



# OMNIPOWER

THE POWER OF CHOICE

## 48V 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	OPR48V-77-4k	OPR48V-115-6k	OPR48V-154-8k	OPR48-230-12k
<b>GENERAL</b>				
Battery Type	LiFeYPO4 (Lithium Iron Yttrium Phosphate)			
Useable Capacity	4 000 Wh	6 000 Wh	8 000 Wh	12 000 Wh
Nominal Voltage	48 VDC			
Operating Voltage	46.4 VDC - 56.2VDC			
Operating Temperatures	-20°C to 65°C			
Cycle Life > 3600 Cycles (100% DoD)	4 000 Wh	6 000 Wh	8 000 Wh	12 000 Wh
Cycle Life > 5000 Cycles (80% DoD)	3 200 Wh	4 800 Wh	6 400 Wh	9 600 Wh
Cycle Life > 7000 Cycles (70% DoD)	2 800 Wh	4 200 Wh	5 600 Wh	8 400 Wh
Dimensions L x W x H (mm)	710 x 230 x 265	660 x 360 x 280	2 x (710 x 230 x 265)	2 x (660 x 360 x 280)
Net Weight (kg)	47 kg	75 kg	2 x 47 kg	2 x 75 kg
Warranty	10 Years			
<b>CHARGE</b>				
Bulk Voltage	56.2 VDC			
Discharge Voltage (min)	46.4 V			
Max. Charge Current (cont.)	160 A	200 A	300 A	400 A
Max. Discharge Current (cont.)	160 A	200 A	300 A	400 A
Max. Discharge Current (burst @ 1 min)	200 A	300 A	400 A	600 A
Max. Discharge Current (peak @ 10 sec)	550 A	550 A	1200 A	1200 A
Self-discharge Rate	< 2% per month			
Charge / Discharge Efficiency	96% @ C2; 98% @C10			
<b>PROTECTION</b>				
Isolator	200 A	300 A	400 A	600 A
In-line Fuse	200 A	300 A	400 A	600 A
Over Current Protection	200 A	300 A	400 A	600 A
Over Voltage Cut-out	64.0 V (4.0 V on any cell)			
Under Voltage Cut-out	45.6 V (2.85 V on any cell)			

MODEL	OPR48V-310-16k	OPR48V-460-24k	OPR48V-770-40k	OPR48-1250-65k
<b>GENERAL</b>				
Battery Type	LiFeYPO4 (Lithium Iron Yttrium Phosphate)			
Useable Capacity	16 000 Wh	24 000 Wh	40 000 Wh	65 000 Wh
Nominal Voltage	48 VDC			
Operating Voltage	46.4 VDC - 56.2VDC			
Operating Temperatures	-20°C to 65°C			
Cycle Life > 3600 Cycles (100% DoD)	16 000 Wh	24 000 Wh	40 000 Wh	65 000 Wh
Cycle Life > 5000 Cycles (80% DoD)	12 800 Wh	19 200 Wh	32 000 Wh	52 000 Wh
Cycle Life > 7000 Cycles (70% DoD)	11 200 Wh	16 800 Wh	28 000 Wh	45 500 Wh
Dimensions L x W x H (mm)	4 x (710 x 230 x 265)	4 x (660 x 360 x 280)	735 x 785 x 1130	1300 x 650 x 1200
Net Weight (kg)	4 x 52 kg	4 x 75 kg	450 kg	820 kg
Warranty	10 Years			
<b>CHARGE</b>				
Bulk Voltage	56.2 VDC			
Discharge Voltage (min)	46.4 V			
Max. Charge Current (cont.)	400 A			
Max. Discharge Current (cont.)	400 A			
Max. Discharge Current (burst @ 1 min)	600 A			
Max. Discharge Current (peak @ 10 sec)	1 200 A			
Self-discharge Rate	< 2% per month			
Charge / Discharge Efficiency	96% @ C2; 98% @C10			
<b>PROTECTION</b>				
Isolator	600 A			
In-line Fuse	600 A			
Over Current Protection	600 A			
Over Voltage Cut-out	64.0 V (4.0 V on any cell)			
Under Voltage Cut-out	45.6 V (2.85 V on any cell)			

