

New products from Inspired Energy:

Low Temperature products Replaced by standard “HD29” models:

Last year we introduced our “LT” range of low temperature products which used the latest 2.9Ah cells with enhanced lower temperature performance,

For 2015, these low temperature capabilities have been incorporated into our standard “HD29” battery models.

This technology improvement enables low temperature operation without the additional cost of a special Low temperature cell. This improves lead times & reduces costs.

This extended performance has been introduced to our standard product line for all “HD29” models, allowing limited performance possible down to -40°C.



Battery capacity and peak current delivery are still restricted at temperatures below 0°C and application-testing will still be required to ensure satisfactory operation in your device throughout the full range of temperatures over which you intend it to operate.



Rack Mounted Charging systems:

In response to customer requests, we recently released a new multi bay charging system which can be housed in a standard 3-U 19” rack. (IEC60297 / DIN 41494). The charger rack operates from 24V DC and charges up to 12 battery packs simultaneously. Each battery controls its own charge and the system also allows the batteries to discharge all 12 battery packs in parallel, providing up to 1,100 watt-hours of battery power.



Power is provided from a separate, modular, AC:DC rack-mounted power supply, with options from 1 to 6 kilowatts in a 1U rack space. This enables the customer to build a system to suit their needs; from a 12-battery system in a 4U rack space, all the way up to a system capable of recharging as many battery packs as you need. Shown below is a system to simultaneously charge 108 battery packs.

Updated High Power Products:

In June 2015 we will increase the capacity of our high power products. This range includes four 8-cell battery packs; all share identical cases & connectors, but offer a choice of voltages and discharge currents:

HIGH ENERGY DENSITY

- PH2059HD34
 - 28.8V, 3.4Ah, 98Wh, 3A, 60W
- PH2054HD34
 - 14.4V, 6.8Ah, 98Wh, 8A, 80W

HIGH POWER DENSITY

- PH3059HD25
 - 28.8V, 2.5Ah, 72Wh, 12A, 240W
- PH3054HD25
 - 14.4V, 5Ah, 72Wh, 20A, 200W

Features:

- D-Sub high-current connector
- Scalped case for improved thermal conductivity / cell cooling
- 5-bar, always-on LCD fuel gauge
- Full SMBus communications
- Bolt-down capability (4 x M3 Machine screws) to fix the battery to a circuit board or chassis
- Compatible with Inspired Energy PH4000 & PH5000 desktop SMBus chargers
- Flying Lead conversion kit available

Typical Applications:

- Short-duration, high-power uninterruptible power supplies
- DC motor driven applications where higher voltages improve efficiency through lower currents
- Multi-battery arrays where the battery packs can be arrayed in parallel and the higher voltage of the battery eliminates the need for high-power DC:DC converters to operate a 24V system.



Li Ion Cell Capacity Continues to Increase...

In late 2014, we increased the capacity of our standard battery packs with 8-cells or fewer to use the latest 3.4Ah 18650 cells. These products represent the highest capacity, highest discharge current standard products currently available on the market. We continue working with the Li Ion cell manufacturers to incorporate their highest capacity cells into our products as soon as they can be proven to be reliable, safe & readily available.

News about shipping regulations...

If you're not familiar with the IATA Dangerous goods Regulations 56th edition 2015, now is the time to become so. All Inspired Energy products are Lithium Ion batteries between 2.7 and 100Wh (In other words, they are not Lithium Metal & they are not cells - this is an important distinction when it comes to shipping them).

- If you ship Inspired Energy battery packs on their own, they must ship under IATA Packing Instruction 965:
 - Up to 2 batteries max per box: UN3480 Excepted Lithium Ion Batteries; Section II
 - 3 or more batteries per box up to 10kg / 22lb box weight: Regulated Class 9 DG Lithium Ion Batteries; Section IB (Note: They are **NOT FULLY REGULATED** - there is a difference). You or your shipper will need to be Dangerous Goods Certified to prepare this type of shipment.
- If you ship Inspired Energy battery packs **with** your equipment, they must ship under IATA Packing Instruction 966.
 - You can ship up to 5kg of Li ion batteries per box under UN3481 Excepted Lithium Ion Batteries; Section II
- If you ship Inspired Energy battery packs **inside** your equipment, they must ship under IATA Packing Instruction 967
 - you can ship up to 5kg of Li ion batteries per box under UN3481 Excepted Lithium Ion Batteries; Section II

In addition to the IATA requirements, there are "Operator Variations" which trump the IATA requirements, so choosing your carrier is also important as many carriers such as FedEx and UPS require additional paperwork over and above the IATA requirements. You'll find the operator variants at the front of the IATA book.

For full details download our paper on Shipping & Handling Li Ion Batteries from the home page on our website