



MEAN WELL

SWITCHING POWER SUPPLY
ISO-9001 CERTIFIED MANUFACTURER

PTsb-50 SERIES

- .LOW COST, HIGH RELIABILITY
- .105°C OUTPUT CAPACITOR
- .INTERNATIONAL AC INPUT RANGE
- .HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .BULT IN REMOTE CONTROL CIRCUIT
- .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
- .BULT IN GREEN POWER CIRCUIT



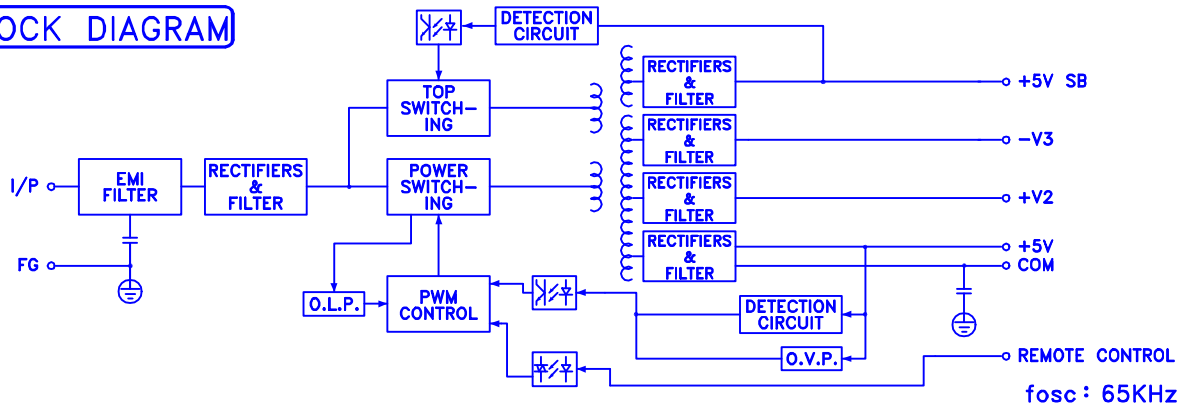
| MODEL | PTsb-50A | | | | PTsb-50B | | | | PTsb-50C | | | |
|---------------------------|---|------|------|------|----------|------|------|------|----------|------|------|------|
| | CH1 | CH2 | CH3 | SB | CH1 | CH2 | CH3 | SB | CH1 | CH2 | CH3 | SB |
| DC OUTPUT VOLTAGE | 5V | 12V | -5V | 5V | 5V | 12V | -12V | 5V | 5V | 15V | -15V | 5V |
| OUTPUT V. TOLERANCE | ±5% | | | | ±5% | | | | ±5% | ±6% | ±6% | ±5% |
| OUTPUT RATED CURRENT | 4A | 2A | 0.7A | 0.3A | 4A | 2A | 0.3A | 0.3A | 4A | 1.5A | 0.4A | 0.3A |
| OUTPUT MIN. CURRENT | 0.5A | 0.2A | 0A | 0.3A | 0.5A | 0.2A | 0A | 0.3A | 0.5A | 0.2A | 0A | 0.3A |
| OUTPUT MAX. CURRENT | 5A | 2.5A | 1A | 0.5A | 5A | 2.5A | 0.5A | 0.5A | 5A | 2.5A | 0.5A | 0.5A |
| RIPPLE & NOISE(Vp-p) | 50m | 120m | 100m | 100m | 50m | 120m | 150m | 100m | 50m | 120m | 150m | 100m |
| LINE REGULATION | ±1% | ±2% | ±2% | ±1% | ±1% | ±2% | ±2% | ±1% | ±1% | ±2% | ±2% | ±1% |
| LOAD REGULATION | ±3% | ±4% | ±5% | ±3% | ±3% | ±4% | ±5% | ±3% | ±3% | ±4% | ±5% | ±3% |
| RATED OUTPUT POWER | 49W | | | | 49.1W | | | | 50W | | | |
| MAXIMUM OUTPUT POWER | 63.5W/1min max | | | | | | | | | | | |
| EFFICIENCY | 76% | | | | | | | | | | | |
| DC VOLTAGE ADJ. | FIXED CH1 | | | | | | | | | | | |
| INPUT VOLTAGE RANGE | 90~264VAC 47~440Hz ; 120~370VDC | | | | | | | | | | | |
| AC CURRENT | 1.2A/115V 0.7A/230V | | | | | | | | | | | |
| INRUSH CURRENT | COLD START 20A/115V 45A/230V | | | | | | | | | | | |
| LEAKAGE CURRENT | <1mA/240VAC | | | | | | | | | | | |
| OVERLOAD PROTECTION | 66~85W OUTPUT POWER TYPE: SHUTDOWN RESET:RE POWER ON | | | | | | | | | | | |
| OVER VOLTAGE PROTECTION | 5.75~6.75VDC ON CH1 | | | | | | | | | | | |
| TEMP. COEFFICIENT | ±0.04% / °C (0~50°C) ON +5V OUTPUT | | | | | | | | | | | |
| SETUP, RISE, HOLD UP TIME | 300ms, 20ms, 50ms/230VAC 800ms, 23ms, 16ms/115VAC | | | | | | | | | | | |
| REMOTE CONTROL (PS) | PS-GND SHORT:POWER ON; PS-GND OPEN:POWER OFF (ONLY 5V SB OUTPUT) | | | | | | | | | | | |
| VIBRATION | 10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES | | | | | | | | | | | |
| WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:1.5KVAC | | | | | | | | | | | |
| ISOLATION RESISTANCE | I/P-O/P, I/P-FG / 100M Ohms | | | | | | | | | | | |
| WORKING TEMP., HUMIDITY | -10°C~+60°C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH | | | | | | | | | | | |
| STORAGE TEMP., HUMIDITY | -20°C~+85°C, 10%~95% RH | | | | | | | | | | | |
| DIMENSION | 137.5*81.5*42mm (L*W*H) PCB ONLY | | | | | | | | | | | |
| WEIGHT | 0.28Kgs | | | | | | | | | | | |
| SAFETY STANDARDS | MEET UL1950, TUV EN60950 | | | | | | | | | | | |
| EMC STANDARDS | MEET CISPR22 (EN55022), CLASS B IEC1000-4-2,3,4,5,6,8,11, IEC1000-3-2,3 | | | | | | | | | | | |

