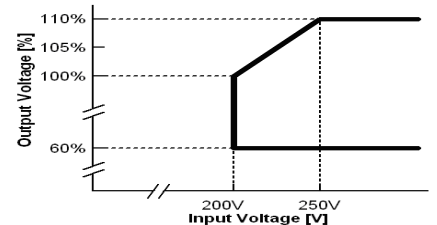
1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Output ripple and noise measured with 1uF ceramic capacitor and 1000uF aluminum capacitor across output.
4. The output adjustment circuit and trim equations show as Figure1 and Figure2.
5. Logic compatibility.....open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

CASE FB CASE FB

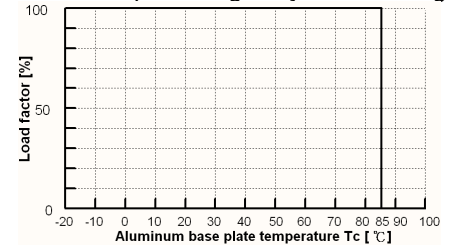
All Dimensions in Inches(mm)
Tolerances Inches: .XX±0.02 .XXX±0.010 ±0.004
Millimeters: .X±0.5 .XX±0.25 ±0.1



PIN CONNECTIONS	
PIN NUMBER	FUNCTION
1	-Vin
2	+Vin
3	-ON/OFF
4	+ON/OFF
5 - 7	+Vo
8 - 10	-Vo
11	-S
12	+S
13	TRIM
14	PC/NC
15	IOG
16	AUX



CFB750 Output Voltage Adjustment Range



CFB750-300SXX Derating

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

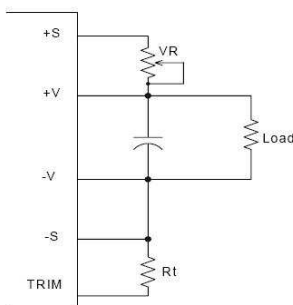
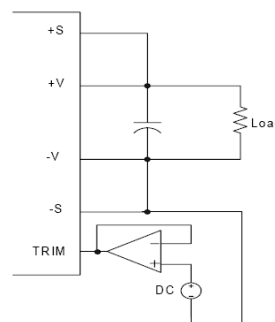


Fig.1 The schematic of output voltage adjusted by using external resistor and/or variable resistor.



Output Voltage = TRIM
Terminal Voltage * Nominal
Output Voltage

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