7.5 Ah RECHARGEABLE LITHIUM ION POLYMER

SMART BATTERY

DESIGNED FOR MISSION CRITICAL APPLICATIONS

INVOCON, INC. **0422**

The Invocon **28V Rechargeable Smart Battery** uses modern lithium ion polymer battery technology. Lithium ion polymer batteries have one of the **highest energy storage and power delivery** densities (per weight) of modern batteries. This enables longer operation between charging and dependable operation of high current electrical loads or inrush currents without startup sequencing. Li-poly batteries require contol circuitry to **manage the charging and discharging profiles**. This circuitry is built into the battery system to make it "smart", allowing for direct replacement of simple older batteries without upgrading to special chargers. The Invocon Smart Battery is designed for mission critical applications. A **microprocessor** continuously measures key battery parameters and provides this information on communication ports. Operators always know the condition of the batteries at the cell level in order to verify mission readiness. Battery temperature within the pack of cells is monitored using a RTD. Additionally, **State of Charge (SOC)** is continuously calculated so you always know the condition of the batteries in order to insure sufficient mission power and reliability. Custom circuitry offers options for uninterruptable power discharge for mission critical applications (such as RCC 319 flight termination systems), or prevent further battery discharge under high temperature, undervoltage, and high current conditions.

Electrical	
Battery Chemistry	Lithium Ion Polymer
Nominal Capacity @ 1C discharge	7.5 Ahr
Discharge voltage range	32 VDC – 22.5 VDC
Charging voltage	35 - 38 VDC from ≥100 mA to ≤7.5 Amps
Maximum continuous discharge current	17 Amps
Connectors	4 or 5 pin Mil. Std. 38999 style for charge 4 or 5 pin Mil. Std. 38999 style for discharge 9 pin Mil. Std. 38999 style for communications (Full Mil Spec connectors available)
Communications and Data	
Interface	Ethernet or RS-422 (configured in production)
Data	Battery voltage, cell voltages, pack current, state of charge, internal temperatures
Mechanical	
Size (L x W x H)	7 x 5 x 4 inches
Weight	7.5 lbs.
Case material	6061 aluminum, Alodine coated
Environmental	
Operating Temperature	-24° to 71°C
Charge Temperature	0° to 45°C
Storage Temperature	-24° to 71°C
Shelf Life - low power mode	5 years

Invocon, Inc. • 19221 I-45 South, Ste 530 • Conroe, TX 77385
www.invocon.com • (281) 292-9903