

# SOLARX™ Series. Deep-cycle Sealed Solar batteries

## SOLARX™ Series - XUNZEL

Sealed maintenance-free Deep-cycle solar batteries specially designed for solar photovoltaic, wind, back-up and industrial applications.

### Characteristics

**Robust and safe deep-cycle batteries**, specifically designed and manufactured for repeated and continuous deep cycle charging and discharging applications. With excellent deep discharge recovery. (IEC61427 solar cycles: 2000 cycles). With No Memory Effect.

**Maintenance-free. Sealed, no risk of spillage and 100% safe.** AGM Lead-acid batteries with valve regulated and absorbent fiberglass mesh construction - AGM without leakage. No gas formation with normal use.

Can be installed anywhere. Designed for **multi-position installation**.

Delivered with the screws terminals and end caps.

**Long Average Service Life Design** (up to 10-12 years) and higher cycle life stability. Stable quality. Reliable. Thick plates of excellent quality, resistant to corrosion throughout their service life.

**Very low self-discharge.** High initial capacity and easy start-up. Longer time to store without use. Up to 12 months without recharging. Low and stable internal resistance.

Ideal for demanding solar, wind, backup, industrial, electronic equipment power supply, UPS, telecommunications, IoT/IIoT and high discharge current applications such as inverters, motors and automatisms, ...

**Models made with special materials for non fire propagation** (XUNZEL UL94 V-0 certified)

**Excellent behaviour at extreme temperatures:** -20° to +60°C

Demanding design guaranteed with the highest level of certifications:  
 IEC/EN61427 | IEC/EN60896 | IEC/EN61056  
 IEC/EN61000 EMC Directive  
 IEC/EN60896 LVD Directive  
 ISO9001 | UL94

SOLARX Series are safe and conform to UN2800 (NON-SPILLABLE)

Valid for any transport: air (IATA and FAA), maritime (IMDG), rail and land (ADR/RID)



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## SOLARX™ Series. Deep-cycle Sealed Solar batteries

