

SOLARX-LithiumTM Series. Rechargeable Solar Lithium Iron Batteries

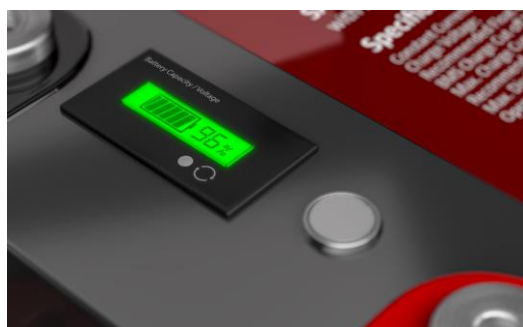


SOLARX-Lithium family



SOLARX-Lithium 240-24

SOC-State of Charge and T[°] Display Integrated
(for SOLARX-Lithium-240-24 model)



SOLARX-LithiumTM Series - XUNZEL

Hi-performance Rechargeable Lithium Iron Batteries specially designed for solar photovoltaic off-grid and back-up applications with integrated Battery Management System-BMS.

High performance in off-grid solar systems and high delivery power.

Specially designed for optimal and fast photovoltaic off-grid solar charging and to directly replace traditional SLA (Sealed Lead-Acid) Batteries.

Reduce replacement and total costs.

Product Overview



**Safe LiFePO₄ Lithium-ion Chemistry
with integrated 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
- Modular Design enables to connect in parallel and series



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-120-12
SOLARX-Lithium-240-24



SOLARX-Lithium-240-24

SOLARX-Lithium-48-12

SOLARX-Lithium-30-12

SOLARX-Lithium-14-12

SOLARX-Lithium-8-12

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



SOLARX-Lithium™ Series. Rechargeable Solar Lithium Iron Batteries

Specifications

Model	SOLARX-Lithium-8-12	SOLARX-Lithium-14-12	SOLARX-Lithium-30-12	SOLARX-Lithium-48-12	SOLARX-Lithium-120-12	SOLARX-Lithium-240-24
Code Order Part Number	SOLARXL812	SOLARXL1412	SOLARXL3012	SOLARXL4812	SOLARXL12012	SOLARXL24024
Chemistry	Lithium Iron Phosphate - LiFePO ₄					
Battery Type	Rechargeable - Secondary – With No Memory Effect					
Average Service Life	15 years (at 25°C)					
Nominal Voltage	12.8V	12.8V	12.8V	12.8V	12.8V	25.6V
Rated Capacity	96Wh	154Wh	333Wh	512Wh	1280Wh	2400Wh
Internal Resistance (Approx.)	≤ 30mΩ					
Efficiency	99%					
Cycle Life @ 1C – 100%DoD	>2000 cycles					
Cycle Life @ 1C – 30%DoD	>8000 cycles					
Self Discharge	< 2% in 30 days					
Maximum batteries in Series/Parallel	4S/20P	4S/20P	4S/20P	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	330 x 173 x 212 mm	522 x 240 x 224 mm
Net Weight (kg)	1.1kg	1.7kg	4.2kg	5.75kg	13.60kg	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	IP56. ABS, UL-94-V0 M8
Charge Method	Method: CC-CV	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	14.4~ 14.8V	28.8~ 29.6V
Recommended Float Voltage	13.8V	13.8V	13.8V	13.8V	13.8V	27.6V
Recommended/Maximum Charge Current	4A / 7.5A	6A / 12A	20A / 30A	20A / 40A	50A / 100A	50A / 100A
BMS Charge Cut-off Voltage	15.6V ± 0.2V	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	100A
Charge Temperature	0° to 50°C					
Pulse Discharge Current	20A (<3 seconds)	30A (<3 seconds)	40A (<3 seconds)	80A (<3 seconds)	300A (<10 seconds)	200A (<3 seconds)
Recommended Volt. Discharge	10V	10V	10V	10V	10V	20V
BMS Discharge Cut-off Voltage	8V	8V	8V	8V	8V	16V
Reconnect Voltage	9.2V	9.2V	9.2V	9.2V	9.2V	18.4V
Short Circuit Protection	200~600 μs					
Discharge Temperature	-30° to 65°C					
Storage Temperature	-40° to 65°C					
BMS High Temperature Cut-off	80°C					
Compliance	CE UKCA UL RoHs3 and REACH Compliant WEEE Compliant IEC62133, UL1642					
Shipping Class	UN3480, Class 9, UN38.3					

