



## MOTIVE POWER BATTERY CHARGING REDEFINED







# REDEFINING MOTIVE POWER CHARGING

As the global leader in stored energy solutions for industrial applications, EnerSys<sup>\*</sup> has long been developing technologies to help material handlers maximize productivity and profitability. Our battery charger portfolio does it with opportunity and fast charging options designed for a range of performance and charging profiles and optimized to meet customer requirements.

## **OUR LATEST INNOVATION: SIMPLICITY**

EnerSys<sup>®</sup> battery chargers are engineered to promote reliability an easier serviceability with flexible, modular designs that automatically maintain peak performance and efficient output – should one module develop a minor fault, the chargers will keep charging at reduced power to keep workflows moving. EnerSys<sup>®</sup> battery chargers also have some of the lowest component counts in the industry for better reliability.

Our ultimate goal? Offering motive power battery charging options that can help make your operation more productive and profitable.





AUTOMATIC BYPASS OF FAULTED MODULE

Continues charging process for uninterrupted operations



UP TO 94% EFFICIENCY

For maximum performance and energy savings



<10W CONSUMPTION IN STAND-BY

> Complies with latest global efficiency standards



FLEXIBLE MODULAR DESIGN

Maintains peak performance and output





## BEST-IN-CLASS HIGH-FREQUENCY CHARGING



IMPAQ<sup>™</sup> battery chargers feature the latest technology to maximize charging performance while maintaining peak efficiency.

This light and compact unit offers intelligent battery charging with advanced efficiency and flexibility for material handling equipment, floor cleaning machines and industrial electric vehicles.



#### RELIABILITY

- IMPAQ<sup>™</sup> battery chargers deliver a better value in high frequency charging. They feature a standard flooded lead acid battery charge profile and include the proprietary standard charge profiles for NexSys<sup>®</sup> TPPL batteries.
- IMPAQ<sup>™</sup> battery charger modules are automatically switched on and off to maintain peak efficiency and optimum charging performance at all times.

## SIMPLICITY

- IMPAQ<sup>™</sup> battery chargers can be used with a wide range of battery capacities, allowing a potential reduction of chargers in your fleet. Fewer chargers means more space.
- IMPAQ<sup>™</sup> battery chargers feature a intuitive LCD screen and bespoke programmable menu with LCD indicators for ease of use.
- Possible faults can be detected using the self-diagnostics feature so that replacement modules can be performed easily if required.

## EFFICIENCY

- IMPAQ<sup>™</sup> battery chargers provide up to 94% efficiency for maximum performance and energy savings.
- With their flexible and modular design, IMPAQ<sup>™</sup> battery chargers automatically maintain peak performance and efficient output.



## PLUG-AND-PLAY PERFORMANCE



NexSys<sup>\*</sup>+ battery chargers have high charge rates that dramatically reduce recharge times and permit opportunity charging to increase productivity and boost fleet efficiency.

NexSys<sup>\*</sup>+ charger profiles continuously diagnose and optimize battery condition to maximize cost savings and battery life.



#### **SIMPLE & INTUITIVE**

- NexSys<sup>\*</sup> + chargers are programmable and include charging profiles for NexSys<sup>\*</sup> TPPL batteries, NexSys<sup>\*</sup> iON batteries and all flooded battery technologies – helping with mixed fleets.
- Features a 4.3" multi-color dashboard screen with an intuitive interface to provide enhanced diagnostics and feedback to the operator.

#### SMART COMMUNICATION

- All NexSys<sup>\*</sup>+ chargers are Wi-iQ<sup>\*</sup> battery monitoring device enabled to provide battery type, voltage and capacity data to the charger.
- The charger will automatically compensate for temperature when the Wi-iQ<sup>®</sup> battery monitoring device is configured correctly.
- Achieve 94% efficiency in recharge when used with NexSys<sup>®</sup> iON batteries.

#### **ROBUST DESIGN**

- With high frequency (HF) modular technology, NexSys<sup>®</sup> + chargers continue the charging process by automatically bypassing module faults to ensure uninterrupted operations.
- Available with a rugged IP54-rated enclosure for outdoor equipment applications.\*

## CHARGE ANYWHERE, ANYTIME

The NexSys<sup>®</sup> COMpact battery charger is the ultimate onboard solution for Class 3 warehouse forklifts. Designed for most 24V batteries, it combines advanced iQ intelligence<sup>[1]</sup> with a sleek, compact design, delivering powerful and reliable charging.

## EFFICIENCY

- 52% increase in available capacity per day with NexSys<sup>®</sup> TPPL batteries.<sup>[2]</sup>
- No need for daily recharging, only one full weekly charge and equalisation needed.



