

JMM-7000™ Rugged PC/104 Power Supplies



JMM-7312-ISO-UPS Military-Grade with Isolation



JMM-7312-UPS Military-Grade Non-Isolated

Features

- ◆ Cost-effective, highly flexible power solution
- ◆ Multiple output options:
 - 12VDC output, 40W, 500VDC isolation
 - 5VDC output, 25W, 500VDC isolation
 - 5-28VDC output, 40W, non-isolated
- ◆ EMI compatibility to MIL-STD-461C/D/E/F and DO-160C/D/E/F/G requirements
- ◆ Input immunity per MIL-STD704A/D/E/F, MIL-STD-1275A/B, and DO-160 cat A, B, and Z
- ◆ Transient protection: 100VDC / 50ms, 600VDC / 20us spikes
- ◆ Brownout protection: 6VDC / 1 sec
- ◆ Reverse polarity protection
- ◆ Designed to meet MIL-STD-810G shock/vibration specifications
- ◆ Optional UPS backup system using plug-on high-efficiency supercapacitor energy packs
- ◆ Built-in microcontroller provides real-time status of power supply and backup energy bank
- ◆ 9-36VDC input, 2A max
- ◆ 3.55 x 3.775" (90 x 96mm) PC/104
- ◆ -40 to +85°C operating temperature

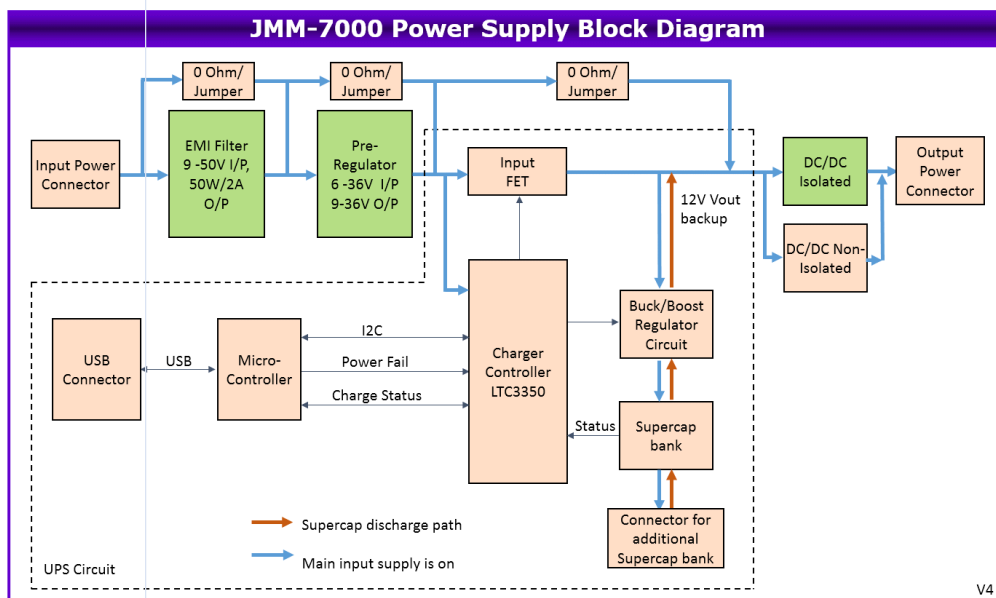


Integrated heat spreader supplied with all models

Rugged, Isolated, MIL-Grade

The JMM-7000 family provides compact, rugged, MIL-compliant DC power in the popular PC/104 form factor (3.6 x 3.8" / 90x96mm). JMM-7000 models offer compliance to a range of standards, including MIL-STD-461, MIL-STD-704, MIL-STD-1275, MIL-STD-810G, and DO-160. Optional 500V isolation, brownout protection, and supercapacitor-based UPS enhance these supplies' utility in compact airborne, land, and sea vehicle electronic systems.

The JMM-7300 series provides full MIL standards compliance. The depopulated JMM-7000 series are intended for use in commercial / industrial applications where backup power or isolated power is required.



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Available Configurations

Model	461 Filter	704 / 1275	UPS	V _{out}	Power	Isolated	Description
JMM-7312-ISO-UPS	•	•	•	12V	40W	•	Full feature 12V
JMM-7305-ISO-UPS	•	•	•	5V	40W	•	Full feature 5V
JMM-7312-UPS	•	•	•	12V	40W		Full feature 12V without isolation
JMM-7305-UPS	•	•	•	5V	25W		Full feature 5V without isolation
JMM-7312	•	•		12V	40W		MIL compliant non-isolated 12V
JMM-7305	•	•		5V	25W		MIL compliant non-isolated 5V
JMM-7012-ISO				12V	40W	•	Basic isolated 12V power
JMM-7005-ISO				5V	40W	•	Basic isolated 5V power
JMM-7012-UPS			•	12V	40W		Basic 12V power with UPS
JMM-7005-UPS			•	5V	25W		Basic 5V power with UPS

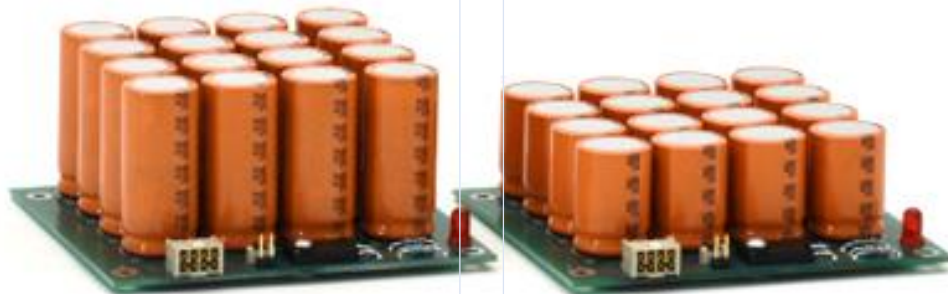
SuperCapacitor Backup

The **SEP-7000** series of PC/104-sized supercapacitor energy packs is designed for use with the JMM-7000 power supplies with **UPS** option. These packs provide up to 3300 joules (watt-sec) of backup energy to maintain stable system operation in case of power interruption. The charge / backup controller on the JMM-7000 utilizes a new supercapacitor charging technology that automatically controls the charging current and voltage of each capacitor bank in the pack to avoid overcharging or other potentially damaging fault conditions. Charge / discharge status and other control functions are available via LEDs on the JMM-7000 and via USB connection to the host CPU.

SEP-7000 energy packs are available in two capacities and two configurations. A plug-on configuration mounts directly to the bottom side of the JMM-7000 to eliminate cables and create the most compact, rugged solution. A cable-connected configuration allows the energy packs to be positioned at a remote location to fit varying application requirements.

Model	Energy Storage	Description
SEP-7001-CC	1700J	Cable connection
SEP-7001-SH	1700J	Plug-on direct mount
SEP-7002-CC	3300J	Cable connection
SEP-7002-SH	3300J	Plug-on direct mount

Application	Power Requirement	Holdup Time (SEP-7002)
Ethernet switch or low-power SBC	10W	300 sec
Core i7 SBC with peripherals	20W	150 sec
High performance system with heavy I/O / communications content	40W	75 sec



SEP-7002-CC (left), SEP-7001-CC (right)