

# MPS-30 SERIES

# TOTAL POWER INT'L SWITCHING POWER SUPPLY

# MPS-30 SERIES

- .LOW COST, HIGH RELIABILITY
- .105°C OUTPUT CAPACITOR
- .INTERNATIONAL AC INPUT RANGE
- .HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED
- .COMPACT SIZE, LIGHT WEIGHT
- .100% FULL LOAD BURN-IN TEST
- .BUILT IN EMI FILTER, LOW RIPPLE NOISE
- .MEDICAL APPLICATION

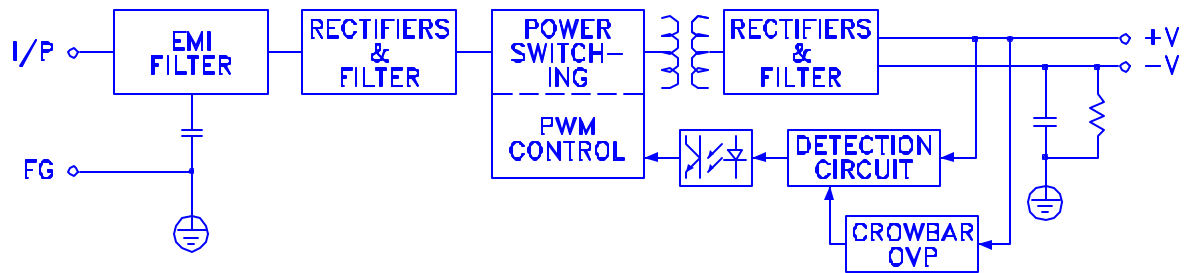


MODEL	MPS-30-5	MPS-30-12	MPS-30-15	MPS-30-24	MPS-30-27	MPS-30-48
DC OUTPUT VOLTAGE	5V	12V	15V	24V	27V	48V
OUTPUT V. TOLERANCE	±3%	±3%	±3%	±3%	±3%	±2%
OUTPUT RATED CURRENT	5A	2.5A	2A	1.2A	1.1A	0.6A
OUTPUT CURRENT RANGE	0-5A	0-2.5A	0-2A	0-1.2A	0-1.1A	0-0.6A
RIPPLE & NOISE	80mV	120mV	150mV	240mV	240mV	240mV
LINE REGULATION	±1%	±1%	±0.5%	±0.5%	±0.5%	±0.5%
LOAD REGULATION	±2%	±1%	±1%	±1%	±1%	±1%
DC OUTPUT POWER	25W	30W	30W	28.8W	29.7W	28.8W
EFFICIENCY	72%	75%	76%	77%	78%	78%
INPUT VOLTAGE RANGE	88~264VAC 47~63Hz; 120~370VDC					
AC CURRENT	0.8A/115V 0.5A/230V					
INRUSH CURRENT	COLD START 35A/230VAC					
LEAKAGE CURRENT	<300uA/264VAC					
OVERLOAD PROTECTION	ABOVE 105% TYPE:PULSING HICCUP SHUTDOWN RESET:AUTO RECOVERY					
OVER VOLTAGE PROTECTION	110%~135%					
OVER TEMP. PROTECTION	U1 Tj 135°C TYPICALLY POWER SHUTDOWN					
TEMP. COEFFICIENT	±0.03% / °C (0~50°C)					
SETUP, RISE, HOLD UP TIME	500ms, 30ms, 10ms / 115VAC 500ms, 30ms, 50ms / 230VAC					
VIBRATION	10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES					
WITHSTAND VOLTAGE	I/P-O/P:4KVAC, I/P-FG:1.5KVAC, O/P-FG:SHORT					
ISOLATION RESISTANCE	I/P-O/P, I/P-FG:500VDC / 100M Ohms					
WORKING TEMP., HUMIDITY	-10°C~+50°C, 20%~90% RH(REFER TO OUTPUT DERATING CURVE)					
STORAGE TEMP., HUMIDITY	-20°C~+85°C, 10%~95% RH					
DIMENSION	101.5*65.8*23.4 mm ONLY PCB					
WEIGHT	150gs					
SAFETY STANDARDS	MEET EN60601-1,IEC601-1,UL2601-1					
EMC STANDARDS	MEET CISPR11, FCC CLASSB ,IEC61000-4-2,3,4,5,6,8,11					

NOTE : 1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C 70% RH. AMBIENT.  
 2.RIPPLE & NOISE ARE MEASURED AT 20MHZ BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.  
 3.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.

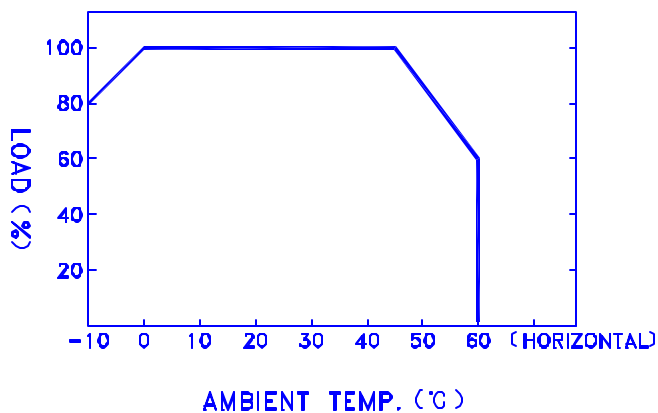
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## BLOCK DIAGRAM

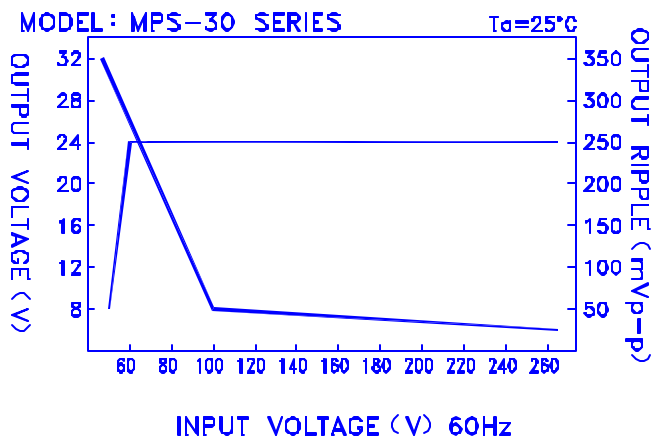


fosc: 100KHz

## OUTPUT DERATING



## STATIC CHARACTERISTICS



## DIMENSION (mm)

### CONNECTOR PIN NO. ASSIGNMENT

- ☒ CN1 : JST B5P-VH
  - PIN 1 : FG  $\perp$
  - PIN 3 : AC NEUTRAL
  - PIN 5 : AC LINE
- ☒ CN2 : JST B4P-VH
  - PIN 1,2 : DC OUTPUT COM
  - PIN 3,4 : DC OUTPUT +V

### MATING CONNECTORS

- ☒ CN1,2 MATING CONNECTOR TYPE JST VHR SERIES OR EQUIVALENT WITH JST SVH-21T-1.1 OR EQUIVALENT CRIMP TERMINALS.