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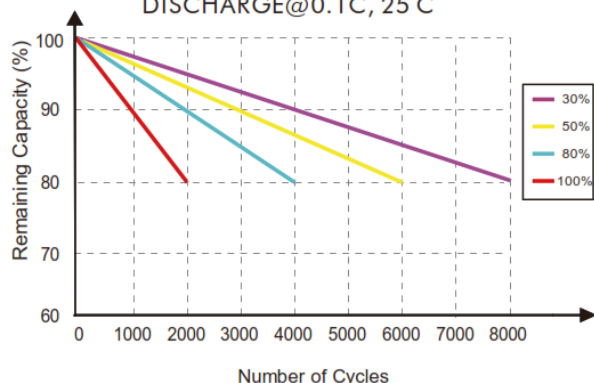
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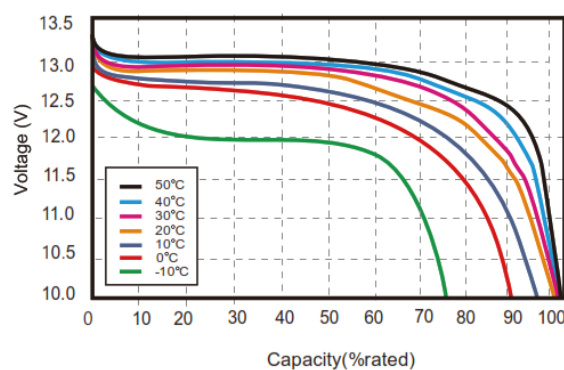
SOLARX-Lithium™ Series. Rechargeable Solar Lithium Iron Batteries

Specifications – 12.8V models

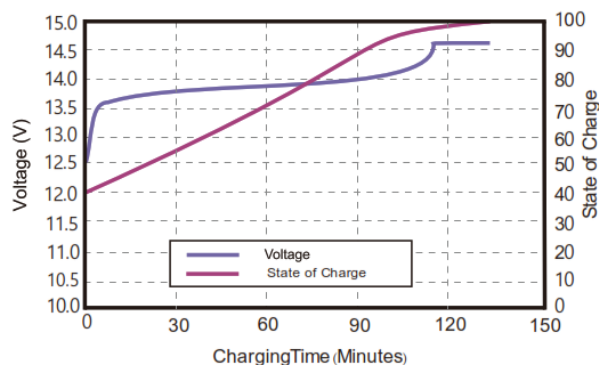
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)
DISCHARGE@0.1C, 25 °C



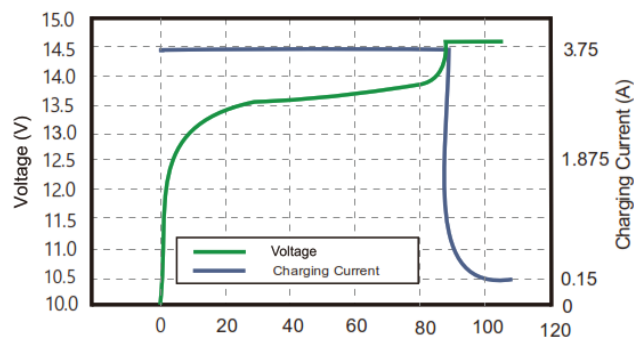
DISCHARGE CAPACITY at VARIOUS TEMPERATURES
DISCHARGE @1C



