

Specifications (measured @ Ta= 25°C, nom. Vin = 230VAC)

BASIC CHARACTERISTICS

| Parameter | Condition | | Min. | Typ. | Max. |
|--|------------------|---------------------------------|------|--------------|---|
| Rise Time | | | | | 30ms |
| Hold-up Time | 115VAC 230VAC | | | 13ms 60ms | |
| Internal Operating Frequency | | | | 65kHz | |
| Output Ripple and Noise ⁽⁵⁾ | 20MHz BW | 5VDC 12VDC 15VDC 24VDC | | | 80mVp-p 120mVp-p 150mVp-p 200mVp-p |

Notes:

- Note3: The products were submitted for safety files at AC-Input operation
 Note4: Refer to line derating graph on page PA-3
 Note5: Measurements are made with a 1.0µF MLCC across output (low ESR)

REGULATIONS

| Parameter | Condition | Value |
|--------------------------------|-----------------------|--------------------------|
| Output Accuracy ⁽⁶⁾ | 5, 12, 15VDC 24VDC | ±2.0% max. ±1.0% max. |

Notes:

- Note6: Includes Line-, Load Regulation and Set-up Tolerance

PROTECTIONS

| Parameter | Type | | Value |
|--------------------------------|------------------------|--------------------------------------|--|
| Short Circuit Protection (SCP) | | | Hiccup mode, automatic restart |
| Over Voltage Protection (OVP) | re-power on to recover | 5VDC 12VDC 15VDC 24VDC | 5.75-6.5VDC latch mode 13.5-15.0VDC 16.9-18.75VDC 27.0-30.0VDC |
| Over Current Protection (OCP) | rated output power | | 115% - 150%, Hiccup mode, automatic restart |
| Isolation Voltage | tested for 1 minute | I/P to O/P I/P to FG O/P to FG | 3.0kVAC 1.5kVAC 0.5kVAC |
| Isolation Resistance | 500VDC | | 100MΩ |
| Leakage Current | 240VAC | | 0.75mA max. |

Notes:

- Note7: Refer to local safety regulations if input over-current protection is also required

ENVIRONMENTAL

| Parameter | Condition | | Value |
|-----------------------------|-----------------------------|--------------------------------------|----------------------------------|
| Operating Temperature Range | @ natural convection 0.1m/s | full load refer to derating graph | -20°C to +50°C -20°C to +70°C |
| Operating Humidity | non-condensing | | 20% - 90% RH max. |

continued on next page

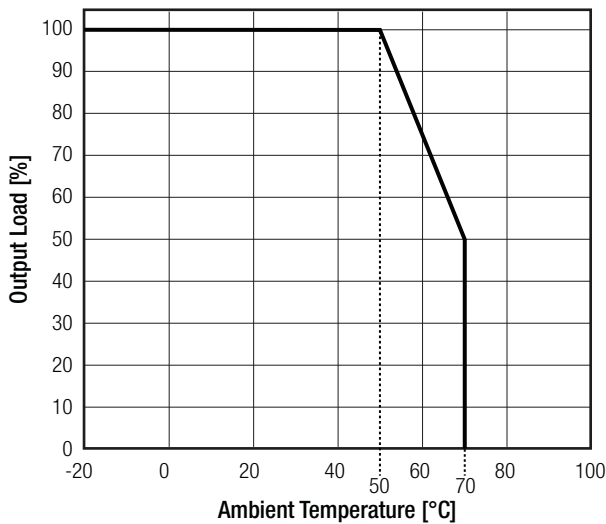
Specifications (measured @ Ta= 25°C, nom. Vin = 230VAC)

