

DataSafe Noir™ Energy Storage System Range Summary

FEATURES & BENEFITS

SYSTEM CONTROL

- Predictable system performance under dynamic, high-variability load conditions
- High power density architecture supporting compact megawatt-scale UPS deployments (up to 600kW per cabinet; up to 1.2MW in two racks)
- Three-level battery management architecture comprising battery management unit (BMU), cabinet battery management system (CBMS), and group battery management system (GBMS)

DEPLOYMENT EFFICIENCY

- Designed as an integrated UPS energy storage architecture for high-density installations
- Delivered as a complete system to reduce deployment complexity and improve implementation predictability
- UPS integration via CAN/RS-485 and dry contacts; RS-485 supports Modbus RTU / ModbusTCP

OPERATIONAL RELIABILITY

- Layered safety architecture with redundant protection mechanisms at cell, module, and system levels
- Active balancing and integrated monitoring functions supporting stable operation over time
- Reduced maintenance and operational overhead through integrated monitoring and remote management capability



DataSafe Noir™ is a high-density lithium energy storage system engineered for modern data centre power environments. Designed as a complete system architecture, it delivers predictable performance under dynamic load conditions while supporting compact deployment at megawatt scale.

As data centres increase in density and rely on increasingly variable AI-driven workloads, operators require confidence not only in battery chemistry and runtime, but in how systems behave under real operating conditions, particularly during load fluctuation, integration, commissioning, and validation.

DataSafe Noir™ energy system combines integrated system design, multi-level monitoring and protection architecture, active balancing, and UPS communications support to reduce deployment complexity and improve operational predictability.

Compared with conventional lithium UPS configurations, DataSafe Noir™ energy system delivers significantly higher power density, supporting more compact deployments and improved utilisation of data centre floor space.

GENERAL SPECIFICATIONS

MODEL	DSN-500	DSN-600
ELECTRICAL		
Nominal Voltage	512 VDC	614 VDC
Nominal Capacity	120 Ah (25°C, 0.5C)	
Max Output Power	500 kW	600 kW
Max Charge Current	120 A	
Standard Charge Current	60 A	
Max Discharge Current	1200 A	
Service Life	15 years (25°C)	
Battery Chemistry	Lithium-ion (LFP)	
Cycle life	> 600 cycles at 100% DoD	
MECHANICAL		
Dimensions (H x W x D)	2000 × 800 × 750 mm	
Weight	~996 kg	~1130 kg
Ingress Protection	IP20	
Number of Modules	10	12
Communication	RS-485 + CAN; Dry contacts; TCP/IP (monitoring via LAN)	
ENVIRONMENT		
Recommended Operating Temperature	15 to 35°C	
Storage Temperature	0 to 45°C	
Working Temperature	0 to 45°C	
SAFETY AND COMPLIANCE		
Compliant with the following standards	UL 1973 UL 9540A IEC 62619 IEC 62477 IEC 62620 ICC-ES AC156 EN 61000-6-2 EN 61000-6-4 UN 38.3	

