

# POWER MANAGEMENT SOLUTIONS

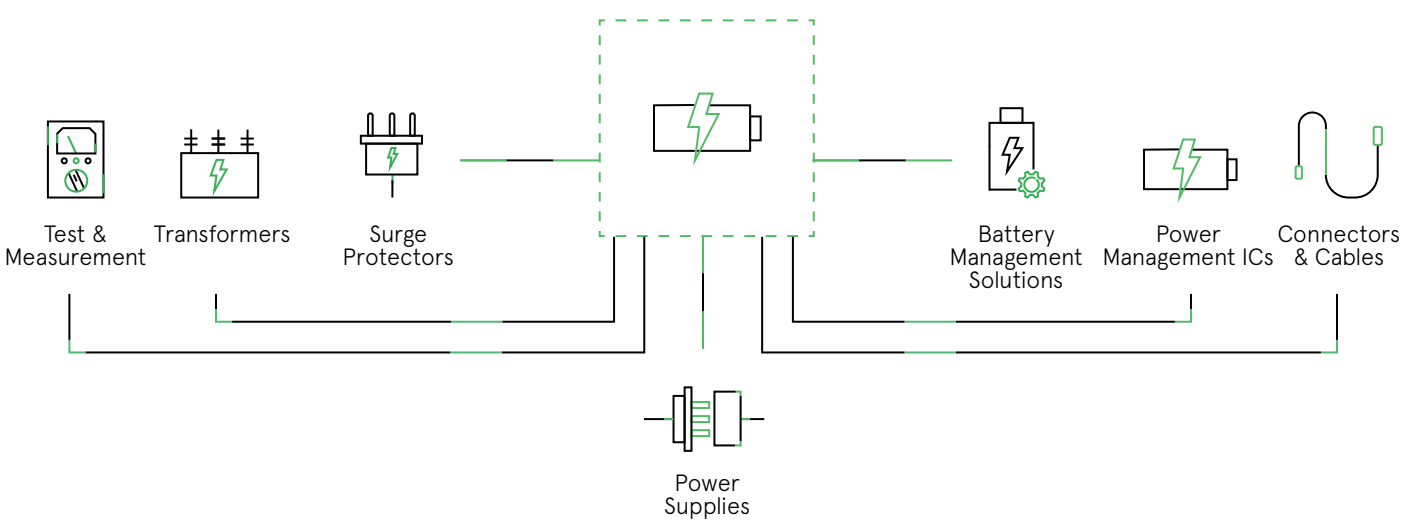
Compare key power supply types at a glance—features, ranges, and applications—helping you choose the right solution for your project needs.



## POWER SUPPLY COMPARISON

Power supply types	Short definition	Voltage range	Current range	Power	Form factor	Applications
Uninterruptible Power Supplies (UPS)	Provides backup power during outages, ensuring uninterrupted operation of critical systems.	120V - 480V AC	5A - 200A	500W - 200kW	Tower, Rack mounted	Data centers, Telecommunication systems, Medical equipment, Industrial automation
Switching-Mode Power Supplies (SMPS)	Uses high-frequency switching technology to efficiently convert electrical power with minimal energy loss.	3.3V - 48V DC	1A - 60A	10W - 10kW	Open-frame, Enclosed, Modular	Computer systems, Consumer electronics, LED lighting, Industrial automation
Linear Power Supply	Delivers smooth and stable DC output with minimal noise, using a transformer-based design.	5V - 48V DC	0.5A - 20A	10W - 1kW	Open-frame, Benchtop	Laboratory applications, Medical equipment, Audio systems
Programmable Power Supplies	Adjustable power supply that allows voltage and current settings to be modified as per testing needs.	24V - 600V DC	0.1A - 50A	100W - 100kW	Benchtop, Rack-mounted	Test & measurement, Laboratory applications, R&D labs
Industrial Power Supplies	Designed for heavy-duty use, providing stable power in manufacturing and automation environments.	24V - 400V AC/DC	1A - 100A	100W - 50kW	DIN Rail, Enclosed, ATX	Industrial automation, Process control, Robotics
Medical Power Supplies	Specially designed power supply meeting strict medical safety standards to ensure patient and device safety.	12V - 48V DC	0.5A - 20A	50W - 2kW	Open-frame, Enclosed, SFX	Medical equipment
High Voltage Power Supply	Converts low-voltage DC to extremely high DC voltage, used in scientific and industrial applications.	1KV-100KV DC	0.1A - 5A	500W - 100kW	Rack-mounted, Benchtop	Medical equipment, Semiconductor fabrication, Scientific research
Rack-Mounted Power Supplies	Modular power units mounted in standard equipment racks for centralized power distribution.	12V - 48V DC	5A - 200A	500W - 50kW	Rack-mounted, ATX	Telecommunications systems, Server racks, AV systems
Modular Power Supplies	Scalable power solution with multiple independent output modules, allowing customization for various applications.	12V-100V DC	1A - 100A	500W - 10kW	Enclosed, Rack-mounted, SFX-L	Data centers, Storage systems, Networking equipment
DIN Rail Power Supplies	Compact power supply designed for mounting on DIN rails in industrial control panels.	12V - 48V DC	0.5A - 40A	20W - 5kW	DIN Rail, TFX	Industrial control panels, Building automation, HVAC systems
Open Frame Power Supplies	A lightweight, board-level power supply without an enclosure, ideal for integration into compact devices.	5V - 48V DC	0.5A - 30A	10W - 3kW	PCB Mount, Open-frame, SFX	Industrial computers, Test & measurement, Medical equipment
Redundant Power Supplies	Provides backup power by automatically switching to a secondary unit in case of failure, ensuring continuous operation.	12V - 48V DC	5A - 200A	500W - 50kW	Rack-mounted, Modular	Data centers, Industrial automation
DC-DC Converter	Converts one DC voltage level to another, used in battery-powered and automotive applications.	1.8V - 48V DC	0.5A - 50A	10W - 3kW	PCB Mount, Enclosed	Automotive electronics, Telecommunications systems, Industrial automation
AC-DC Power Supply	Converts AC mains power into a stable DC voltage for powering electronic devices.	100V - 250V AC	1A - 100A	50W - 10kW	Enclosed, Modular, Open-frame, ATX	Consumer electronics, Industrial equipment, Lighting systems
Solar Power Supply	Converts solar energy into usable DC power for renewable energy applications.	12V - 600V DC	5A - 200A	100W - 50kW	Enclosed, Inverter-based	Renewable energy systems, Off-grid power solutions
Inverter	Converts DC power from batteries or solar panels into AC power for appliances and grid integration.	i/p voltage = 12V-48V DC, O/P voltage = 120V AC - 240V AC	5A - 100A	100W - 10kW	Enclosed, Rack-mounted, ATX	Renewable energy systems, Uninterruptible power supply systems
Battery Backup	Stores energy in rechargeable batteries to provide emergency backup power.	12V - 48V DC	5A - 200A	500W - 10kW	Rack-mounted, Enclosed, ATX	Emergency lighting, Security systems

## KEY POWER MANAGEMENT CATEGORIES



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