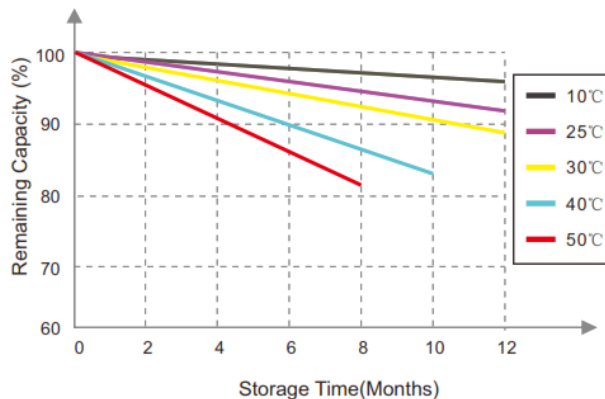
STATE OF CHARGE CURVE @0.5C, 25 °C



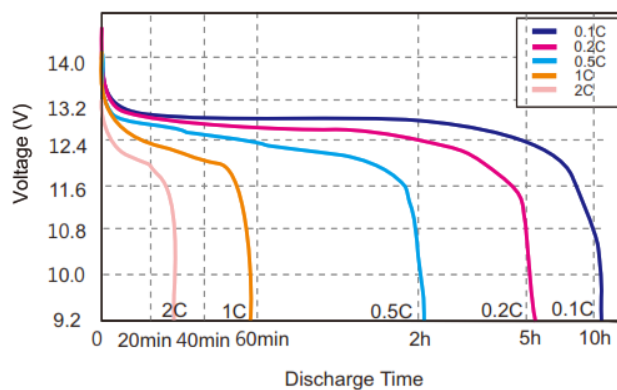
CHARGING CHARACTERISTICS @0.5C, 25°C



Different Temperature Self Discharge Curve



Different Rate Discharge Curve @25°C



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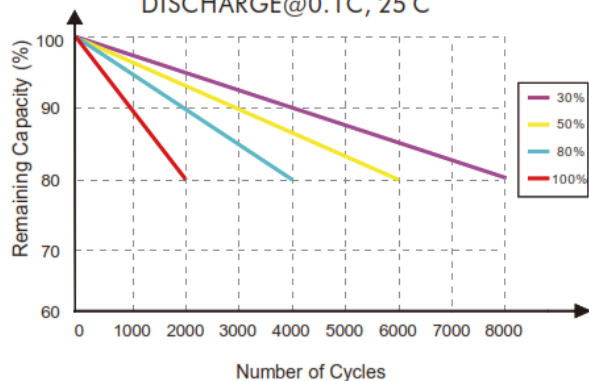
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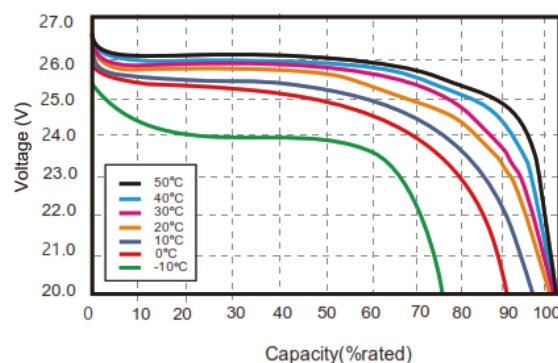
SOLARX-LithiumTM Series. Rechargeable Solar Lithium Iron Batteries

Specifications – 25.6V models

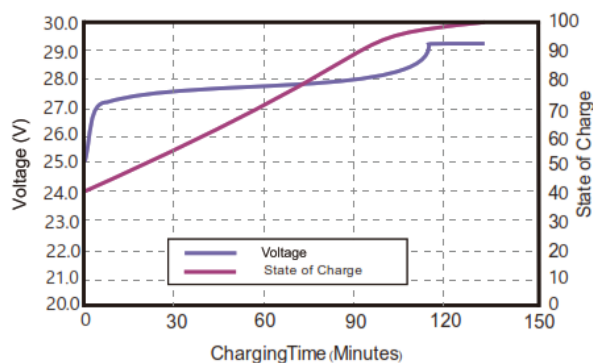
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)
DISCHARGE@0.1C, 25°C



