

accutronics

professional battery solutions



Inspired Energy Standard Smart Batteries, Chargers & Accessories

2012

Accutronics is the sole distributor for the Inspired Energy range of standard smart batteries, chargers and accessories.

This extensive range of products offers OEM customers a high performance, timely solution that avoids the time and costs associated with designing a custom solution.

Accutronics have worked with Inspired Energy since 1995 and offer multi-currency (€ / £ / \$) pricing, European stock holding and fast customer support from our headquarters in the UK.

Our high level technical support service ensures that customers can design an Inspired Energy battery into their new device with total confidence. We can provide CAD models, application support and design advice to ensure your product development is short and problem free.

For customers with mission critical applications we can work with you to customise the design of any standard battery with unique labelling, firmware, regulatory approval or application specific testing.

Once specified, this customised standard battery will be sold only to you with the assurance that the design will not be changed without your knowledge and approval - this approach protects your aftermarket sales and ensures total device compatibility now and in the future.

Inspired Energy standard batteries are available in both Lithium ion and Nickel Metal Hydride chemistries and feature built-in electronic intelligence which provides battery monitoring, high-precision fuel gauging, battery diagnostics and battery-to-host communications.

These standard batteries are available in voltages between 3.6V and 28.8V and in seventeen different mechanical footprints.

Battery Features

- Impedance tracking fuel gauge provides accurate run-time prediction throughout the life of the product
- Electronically Programmable Read-Only Memory (EPROM) based fuel gauge mapping allows on-board chips to be accurately programmed to suit the characteristics of the cell used
- Improved resistance to inrush current & short circuit thus eliminating pack shutdown & reset problems

- Full service backup including data sheets, 3D CAD models, user notes, material safety data sheets and regulatory testing certificates
- N Series batteries are available in 3.6V - 14.4V formats and have a Tyco smart battery connector interface
- P Series batteries are available in 25.2V - 28.8V formats and have a mixed D smart battery connector interface

Chargers

Inspired Energy chargers are available either as desktop units or for embedding into equipment and feature smart charger technology which allows them to communicate with batteries to ensure efficient and safe charging at all times.

Accessories

Accutronics supply a range of useful accessories allowing OEMs to easily fit, connect to and communicate with Inspired Energy batteries. The range includes products such as mounting blocks, digital readers, connectors, cables and battery belt mount kits.



N Series Batteries

N202 / N256 Series



	N202 Series									N256 Series
	Ni2020*				NL2020*		NL2024*			NC2560*
Technology / Number of Cells	Lithium Ion / 9				Lithium Ion / 12		Lithium Ion / 12			Lithium Ion / 3
Nominal Voltage (V)	10.8				10.8		14.4			10.8
Nominal Weight (g)	506				647		647			180
Maximum Thickness (mm)	19.70				21.60		21.80			16.13
Maximum Width (mm)	88.90				107.70		107.70			59.27
Maximum Length (mm)	148.84				167.70		167.90			120.22
Version	A24	HD24	HD29	ED29	A22	ED22	A22	HD22	ED22	A20
Typical Capacity (Ah)	7.2		8.7		8.8		6.6			2.0
Nominal Energy (Wh)	77.8		94.0		97.2		97.2			21.6
Maximum Discharge Current (A)	3	6	6	8	6	10	6	8	10	2

Note (1) *Agency-approved versions of this battery are available. Please contact us for details and pricing.

N203 Series



	N203 Series							
	NB2037*		ND2037*		ND2034*		NF2030*	
Technology / Number of Cells	Lithium Ion / 2		Lithium Ion / 4		Lithium Ion / 4		Lithium Ion / 6	
Nominal Voltage (V)	7.2		7.2		14.4		10.8	
Nominal Weight (g)	122		230		240		304	
Maximum Thickness (mm)	22.60		22.60		22.60		22.60	
Maximum Width (mm)	42.29		42.29		42.29		42.29	
Maximum Length (mm)	85.67		151.13		151.13		216.58	
Version	HD29	HD31	HD29	HD31	HD29	HD31	HD29	HD31
Typical Capacity (Ah)	2.9	3.1	5.8	6.2	2.9	3.1	5.8	6.2
Nominal Energy (Wh)	20.9	22.3	41.8	44.6	41.8	44.6	62.6	67.0
Maximum Discharge Current (A)	3	3	8		3		8	

Note (1) *Agency-approved versions of this battery are available. Please contact us for details and pricing.

