

1000 Watts

AC-DC Switching Power Supply



KEY FEATURES

- Enclosed ITE Switching Power Supply
- I/O Isolation 4300VAC
- 5000m Altitude Application (OVC III:2000m)
- Over-Voltage Category OVC III (New Edition)
- Remote ON/OFF Function
- Standby 5V@1A
- High Efficiency up to 93%
- With P.F.C. Function >0.9
- Ultra Compact Size: 7.66 x 4.02 x 1.62 Inches
- Safety Approval to UL / IEC / EN 62368-1



ELECTRICAL SPECIFICATIONS

All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

| Model No. | HD1000-112 | HD1000-124 | HD1000-148 | |
|------------------------|------------------------------------|---|------------|---------|
| Max Output Wattage (W) | 800W | 1000W | | |
| Input | Voltage (Note 5) | 90-264 VAC | | |
| | Frequency (Hz) | 50 / 60 Hz | | |
| | Current (Full load) | < 11 A max. (115 VAC) / < 5.5 A max. (230 VAC) | | |
| | Inrush Current (<2ms) (Clod Start) | < 70 A max. (115 VAC) / < 105 A max. (230 VAC) | | |
| | Leakage Current | < 0.1 mA max. (Input-Output) | | |
| | Power Factor (at 230 VAC) | PF>0.9 at Full Load | | |
| Output | Voltage (V.DC.) | 12V | 24V | 48V |
| | Voltage Accuracy | ±2% | | |
| | Voltage Adj. Range (V.DC) | ±5% Output Voltage | | |
| | Current (A) (max.) | 66.67 | 41.67 | 20.84 |
| | Line Regulation (115-264 VAC) | ±0.5% | | |
| | Load Regulation (10-100%) (typ.) | ±1% | | |
| | Maximum Capacitive Load | 7000 uF | 3500 uF | 1750 uF |
| | Ripple & Noise (typ.) | 160mV | 240mV | 480 mV |
| | Efficiency (at 230 VAC) | 89% | 92% | 93% |
| Protection | Hold-up Time (at 115 VAC) | 3 ms min. | | |
| | Over Power Protection | Auto recovery | | |
| | Over Voltage Protection | Auto recovery | | |
| | Overt Temperature Protection | Auto recovery | | |
| Isolation | Short Circuit Protection | Auto recovery | | |
| | Input-Output (V.AC) | 4300VAC or 6000VDC | | |
| | Input-PE (V.AC) | 2000V | | |
| Function | Output-PE (V.AC) | 1500V | | |
| | 5V Stand by | 5VSB: 5V@1A ; Tolerance ±10% | | |
| | DC OK Signal (Power Good) | Turn ON: 3.7~5.7V ; Turn OFF: 0~1V | | |
| Environment | Remote Control | +RC / -RC: Power ON=open ; Power OFF=short | | |
| | Operating Temperature | -20°C...+70°C (with derating) | | |
| | Storage Temperature | -35°C...+85°C | | |
| | Temperature Coefficient | ±0.03%/°C (0~50°C) | | |
| | | ±0.06%/°C (-30~0°C) | | |
| | Altitude During Operation | OVC II=5000m, OVC III=2000m | | |
| | Humidity | 95% RH | | |
| | Atmospheric Pressure | 56 kPa to 106 kPa | | |
| | MTBF | >100,000 h @ 25°C (MIL-HDBK-217F) | | |
| | Vibration | IEC60068-2-6 (10~500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes) | | |
| Shock | IEC60068-2-27 | | | |

ELECTRICAL SPECIFICATIONS

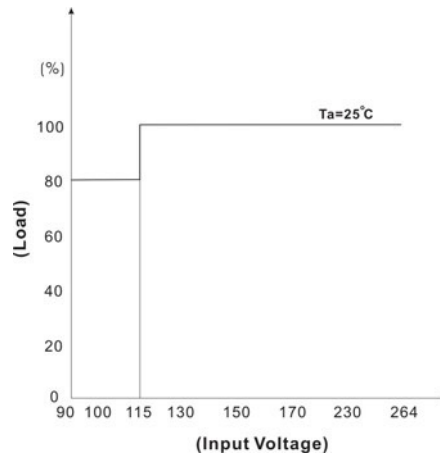
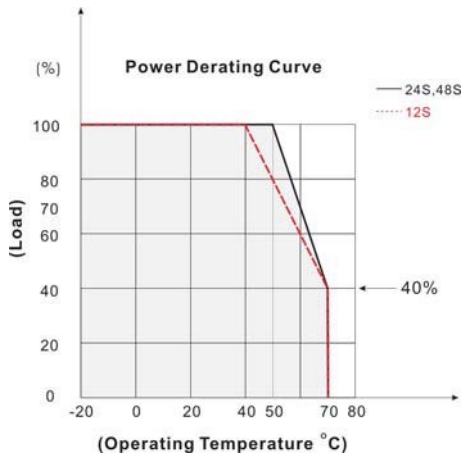
All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