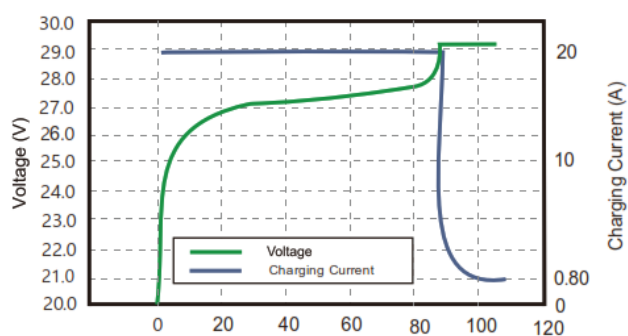
DISCHARGE CAPACITY at VARIOUS TEMPERATURES
DISCHARGE @1C



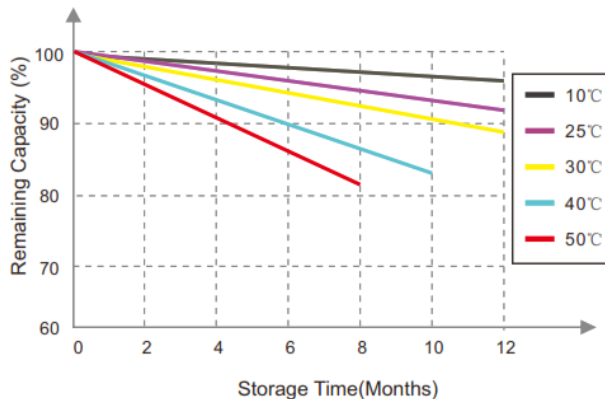
STATE OF CHARGE CURVE @0.5C, 25°C



CHARGING CHARACTERISTICS @0.5C, 25°C



Different Temperature Self Discharge Curve



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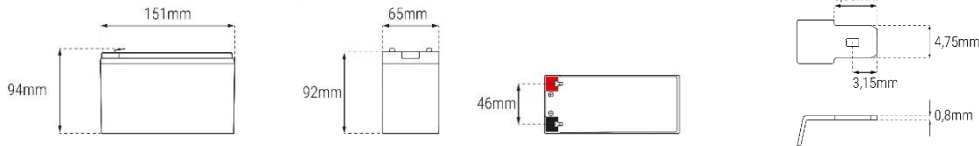
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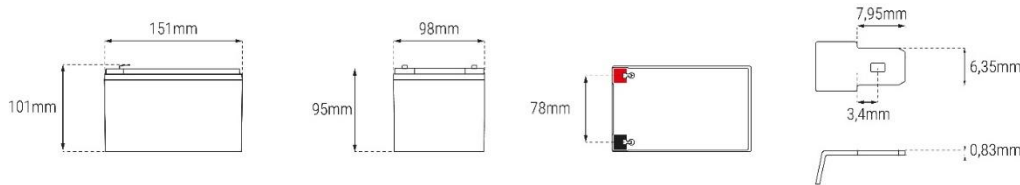
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Dimensions (mm)

