HTM250FH-T9 Specification

1. General

This specification defines the performance characteristics of, 5Vsb&5V/5A,12V/3A, 24V/9A output AC-DC power. This specification also defines the worldwide safety requirements and EMC requirements.

2. Input Characteristics

a. AC Input Voltage

The power will operate over the entire input voltage range (90-264 VAC).

Minimum	Maximum	Nominal/Rated
90 VAC	264 VAC	100/240 VAC

b. Frequency

The input frequency range will be 47Hz to 63Hz.

c. Input Current

The input current will not exceed 4Amp(rms.) for 90 VAC.

d. Efficiency

The power efficiency (watts output/watts input) will not be less than 85% typically at full load condition.(at 230Vac)

e. Hold Up Time

The output hold up time (measured at the 90% point of normal voltage output) will be guaranteed 8msec at test condition which is full load,115 VAC /60Hz, normally line, 25℃ Ambient temperature,

f. Power Factor Correction > 0.95 at Full Load.

g. Power saving (Remote off) < 1 W

3. Output Characteristics

a. DC Load Characteristics (Output total maximum power not exceed 277W)

Output Voltage	Min Current	Regulation Tolerance	Max Current	Ripple & Noise
+5Vsb&+5V	0A	±5%	5A	100mV

Note: 5Vsb & 5V Output total Power not exceed 10W

Mode-1：

+12V	0A	±5%	3A	240mV
+24V	0A	±5%	9A	480mV

Note: Power Down Signal (PS On/Off) (CON02 Pin 4).

If High(2V~5V) All power Switch ON.

If Low (0V~0.6V) Only +5Vsb Switch ON.

b. Ripple & Noise

The power noise will be less than 100mV(+5Vsb&+5V),240mV (+12V),480mV(+24V).
Note: A0.1 μF Ceramic and 10 μF Tantalum capacitors should be put across output terminals during ripple & noise test. The oscilloscope bandwidth is set at 20MHz and co-axial probe will be used to measure it. The test condition is max. load and normally line.

c. Overshoot

The power use in overshoot at turn on or turn off AC input will be less than 10% of the nominal value and will decay itself within the regulation band in less than 50m sec.

4. Protection:

a. Primary (Input) Protection

The input power line will be fused with a fuse 5.0A, 250 VAC.

b. Secondary (Output) protection

b.1. Over Current (OC) Protection

+24V	12.5A max	Latch mode
+12V	7A max	Latch mode
+5Vsb&+5V	7Amax	Auto-reconvery mode

b.2 Over Voltage (OV) Protection

+24V	+28V max	Latch mode
+12V	+16V max	Latch mode
+5Vsb&+5V	+8V max	Latch mode

b.3 Short Circuit Protection

+5Vsb&+5V	Auto-reconvery mode
+12V	Latch mode
+24V	Latch mode

5. Power Supply Sequencing

a. AC Power On

When proper AC power is applied, the output will reach its regulation limits within 2.0 Second at 110 VAC.

b. Output Rise Time

The output rise time (measured from the 10% point to the 90% point on the waveform) will be greater than 1m sec and less than 20m sec.

6. E.M.I.

a. Conduction

The power will conform to FCC Class B, VCCI Class B, and CISPR Class B.

b. Radiation

The power will conform to FCC Class B, VCCI Class B, and CISPR Class B.

7. Safety Characteristics

a. Safety Meet Requirements

UL : UL60950 Third Edition

TUV : EN60950

CCC : GB4943 & GB8898

b. Withstand Voltage

Primary to secondary : 1500VAC 10mA for 3 seconds.

c. Provisions for Protective Earthing

While 12V/25A applied on between primary and secondary side together and provisions for protective earthing is less than 0.1 ohm for 3 seconds.

d. Inrush Current

The power inrush current is less than 80Amps(peak to peak) at the time of cold start at 230 VAC Condition.

8. Environment

a. Operating

The power operating temperature is 0℃ to 50℃.

The power operating relative humidity is 20% to 85%.

b. Storage

The power storage temperature is -40℃ to 70℃.

The power storage relative humidity is 10% to 95%.

9. Life

a. On – off Life

To verify the power supply withstand 10,000 time on-off repetition of primary power without failure or damage at110Vac input.

b. Operational life

The power will be designed for a minimum life of 50,000 power-on hours at 25℃ Ambient temperature.

10. Dimension

210L x 130W x 30H mm MAX.