

SOLARX-Lithium™ Series



SOC-State of Charge Display Integrated
(for SOLARX-Lithium-240-24 model)



SOLARX-Lithium™ Series - XUNZEL

State-of-the-art Rechargeable Lithium Batteries for off-grid and back-up applications with integrated Battery Management System-BMS

Designed for: Data Centre-UPS, Telecom Backup Power, Military Power Supply, Solar Energy Storage System, Solar Street LED Lightings, Industrial Robotics & Handling Equipment, Autonomously Guided Vehicles, Aerial Work Platform, Floor Cleaning Machines, Power Tools, Lawn Mower, Electric Bike & Motorcycles, Electric Mobilities(E-scooters, Wheelchair), Golf Trolley & Golf Carts, Medical Devices, Electric Ships, Passenger Vehicles.

Product Overview



 **Safe LiFePO₄ Lithium-ion Chemistry with Battery Management System -BMS**

Superior Performance

- More Energy
- Faster and Powerful
- Superior and Longer Cycle Life
- Wider Temperature Range Operation
- Very Low Self-Discharge
- Very Light

 **Superior Safety**

- Maintenance Free
- Sealed. IP56
- Multi-position
- BMS- Battery Management System Integrated
- Full Protections Integrated
- Environment Friendly

Available Models

SOLARX-Lithium-8-12
SOLARX-Lithium-14-12
SOLARX-Lithium-30-12
SOLARX-Lithium-48-12
SOLARX-Lithium-240-24



Industry Leading Technology for Off-Grid, Off-Shore and Backup Power Applications



SOLARX-Lithium™ Series

Specifications

Model	SOLARX-Lithium-8-12	SOLARX-Lithium-14-12	SOLARX-Lithium-30-12	SOLARX-Lithium-48-12	SOLARX-Lithium-240-24
Chemistry	LiFePO ₄	LiFePO ₄	LiFePO ₄	LiFePO ₄	LiFePO ₄
Nominal Voltage	12.8V	12.8V	12.8V	12.8V	24.0V
Rated Capacity	96Wh	154Wh	333Wh	512Wh	2400Wh
Internal Resistance	≤ 30mΩ	≤ 50mΩ	≤ 40mΩ	≤ 30mΩ	≤ 30mΩ
Efficiency	99%	99%	99%	99%	99%
Cycle Life @ 1C – 100%DoD	>2000 cycles	>2000 cycles	>2000 cycles	>2000 cycles	>2000 cycles
Cycle Life @ 1C – 30%DoD	>8000 cycles	>8000 cycles	>8000 cycles	>8000 cycles	>8000 cycles
Self Discharge	2% in 30 days	3% in 30 days	2% in 30 days	2% in 30 days	2% in 30 days
Cells Series/Parallel	4S/20P	4S/8P	4S/20P	4S/20P	2S/20P
Dimensions (mm)	151 x 65 x 94 mm	151 x 98 x 95 mm	166 x 175 x 125 mm	197 x 165 x 170 mm	522 x 240 x 224 mm
Net Weight (kg)	1.1kg	1.7kg	4.2kg	5.75kg	29.60kg
Case Terminal	IP56. ABS, UL-94-V0 T1	IP56. ABS, UL-94-V0 T2	IP56. ABS, UL-94-V0 M5	IP56. ABS, UL-94-V0 M6	IP56. ABS, UL-94-V0 M8
Charge Method	Method: CC-CV	Method: CC-CV	Method: CC-CV	Method: CC-CV	Method: CC-CV
Charge Voltage	14.4~ 14.8V	14.4~ 14.8V	14.4~ 14.8V	14.4~ 14.8V	28.8~ 29.6V
Recommended Float Voltage	13.8V	13.8V	13.8V	13.8V	27.6V
Recommended Charge Current	4A	6A	20A	20A	50A
Maximum Charge Current	7.5A	12A	30A	40A	100A
BMS Charge Cut-off Voltage	15.6V ± 0.2V	15.6V ± 0.2V	15.6V ± 0.2V	15.6V ± 0.2V	31.2V ± 0.2V
Continuous Discharge Current	15A	24A	30A	70A	100A
Charge Temperature	0° to 45°C	0° to 45°C	0° to 45°C	0° to 45°C	0° to 45°C
Pulse Discharge Current	20A (<3 seconds)	30A (<3 seconds)	40A (<3 seconds)	80A (<3 seconds)	200A (<3 seconds)
Recommended Volt. Discharge	10V	10V	10V	10V	20V
BMS Discharge Cut-off Voltage	8V	8V	8V	8V	16V
Reconnect Voltage	9.2V	9.2V	9.2V	9.2V	18.4V
Short Circuit Protection	200~600 μs	200~600 μs	200~600 μs	200~600 μs	200~600 μs
Discharge Temperature	-30° to 60°C	-30° to 60°C	-30° to 60°C	-30° to 60°C	-30° to 60°C
Storage Temperature	-40° to 60°C	-40° to 60°C	-40° to 60°C	-40° to 60°C	-40° to 60°C
BMS High Temperature Cut-off	80°C	80°C	80°C	80°C	80°C
Compliance	CE, IEC62133, UL1642	CE, IEC62133, UL1642	CE, IEC62133, UL1642	CE, IEC62133, UL1642	CE, IEC62133, UL1642
Shipping Class	UN3480, Class 9, UN38.3	UN3480, Class 9, UN38.3	UN3480, Class 9, UN38.3	UN3480, Class 9, UN38.3	UN3480, Class 9, UN38.3

