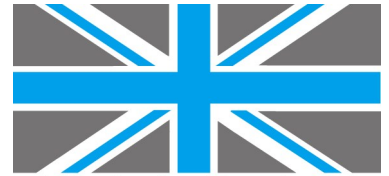


PowerFlow Sundial: AC Battery Storage System

A Fully Integrated AC Coupled Battery Storage System.



Made in England

PowerFlow Sundial[®]

www.powerflowenergy.com



Simple System Integration

- **Compatible** with any new or existing solar PV system. Integrated on the AC side.
- **Fully flexible**, modular and expandable from 2.0kWh to 96kWh 3 phase.
- **Fast** wall hung mounting, quick and easy system installation.
- **FIT** metering is unaffected as integration is on the AC side of meter.
- **No special DC tools or training required**
- **FREE** Design software

Advanced Technologies

- **Safer** Lithium Iron Phosphate battery chemistry, reliable and long lasting. No high DC voltages with in the system.
- **Advanced** battery management system for increased battery life cycles.
- **Integrated** LCD display on Sundial M
- **Next generation** instantaneous capture and release technology
- **Optional** night rate (economy 7) charging
- **Automotive grade** metallic silver and carbon fibre finish

PowerFlow[®]
Sundial
DESIGN

TECHNICAL DATA Product Code	Sundial M (SDM-2.0-500)	Sundial S (SDS-2.0-500)	Sundial S (SDS-1.0-250)
Battery	Lithium Iron Phosphate (LiFePO4)	Lithium Iron Phosphate (LiFePO4)	Lithium Iron Phosphate (LiFePO4)
Maximum Battery Capacity	2.0kWh	2.0kWh	1.0kWh
*Number of Cycles: 80% DOD	> 6000	> 6000	> 6000
Nominal Battery Capacity	1.6 kWh	1.6 kWh	0.80 kWh
*Battery Life Expectancy	15 Years	15 Years	15 Years
Protection BMS: Voltage/Current/Temperature	Yes / Yes / Yes	Yes / Yes / Yes	Yes / Yes / Yes
Cell Balancing / Anti-Aging Protection	Yes / Yes	Yes / Yes	Yes / Yes
AC Input / Output			
Input / Output: Voltage/Frequency	180-270V AC / 47.5-55Hz	180-270V AC / 47.5-55Hz	180-270V AC / 47.5-55Hz
Nominal Input power (Proportional adaptive input power)	300W (6 x 50W adaptive)	300W (6 x 50W adaptive)	150W (3 x 50W adaptive)
Nominal Real Output Power (Proportional adaptive output power)	500W (4x 125W adaptive)	500W (4x 125W adaptive)	250W (2 x 125W adaptive)
Max Apparent Output Power	580VA	580VA	290VA
Dynamic Reactive Power Factor Control	1 (Unity) 0.8cap, 0.8ind	1 (Unity) 0.8cap,0.8ind	1 (Unity) 0.8cap,0.8ind
Inverter Topology	Galvanic Isolation	Galvanic Isolation	Galvanic Isolation
Start up power: Export / Import	120w / 200w	120w / 200w	120w / 200w
Total Harmonic Distortion (odd)	<3%	<3%	<3%
Operational Data			
Max Number of Devices (per phase)	1	15	30
Max number of Devices per string	1	4	8
Max Nominal Storage Capacity (per phase)	1.6kWh	24.0kWh +	24.0kWh +
Max Nominal Output Power (per phase)	500W	7500W	7500W
Input / Output Power Connection	PowerFlow Speed-Fit	PowerFlow Speed-Fit	PowerFlow Speed-Fit
Measurement Method (400ms reaction time)	F-POINT <i>technology</i> ®	F-POINT <i>technology</i> ®	F-POINT <i>technology</i> ®
Communication Bus / Connection	RS485-PFLIN / RJ45	RS485-PFLIN / RJ45	RS485-PFLIN / RJ45
WiFi, Ethernet Access with web server	(available Dec 2016)	(available Dec 2016)	(available Dec 2016)
Operational Temperature Range	-0°C to +45°C	-20°C to +60°C	-20°C to +60°C
Cooling Concept	Convective	Convective	Convective
General Data			
Dimensions (L / H / D)	440 / 300 / 280 mm	440 / 300 / 280 mm	220 / 300 / 280 mm
Enclosure Weight (Kg)	34 kg	32 kg	20 kg
Mounting Type	Wall Hung	Wall Hung	Wall Hung
Compatible with PowerFlow ERS	Yes	Yes	Yes
Ingress Protection: Battery / Enclosure	IP56 / IP20	IP56 / IP20	IP56 / IP20
Crystal Clear LCD Display / LED status indicator	Yes / Yes	No / Yes	No / Yes
Compliant Certification Standards	EN 50438, VDE 4105, CEI 0-21, G83/2, G59/3, EN 62109-1, EN 62109-2, EN 61000-2-3-6, EN 61000-6-1, RoHS, CE	EN 50438, VDE 4105, CEI 0-21, G83/2, EN 62109-1, EN 62109-2, EN 61000-2-3-6, EN 61000-6-1, RoHS, CE	EN 50438, VDE 4105, CEI 0-21, G83/2, EN 62109-1, EN 62109-2, EN 61000-2-3-6, EN 61000-6-1, RoHS, CE
Anti-Islanding Protection	Yes	Yes	Yes
Backup Power Availability	No	No	No
Country of Manufacture	England	England	England
Enclosure Material	Aluminium	Aluminium	Aluminium
Finish	Metallic Star Silver / Gloss Carbon Fibre	Metallic Star Silver / Gloss Carbon Fibre	Metallic Star Silver / Gloss Carbon Fibre
Internet Monitoring Gateway	(available late 2016)	(available late 2016)	(available late 2016)
**Warranty: Battery / Electronics	10 Years or 6000kWh / 5 Years	10 Years or 6000kWh / 5 Years	10 Years or 6000kWh / 5 Years

**Battery cycle life are estimated based on lab data and are not a guarantee ** Warranty subject to terms and conditions, see latest warranty documentation for full details. Product Specification is subject to change without notice.