

# SOLARX-Lithium™ Series. Rechargeable Solar Lithium Iron Batteries



SOLARX-Lithium family



SOLARX-Lithium 240-24

SOC-State of Charge and T<sup>°</sup> Display Integrated  
(for SOLARX-Lithium-240-24 model)



## SOLARX-Lithium™ Series - XUNZEL

Baterias de lítio (LiFePO<sub>4</sub>) recarregáveis de alto desempenho especialmente concebidas para aplicações solares fotovoltaicas off-grid e de reserva com Sistema de Gestão de Baterias-BMS integrado.

Alto desempenho em sistemas solares fora da rede e alta potência de entrega. Especialmente concebidas para uma carga solar fotovoltaica otimizada e rápida fora da rede e para substituir diretamente as tradicionais baterias SLA (Sealed Lead-Acid).

### Product Overview



Safe LiFePO<sub>4</sub> Lithium-ion Chemistry  
com Battery Management System –BMS integrado

#### Superior Performance

- Mais Energia
- Mais rápido e Poderoso
- Ciclo de vida superior e mais longo
- Funcionamento a uma maior amplitude térmica
- Auto-Descarga muito baixa
- Muito Ligeiro
- O desenho modular permite a ligação em paralelo e em série

Superior Safety

- Livre de manutenção
- Selado. IP56
- Multi-posição
- BMS- Battery Management System integrado
- Protecções integrais

### Available Models

SOLARX-Lithium-5-6	(29Wh - 6.4V)
SOLARX-Lithium-5-12	(58Wh – 12.8V)
SOLARX-Lithium-8-12	(96Wh -12.8V)
SOLARX-Lithium-14-12	(154Wh -12.8V)
SOLARX-Lithium-30-12	(333Wh -12.8V)
SOLARX-Lithium-48-12	(512Wh -12.8V)
SOLARX-Lithium-120-12	(1280Wh -12.8V)
SOLARX-Lithium-120-24	(1280Wh -25.6V)
SOLARX-Lithium-240-24	(2400Wh -25.6V)