Nexsys'

CHARGING SOLUTIONS

## FLEXIBILITY

- Can be physically installed into the battery tray or into the truck, enabling fast and easy charging anywhere with up to 94% efficiency.
- Enables 'Plug & Play' operations, allowing operators to recharge the battery using any AC outlet, eliminating the need to drive to a charging station.

#### **SMART POWER**

- With the Wi-iQ<sup>®</sup> battery monitoring device enabled, the NexSys<sup>®</sup> COMpact battery charger will
  manage every step of the charging process, ensuring that your equipment runs at optimum capacity.
- Connects via Bluetooth to our intuitive E Connect<sup>™</sup> App which provides robust monitoring of all chargers on site. Data can be downloaded and analysed by an EnerSys<sup>®</sup> expert to ensure optimal uptime and performance.

#### CONVENIENCE

- Maintenance-free all-in-one battery and charger solution: reduce service costs and manual tasks.
- No charging room required means more space saving providing more flexibility within your operations.<sup>[3]</sup>

## SUSTAINABILITY

- The high efficiency of the onboard NexSys<sup>®</sup> COMpact range and the optimized charging factors designed by EnerSys<sup>®</sup> sets a cost-saving benchmark.
- Reduces overall battery recharge costs by consuming less electricity and lowering the carbon footprint.

[2] Based on a 24V 250Ah Flooded battery (2PzS250) when compared to 24V 190Ah NexSys<sup>®</sup> TPPL batteries technology (2NXS190), using energy throughput capabilities of 160% per day.



<sup>[1]</sup> The charger is embedded the functionalities of Wi-iQ® battery monitoring device.







NexSys<sup>®</sup> AIR wireless chargers deliver the convenience of hands-free charging across a wide range of automated guided vehicle (AGV) applications. Able to charge multiple battery technologies, NexSys<sup>®</sup> AIR wireless chargers can help boost safety, reliability and productivity.

- Fully automated charging with no manual intervention
- Compatible with all EnerSys<sup>®</sup> battery technologies
- Eliminates physical wear from mechanical contacts
- Safety features include foreign and live object detection

#### CHARGING SIMPLICITY AND FLEXIBILITY

NexSys<sup>®</sup> AIR wireless chargers can charge flooded lead acid, NexSys<sup>®</sup> TPPL and NexSys<sup>®</sup> iON batteries. Along with eliminating cables, plugs, and related wear-and-tear, NexSys<sup>®</sup> AIR wireless chargers can eliminate AGV wait times for manual plug-ins.

NexSys<sup>®</sup> AIR wireless chargers are also designed to handle a wide range of vehicle types and sizes, offering exceptional integration flexibility. Equipment charging pads can be mounted in a variety of locations with either vertical or horizontal pad orientations.



INTUITIVE TOUCHSCREEN CONTROLS

> EASILY-INTEGRATED CHARGING PAD





#### **CHARGE DURING:**

- Intervals between runs
- Operating breaks or stoppages

TPPL

Any free time

#### **COMPATIBLE WITH:**







## ENERSYS® HIGH FREQUENCY MODULAR CHARGING TECHNOLOGY

## **DESIGNING EFFICIENT ENERGY OPERATIONS**

Despite the world's ever changing landscape, EnerSys<sup>®</sup> delivers break-through modular charging technologies to suit every application.

With high frequency (HF) modular charging technology, EnerSys<sup>®</sup> charging solutions continuously drive operational success whilst lowering Total Cost of Ownership (TCO).

#### **DRIVING EFFICIENCY BY:**

- Prolonging battery life
- Reducing on-site maintenance
- Automating reporting and compliance
- Allowing system scalability and 'right-sizing'
- Setting up optimal charging periods when electricity prices are less expensive (optional software)
- Regulating the maximum power outputs for optimal energy consumption (optional software)

## **IMPROVING RELIABILITY BY:**

- Eliminating single points of failure
- Decreasing the mean time to repair (MTTR)
- Increasing the mean time between failures (MTBF)





Our battery support services range from system design, installation and certification to testing, maintenance and repair.



Our comprehensive recycling support program accepts lead acid batteries of all sizes, from all manufacturers.



Our advanced tools and technologies deliver actionable intelligence to optimize battery maintenance and operation.

Visit us at www.enersys.com



EnerSys World Headquarters 2366 Bernville Road Reading, PA 19605, USA Tel: +1-610-208-1991 / +1-800-538-3627 EnerSys EMEA EH Europe GmbH Baarerstrasse 18 6300 Zug, Switzerland

EnerSys Asia 152 Beach Road #11-08 Gateway East Building Singapore 189721 Tel: +65 6416 4800

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