

Environmental Friendly

Fast Recharge

Eight Times the Lifespan

Light Weight

Extreme High Power Density



LITHIUM IRON BATTERY FOR PALLET TRUCK

Power for Life

Lithium Iron Battery

PTE 24V Series for Pallet Truck



LiFe Power Technology Co. Ltd. is a true leader in lithium iron energy storage solutions. Innovation is inherent to everything we do. The company has transform the knowledge with applications which use traditional lead acid battery and to introduce the lithium iron solutions, the first solution of its kind in the world. And it is the leader in providing safe high volume products.

The first lead acid battery was designed more than 150 years ago and has barely changed since then. Even though other lead acid technology has been developed, but the improvement has been limited. And this is the reason why we introduce the new lithium iron technology.

Lithium Iron technology

Lithium cobalt battery is known to provide power to smaller devices such as cell phone, notebooks and PDA. However, due to its volatility nature, for safety reason, it is restricted for devices require only low-rate discharge. And unlike the lithium cobalt battery, the LiFe Power Technology took the weight and size advantage of lithium cobalt battery and uses lithium iron compound to developed the first ever high capacity Lithium Iron battery and which provides extreme safe high-rate performance, long life and cost effective energy storage solutions for our customers.

Performance

In comparison to traditional lead acid battery it has:

- Shorter charge times. It can be fully charged within 1.5 hours or faster depends on the method of high C rate charging
- More power then a lead acid battery in the same weight. Lithium Iron battery only has 1/2 of the weight compare to the lead acid battery with the same capacity
- Longer lifespan, high cycles, over 3,800 cycles @ 75%DOD @ 25°C

Environmental Friendly

No heavy metal and poison substance. Materials being used in this battery is 100% un-harmful to the environment.

Lithium Iron Battery

PTE-24V150-M

Installation

A lithium iron battery is smaller than the equivalent lead acid battery, and it is almost 30% smaller in volume. makes it fast to install.

Versatility

The PTE-24V 50 or 75Ah module can be connected in parallel (3~8) for application with bigger capacity requirement, and reduce maintenance labor cost and material cost.

Attractive and Functional

The design of the battery terminal is the same as the traditional lead acid battery design (SB or DIN), makes it easy to replace.

High Rate Charge

The LiFe Power Battery allows high rate charge in 1 hour, increase 30~50% run time.

Cycle Life

The LiFe Power Battery is equipped with the "Smart Cell Balancing" battery management system which helps lithium iron cells to extend it's cycle life. The cycle life is 4~8 times more than comparable lead acid battery.

Light Weight

The Lithium iron battery weighing only 1/4 of the comparable lead acid battery. Which also make it easy to install.

TrustWave CMS

To manage modules and record battery usage information and drive OLED display



Safety

The lithium iron battery is equipped with "Smart Cell Balancing" battery management system, which allows:

- Safety during charging and discharging
- Longer lifespan
- Voltage, current and temperature control



Lithium Iron Battery

PTE-24V150PT Specification

SPECIFICATION	PTE-24V50-S (module)	PTE-24V75-S (module)	PTE-24V150-M (with CMS)	PTE-24V225-M (with CMS)
Nominal Voltage	24V	24V	24V	24V
Nominal Capacity(C/5@25°C)	50Ah	75Ah	150Ah	225Ah
Internal impedance (1kHz AC)@25°C	≤ 20mΩ	≤ 15mΩ	≤ 8 mΩ	≤ 5 mΩ
Weight (kg)	< 19 kg	< 25 kg	< 65 kg	< 78 kg
Dimension (L*W*H mm)	200*170*400	265*185*470	610*180*450	580*270*520
Specific Energy (Cell)	121Wh/kg	121Wh/kg		
Max. cont. discharge@25°C	100A	100A	300A	300A
Max. pulse discharge@25°C	120A	120A	360A	360A
Discharge cut-off voltage@25°C	20V	20V	20V	20V
Charge Current	20A/Max. 50A	20A/Max. 50A	50A/Max. 100A	50A/Max. 100A
Charge Voltage	29.2V ± 0.2V	29.2V ± 0.2V	29.2V ± 0.2V	29.2V ± 0.2V
Cycle life at C/2 discharge, 75%DOD@25°C	3800	3800	3800	3800
Cycle life at 1C discharge, 20%DOD@25°C	12000	12000	12000	12000
Discharge temperature range	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C	-20°C to 75°C
Charge temperature range	0°C to 55°C	0°C to 55°C	0°C to 55°C	0°C to 55°C
Storage temperature range	-40°C to 55°C	-40°C to 55°C	-40°C to 55°C	-40°C to 55°C

•Environment temperature range 0~40°C, and above 25°C can have effect on lifespan/cycle life

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Lithium Iron Battery

PTE-24V150FS

Installation

A lithium iron battery is smaller than the equivalent lead acid battery, and it is almost 50% smaller in volume. makes it fast to install.

Integral Design

Easy to replace Lead Acid Battery Module and no longer needed watering or maintain.

Attractive and Functional

The design of the battery terminal is the same as the traditional lead acid battery design (SB or DIN), makes it easy to replace.

High Rate Charge

The LiFe Power Battery allows high rate charge in 1 hour, increase 30~50% run time.

High Cycle Life

The LiFe Power Battery is equipped with the "Smart Cell Balancing" battery management system which helps lithium iron cells to extend it's cycle life. The cycle life is 8 times more than comparable lead acid battery.

Light Weight

The Lithium iron battery weighing only 1/4 of the comparable lead acid battery. Which also make it easy to install.

Safety

The lithium iron battery is equipped with "Smart Cell Balancing" battery management system, which allows:

- Safety during charging and discharging
- Longer lifespan
- Voltage, current and temperature control

Battery Information Display

Built-in 5 levels LED capacity indicator, and buzzer for notification.

(Optional) High brightness external OLED display is a convenience interface for operator.



19V(adj.) & 5V DC power supply

(Optional) 120W DC power module, can provide stable power source for AIO computer, touch panel, bar code scanner etc.



Lithium Iron Battery

PTE-24V150FS Specification

SPECIFICATION	PTE-24V150FS	PTE-24V200FS
Nominal Voltage	24V	24V
Nominal Capacity(C/5@25°C)	150Ah	200Ah
Internal impedance (1kHz AC)@25°C	≤ 4 mΩ	≤ 3 mΩ
Weight (kg)	< 60 kg	< 75 kg
Dimension (L*W*H mm)	470*156*450	590*156*450
Specific Energy (Cell)	121 wh/kg	121 wh/kg
Max. cont. discharge@25°C	300A	300A
Max. pulse discharge@25°C	360A	360A
Discharge cut-off voltage@25°C	22.4V	22.4V
Charge Current	50A/Max. 100A	50A/Max. 100A
Charge Voltage	29.2V ± 0.2V	29.2V ± 0.2V
19V DC Power (optional) (12~24V adjustable)	Max. 120W	Max. 120W
5V DC Power (optional)	Max. 12W	Max. 12W
Cycle life at C/2 discharge, 75%DOD@25°C	3800	3800
Cycle life at 1C discharge, 20%DOD@25°C	12000	12000
Discharge temperature range	-20°C to 75°C	-20°C to 75°C
Charge temperature range	0°C to 55°C	0°C to 55°C
Storage temperature range	-40°C to 55°C	-40°C to 55°C

•Environment temperature range 0~40°C, and above 25°C can have effect on lifespan/cycle life

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