

POWERFLOW

Fully Integrated AC Battery Storage

Sundial M2 & Sundial S2



2018: Battery Storage

Simple System Integration

- **Compatible** with any new or existing solar PV system.
- **Flexible** system design, fully modular and expandable from 2.0kWh to 96.0kWh.
- **Fast** installation using wall hung design, PowerFlow SPEEDFIT connections.
- **Easy** installation with no special DC tools or training required.
- **Comprehensive** 5/10 year warranty and full UK technical support from product designers.
- **FREE** design software.
- **Designed** and manufactured in Herefordshire, England

Advanced Technologies

- **Safer** Lithium Iron Phosphate battery chemistry, reliable and long lasting. No high DC voltages in system.
- **Advanced** battery management system (BMS) increases safety and cycle life.
- **Integrated** LCD display. (Sundial M)
- **Next generation** instant energy capture and release technology.
- **Internet** connected gateway and free monitoring portal allows night rate charging setup
- **Automotive** grade ultra high quality finish in metallic silver and carbon fibre.



Sundial®



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Technical Specifications	Sundial M2 (SDM-2.0-500-10)	Sundial S2 (SDS-2.0-500-10)
DC Battery Parameters		
Battery Chemistry	Lithium Iron Phosphate (LiFePO4)	Lithium Iron Phosphate (LiFePO4)
Maximum Battery Capacity	2.0 kWh	2.0 kWh
*Number of Cycles (80% DoD)	> 6000	> 6000
Nominal Battery Capacity	1.6 kWh	1.6 kWh
BMS Protection: (Over/Under) Voltage/Current/Temperature	Yes	Yes
Active Cell Balancing	Yes	Yes
AC Electrical and Operation Parameters		
Input and Output: Voltage / Frequency	180 - 270V AC / 47.5 - 55 Hz	180 - 270V AC / 47.5 - 55 Hz
Input Power: Maximum / Nominal	450W / 300W	450W / 300W
Output Power: Maximum Apparent / Nominal	580W / 500W	580W / 500W
Dynamic Reactive Power Control during Discharge	Yes / 1 (unity) 0.8cap, 0.8 ind	Yes / 1 (unity) 0.8cap, 0.8 ind
Power Factor Correction during Charge	Yes	Yes
Inverter: Topology / Capacitance / THD	Galvanic Isolation / No Electrolytic Capacitance / <3%	Galvanic Isolation / No Electrolytic Capacitance / <3%
Start Up "Trigger" Power Rating: Export / Import	95W / 170W	95W / 170W
Operational Parameters		
Dimensions (L / H / D) (without connections)	440 / 300 / 280 mm	440 / 300 / 280 mm
Weight	34 kg	32 kg
Mounting Type	Wall Hung	Wall Hung
Ingress Protection	IP 20	IP 20
Operating Temperature Range: Charging / Discharging	0 to +45 / -10 to +60 (degrees C)	0 to +45 / -10 to +60 (degrees C)
Max Noise Emissions (with Fan running)	25dB	25dB
Maximum No. of Devices / Battery Capacity / Output Power	1 Device / 2.0 kWh / 500W	15 Devices / 30 kWh / 7500W
Input / Output Connections	PowerFlow SPEEDFIT	PowerFlow SPEEDFIT
Internet Monitoring Portal / OFF peak charging control	Yes (using Energy Gateway) / Yes (using portal control)	Yes (using Energy Gateway) / Yes (using portal control)
Communication Bus / Connection	RS-485 / RJ45	RS-485 / RJ45
Energy Measurement / Reaction Time	F-POINT Technology / 400ms	F-POINT Technology / 400ms
Cooling Concept	Natural Convection / Temperature Controlled Forced Air	Natural Convection / Temperature Controlled Forced Air
Solar Immersion Controller Compatibility	ERS MINI & ERS PRO	ERS MINI & ERS PRO
Display	Crystal Blue Backlit LCD Display	Crystal Blue Backlit LCD Display
Country of Manufacture	England	England
Finish	Metallic Star Silver / Gloss Carbon Fibre	Metallic Star Silver / Gloss Carbon Fibre
**Warranty: Battery / Electronics	4000 cycles or 10 Years / 5 Years	4000 cycles or 10 Years / 5 Years
Compliant Standards	EN 50438, VDE 4105, CEI 021, G83/2, G59/3, G100, EN621091, EN62109-2, EN61000-2-3-6, RoHs, CE	EN 50438, VDE 4105, CEI 021, G83/2, G59/3, G100, EN621091, EN62109-2, EN61000-2-3-6, RoHs, CE

*Battery cycle life is estimated based on lab data and live testing

**Warranty subject to terms and conditions, see latest warranty documentation for full details.

Product specification subject to change without notice.

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PowerFlow Energy Ltd, Netherwood Road, Rotherwas Industrial Est, Herefordshire, HR2 6JU, UK.

Tel: 01452 421271, Email: info@powerflowenergy.co.uk, Web: www.powerflowenergy.com



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