

## LITHIUM BATTERY LIFEPO4

# PINO

## LITHIUM GENERATION



Inti's Pino is a maintenance-free LiFePO4 lithium ion battery with a diverse range of nominal capacities at 25.6Vdc and 51.2Vdc, and with a lifetime of  $\geq 3\ 650$  cycles at 80% DOD and 25°C. The customized battery charging system with integrated smart BMS with temperature protection and RS485 type communication allows for extended battery life.

The Pino battery is synchronized with Inti's controllers and inverters via RS485 connection and incorporates the Battery Management System (BMS) to monitor and optimize every single cell during charging and discharging to protect - through LED alarms - the battery from over charging, over discharging, or short-circuiting. Overall, the BMS provides safe and accurate operation.

The integrated BMS is a central hub within the battery that maintains constant voltage, current, and temperature and also allows maximum charging capacity for fast charging and efficient discharging. It also communicates with the computer monitoring software via RS232 port.

### ILFP-1536

Nominal voltage	25,6V
Nominal capacity	60Ah
Nominal power	1.536Wh
Number of cells per battery	8 x 32 60Ah
Cells configuration	8S2P
Rated load voltage	28,4Vdc $\pm$ 0,2V
Maximum load voltage	28,4Vdc $\pm$ 0,2V
Overload protection	28,8Vdc $\pm$ 0,2V
Discharge cut-off voltage	20Vdc $\pm$ 0,2V
Rated load current @RT	30A
Maximun load current @RT	35A
Overload protection release	Restart
Output voltage range	20,0 - 28,4Vdc
Corriente de descarga nominal @RT	30A
Rated discharge current @8s 25°C	45A
Maximun discharge current @500ms 25°C	60A
Monthly self-discharge rate	$\leq 2\%$ with SOC $\geq 50\%$ to 25°C, 1000msnm, RH 55% $\leq 3\%$ with SOC $\geq 50\%$ to 25°C, 1000msnm, RH 55%
Overload protection release	Load cut-off and restart
Charging temperature	0 a 50°C (RT=25°C)
Discharge temperature range	-20 to 60°C (RT=25°C)
Storage temperature	Less than 1 month -20 a 35°C Less than 6 month -10 a 30°C
Storage humidity	45 to 75%RH
Storage SOC	60-75%
Internal resistnace	$\leq 9m\Omega$
Protection level	IP31
Cooling method	Natural convection
Communication	RS485 for LCD / RS232 for PC monitor
Dimensions (HxWxD)	485 x 350 x 200mm
Shipping dimensions (HxWxD)	575 x 380 x 260mm
Net weight	28 kg
Shipping weight	30kg
Certificates	RoHS, CE, UN38.3

### Features

- The battery adopts LiFePO4 as the cathode material; the cell life cycle of the ILFP-1536 reaches 4000 cycles at 80% DOD at nominal temperature.
- Shutdown function. An alarm will go off if the battery voltage is lower than the value set in the alarm; when the voltage is too low, the battery will be protected by automatically shutting it down.
- It has a smart design equipped with a centralized monitoring module that performs this management and can communicate with the central remote control of the system.
- The system adopts high performance BMS, battery management module. The BMS has the function of protection in current, voltage and temperature, it also enables communication between the battery and the main equipment of the system.