



# OMNIPOWER

THE POWER OF CHOICE

## 12V LiFeYPO<sub>4</sub> Battery (Lithium Iron Yttrium Phosphate)

- Includes Battery Management system, cell monitoring and voltage control
- Built-in fuse and DC isolator
- Integrated with leading solar inverters to ensure optimal battery charging for prolonged battery life.

**HIGH ENERGY, HIGH PERFORMANCE ENERGY STORAGE SOLUTIONS.**



**Shelf Price < Lead Acid shelf price**

**Daily cycle for more than 10 years**

**Weight < 25 % of Lead Acid**

**Volume < 33% of Lead Acid**

**100% Environmentally friendly**

**100% Safe**

Lithium Iron Phosphate (LiFeYPO<sub>4</sub>) batteries have transfer efficiencies of more than 96% at C/2 charge and discharge rates they deliver 10 times higher turn around efficiencies than leading lead acid batteries. This feature implies major savings in the necessary size of the solar system required to charge the batteries.

LiFeYPO<sub>4</sub> batteries are capable of delivering up to 80% of their charge for more than 5000 times and are perfectly suited for operation in warm African conditions.

LiFeYPO<sub>4</sub> batteries have more than 4 times the energy density compared to Lead Acid equivalents. This has great advantages for application where light weight energy storage is a requirement. Applications such as 4x4 vehicles, yachts and even apartment buildings benefit greatly from these light weight batteries. No gassing, no ventilation required.

Available from **12V, 24V, 36V, 48V** up to **800V** with storage capacities from 1.8 kWh for small residential applications to 1080kWh for industrial applications.



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# LiFeYPO4 Lithium Iron Yttrium Phosphate Battery

MODEL	OPR12V-77-1k	OPR12V-154-2k	OPR12V-310-4k	OPR12-460-6k
<b>GENERAL</b>				
Battery Type	LiFeYPO4 (Lithium Iron Yttrium Phosphate)			
Useable Capacity	1 000 Wh	2 000 Wh	4 000 Wh	6 000 Wh
Nominal Voltage	12 VDC			
Operating Voltage	11.6 VDC - 14.1VDC			
Operating Temperatures	-20°C to 65°C			
Cycle Life > 3600 Cycles (100% DoD)	1 000 Wh	2 000 Wh	4 000 Wh	6 000 Wh
Cycle Life > 5000 Cycles (80% DoD)	800 Wh	1 600 Wh	3 200 Wh	4 800 Wh
Cycle Life > 7000 Cycles (70% DoD)	700 Wh	1 400 Wh	2 800 Wh	4 200 Wh
Dimensions L x W x H (mm)	470 x 290 x 310	470 x 290 x 310	710 x 230 x 265	660 x 360 x 280
Net Weight (kg)	15 kg	25 kg	47 kg	75 kg
Warranty	10 Years			
<b>CHARGE</b>				
Bulk Voltage	14.1 VDC			
Discharge Voltage (min)	11.6 V			
Max. Charge Current (cont.)	100 A		400 A	
Max. Discharge Current (cont.)	100 A		400 A	
Max. Discharge Current (burst @ 1 min)	150 A		600 A	
Max. Discharge Current (peak @ 10 sec)	300 A		1200 A	
Self-discharge Rate	< 2% per month			
Charge / Discharge Efficiency	96% @ C2; 98% @C10			
<b>PROTECTION</b>				
Isolator	150 A		600 A	
In-line Fuse	150 A		600 A	
Over Current Protection	16.0 V (4.0 V on any cell)			
Over Voltage Cut-out	11.4 V (2.85 V on any cell)			
Under Voltage Cut-out				