### Specifications

Model	SOLARX-3	SOLARX-5	SOLARX-8	SOLARX-14	SOLARX-23	SOLARX-30	SOLARX-48	SOLARX-78	SOLARX-120	SOLARX-170	SOLARX-240	SOLARX-290
Code   Order Part Number	SOLARX3	SOLARX5	SOLARX8	SOLARX14	SOLARX23	SOLARX30	SOLARX48	SOLARX78	SOLARX120	SOLARX170	SOLARX240	SOLARX290
Nominal Voltage	12V (6 Cells)											
Chemistry	Lead-acid (AGM)											
Battery Type	Rechargeable - Secondary – With No Memory Effect											
Average Service Life	10-12 years (at 20°C)											
Capacity (DoD 1.75V/cell) @ 25°C												
C10	2.20Ah	3.75Ah	6.75Ah	11.50Ah	18.75Ah	25.20Ah	39.00Ah	62.50Ah	98Ah	143Ah	195Ah	230Ah
C20	2.45Ah	4.00Ah	7.00Ah	12.50Ah	20.10Ah	26.00Ah	42.00Ah	68.30Ah	105Ah	150Ah	210Ah	260Ah
C100	2.65Ah	4.75Ah	7.87Ah	13.80Ah	22.30Ah	29.20Ah	47.20Ah	76.70Ah	118Ah	166Ah	236Ah	288Ah
C120	3.00Ah	5.00Ah	8.00Ah	14.00Ah	23.12Ah	30.00Ah	48.00Ah	78.00Ah	120Ah	169Ah	240Ah	293Ah
<b>Weight and Dimensions</b>												
Weight (kg)	0.97	1.20	2.00	3.60	5.40	8.50	14.90	21.00	31.20	44.00	62.50	74.00
Length (mm)	177	90	151	151	181	176	198	350	328	483	522	521
Width (mm)	35	70	65	98	77	166	166	167	172	170	240	268
Height (mm)	62	101	94	95	167	125	169	182	215	241	219	220
Total height (mm)	66	107	100	101	167	125	169	182	220	241	224	225
Internal resistance (Approx.)	45mΩ	45mΩ	27mΩ	14mΩ	15mΩ	9mΩ	7mΩ	5mΩ	4mΩ	5mΩ	3mΩ	4.5mΩ
Self-discharge	The batteries SOLARX™ can be stored up to 8 months at 20°C average monthly temperature. Recharging is recommended every 6 months. Self-discharge approx. 2.5-3% per month at 20°C Charge the battery before use.											
<b>Operational Temperature Range. Environmental</b>												
Discharge	-20°C ~ 60°C											-40°C ~ 60°C
Charge	0°C ~ 50°C											-20°C ~ 50°C
Storage	-20°C ~ 60°C											-40°C ~ 60°C
Operational Nominal Temperature	25 ± 5 °C											
Recommended Operational Temperature Range	10°C a 30°C											
Operating altitude	0..3000 m											
<b>Operational Currents</b>												
Maximum Discharge Current (5s)	23A	40A	70A	120A	200A	260A	400A	650A	1000A	1500A	2000A	2600A
Recommended Maximum Charge Current	0.69A	1.20A	2.10A	3.60A	6.00A	7.80A	12.00A	19.50A	30.00A	45.00A	60.00A	60.00A
<b>Charging Voltage</b>												
Absorption (@ 25°C)	14.40-14.70V											
Flotation (@ 25°C)	13.70-13.90V					13.60-13.80V						
Equalization (@ 25°C)	14.60-14.80V											
T <sup>g</sup> effect in Charging Voltage	-3mV/K per cell (6 cells)						-4mV/K per cell (6 cells)					
Terminals	Faston Tab F1	Faston Tab F1	Faston Tab F2	M5 (6~7 N·m)			M6 (8~10 N·m)			M8 (10~12 N·m)		
Case material	A.B.S. (UL94 V-0 Optional. Available on request)											
Hangers	N/A						Integrated					
Standards	CE   UKCA   RoHS3 and REACH Compliant   WEEE Compliant IEC/EN61427   IEC/EN60896   IEC/EN61056   IEC/EN61000 EMC Directive   IEC/EN60896 LVD Directive   ISO9001   UL94											

### Capacity factors for different average temperatures:

-20°C (-4°F)	-10°C (14°F)	0°C (32°F)	5°C (41°F)	10°C (50°F)	20°C (68°F)	25°C (77°F)	30°C (86°F)	40°C (104°F)	45°C (113°F)
46%	66%	76%	83%	90%	98%	100%	104%	107%	109%



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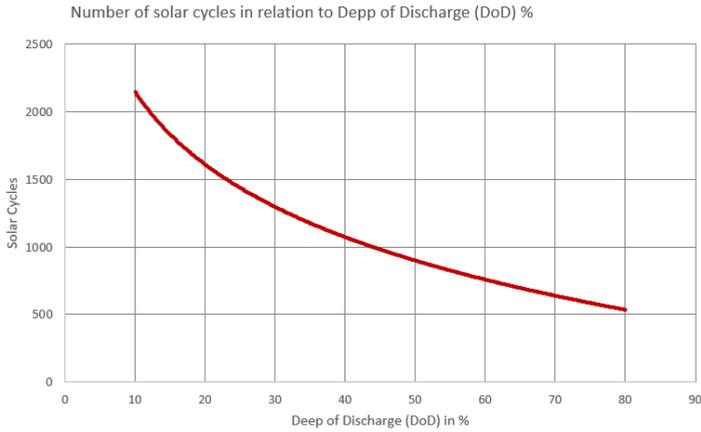


