



## ■ Features :

- Universal AC input / Full range
- · Built-in active PFC function
- . High efficiency up to 90%
- · Withstand 300VAC surge input for 5 seconds
- · Protections: Short circuit / Overload / Over voltage
- Protections: Over temperature (optional)
- · Cooling by free air convection
- 1U low profile 38mm
- Medical safety approved (MOOP level)
- Built-in remote ON-OFF control
- No load power consumption<0.5W</li>
- \* All using 105°C long life electrolytic capacitors
- 5 years warranty

## R CBCE

## **SPECIFICATION** MODEL MSP-100-3 3 MSP-100-5 MSP-100-7 5 MSP-100-12 MSP-100-15 MSP-100-24 MSP-100-36 MSP-100-48 DC VOLTAGE 3.3V 5V 7.5V 12V 15V 24V 36V 48V RATED CURRENT 13.5A 8.5A 20A 17A 7A 4.5A 2.9A 2.2A 0 ~ 20A 0 ~ 17A 0 ~ 13.5A 0 ~ 8.5A 0 ~ 7A 0 ~ 4.5A 0 ~ 2.9A 0 ~ 2.2A **CURRENT RANGE RATED POWER** 66W 85W 101.3W 102W 105W 108W 104.4W 105.6W RIPPLE & NOISE (max.) Note.2 80mVp-p 80mVp-p 120mVp-p 150mVp-p 150mVp-p 200mVp-p 240mVp-p 100mVp-p OUTPUT **VOLTAGE ADJ. RANGE** 4.75 ~ 5.8V 7.1 ~ 9V 11.4 ~ 13.8V 14.25 ~ 18V 22.8 ~ 28.8V 34.2 ~ 39.6V 45.6 ~ 55.2V 3.1 ~ 3.8V VOLTAGE TOLERANCE Note.3 +2.5,-3.5% +2.5,-3.5% ±2.5% ±1.5% ±1.5% ±1.5% ±1.5% ±1.5% ±0.5% ±0.5% ±0.3% ±0.3% ±0.2% ±0.2% ±0.2% LINE REGULATION $\pm 0.5\%$ ±2.0% ±2.0% ±1.5% ±0.8% ±0.8% ±0.5% ±0.5% ±0.5% LOAD REGULATION 2500ms, 100ms/230VAC 2500ms, 100ms/115VAC at full load SETUP. RISE TIME 20ms/115VAC at full load **HOLD UP TIME (Typ.)** 50ms/230VAC **VOLTAGE RANGE** Note.5 85 ~ 264VAC 120 ~ 370VDC **FREQUENCY RANGE** 47 ~ 63Hz PF>0.98/115VAC at full load POWER FACTOR (Typ.) PF>0.95/230VAC INPUT EFFICIENCY (Typ.) 78% 83% 84% 87.5% 88% 88.5% 89% 90% AC CURRENT (Typ.) 1.2A/115VAC 0.6A/230VAC INRUSH CURRENT (Typ.) 35A/115VAC 65A/230VAC LEAKAGE CURRENT Note.6 Earth leakage current < 300μA/264VAC , Touch leakage current < 100μA/264VAC 105 ~ 135% rated output power **OVERLOAD** Protection type: Constant current limiting for Vo=50 ~ 100% of rated voltage, recovers automatically after fault condition is removed 3.96 ~ 4.62V 6 ~ 7V 9.4 ~ 10.9V | 14.4 ~ 16.8V | 18.8 ~ 21.8V | 30 ~ 34.8V 41.4 ~ 48.6V | 57.6 ~ 67.2V **PROTECTION** OVER VOLTAGE Protection type: Shut down o/p voltage, re-power on to recover **OVER TEMPERATURE** Shut down o/p voltage, recovers automatically after temperature goes down **FUNCTION** RC+/RC-: $0 \sim 0.8V$ = power on; $4 \sim 10V$ = power off REMOTE CONTROL -40 ~ +60°C (Refer to "Derating Curve") WORKING TEMP. 20 ~ 90% RH non-condensing **WORKING HUMIDITY ENVIRONMENT** -40 ~ +85°C, 10 ~ 95% RH STORAGE TEMP., HUMIDITY $\pm 0.04\%$ /°C (0 ~ 50°C) TEMP. COEFFICIENT $10 \sim 500$ Hz, 5G 10min./1cycle, 60min. each along X, Y, Z axes VIBRATION SAFETY STANDARDS ANSI/AAMI ES60601-1, IEC60601-1 approved ISOLATION LEVEL Primary-Secondary: 2×MOOP, Primary-Earth: 1×MOOP, Secondary-Earth: 1×MOOP **SAFETY &** WITHSTAND VOLTAGE I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC **EMC** ISOLATION RESISTANCE I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / $25^{\circ}$ C / 70% RH (Note 4) **EMC EMISSION** Compliance to EN55011 (CISPR11) Class B, EN61000-3-2,-3 **EMC IMMUNITY** Compliance to EN61000-4-2,3,4,5,6,8,11, EN60601-1-2 MTBF 295.7K hrs min. MIL-HDBK-217F (25°C) **OTHERS DIMENSION** 159\*97\*38mm (L\*W\*H) PACKING 0.38Kg; 24pcs/10.1Kg/0.76CUFT

## NOTE

- 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.

  2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
- 3. Tolerance: includes set up tolerance, line regulation and load regulation.
- 4. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm\*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)
- 5. Derating may be needed under low input voltages. Please check the derating curve for more details.
- 6. Touch current was measured from primary input to DC output.
- 7. When the input voltage is less than 40VAC, the SPS may exhibit degradation of performance. The final product manufacturers must re-confirm this deviation that does not affect basic safety or essential performance.