| Model No. | | HD1000-112 | HD1000-124 | HD1000-148 |
|-----------|----------------------------|---|------------|------------|
| Physical | Dimensions (L x W x H) | 7.66 x 4.02 x 1.62 Inches (194.5 x 102.0 x 41.0 mm) Tolerance ±0.5 mm | | |
| | Weight | 950 g | | |
| Safety | Approval | UL / IEC / EN 62368-1 | | |
| EMC | Conducted and Radiated EMI | EN55032 (conducted class B, Radiated Class A) | | |
| | EMS | EN55035 | | |

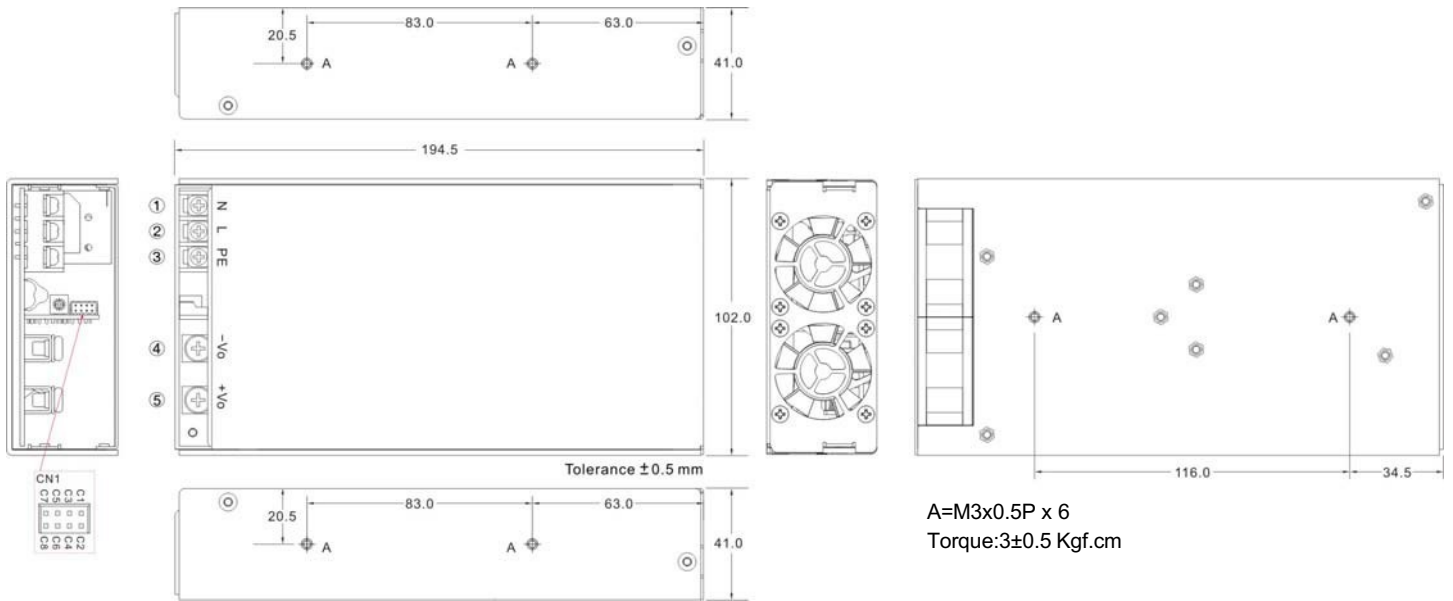
NOTE

- Ripple & Noise are measured at 20MHz of bandwidth by using a 6" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor.
- Hold-up Time measured at 90% Vout.
- Strongly recommend to conduct this test with DC Voltage. If customer wishes to test with AC Voltage, please disconnect all Y-Capacitors from Digital Power Corporation power supply.
- CAUTION: Double pole, neutral fusing. Disconnect mains before servicing.**
(ATTENTION : 2 poles avec fusible sur le neutre. Deconnecter le secteur avant intervention.)
- Please check the derating curve for more details.

