

Water Less® 20
Low maintenance power package

Traction batteries
Fiamm Motive Power
Water Less® 20



Fiamm Motive Power Traction Batteries Water Less® 20

Less is More – More Benefits

More operating time – Longer topping up intervals

Building on the success of the Fiamm Motive Power Water Less® range of low maintenance batteries, EnerSys® has developed a power package providing even longer intervals between topping up.

Fiamm Motive Power Water Less® 20 is capable of operating for up to 100 cycles (approx. 20 weeks in normal duty applications) before topping-up is required. Standard batteries with 50 Hz chargers would normally need topping up on a weekly basis so moving to 20 weeks could reduce your labour costs by as much as 90%! The Fiamm Motive Power Water Less 20 traction batteries provide the level of power and reliability needed for low – moderate heavy duty industrial truck applications. Fiamm Motive Power Water Less range is at the leading edge of battery technology and brings added efficiency to your business. A low electrolyte level indicator fitted on the battery informs the user of the battery when water topping up is needed.

Cell construction

All Fiamm Motive Power Water Less® cells use proven PzS technology. The positive electrodes are diecast tubular plates (PzS) and advanced components used in their manufacture provide increased efficiency. The negative plates are flat pasted plates. High grade separator of the polyolefine/silica type, constructional specifications like a larger electrolyte capacity, a reduced prism height ensure added value for our customers.

Standard equipment

Electrolyte circulation: Provides optimum performance, reduces recharge time, helps keep the battery cooler and maximizes battery service life in more arduous operations.

Wi-iQ®: An electronic device will provide data on the battery: identity, capacity, temperature, voltage, current. It will also give



an indication if the battery develops a voltage imbalance and requires service intervention.

When used with our software program-Wi-iQ Reporting Suite, a range of management reports can be accessed. HF chargers (IQ range) are capable of communication with the battery via the Wi-iQ.

Fiamm Motive Power Aqualevel™: The Aqualevel water refill system makes it possible to top up all the cells from one central point through an integrated system. Fiamm Motive Power Water Less - Less is More. Less Watering - More Benefits.

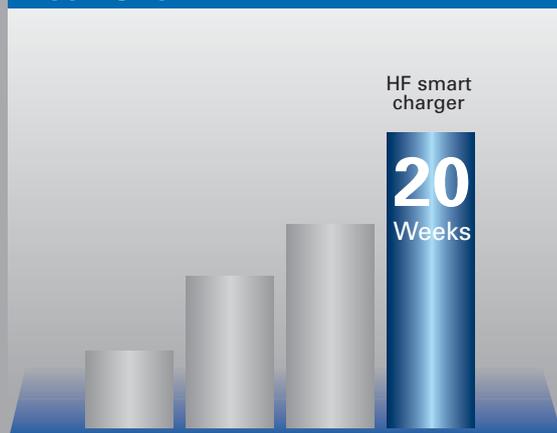
Option

• **Battery Fleet Management:** EnerSys® has a solution that makes managing the battery fleet straight forward and affordable.

Electrolyte circulation (EC)

The Fiamm Motive Power® electrolyte circulation system, using the Airsystem principle, consists of a pipe system which is fitted in the cells. A diaphragm pump sends a low rate airflow into the cell which creates a circulating air stream inside the cell box. This system prevents electrolyte stratification and the battery charging is optimized.

Topping up intervals



Advantages

- **More Time:**
Longer topping up intervals
- **More Flexibility:**
Suitable for 50 Hz and Fiamm Motive Power HF chargers (with suitable profile)
- **More Savings:**
Reduced electricity costs when used with Fiamm Motive Power HF
- **Lower carbon footprint**
- **More Dimension:**
Full DIN range; 4 BS sizes
- **More Capability:**
Many options



Water Less® 20 Plug

Water Less® 20

More Flexibility

The Water Less® 20 can be supplied as a complete package (battery, Wi-iQ & HF charger). It can also be supplied as battery & Wi-iQ when the customer has a compatible existing charger – therefore, Water Less 20 is an ideal solution to replace Fiamm Motive Power energy LM 200 batteries, that may have reached the end of their service life.

- The topping up interval of 20 weeks (based on 80%DOD C₅, 1 cycle per day, 5 days per week) can be achieved when the battery is recharged using a compatible charger equipped with a pump for electrolyte circulation and 1.04 charging factor.
- Contact Fiamm Motive Power to check the suitability of your existing charger.
- The charging profile also uses a 33% lower end-of-charge current (compared to standard regimes) which reduces ventilation requirements and gives opportunities for de-centralised charging of Water Less 20 batteries.



Definition of application fields

- 1. Low duty**
 - single-shift with light operation and discharge lower than 60% C₅. Electrolyte T°C about 30°C
- 2. Normal duty**
 - single-shift with discharge up to 80% C₅. Electrolyte T°C 30°C
- 3. Heavy duty**
 - single-shift with discharges of 80% C₅ and high discharging currents; opportunity charging to augment the useable capacity; multi-shift operation with or without battery changes; high ambient temperature

Fiamm Motive Power energy plus™		
Fiamm Motive Power energy plus with electrolyte circulation		
Fiamm Motive Power Water Less®		
Fiamm Motive Power Water Less® with electrolyte circulation		
Fiamm Motive Power Water Less® 20		
Fiamm Motive Power energy dry™		
Low duty	Normal duty	Heavy duty

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