

## **PRODUCT & INDUSTRY SOLUTIONS**



## HYSTER® J1.5-2.0XNT & J1.6-2.0XN

**POWERED BY LITHIUM-ION BATTERIES FOR MAXIMUM ENERGY EFFICIENCY** 



## **MARKET SEGMENTS**

**Chemicals** 

**Automotive** 

Retail

Logistics

**Beverage** 

Food

Hyster Lithum-ion (Li-ion) battery and charging system will help to deliver the best productivity levels for warehouse equipment and battery driven forklift trucks.

Particularly efficient in multi-shift and extended applications, these batteries help to lower the overall cost of ownership and improve energy efficiency.

Hyster now offers integrated Li-ion battery systems for the J1.5-2.0XNT and J1.6-2.0XN electric truck series.

#### **APPLICATIONS**

This fast charging, long-life battery system is most efficient in intensive operations that include breaks within and in-between shifts.

Li-ion batteries replace multiple conventional battery sets with a single unit, releasing storage space and simplifying management requirements.

The sealed unit design reduces the risk of chemical spillage found in conventional batteries, which is valuable for food and pharmaceutical industry applications.

Managers of multi-shift operations in manufacturing, retail and logistics will find the use of a single battery especially helpful in reducing downtime.

#### **BATTERY CAPACITIES AND CHARGERS**

For these 48V truck series Hyster offers a range of charger options, providing full charge in 1 hour, 2 hours or 4 hours.

Li-ion Battery Capacity	Approximate charge time (hours)		
	Low	Standard	Fast
300 Ah*	4.2	2.0	1.0
400 Ah*	<3.0	<2.0	<1.0
450 Ah	3.5	<2.0	1.0
600 Ah	4.0	<2.0	1.2

<sup>\*</sup> short wheelbase models only

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### **BENEFITS**

#### **Charging efficiency**

- Fast charging options increase operational uptime
- Opportunity charging has no adverse affect on battery life
- External charge sockets allow quick and easy connection
- No battery exchange process needed

#### Zero maintenance

- Completely sealed unit means no spills or emissions
- Li-ion technology does not require equalisation charge
- No requirement to top up water levels
- Reduced CO₂ footprint

#### Advanced technology

- Lithium Iron Phosphate (LFP) battery
- Li-ion technology offers 3x the cycle life of conventional batteries with over 3750 cycles (at 80% discharge)
- Higher energy efficiency can lead to up to 30% savings in energy costs compared to Lead Acid

### Integrated Solution

- Battery discharge indicator on the truck displays real-time charge information
- Over discharge during operation is prevented by lift lock out function
- Error messages are clearly displayed and, in case of critical battery malfunction, the truck will shut down
- Battery performance and life is optimised by battery/charger communication via CANbus









	Lead Acid	Li-ion (Lithium Iron Phosphate)
Cycles (80% DOD)	1,200	3,750+
Charge temperature (°C)	Above 0 °C	Above 0 °C
Recharging time	6 -12hr	1-4hr
Opportunity Charging	No	Yes
Equalising Charge	Required	No
Maintenance	Medium/High	Annual Inspection
Initial Cost (incl. charging equip.)	Low	Medium/High
Total Cost of Ownership	High/Medium	Medium/Low
Emissions free	Gassing during charging	No emissions