NOTE :

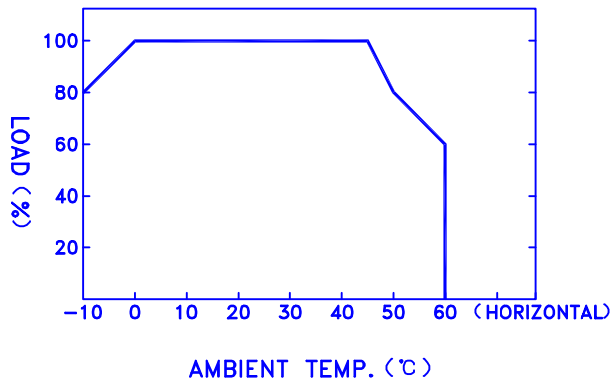
- 1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C 70% RH. AMBIENT.
- 2.TOLERANCE GINCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
- 3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
- 4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
- 5.OUTPUT PROVIDE UP TO MAXIMUM CURRENT, BUT RELATED TO MAXIMUM OUTPUT POWER.
- 6.EACH OUTPUT PROVIDE UP TO MAXIMUM CURRENT, BUT TOTAL LOAD CAN NOT EXCEED MAX. OUTPUT POWER.
- 7.MOUNTING HOLES M1 AND M2 SHOULD BE GROUNDED FOR EMI PURPOSES.

PTsb-50 Series

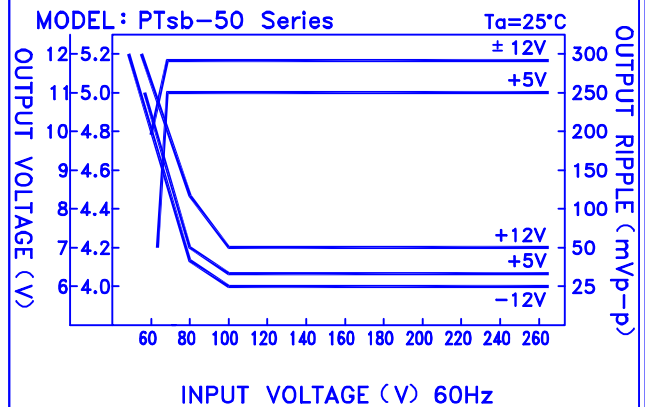
BLOCK DIAGRAM



OUTPUT DERATING



STATIC CHARACTERISTICS



DIMENSION (mm)

☒ TERMINAL PIN NO. ASSIGNMENT

- ☒ CN1 : MOLEX 5273-03
PIN 1,3 : AC INPUT
- ☒ CN2 : MOLEX 5273-09
PIN 1 : DC OUTPUT V2
PIN 2,3 : DC OUTPUT +5V
PIN 4,5,6 : DC OUTPUT GND
PIN 7 : DC OUTPUT -V3
PIN 8 : DC OUTPUT +5VSB
PIN 9 : DC OUTPUT R.C.
- ☒ CN4 : MOLEX 5045-02
PIN 1 : DC OUTPUT +12V
PIN 2 : DC OUTPUT GND

☒ MATING CONNECTORS

- ☒ CN1,2 MATING CONNECTOR TYPE
MOLEX 5195 AND 5239 SERIES OR EQUIVALENT WITH
MOLEX 5194 AND 5225 OR EQUIVALENT
CRIMP TERMINALS.
- ☒ CN4 MATING CONNECTOR TYPE
MOLEX 5051 SERIES OR EQUIVALENT WITH
MOLEX 2759 AND 5159 OR EQUIVALENT
CRIMP TERMINALS.