ENVIRONMENTAL

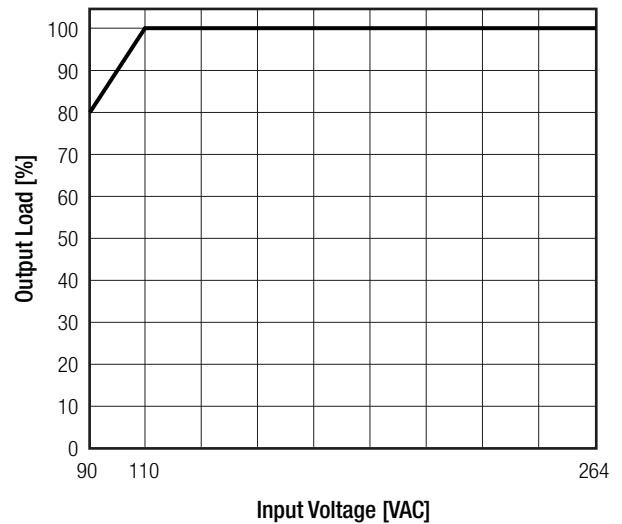
| Parameter | Condition | | Value |
|-----------|----------------------------------|-------|--|
| Vibration | | | 10-500Hz, 2G, 10 Min. along X, Y and Z |
| MTBF | according to MIL-HDBK-217F, G.B. | +25°C | >450 x 10 ³ hours |

Derating Graph

(@ Chamber and natural convection 0.1 m/s)



Line Derating



SAFETY AND CERTIFICATIONS

| Certificate Type (Safety) | Report / File Number | Standard |
|---|----------------------|---|
| Information Technology Equipment, General Requirements for Safety | E196683 | CAN/CSA-C22.2 No. 60950-1 UL No. 60950-1 |
| | 11037315 001 | EN60950-1:2006 + A2:2013 IEC60950-1:2005 2nd Edition + A2:2013 |
| EAC Safety of Low Voltage Equipment | RU-AT.49.09571 | TP TC 004/2011 |
| RoHs 2 | | RoHS 2011/65/EU |