DERATING



MECHANICAL DIMENSIONS (External View)

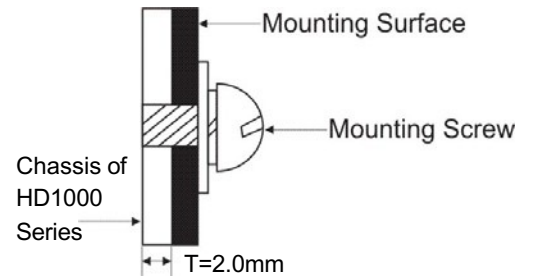


| Brands | | |
|--------|-----------|---|
| PIN# | Single | Terminal |
| 1 | AC IN (N) | DINKLE DT-49-B01W-03 |
| 2 | AC IN (L) | |
| 3 | PE | |
| 4 | -DC OUT | M5 Pan HD screw in 2 positions Torque to 8 lbs-in(90 cNm) max. |
| 5 | +DC OUT | |

ASSEMBLY INSTRUCTIONS

*U Case T=2.0mm

Customer is advised to screw into the threads no more than 2.0mm

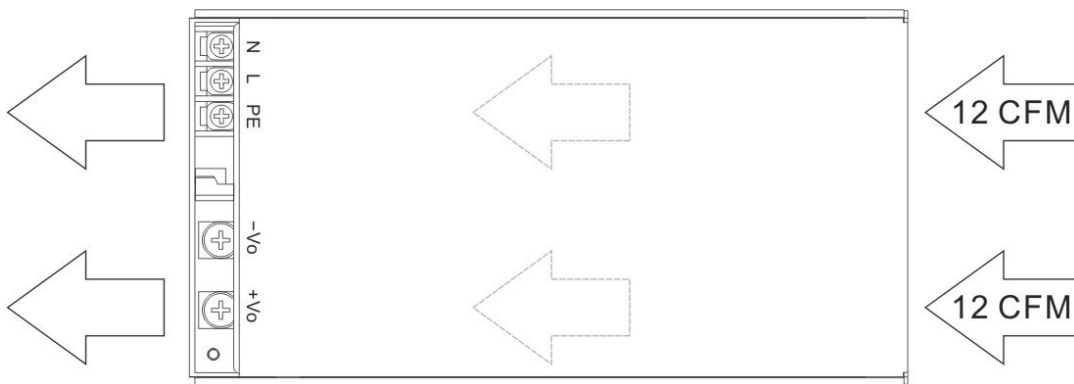


| Connector Pin (CN1) | | | | | |
|---------------------|-----------|----------------|----------|----------------|----------------|
| Brands | | Cherng Weei | | JST | |
| PIN# | Single | Mating Housing | Terminal | Mating Housing | Terminal |
| C1 | +S | PHD-H20-2X4P | PHD-T20 | PHDR-08VS | SPHD-001T-P0.5 |
| C2 | -S | | | | |
| C3 | NC | | | | |
| C4 | -5V SB | | | | |
| C5 | GND / -RC | | | | |
| C6 | +RC | | | | |
| C7 | PG | | | | |
| C8 | +5V SB | | | | |

FUNCTION DESCRIPITON of CN1

| Pin No. | Function | Description |
|---------|-----------|--|
| C1 | +S | Remote sensing (+) |
| C2 | -S | Remote sensing (-) |
| C3 | NC | |
| C4 | -5V SB | This pin connects to the negative terminal(-V) |
| C5 | GND / -RC | This pin connects to the negative terminal(-V). Return for DC-OK signal output. |
| C6 | +RC | Turns the output on and off by electrical or dry contact between pin C5 (GND / -RC), Short: Power OFF, Open: Power ON. |
| C7 | +PG | DC-OK Signal is a DC output. (DC-OK) |
| C8 | +5V SB | Stand by voltage output ground 4.4~5.5V, referenced to pin C4 or C5(GND). The maximum load current is 1A. |

AIR FLOW DIRECTION



BLOCK DIAGRAM