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Model	SOLARX-Lithium-5-6	SOLARX-Lithium-5-12	SOLARX-Lithium-8-12	SOLARX-Lithium-14-12	SOLARX-Lithium-30-12	SOLARX-Lithium-48-12	SOLARX-Lithium-120-12	SOLARX-Lithium-120-24	SOLARX-Lithium-240-24
Code   Order Part Number	SOLARXL56	SOLARXL512	SOLARXL812	SOLARXL1412	SOLARXL3012	SOLARXL4812	SOLARXL12012	SOLARXL12024	SOLARXL24024
Chemistry	Lithium Iron Phosphate – LFP - LiFePO <sub>4</sub>								
Battery Type	Rechargeable - Secondary – With No Memory Effect								
Average Service Life	15 years (at 25°C)								
Nominal Voltage	6.4V	12.8V	12.8V	12.8V	12.8V	12.8V	12.8V	25.6V	25.6V
Rated Capacity	29Wh	58Wh	96Wh	154Wh	333Wh	512Wh	1280Wh	1280Wh	2400Wh
Internal Resistance	≤ 30-40mΩ								
Efficiency	99%								
Cycle Life @ 1C – 100%DoD / 30%DoD	>2000 cycles / >8000 cycles								
Self Discharge	< 2% in 30 days								
Maximum batteries in Series/Parallel	4S/20P	4S/20P	4S/20P	4S/20P	4S/20P	4S/20P	4S/20P	2S/20P	2S/20P
Dimensions (mm)	70 x 47 x 101	90 x 70 x 101	151 x 65 x 94	151 x 98 x 95	166 x 175 x 125	197 x 165 x 170	330 x 173 x 212	330 x 173 x 212	522 x 240 x 224
Net Weight (kg)	0.34	0.75	1.1	1.7	4.2	5.75	13.60	13.60	29.60
Case   Terminal	IP56. ABS, UL-94-V0   F2	IP56. ABS, UL-94-V0   F2	IP56. ABS, UL-94-V0   F1	IP56. ABS, UL-94-V0   F2	IP56. ABS, UL-94-V0   M5	IP56. ABS, UL-94-V0   M6	IP56. ABS, UL-94-V0   M8	IP56. ABS, UL-94-V0   M8	IP56. ABS, UL-94-V0   M8
Charge Method	Method: CC-CV								
Charge Voltage	7.2~ 7.4V	14.4~ 14.8V	14.4~ 14.8V	14.4~ 14.8V	14.4~ 14.8V	14.4~ 14.8V	14.4~ 14.8V	28.8~ 29.6V	28.8~ 29.6V
Recommended Float Voltage	6.9V	13.8V	13.8V	13.8V	13.8V	13.8V	13.8V	27.6V	27.6V
Recommended/Maximum Charge Current	2A / 4.5A	2A / 2.5A	4A / 7.5A	6A / 12A	20A / 30A	20A / 40A	50A / 100A	25A / 50A	50A / 100A
BMS Charge Cut-off Voltage	7.8V ± 0.1V	15.6V ± 0.2V	15.6V ± 0.2V	15.6V ± 0.2V	15.6V ± 0.2V	15.6V ± 0.2V	15.6V ± 0.2V	31.2V ± 0.2V	31.2V ± 0.2V
Continuous Discharge Current	4.5A	5A	15A	24A	30A	70A	100A	50A	100A
Charge Temperature	0° to 50°C								
Pulse Discharge Current	8A (<3 seconds)	12A (<10 seconds)	20A (<3 seconds)	30A (<3 seconds)	40A (<3 seconds)	80A (<3 seconds)	500A (<5 seconds)	100A (<3 seconds)	200A (<3 seconds)
Recommended Voltage Disconnect	4.6V	10V	10V	10V	10V	10V	10V	20V	20V
BMS Discharge Cut-off Voltage	4V	8V	8V	8V	8V	8V	8V	16V	16V
Reconnect Voltage	4.6V	9.2V	9.2V	9.2V	9.2V	9.2V	9.2V	18.4V	18.4V
Short Circuit Protection	200~600 μs								
Discharge Temperature	-30° to 65°C								
Storage Temperature	-40° to 65°C								
BMS High T° Cut-off	80°C								
Compliance   Shipping Class	CE   UKCA   UL   RoHS3 and REACH Compliant   WEEE Compliant   IEC62133, UL1642   UN3480, Class 9, UN38.3								

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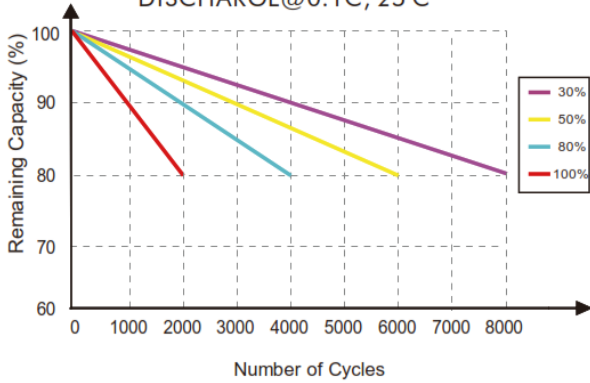


info@xunzel.com  
www.xunzel.com

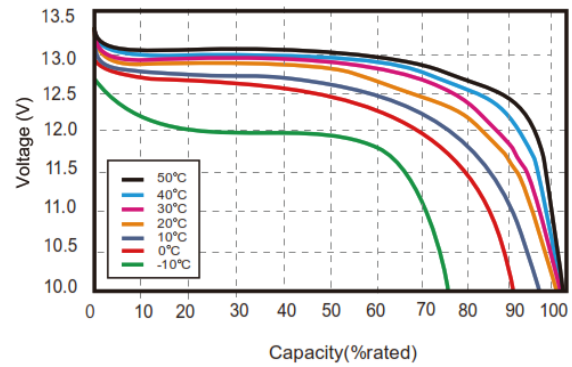
# SOLARX-Lithium™ Series. Rechargeable Solar Lithium Iron Batteries