N204 Series



	N204 Series													
	NC2040*				NF2040*			NF2047*		Ni2040*			NL2044*	
Technology / Number of Cells	Lithium Ion / 3				Lithium Ion / 6			Lithium Ion / 6		Lithium Ion / 9			Lithium Ion / 12	
Nominal Voltage (V)	10.8				10.8			7.2		10.8			14.4	
Nominal Weight (g)	184				349			349		506			647	
Maximum Thickness (mm)	22.40				22.40			22.40		22.40			22.40	
Maximum Width (mm)	59.02				59.02			59.02		58.90			59.02	
Maximum Length (mm)	85.12				150.49			150.49		214.50			286.00	
Version	A24	HD24	HD29	HD31	HD24	HD29	HD31	HD29	HD31	A24	HD24	ED29	HD22	
Typical Capacity (Ah)	2.4	2.4	2.9	3.1	4.8	5.8	6.2	8.7	9.3	7.2	7.2	8.7	6.6	
Nominal Energy (Wh)	25.9	25.9	31.3	33.5	51.8	62.6	67.0	62.6	67.0	77.8	77.8	94.0	97.2	
Maximum Discharge Current (A)	1.5	3	3	3	6	6	6	6	6	3	6	8	8	

Notes (1) *Agency-approved versions of this battery are available. Please contact us for details and pricing.
 (2) HD31 products arriving during 2012, please contact us for details.

N205 Series



	N205 Series																
	ND2053*		ND2057*			ND2054*		NH2057*		NH2054*				NL2050		NL2054	
Technology / Number of Cells	Lithium Ion / 4		Lithium Ion / 4			Lithium Ion / 4		Lithium Ion / 8		Lithium Ion / 8				Lithium Ion / 12		Lithium Ion / 12	
Nominal Voltage (V)	3.6		7.2			14.4		7.2		14.4				10.8		14.4	
Nominal Weight (g)	240		240			240		435		435				647		647	
Maximum Thickness (mm)	23.02		23.02			23.02		23.02		23.02				23.02		23.02	
Maximum Width (mm)	77.64		77.64			77.64		77.64		77.64				77.64		77.64	
Maximum Length (mm)	85.34		85.34			85.34		150.62		150.62				215.90		215.9	
Version	HD24	HD24	HD29	HD31	HD29	HD31	HD29	HD31	HD24	HD29	HD31	HD34	HD22	A22	HD22		
Typical Capacity (Ah)	9.6	4.8	5.8	6.2	2.9	3.1	11.6	12.4	4.8	5.8	6.2	6.8	8.8	6.6	6.6		
Nominal Energy (Wh)	34.6	34.6	41.8	44.6	41.8	44.6	83.5	89.3	69.1	83.5	89.3	97.9	97.2	97.2	97.2		
Maximum Discharge Current (A)	6	8	8	8	3	3	8	8	8	8	8	8	8	6	8		

Notes (1) *Agency-approved versions of this battery are available. Please contact us for details and pricing.
 (2) HD31 and HD34 products arriving during 2012, please contact us for details.

N100 Series



	N100 Series	
	NI1030	NJ1020
Technology / Number of Cells	Nickel Metal Hydride / 9	
Nominal Voltage (V)	10.8	12.0
Nominal Weight (g)	510	590
Maximum Thickness (mm)	19.30	19.94
Maximum Width (mm)	52.50	89.10
Maximum Length (mm)	214.50	149.10
Typical Capacity (Ah)	3.85	3.85
Nominal Energy (Wh)	41.6	46.2
Maximum Discharge Current (A)	3	3

N Series Chargers



Chargers for N-Series Smart Batteries							
	CH7000	CH4000	CH5000	CH5050	CH4444	CH5555	CH6555
Number of Bays	1	1	1	2	4	4	6
Calibration Feature	No	No	Yes	Yes	No	Yes	Yes
Mains Supply	24V DC input to charger supplied by a 90-260V AC 50-60Hz UL listed, CE compliant desktop power supply which is available with either a UK (Suffix U), US (Suffix A) or European (Suffix E) cable (supplied)						
Car Adapter Supply	Yes*	No	No	No	No	No	No
Weight (g)	220	220	235	360	3100	3100	3500
Dimensions (mm)	58 x 180 x 92			58 x 180 x 122	126 x 400 x 200		

Note (1) *The CH7000 is designed to operate from a 10-24V DC supply. In addition to the desktop power supply, a cigarette plug adapter is supplied for use in a vehicle or to allow power to be harvested from another low voltage source such as a solar panel.

