

**SPECIFICATIONS** 



# WSD-U40D13.8+13.8C (Open Frame)

13.8V/2A PSU with battery backup



#### ■ Features:

- Universial AC input / Full range
- Protections:SCP/OLP/OVP
- Battery deep discharge protection
- > Batter reverse polarity protection by fuse
- "0" switch time from the SMPS to Battery when AC fail
- Constant current limit for charging battery
- Alarm signal for AC OK / Fail
- > 100% full load burn-in test
- CE approved
- 3 years warranty



| MODEL       |                             |        | WSD-U40D13.8+13.8                                                     |                                   |
|-------------|-----------------------------|--------|-----------------------------------------------------------------------|-----------------------------------|
| OUTPUT      | Ouput Number                |        | V1 (mains AC power)                                                   | V2 (battery power)                |
|             | DC Output                   |        | 13.8Vdc                                                               | 13.8V                             |
|             | Rated Current               |        | 2A                                                                    | 0.65A-1A (constant current limit) |
|             | Current Range Note 1        |        | 0.05A - 2.5A(Peak)                                                    | 1                                 |
|             | Ripple and Noise            | 0~60℃  | <100mV                                                                | 1                                 |
|             |                             | -20~0℃ | <200mV                                                                | 1                                 |
|             | Voltage Accuracy            |        | ±3.0%                                                                 | 1                                 |
|             | Line Regulation             |        | ±1.0%                                                                 | 1                                 |
|             | Load Regulation             |        | ±2.0%                                                                 | 1                                 |
|             | Voltage Adjustable Range    |        | 13.0-13.8Vdc                                                          |                                   |
|             | Set-up Time                 |        | <1.0S (230Vac input, Full load),<2.0S(115Vac input,Full load)         |                                   |
|             | Hold up Time                |        | >20mS(230Vac input, Full load),>10mS(115Vac input,Full load)          |                                   |
|             | Temperature Coefficient     |        | ±0.03%/°C                                                             |                                   |
|             | Overshoot &Undershoot       |        | <5.0%                                                                 |                                   |
|             | Battery current during deep |        | <1mA                                                                  |                                   |
|             | discharge                   |        |                                                                       |                                   |
| INPUT       | Voltage Range               |        | 100Vac-240Vac                                                         |                                   |
|             | Frequency Range             |        | 50Hz-60Hz                                                             |                                   |
|             | Efficiency (Typical)        |        | >80%@230Vac, >78%@115Vac                                              |                                   |
|             | AC Current (max.)           |        | 1.2A                                                                  |                                   |
|             | Inrush Current (Typical)    |        | <50A@230Vac ;<30A@115V <sub>ac</sub> Cold start                       |                                   |
|             | Leakage Current             |        | Input—Output: ≤0.25mA Input—PG: ≤3.5mA                                |                                   |
| PROTECTION  | Deep discharge cut off      |        | 9Vdc-10Vdc                                                            |                                   |
|             | Over Current                |        | V1:2.5A-4.0A, hiccup mode,auto recovery                               |                                   |
|             | Over Voltage                |        | V1: 110%-150%, constant voltage                                       |                                   |
|             | Shorted Circuit             |        | Long-time; auto recovery                                              |                                   |
|             | Battery reverse polarity    |        | Self auto-recovery fuse                                               |                                   |
| SIGNAL      | AC OK / Fail signal         |        | AC OK: Sig=0(0-1Vdc) Current<=50mA(this depends on Paxton control uni |                                   |
|             |                             |        | AC Fail: Sig=1(voltage depends on Paxton control unit)                |                                   |
| Status      | Green LED(LED1)             |        | AC ON,the device is being supplied from the SMPS.                     |                                   |
| Indication  | RED LED(LED2)               |        | AC OFF,the device is being supplied from the battery backup device    |                                   |
| ENVIRONMENT | Operating.Temp.& Hum.       |        | -20°C~60°C; 20%~90%RH No condensing (refer to the derating curve)     |                                   |
|             | Storage Temp. & Hum.        |        | -40°C~80°C; 10%~95%RH No condensing                                   |                                   |
| SAFETY &EMC | Safety Standards            |        | UL60950-1; EN60950-1: 2006;LVD 73/23/EEC                              |                                   |



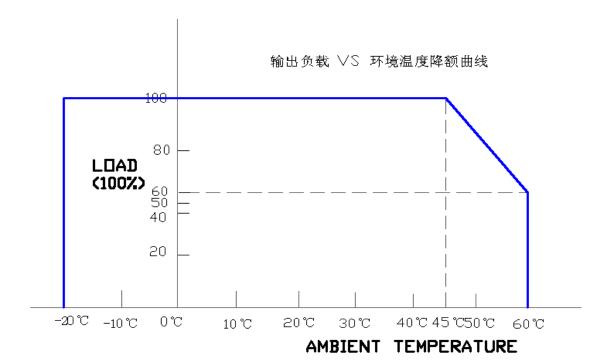


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| (Note 3) | Withstand Voltage                                                                                                                                                                                                                                                                                                                                                                                                                   | Primary-Secondary:3.0KVac;≤10mA.Primary-PG:1.5KVac;≤10mA.Secondary-PG:5              |  |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--|
|          |                                                                                                                                                                                                                                                                                                                                                                                                                                     | 00VDC;≤10mA.                                                                         |  |
|          | EMC                                                                                                                                                                                                                                                                                                                                                                                                                                 | Compliance to EN55022(CISPR22)Class B EN55024; FCC 15.107, FCC15.109,EMC 2004/108/EC |  |
|          | Isolation Resistance                                                                                                                                                                                                                                                                                                                                                                                                                | ≥100M ohms                                                                           |  |
| OTHERS   | MTBF (MIL-HDBK-217F)                                                                                                                                                                                                                                                                                                                                                                                                                | More than 200,000Hrs (25℃, Full load)                                                |  |
|          | Dimension (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                   | 150×50×28mm                                                                          |  |
|          | Cooling method                                                                                                                                                                                                                                                                                                                                                                                                                      | Cooling by free air convection                                                       |  |
| NOTE     | <ol> <li>All parameters NOT specially mentioned are measured at rated input, rated load and 25°C of ambient temperature.</li> <li>Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF &amp; 10uF parallel capacitor.</li> <li>The SPS is considered a component which will be installed into final equipment. The equipment must be re-confirmed that it still meets EMC directives</li> </ol> |                                                                                      |  |

## **Load Derating Curve**







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### **Mechanical Specification(mm)**