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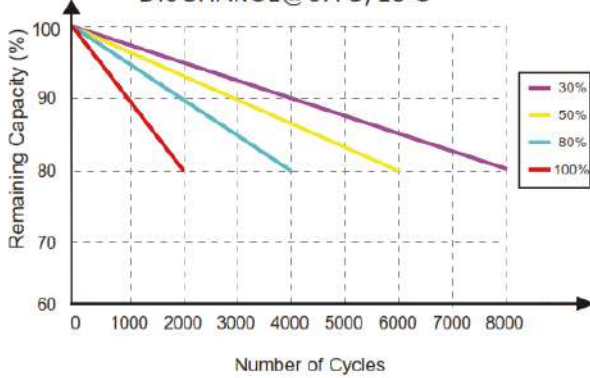
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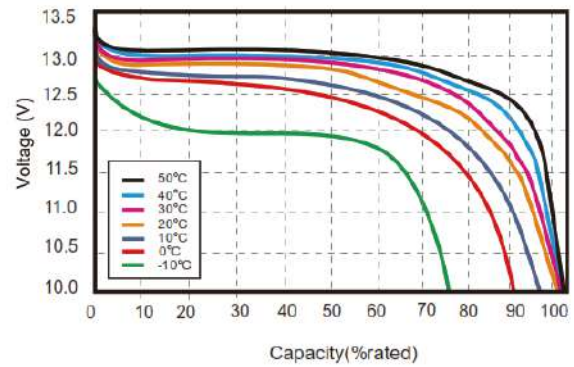
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Specifications – 12.8V models

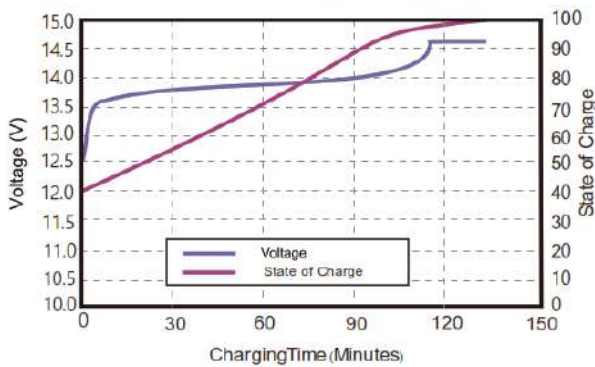
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)
DISCHARGE@0.1C, 25 °C



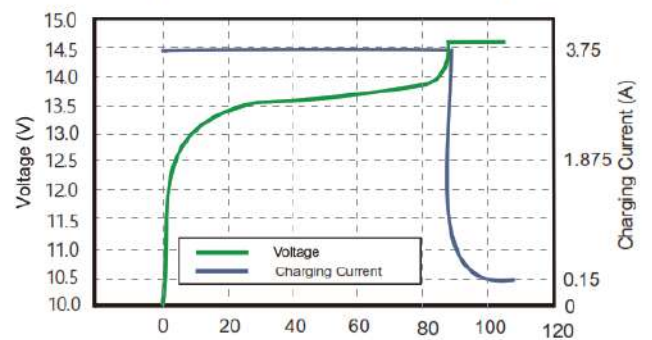
DISCHARGE CAPACITY at VARIOUS TEMPERATURES
DISCHARGE @1C



