

Requirements Specification

1. The DPS shall not suffer damage at temps down to -40°C.
2. The DPS shall maintain voltage output specifications over temperature range of 0-70°C.
3. The DPS shall have a power efficiency of >60% with 20 mA current load on either of the two outputs.
4. The DPS shall have a 5 V output. **Voltage ranges from 4.85V to 5.15V (based on highest minimum voltage and lowest maximum voltage required for weather station) with maximum current load of 20mA.**
5. The DPS shall have a 12 V output. **Voltage ranges from 11.2V to 12.8V (based on highest minimum voltage and lowest maximum voltage required for weather station) with maximum current load of 20mA.**
6. The DPS shall operate with a single voltage input from **2.7 to 5.8V**. The input voltage must not be within +/- 10% of either of the output voltages (5 V and 12 V).
7. The DPS shall maintain voltage output specifications with an input voltage +/-20% from nominal.
8. The DPS shall have flying leads for the connection to the battery.
9. The DPS shall have test pins for the output voltages.
10. The DPS shall have a mass of no more than 25 g including PCB and components (without leads).
11. The DPS shall generate maximum 30 mA output current under a short circuit condition on either output.