



# CHASSIS MOUNT CFB600W-110S SERIES 600 WATT 4:1 INPUT DC-DC CONVERTERS



## FEATURES

- \* 600W Isolated Output
- \* Efficiency to 88%
- \* Fixed Switching Frequency
- \* 4:1 Input Range
- \* Regulated Outputs
- \* Remote On/Off
- \* Over Temperature Protection
- \* Over Voltage/Current Protection
- \* Continuous Short Circuit Protection
- \* Shock & Vibration Meets EN50155 (EN61373)
- \* Safety Meets UL60950-1, EN60950-1, and IEC60950-1
- \* UL60950-1 2<sup>nd</sup> (Basic Insulation) Approval for DC Modules
- \* Meets EN50155:2007 for EMC, Environmental and Characteristic
- \* Build-In EMI Filter
- \* Fire & Smoke Meets EN45545-2
- \* Baseplate Cooled



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	Capacitor Load max.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CFB600W-110S12□-CMFD	43-160VDC	12 VDC	0mA	50A	25mA	6.3A	87	10000μF
CFB600W-110S24□-CMFD	43-160VDC	24 VDC	0mA	25A	25mA	6.2A	88	10000μF
CFB600W-110S28□-CMFD	43-160VDC	28VDC	0mA	21.4A	25mA	6.2A	88	10000μF
CFB600W-110S48□-CMFD	43-160VDC	48VDC	0mA	12.5A	25mA	6.2A	88	10000μF

### NOTE:

1. Nominal Input Voltage 110VDC
2. □ = P or None.
3. VR is Used for Output Voltage Adjustment.
4. Refer to Application Note for Thermal Resistance and Derating Informations.
5. TVS is Included for Input Surge Voltage Pprotection.
6. Recommend an External Fuse for Input Reverse Polarity Protection (shunt diode is include inside).

# SPECIFICATIONS

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

## INPUT SPECIFICATIONS:

Input Voltage Range	110V	43-160V
Input Surge Voltage (100ms max.)	110V	180Vdc max.
Under voltage lockout	110Vin power up	42V
	110Vin power down	40V

Remote ON/OFF (see note4)

## OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.0% max.
Transient Response: 25% Step Load Change	<500us
Trim Adj. Range (By VR)	±10%
Ripple & Noise, 20MHz BW	
12V	60mV RMS, 120mV pk-pk max.
24V	100mV RMS, 240mV pk-pk max.
28V	100mV RMS, 280mV pk-pk max.
48V	200mV RMS, 480mV pk-pk max.
Temperature Coefficient	±0.03%/°C max.
Short Circuit Protection	Continuous
Line Regulation (note1)	±0.2% max.
Load Regulation (note2)	±2.0% max.
Over Voltage Protection trip Range, % Vo nom.	115-140%
Current Limit	105%-140% Nominal Output
Auxiliary Output Voltage/Current	10±3Vdc/20mA max.
Load Share Accuracy	±10% at 50% to 100% Full Load
Start up Time	160ms typ.

## GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	Input/Output, Input/Case 2250VDC min.
	Output/Case 1500VDC min.
Isolation Resistance	10 <sup>7</sup> ohm min.
Isolation Capacitance (DC Module)	4000pF typ
Switching Frequency	250KHz typ.
Operating Case Temperature	-40°C to +100°C
Storage Temperature	-40°C to +105°C
Thermal Shutdown, Case Temperature(DC Module)	110°C typ.
MTBF	MIL-HDBK-217F. GB, 25°C, Full Load 280Khrs typ.
Humidity	95% RH max. Non condensing
Safety	Meets UL60950-1 2 <sup>nd</sup> (Basic Insulation)
EMC	Meets EN50155(EN50121-3-2:2007) with External Output Filter Meets EN50155(EN50121-3-2:2015)
Shock/Vibration	Meets EN50155(EN61373)
Environmental	EN50155(EN60068-2-1,2,30)
Case Material	Aluminum
Dimensions	9.45x4.33x1.65 Inches (240.0x110.0x42.0mm)
Weight	995g

## 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 across output.
4. Suffix "P" to the model number with positive logic remote on/off, standard model is negative logic
5. Input connectors PIN1~5 use DINKLE DT-49-B01W-05 series or equivalent. suitable electric wire: 22~12AWG( IEC 0.5~4mm<sup>2</sup>)
6. Output connectors PIN6~11 use DINKLE DT-49-B01W-06 series or equivalent. suitable electric wire: 22~12AWG( IEC 0.5~4mm<sup>2</sup>)
7. Connector CN1 wafer with TAIWAN KING PIN TERMINAL 8822-02 series or equivalent
8. Connector CN2 wafer with CHYAO SHIUNN TERMINAL JS-1001-04(K) series or equivalent.
9. Connector CN3 wafer with CHIA-SOON TERMINAL B3B-PH-K-S series or equivalent

## Case Dimensions

All Dimensions In Inches (mm)

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

Millimeters: X.X= ±0.5 , X.XX=±0.25