## Specifications – 12.8V models

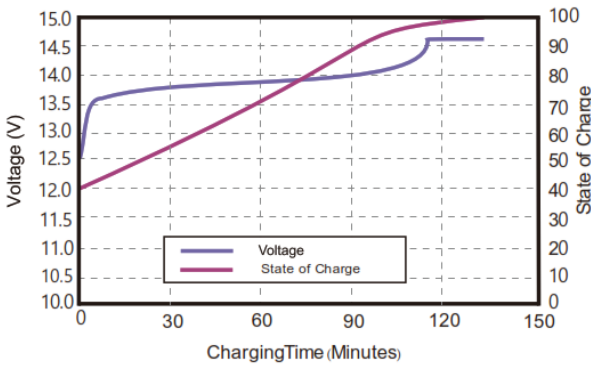
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)  
DISCHARGE@0.1C, 25 °C



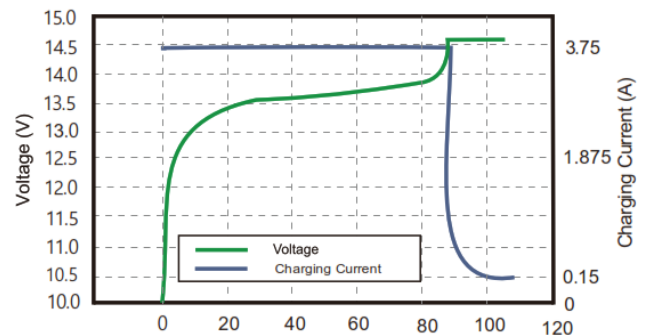
DISCHARGE CAPACITY at VARIOUS TEMPERATURES  
DISCHARGE @1C



