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EPS-LP-1k5



Spacecraft power control, distribution and protection system with up to 1500 W total power.

ITAR-Free

TRL 9

Specifications

Total Input, Output & Battery Power	1500 W
Output Ports	Unregulated unprotected power bus port & PDM ports as per configuration options
Bus Voltage	29.7 V (22 - 32 V)
Centralised (EPS Housing) Configuration Options	SRM-S3R-18-LP: 1 - 4 PCU-28-50-LP (required): 1 PDM-LP-752: As required PDM-REG: As required PDM-HP-50: As required
Distributed Configuration Options	PDM-LP: As required PDM-REG: As required
Communication Interfaces	CAN Telemetry & Telecommands DCL (Direct Command Line) Telecommands
Operating Temperature	-10 °C to +50 °C
Dimensions	211 x 153 x 175 mm *
Mass	3.3 kg *
Design Life	Up to 8 years LEO (20 kRad screening)

** Based on 1x SRM-S3R-18-LP & 3x PDM-LP-752 configuration*

Functionality Highlights

- Spacecraft Power Cycle
- Watchdog Timer Function (1 hr to 72 hrs)
- Battery Charge Current Limiting
- Battery Under Voltage Protection (Hibernation)
- Single fault tolerance

Solar Regulator Module (SRM)

Topology	S3R (Sequential Switching Shunt Regulator)
1 x SRM Total Input Power	535 W at 29.7 V (18 A max)

All Distribution Channels

Channel Protection (with overrides)	Over current Over load External Trip Input
Channel Functions	Watchdog timer Auto-retry
Redundancy	Dual Redundant

PDM-LP-752

(Power Distribution Module - Low Power)

Output Voltage (unregulated)	29.7 V (22 - 32 V)
Total Output Power	600 W
No. of Output Channels	8
Channel Configuration	1x 7 A 2x 5 A 5x 2 A

PDM-HP-50

(Power Distribution Module - High Power)

Output Voltage (unregulated)	29.7 V (22 - 32 V)
Total Output Power	1500 W
No. of Output Channels	2
Channel Configuration	2x 50 A

PDM-REG

(Power Distribution Module - Regulated)

Output Voltage	5 V regulated
Total Output Power	60 W
No. of Output Channels	8
Channel Configuration	2x 5 A 6x 2 A

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