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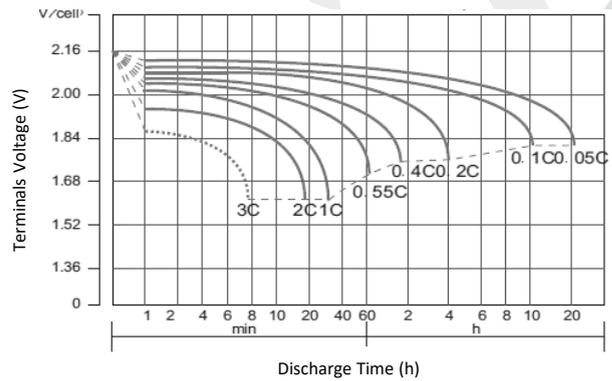


## SOLARX™ Series. Deep-cycle Sealed Solar batteries

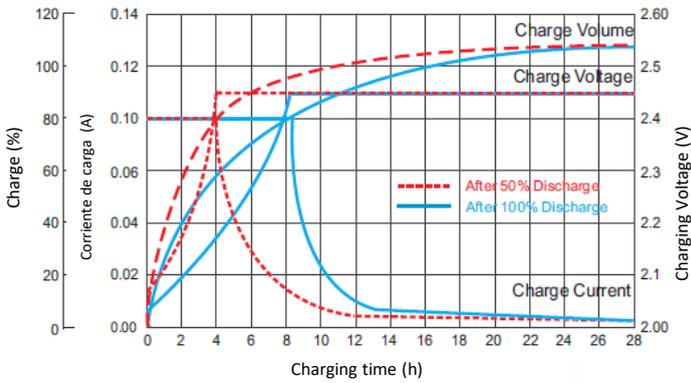
**Number of solar cycles in relation to Deep of Discharge (DoD) %**  
Cycles IEC61427: 2000 cycles



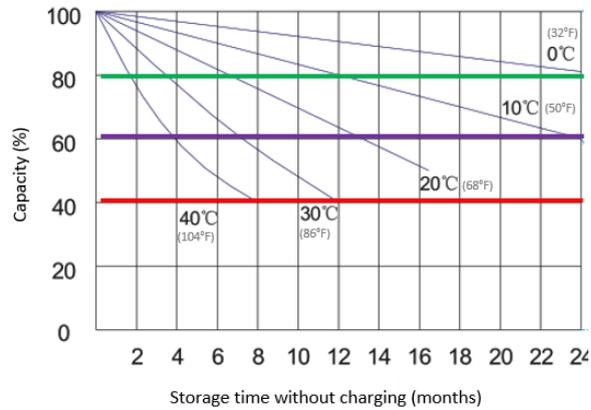
**Discharge Curves**  
Temperature 25°C (77°F)



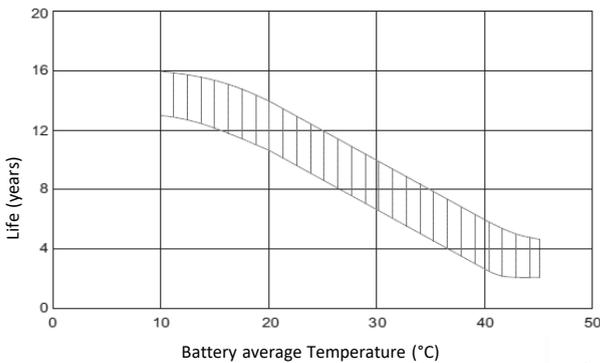
**Charging curves**  
Temperature 25°C (77°F)



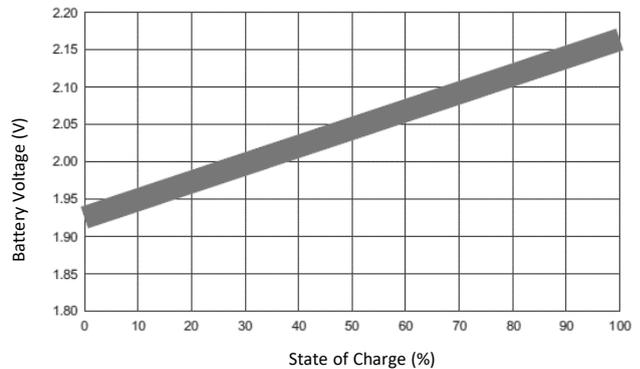
**Guide and Curves Characteristics Auto-Discharge for storage and charge.**  
Monthly average temperature. Auto-discharge: approx. 2.5-3% per month at 20°C (68°F)