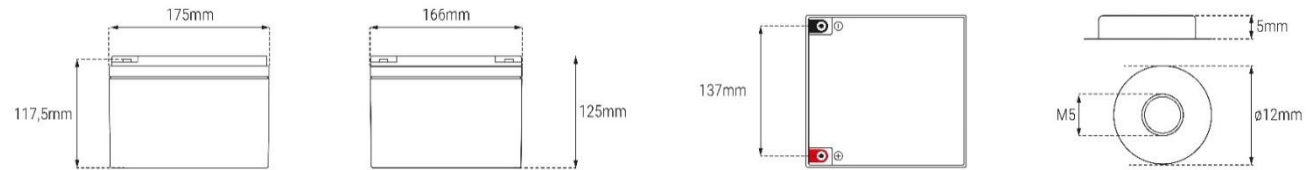
SOLARX-Lithium-8-12



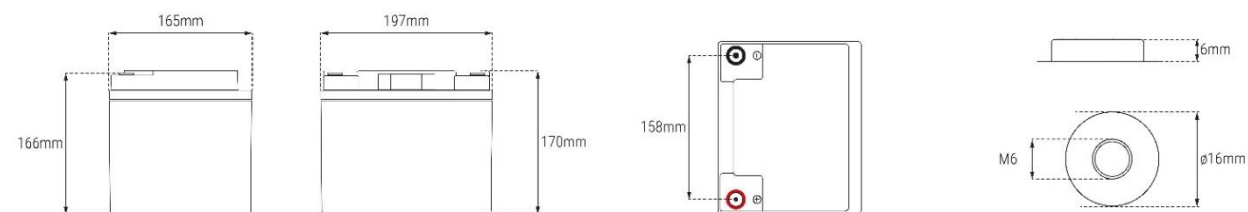
SOLARX-Lithium-14-12



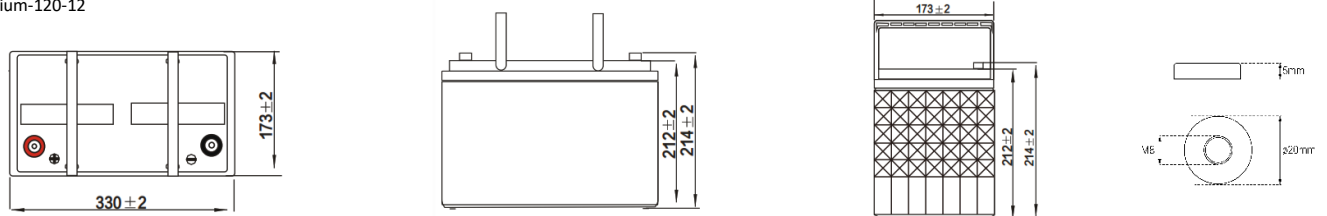
SOLARX-Lithium-30-12



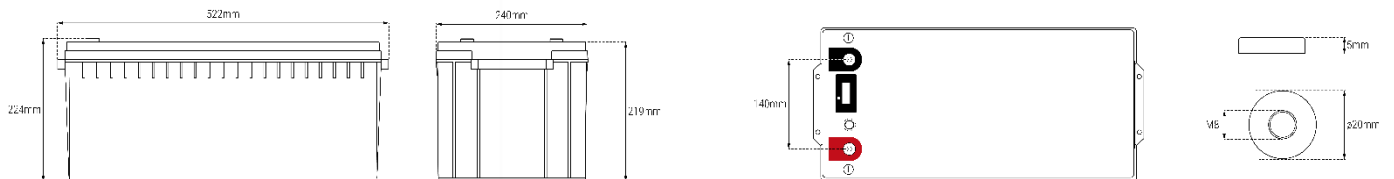
SOLARX-Lithium-48-12



SOLARX-Lithium-120-12



SOLARX-Lithium-240-24



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SOLARX-Lithium™ Series. Rechargeable Solar Lithium Iron Batteries

SOLARX-Lithium-8-12

Code | Order Part Number: SOLARXL812



SOLARX-Lithium-14-12

Code | Order Part Number: SOLARXL1412



SOLARX-Lithium-30-12

Code | Order Part Number: SOLARXL3012



SOLARX-Lithium-48-12

Code | Order Part Number: SOLARXL4812



SOLARX-Lithium-120-12

Code | Order Part Number: SOLARXL12012



SOLARX-Lithium-240-24

Code | Order Part Number: SOLARXL24024



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