

ELECTRICAL POWER SYSTEM (EPS)

MAIN FEATURES

- Cold Redundancy and Graceful Degradation
- Single point failure tolerant
- Telemetry and telecommand communication with redundant CAN bus
- Temperatures range:
- circuits: -40°C to 80°C qualified
- battery: 0°C to 50°C
- Autonomous LCL protection
- Autonomous Battery heater and balancing
- Two-level battery undervoltage protection
- Robust aluminium (T-7070) milling case



SPECIFICATION

Solar Energy Harvesting

Solar Cell Type	Triple Junction Solar Cells, (~30% eff.)
Maximal Number of Solar Cells in Series	7 pcs
Number of MPPT channels	6 pcs
Maximum Input Power per Channels	12 W
Maximum incoming solar energy	50 W

Energy Storage

Battery Pack Configuration	2P3S
Nominal Pack Capacity (90% SOC)	5.4 Ah
Nominal Pack Stored Energy (90% SOC)	58.3 Wh
Integrated Battery Heater	YES
Balancer	YES (passive)

Continues on page 2/2



TITLE
COMPANY
ADDRESS
CONTACT

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Electrical Power System (EPS) / Specification

Energy Distribution

Number of LCL channels	12
Available Voltage Levels	3.3 V, 5.0 V, 9.9 V – 12.3 V (unregulated)
Maximum Output Current @3.3V	4 A
Maximum Output Current @5.0V	4 A
Maximum Output Current @UNREG	5 A
Maximum Peak Output Power	90 W

Interfaces

Connector	Micro-D (MIL-DTL-83513)
Maximum Peak Output Power	90 W
Communication	Redundant CAN
Dimension	88.5 x 96 x 86 mm
Mass	~860g