**Temperature effect on battery life**



**Battery voltage function State of Charge (%)**



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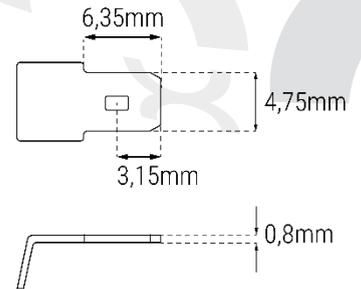
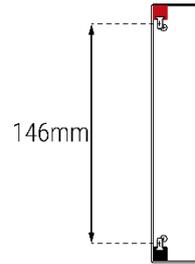
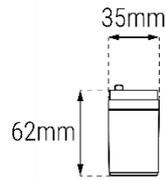
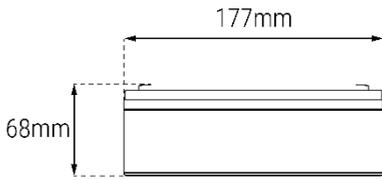


# SOLARX<sup>TM</sup> Series. Deep-cycle Sealed Solar batteries

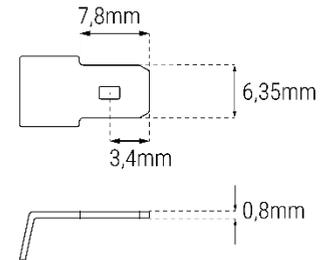
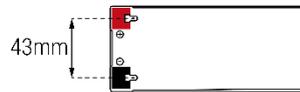
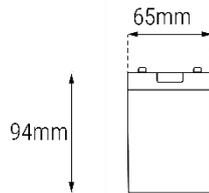
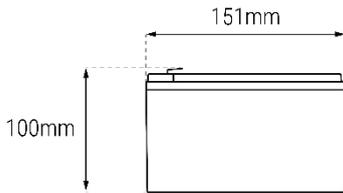
## Drawings

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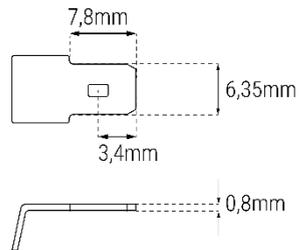
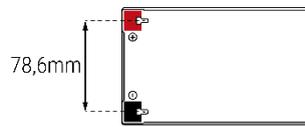
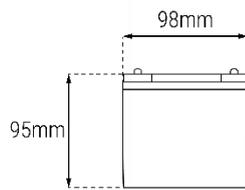
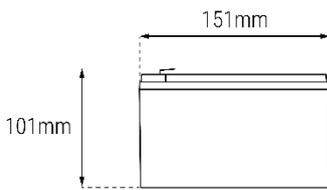
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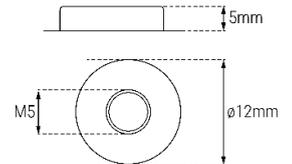
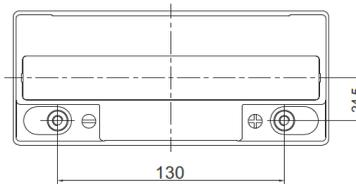
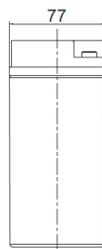
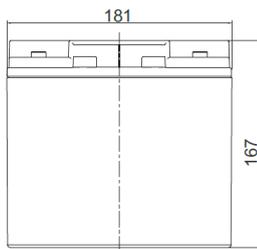
### SOLARX-8