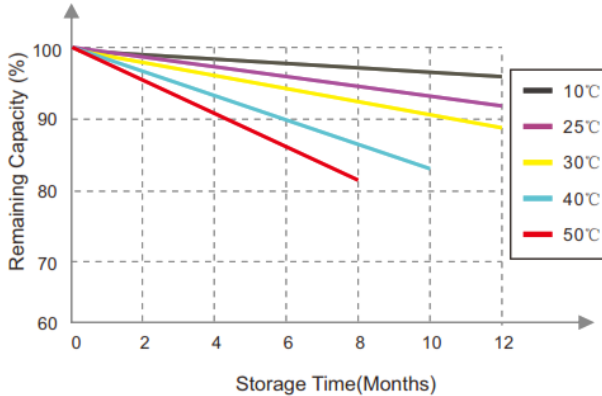
STATE OF CHARGE CURVE @0.5C, 25 °C



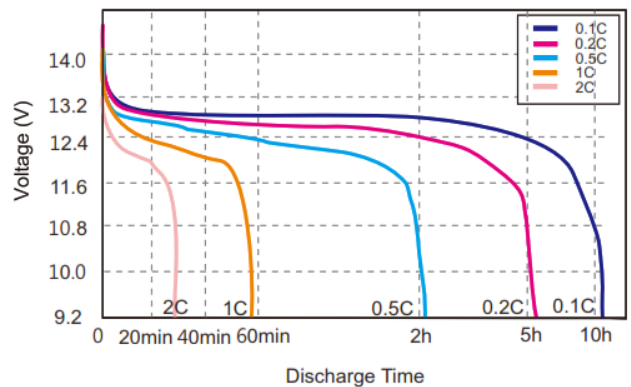
CHARGING CHARACTERISTICS @0.5C, 25 °C



Different Temperature Self Discharge Curve



Different Rate Discharge Curve @25 °C



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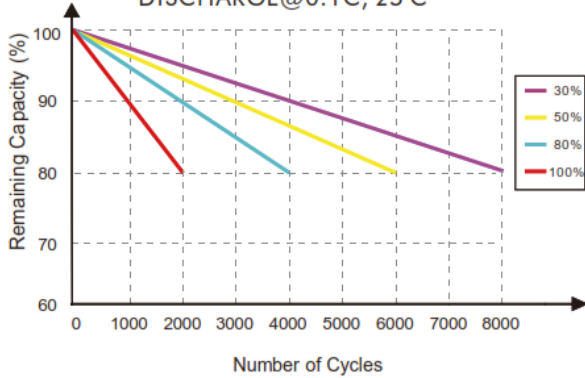
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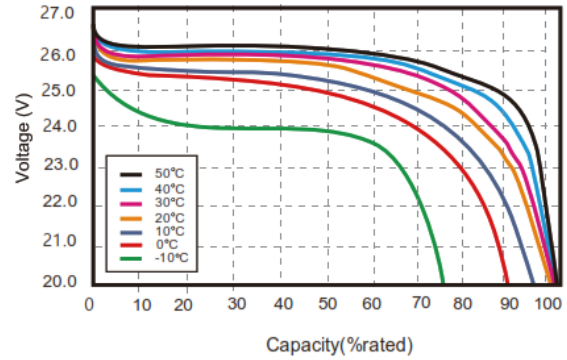
# SOLARX-Lithium™ Series. Rechargeable Solar Lithium Iron Batteries

## Specifications – 25.6V models

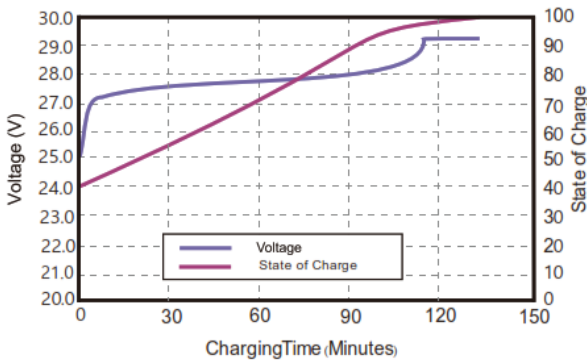
CYCLE LIFE vs. DEPTH OF DISCHARGE(DOD)  
DISCHARGE@0.1C, 25 C



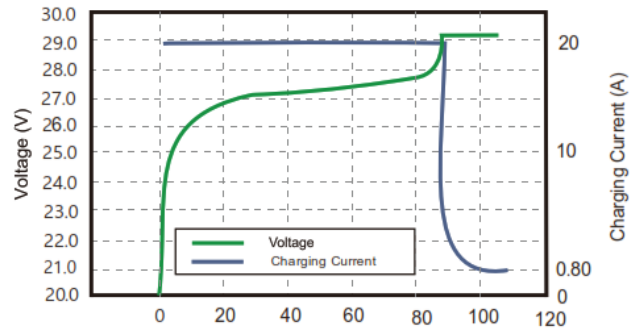
DISCHARGE CAPACITY at VARIOUS TEMPERATURES  
DISCHARGE @1C



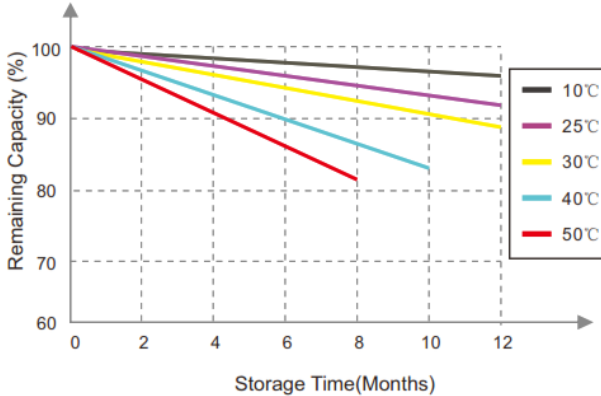
STATE OF CHARGE CURVE @0.5C, 25 C



CHARGING CHARACTERISTICS @0.5C, 25°C



Different Temperature Self Discharge Curve



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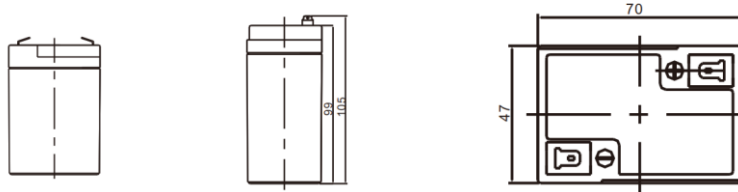