EMC Compliance ⁽⁸⁾

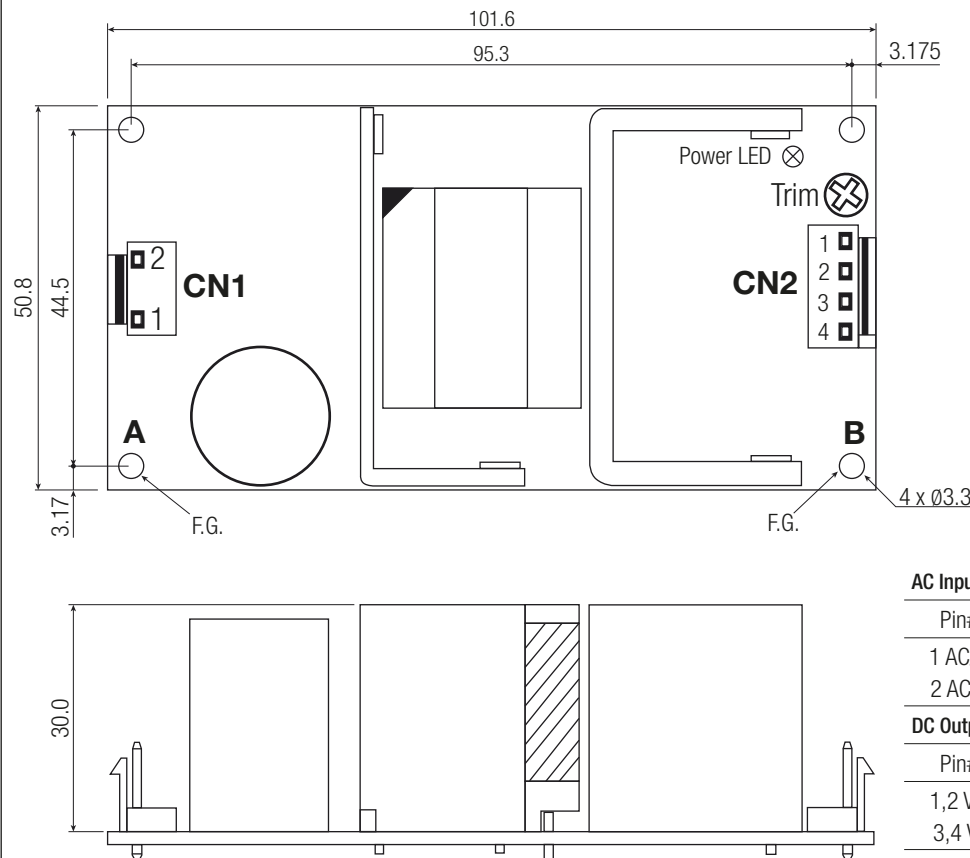
| | Condition | Standard / Criterion |
|---|---|--|
| Electromagnetic compatibility of multimedia equipment – Emission Requirements | | EN55032; Class B |
| Information technology equipment - Immunity characteristics - Limits and methods of measurement | | EN55024 |
| ESD Electrostatic Discharge Immunity Test | air ±2.0, 4.0, 8.0kV contact ±2.0,4.0kV | IEC61000-4-2:2008; Criteria A |
| Radiated, Radio-Frequency, Electromagnetic Field Immunity Test | 3V/m | IEC61000-4-3:2006 + A2:2010; Criteria A |
| Fast Transient and Burst Immunity | AC Power Port: ±1.0kV | IEC61000-4-4:2012; Criteria A |
| Surge Immunity | AC Power Port: L-N ±0.5, 1.0kV L-PE, N-PE ±0.5, 1, 2.0kV | IEC61000-4-5:2014; Criteria A |
| Immunity to Conducted Disturbances, Induced by Radio-Frequency Fields | AC Power Port 3.0V | IEC61000-4-6:2013; Criteria A |
| Power Magnetic Field Immunity | 50Hz, 1A/m | IEC61000-4-8:2009; Criteria A |
| Voltage Dips and Interruption | Voltage Dips > 95% | IEC61000-4-11:2004; Criteria A |
| | Voltage Dips > 30% | IEC61000-4-11:2004; Criteria B |
| | Voltage Interruptions > 95% | IEC61000-4-11:2004; Criteria B |
| Limits of Harmonic Current Emissions | | EN61000-3-2:2014, Class A |
| Limits of Voltage Fluctuations & Flicker | | EN61000-3-3:2013 |
| Limitations on the amount of electromagnetic interference allowed from digital and electronic devices | | 47 CFR FCC Part 15 Subpart B 2010-01-07, Class B |

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DIMENSION AND PHYSICAL CHARACTERISTICS

| Parameter | Type | Value |
|-------------------|------|-----------------------|
| Dimension (LxWxH) | | 101.6 x 50.8 x 30.0mm |
| Weight | | 145.0g typ. |

Dimension Drawing (mm)



AC Input Connector (CN1)

| Pin# | Terminal | Mating Housing |
|--------|----------------|----------------|
| 1 AC/N | WST I39606PS-2 | WST P3-I39606 |
| 2 AC/L | or equivalent | or equivalent |

DC Output Connector (CN2)

| Pin# | Terminal | Mating Housing |
|--------|----------------|----------------|
| 1,2 V+ | WST I39606PS-2 | WST P4-I39606 |
| 3,4 V- | or equivalent | or equivalent |

Detail information about the connectors on www.wst.com.tw

Notes:

Note8: Mounting holes A,B must be grounded for EMI (Filter Ground)

PACKAGING INFORMATION

| Parameter | Type | Value |
|-----------------------------|----------------|-------------------------|
| Packaging Dimension (LxWxH) | carton | 325.0 x 270.0 x 220.0mm |
| Packaging Quantity | | 30pcs |
| Storage Temperature Range | | -40°C to +80°C |
| Storage Humidity | non-condensing | 10% - 90% RH max. |

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