### SOLARX-14



### SOLARX-23



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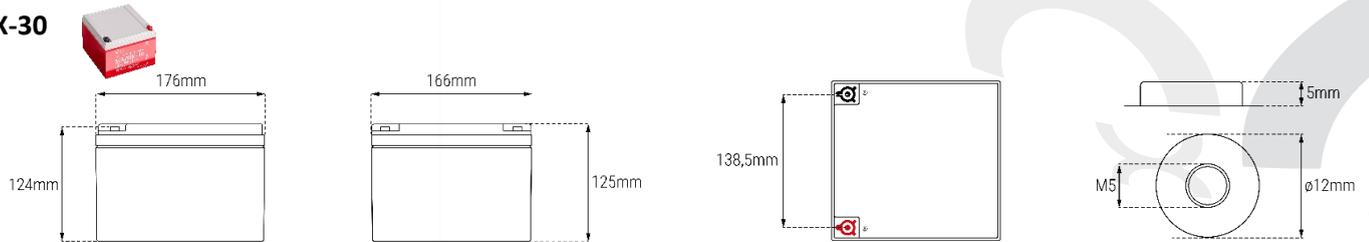


# SOLARX<sup>TM</sup> Series. Deep-cycle Sealed Solar batteries

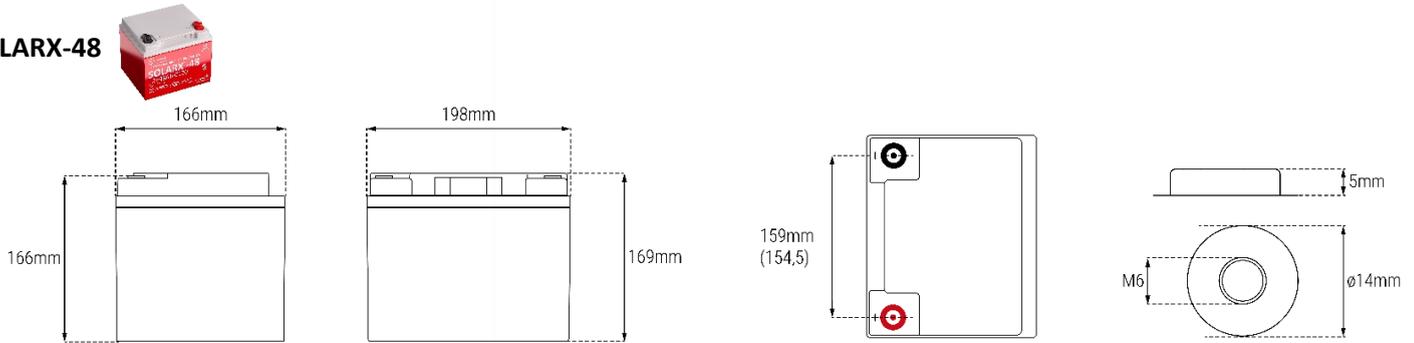
