

Power SG[®] DC 2000 Data Concentrator



Power SG[®] DC 2000 is a smart grid data concentrator enabling real-time direct residential load control with precision and verification. This device provides connectivity to DLC 2000 direct load controllers and TS 100 temperature sensors through a 2.4 GHz wireless mesh network. Each concentrator has backhaul communication capability to the Power SG[®] software platform and the utility's network operations center via GPRS, CDMA or Ethernet. Repeaters are used to fill out the mesh network to assure reliable communication to all controlled devices.

Key Features:

- monitors, controls and verifies load shed
- two-way, real-time communications
- wireless mesh network connectivity
- manages 5000+ nodes in a typical network

Product Specifications

Input Power Requirements

- | | |
|-----------------|-------------------|
| • Voltage | 85 VAC to 250 VAC |
| • Current | 150 mA |
| • Frequency | 47 to 65 Hz |
| • Maximum Power | 4.5 W |

System

- | | |
|------------------|-------------------|
| • CPU | ARM9 |
| • Memory (RAM) | 64 MB DDR SDRAM |
| • Memory (Flash) | 128 MB NAND Flash |

Environmental Specifications

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|-------------------------|------------------|
| • Operating Temperature | -40 °C to +55 °C |
| • Relative Humidity | < 95% |
| • Dust/Water Protection | IP65 |
| • Vibration | UL991.21 (3G) |

Physical Specifications

- | | |
|----------------------|--|
| • Dimensions (HxWxD) | 9.0" x 9.0" x 3.5"
22.9 x 22.9 x 8.9 cm |
| • Weight | 7.5 lbs./3.4 kg |
| • Enclosure Rating | NEMA 4X |

Software

- Embedded Power SG[®] smart grid firmware designed for interoperability with an open architecture

Certifications/Standards

- Certified to UL773
- Certifications (BPL Global DLC003) FCC CFR47, Part 15 Subparts B and C (FCC ID SQB-NMSMOD0001)

Communications

- | | |
|-----------------------------|--|
| • Local Communications | 2.4 GHz wireless mesh |
| • Mesh Network Capabilities | self configuring devices
self healing network
2-way communications |
| • NAN RF Spectrum | ISM band 2.400-2.485 GHz |
| • Backhaul Communications | CDMA, Ethernet,
GPRS Quad Band (850/900/1800/1900 MHz) |
| • LAN | 100 FX (std)
10/100 TX (optional) |
| • Radio | IEEE 802.15.4 |