Embeddable Chargers



	Chargers for N-Series Smart Batteries				
	EB330A	EB343A	EB335A	EB310A	EB325A
Number of Bays	1			2	
Supply	24VDC		10-24VDC	24VDC	24VDC
Pass Through ⁽²⁾	No	Yes	Yes	No	Yes
Dimensions (mm)	76 x 60 x 16			103 x 67 x 16	

Notes (1) Embeddable chargers are open frame products that require the customer to integrate them into their product. Customised versions of these chargers are also available. Please contact us to discuss your requirements.

(2) 'Pass through' allows the host product to be supplied by either the battery or the input dc supply. Chargers without pass through functionality can only supply battery voltage to the host product.

(3) Wire mounted LEDs are available for these chargers. Order 239020 (red LED on 355mm lead) or 239019 (green LED on 355mm lead).

P Series Batteries



	P Series Batteries		
	PG3665	PH2059	PH3059
Technology / Number of Cells	Lithium Ion / 7	Lithium Ion / 8	Lithium Ion / 8
Nominal Voltage (V)	25.2	28.8	28.8
Nominal Weight (g)	1200	533	533
Maximum Thickness (mm)	38.15	27.69	27.69
Maximum Width (mm)	86.61	81.78	81.78
Maximum Length (mm)	240.03	168.09	168.09
Version	A29	HD29	HD15
Typical Capacity (Ah)	2.9	2.9	1.5
Nominal Energy (Wh)	73.1	83.5	43.2
Maximum Discharge Current (A)	20	4	12

P Series Chargers



	P Series Chargers
	PH4000
Number of Bays	1
Calibration Feature	No
Mains Supply	36V DC input to charger supplied by a 90-260V AC 50-60Hz UL listed, CE compliant desktop power supply which is available with either a UK (Suffix U), US (Suffix A) or European (Suffix E) cable (supplied)
Weight (g)	850
Dimensions (mm)	38.0 x 115.0 x 86.5 (Excluding Power Supply)

ACCESSORIES

A wide range of accessories are available help you integrate Inspired Energy smart batteries and chargers into your system.



EC9600
Handheld smart battery data reader for N-Series batteries



ATA002
USB port smart battery reader/writer for N-Series batteries



BL237A
PCB for Tyco smart battery connectors



610005
Tyco 5787446-1 connector for N-Series batteries



610007
Tyco 5787422-1 connector for N-Series batteries



610018
Tyco 5787428-1 connector for N-Series batteries



629010
Five conductor straight cable with moulded connector. For N202 series batteries



629011
Two conductor coiled cable with moulded connector. For N202 series batteries



629028
Five conductor straight cable with moulded connector. For N204 & N205 series batteries



629030
Two conductor coiled cable with moulded connector. For N204 & N205 series batteries



BP2BV01
Belt pack pouch with 629011 lead. For N202 series batteries



BP5BV01
Belt pack pouch with 629010 lead. For N202 series batteries



BP2D*
Belt pack pouch with regulated 60W output. For NL2020HD22 batteries



BC2D*
Belt pack pouch with regulated 60W output & built in charger. For NL2020HD22 batteries



MP204*
Belt holster with raw or regulated 30W output. For N204 series batteries



MC204*
Belt holster with regulated 30W output & built in charger. For N204 series batteries



MP205*
Belt holster with raw or regulated 30W output. For N205 series batteries



MC205*
Belt holster with regulated 30W output & built in charger. For N205 series batteries



936140
Black safety travel / dust cap for N204 series batteries



936186
Black safety travel / dust cap for N205 series batteries



936188
Yellow safety travel / dust cap for N203 series batteries



936187
Yellow safety travel / dust cap for N202 series batteries



699013
Amphenol connector for P-Series batteries (wire mount)



619017
Amphenol connector for P-Series batteries (PCB mount)



699014
Amphenol connector for P-Series batteries (wire mount, with shell and hardware)



599020
24V, 2.5A, 60W power supply for desktop chargers



551006 / 551007 / 551008
Mains lead for desktop charger power supply (US / EU / UK plug)



629040
Cigarette lighter socket lead for CH7000 desktop charger



936192
Mounting block for N202 & N203 series batteries



936143
Mounting block for N204 & N205 series batteries

Specification details are correct at time of printing.

For the latest data please refer to published battery specifications which are available on our website at www.accutronics.co.uk



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