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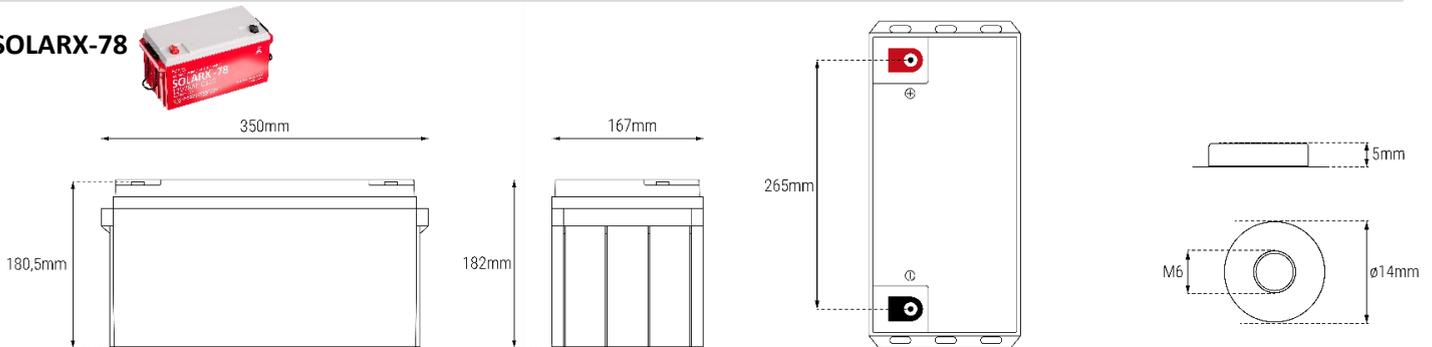
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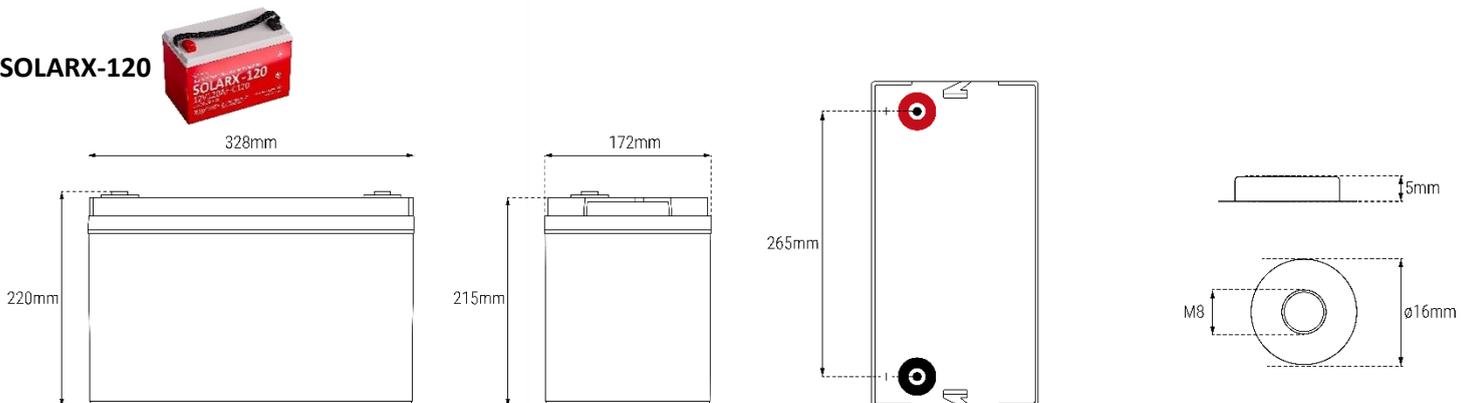
### SOLARX-48



