



## **POWERCOM NANO LiFePO4-LFP Battery Pack**

### **PRODUCT DESCRIPTIONS**

**SINGLE CELLS-Lithium Iron Phosphate** LiFePO4 or LFP cylindrical cells are our core products, with smaller volume, lighter weight, greener, higher safety, longer life cycles and outstanding characteristics. Currently our company main produce 38120,32650,26650,22650,18650,18500,14500,14430 cells, 32650-5Ah, 32650-6Ah, 32650-7Ah and 38120-10/12Ah cells are our main products, they are widely used for assembling many battery packs. Other types of cells mostly are used as single cells. Manufacturer strictly recommended BMS during cell series/parallel configuration.

Single Cell Specifications					
Brand	SDI,SAMSUNG				
Rated voltage	3.2V				
Rated capacity	5Ah,6Ah and 7Ah (0.2C <sub>5</sub> A)				
Internal resistance	Less than $10 \text{ m}\Omega$				
Working current	1C				
Depth of discharge	1C				
Charging method	CC/CV	32			
Cell size	32650				
Size	32.2 ±0.5 mm dia and 70 ±0.2 mm Height				
Weight	About 148g ,Depend on material				
	concentration				
Operating Temperature	0-60 deg cent charge ; -20-60 deg cent				
	discharge				
Storage Temperature	0-45 deg cent				

#### **PRODUCT FEATURES**

Lithium iron phosphate batteries (LiFePO4 or LFP) offer lots of benefits compared to lead-acid batteries and other lithium batteries. Longer life span, no maintenance, extremely safe, lightweight, improved discharge and charge efficiency, just to name a few. LiFePO4 batteries are not the cheapest in the market, but due to a long life span and zero maintenance, it's the best investment you can make over time.



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#### **PRODUCT APPLICATIONS**

- \*Emergency Energy Storage System in hospital, Fire station, GSM BTS, Telco etc
- \* Superb Lithium Iron Phosphate batteries are used to ensure maximum reliability in back-up power systems for critical operations such as uninterruptable power supplies (UPS).
- \* Large scale Energy Storage Systems (ESS) hold a tremendous amount of energy reserves. This requires proper design and system management. Super B lithium batteries are robust, delivering highly-efficient, long-life power you can depend on in even the most extreme conditions. It's internal battery management system (BMS) offer maximum safety.
- \* The Ultimate Power Solution For Micro Grids
- \* When you use Lithium Iron Phosphate (LiFePO4) batteries from Superb as part of your solar energy system, you certainly know you go for the best. Superb batteries are the ultimate clean energy, delivering highly-efficient, ultralong life power you can rely on in even the harshest environments.

#### PRODUCT OR PACK SPECIFICATIONS

DATA	ITEM	PCM-LIFO18	PCM-LIF036	PCM-LIFO54	
Electrical	Cells Orientation-1	4S5P	4S10P	4S15P	
	Nominal Capacity	12.8V@18Ah	12.8V@36Ah	12.8V@54Ah	
	Cells Orientation-2	4S5P	8S5P	16S5P	
	Nominal Capacity	12.8V@18Ah	25.6V@18Ah	51.2V@5Ah	
	Open circuit voltage	13.2V at cells configuration 4S5P			
	Self-discharge	<3% per month			
	Cycle life	>3500 cycles (at 1C charge/ discharge, 100% DoD)			
Mechanical Parameters	Dimensions	customized			
	Weight	4.2 Kgs approx at cells configuration 4S5P			
	Case material	GFRP-Glass Fiber Reinforced Plastic			
	Ingress protection	IP65			
Me	Cell type / Chemistry Prismatic -	LiFePO4			
Charge & Discharge Parameters	Charge method	CCCV			
	Charge voltage	14.3V - 14.6V			
	Max. charge current	100%			
cha	End of discharge voltage	10V			
Cha Dise Para	Discharge current continuous				
	Discharge pulse current 90A (10 sec) at cells configuration 4S5P				
General Parameters	Charge temperature	0°C to 55°C / 32°F to 131°F			
	Discharge temperature -20°C to 55°C / -4°F to 131°F				
	Storage temperature	-20°C to 45°C / -4°F to 113°F			
	COMPLIANCE SPECIFICATIONS	Certifications CE, FCC, UN 38.3, UN ECE R10.05, UL 1642 (Cells),			
		EN/IEC 62620 (ES-TRIN), RINA Type Approval,EAN-13			
Ъ		8718531361645,Battery designation IFpP/36/130/195/ [2P4S]M/-20+55/95			

#### PRODUCT FLEXIBILITY

Easy cells configuration>Low maintenance>Fast charging>Safest lithium technology>High discharge currents>High capacity>Low weight

N.B: Product specifications are subject to change without further notice.

# **Power Control & Management**

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