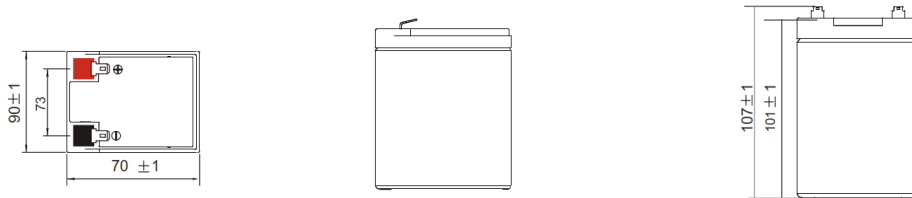
# SOLARX-Lithium<sup>TM</sup> Series. Rechargeable Solar Lithium Iron Batteries

## Dimensions (mm)

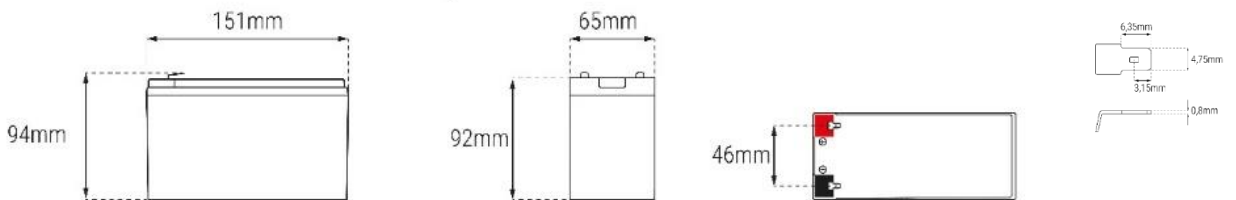
SOLARX-Lithium-5-6



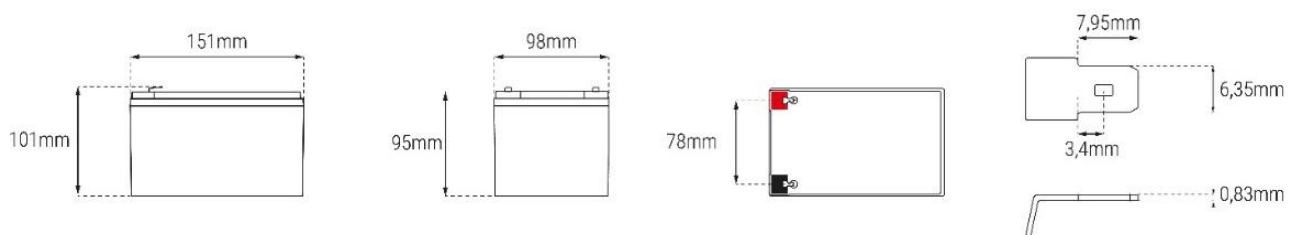
SOLARX-Lithium-5-12



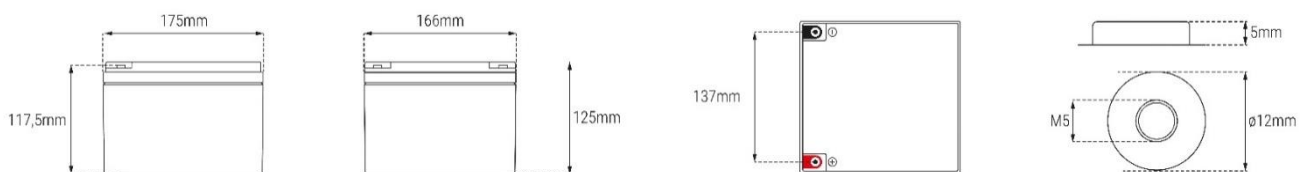
SOLARX-Lithium-8-12



SOLARX-Lithium-14-12



SOLARX-Lithium-30-12



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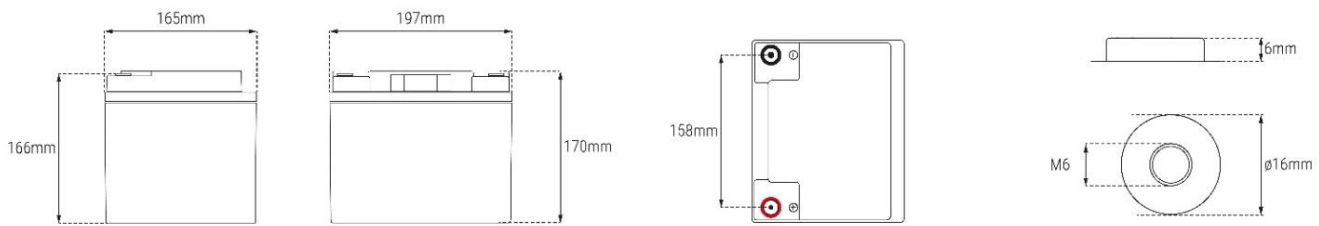
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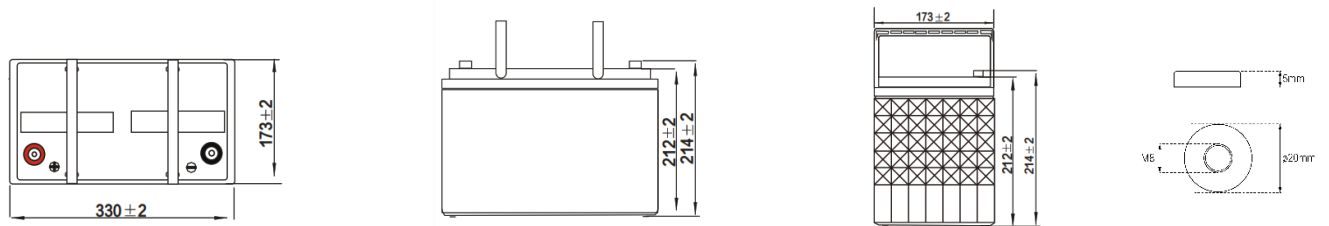
# SOLARX-Lithium<sup>TM</sup> Series. Rechargeable Solar Lithium Iron Batteries

## Dimensions (mm)

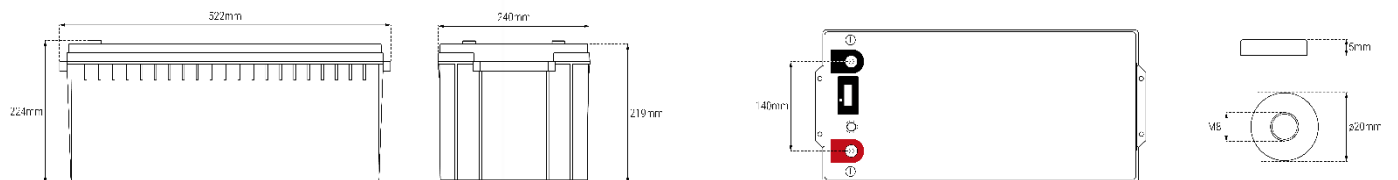
SOLARX-Lithium-48-12



SOLARX-Lithium-120-12  
SOLARX-Lithium-120-24



SOLARX-Lithium-240-24



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# SOLARX-Lithium™ Series. Rechargeable Solar Lithium Iron Batteries

**SOLARX-Lithium-5-6**  
Code | Order Part Number: SOLARXL56



**SOLARX-Lithium-5-12**  
Code | Order Part Number: SOLARXL512



**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**  
**SOLARX-Lithium-120-24**  
Code | Order Part Number: SOLARXL12012 | SOLARXL12024



**SOLARX-Lithium-240-24**  
Code | Order Part Number: SOLARXL24024



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