### SOLARX-78



### SOLARX-120



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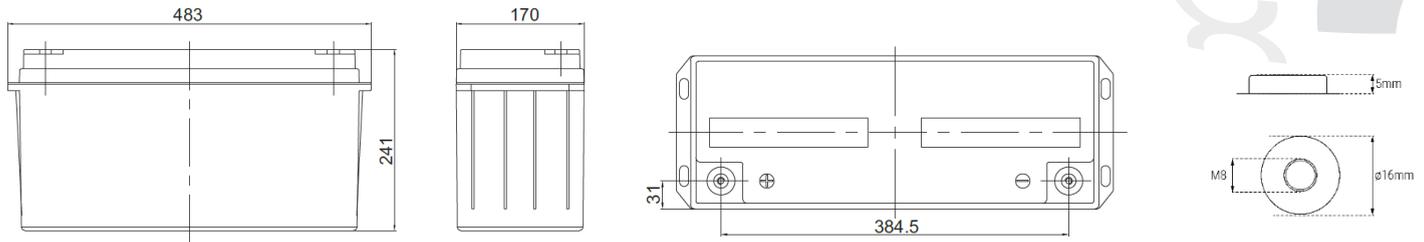


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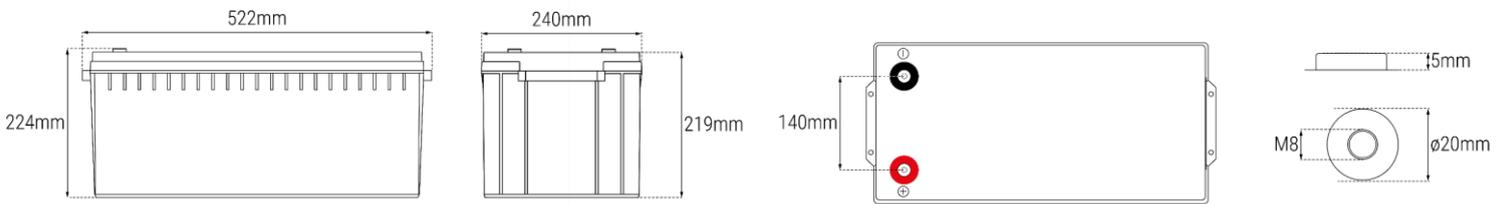
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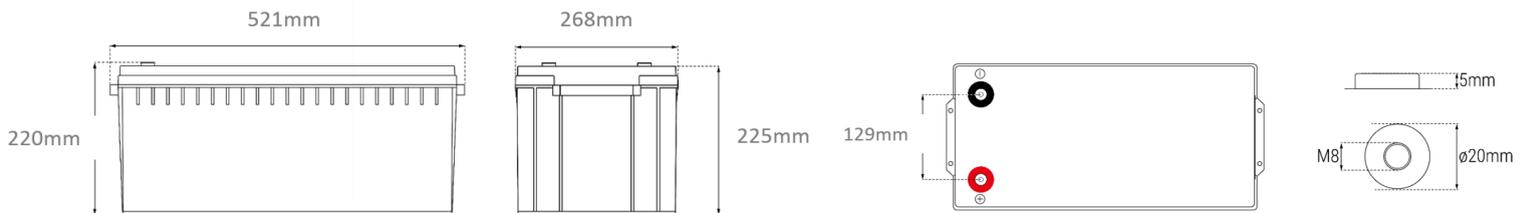
### SOLARX-170



### SOLARX-240



### SOLARX-290



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## Recommended accessories:

### RACK SX™

KIT Complete Rack for 4x SOLARX-240 with cables and terminals.  
To ensure a more secure and durable installation.

RACK SX™	
Code	RACKSX4240
Dimensions (mm)   Weight (kg)	590x590x580   19



### Battery CABLE Sets

Cable sets to easily and safely connect batteries with each other (series/parallel), with inverters and chargers.

With appropriate terminals and correctly crimped.

Flexible, with high mechanical, corrosion and high temperature resistance.



CBP™ Series



CCB™ Series



CBS™ Series



CAXJ™ Series

BATTERY CABLES	CCB™ Series			CBS™ Series	CBP™ Series	
Code	CCB10	CCB16	CCB25	CBS30	CBP30	CBP60
Description	CABLE KIT XUNZEL BATTERY-CONTROLLER 2X100cm-10mm <sup>2</sup>	CABLE KIT XUNZEL BATTERY-CONTROLLER 2X100cm-16mm <sup>2</sup>	CABLE KIT XUNZEL BATTERY-CONTROLLER 2X150cm-25mm <sup>2</sup>	CABLE KIT XUNZEL BATTERY CONNECTION SERIES 30cm-25mm <sup>2</sup>	CABLE KIT XUNZEL BATTERY CONNECTION PARALLEL 2X30cm-25mm <sup>2</sup>	CABLE KIT XUNZEL BATTERY CONNECTION PARALLEL 2X60cm-25mm <sup>2</sup>

BATTERY CABLES	CAXJ™ Series			
Code	CAXJ10	CAXJ16	CAXJ50	CAXJ70
Description	KIT XUNZEL CABLE INVERTER 2X120cm-10mm <sup>2</sup>	KIT XUNZEL CABLE INVERTER 2X120cm-16mm <sup>2</sup>	KIT XUNZEL CABLE INVERTER 2X120cm-50mm <sup>2</sup>	KIT XUNZEL CABLE INVERTER 2X120cm-70mm <sup>2</sup>

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