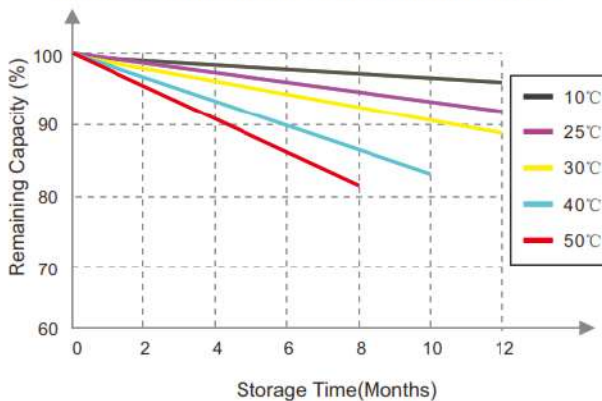
STATE OF CHARGE CURVE @0.5C, 25 °C



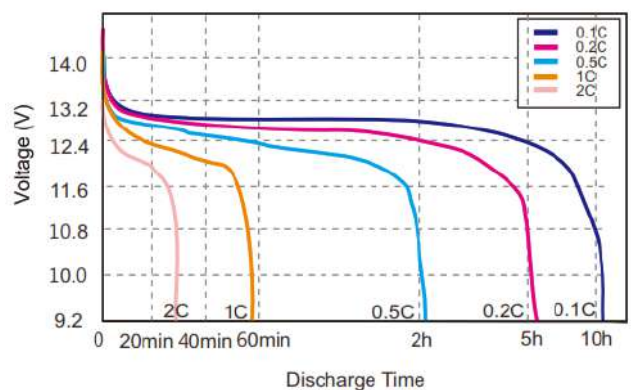
CHARGING CHARACTERISTICS @0.5C, 25 °C



Different Temperature Self Discharge Curve



Different Rate Discharge Curve @25 °C



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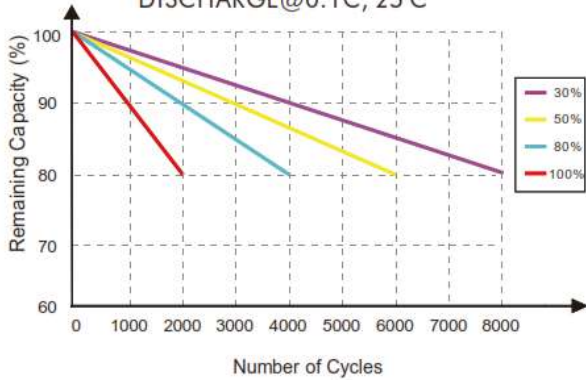
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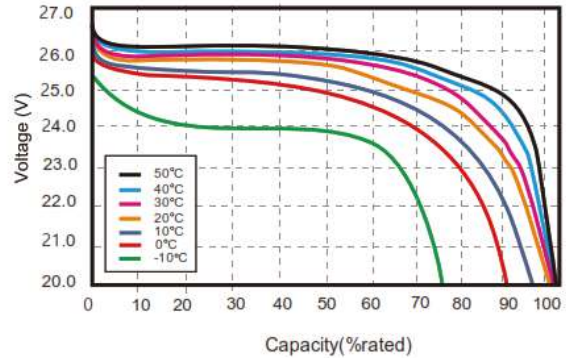
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Specifications – 24V models

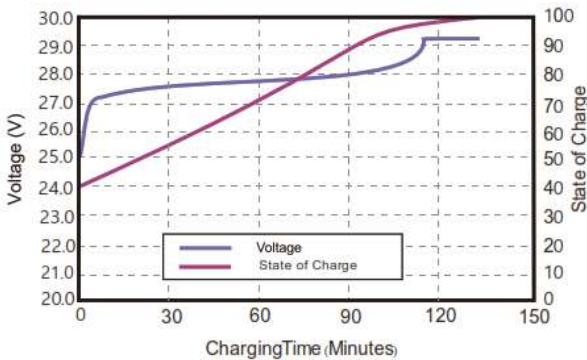
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)
DISCHARGE@0.1C, 25 C



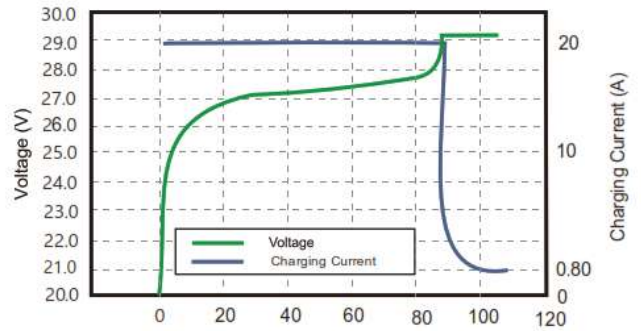
DISCHARGE CAPACITY at VARIOUS TEMPERATURES
DISCHARGE @1C



