

# 54 WATT

## DUAL OUTPUT

### DC/ DC SWITCHING ADAPTOR

### DTB54-1212FWX-W-DC

## GENERAL SPECIFICATION

This specification describes the performance characteristics of a grounded, single phase 54 Watts, 2 output level adapter power supply with +12V, -12V and remote control output.



• Isolated Power Supply

### 1) INPUT

Description	Min.	Typical	Max.	Condition
Input Voltage	19VDC	24VDC	35VDC	-
Input Current(RMS)	-	-	5A	-
Efficiency	-	70%	-	24VDC at full load

### 2) OUTPUT

+12V/2.5A; -12V/2.0A; TOTAL OUTPUT: 54W MAX.

NOMINAL VOLTAGE		LIMIT VOLTAGE		AVERAGE LOAD			RIPPLE & NOISE	REGULATION
		MIN.	MAX.	MIN.	MAX.	PEAK		
V1	+12V	11.40 V	12.6 V	0.2A	2.5A	0.2A	120mV	±5%
V2	-12V	-10.80 V	-13.20 V	0A	2.0A	0A	120mV	±10%

NOTE: 20MHz bandwidth ripple & noise is measured by using 0.1uF C.C. & 10uF/50V E.C. bypassed at the output connector.

### 3) PROTECTION:

#### 3.1) OVER VOLTAGE PROTECTION:

If any over voltage occurs, the power supply should latch off before any output exceeds its limit below:

NOMINAL VOLTAGE(V)	OVERVOLTAGE RANGE(V)	
	FROM	TO
+12	13	15

The power supply will not be automatically recovered after the over voltage fault being removed. A manual power reset is necessary.

#### 3.2) SHORT CIRCUIT PROTECTION

Any short circuit occurred on any DC output should not cause any damage to the power supply, but will shut down the power supply. The power supply will not be automatically recovered after the short circuit being removed. A manual power reset is necessary.

### **3.3) OVERLOAD PROTECTION**

An over load protection will be effected when overloading reaches +160% MAX.  
The power supply will not be automatically recovered after the overload being removed.  
A manual power reset is necessary.

### **3.4) VIBRATION:**

10-55Hz amplitude (sweep 1 min.) less than 2G X, Y, Z 1 hour ea.

### **3.5) SHOCK: <20G**

## **4) ENVIRONMENT:**

### **4.1) Operating temperature:**

Temperature	0 to 40 degree
Relative Humidity	20 to 90 percent, non-condensing

### **4.2) SHIPPING AND STORAGE:**

Temperature	-25 to +85 degree centigrade
Relative Humidity	20 to 90 percent, non-condensing

## **5) SAFETY REQUIREMENTS (MEET)**

The adapter must comply with UL/CSA/TUV/IEC950 standards.

### **5.1) DIELECTRIC WITHSTAND**

- Primary to Secondary : 1500 VAC for 60 Sec.
- Primary to Frame Ground : 1500 VAC for 60 Sec.

### **5.2) INSULATION RESISTANCE**

- Primary to Secondary : 50 Meg. Ohms Min. 500 VDC
- Primary to Frame Ground : 50 Meg. Ohms Min. 500 VDC.

## **6) ELECTROMAGNETIC COMPABILITY**

Tests for conformance to this requirements will be performed with host system.

### **6.1) FCC Requirements**

The adapter shall comply with the FCC rules and regulations Part 15, Subpart J, "Class B" limits.

### **6.2) CE Requirements**

The adapter shall confirm to the "Class B" requirements of EN55022.

## **7) RELIABILITY**

MTBF: 80000 hours min. at max. load for 25 degree centigrade ambient temperature.



## 8) BURN-IN TEST

100% burn-in tested at max. load under 40 +/-5 degree centigrade.

## 9) MECHANICAL DIMENSION

Outside dimension: 155.0(L) X 85(W) X 50(H)mm

Input connector: IEC320-C13

Output connector: Depends on your requirements.