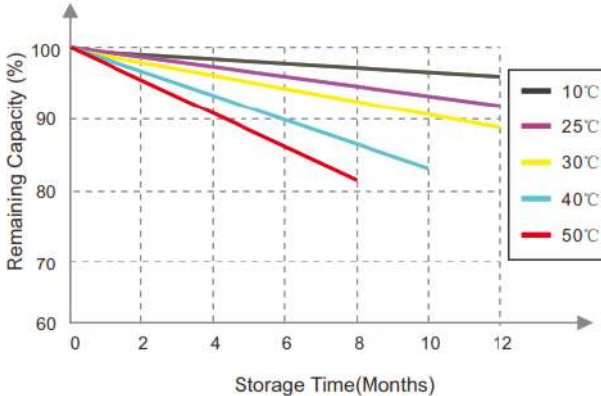
STATE OF CHARGE CURVE @0.5C, 25 C



CHARGING CHARACTERISTICS @0.5C, 25°C



Different Temperature Self Discharge Curve



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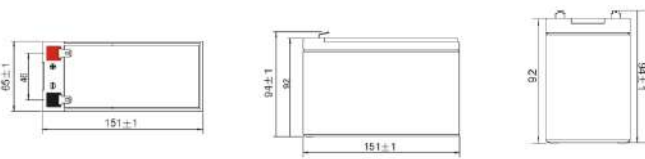
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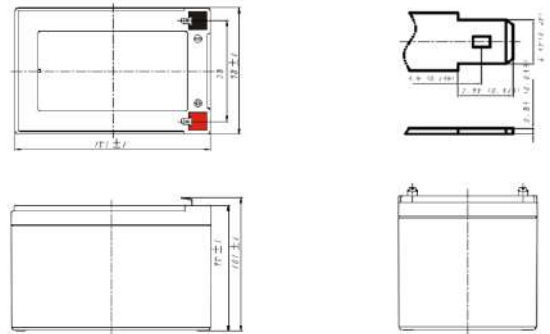
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Dimensions

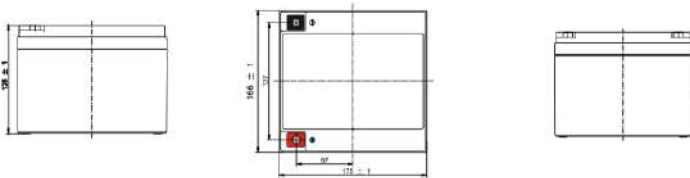
SOLARX-Lithium-8-12



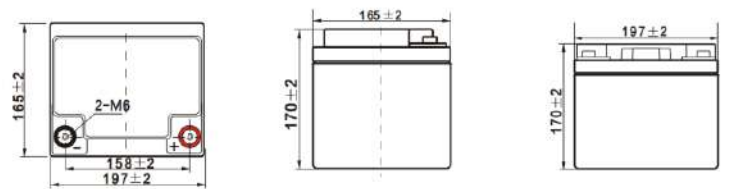
SOLARX-Lithium-14-12



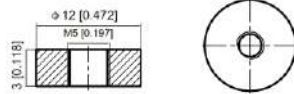
SOLARX-Lithium-30-12



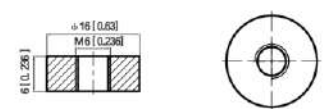
SOLARX-Lithium-48-12



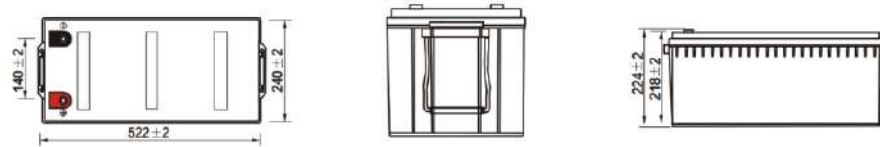
M5 - 1.0x 5mm
Terminal



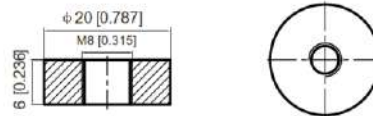
M6 - 1.0x 6mm
Threaded Hole



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M8 - 1.0x 8mm
Threaded Hole



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