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Panasonic presents lithium batteries with innovative BR and CR technologies

Market leader offers competence and service around the world



With its range of extremely high power cylindrical lithium batteries Panasonic, as the market leader in this segment, has extended its offer for the markets of measuring instruments, data acquisition and identification (RFID), electronic toll collection systems for cars and lorries (ETC) and safety engineering. Thanks to innovative Panasonic technologies, they are extremely long-lasting (BR series), feature top pulse currents (CR series) with a 3-volt voltage depending on the design-in.

The two new models BR-1/2AA and BR-AA have capacity's of 1,000 and 2,500 milliamp hours (mAh) at a nominal voltage of three volts. The poly-carbon-monofluoride technology ensures a self-discharge rate below 0.5 percent per year (at room temperature), in addition the batteries can be used in a particularly wide temperature range of between $-40\text{ }^{\circ}\text{C}$ and $+85\text{ }^{\circ}\text{C}$.

The three models from the CR series feature capacity's of 1,400 mAh (CR-2/3AZ), 1,650 mAh (CR-AAZ) and 2,400 mAh (CR-AG) also at a nominal voltage of three volts. Here, too, the self-discharge rate of one percent per year is very low, whereby the batteries are designed more with applications that have a high pulse current in mind.

With its wide range including not only cylindrical types but also coin cells, Panasonic offers the ideal model for every field of application. A particularly distinguishing feature of Panasonic's lithium technology is the fact that no "passivation" occurs: operating voltage remains constant over a long period of time guaranteeing that devices run on these batteries function properly. In practice the failure rate of Panasonic batteries is almost zero.

The new lithium batteries are ideally suited for long-term applications, e.g. in smoke detectors, car alarm systems or also measuring devices such as water meters or heat cost allocators, as their high degree of reliability reduces the time and effort required for frequent exchanges. Other areas of application include Electronic Toll Collect Systems (ECT) where the on-board-units are equipped with these long-life batteries,

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as well as logistic applications using RFID units for identifying and storing data. In medical technology these batteries are used in blood glucose meters, defibrillators or infusion pumps. Panasonic lithium batteries (BR or CR technologies) are also ideal for marine technology applications such as automatic emergency radio buoys, man-over-board devices or for the illumination of life jackets.

The question of which type is best suited for which area can be clarified by contacting one of the technical salesmen at Panasonic.

All Panasonic models comply with the international safety standard UL 1642. Lithium batteries from Panasonic are particularly environmentally friendly in comparison to other lithium battery technologies. This also applies to the production process: in addition to their accordance with the international quality standard ISO 9001, Panasonic manufacturing plants are also certified in compliance with the global environmental standard ISO 14001.

Panasonic – a good partner

Not only does Panasonic rank among the leading manufacturers of batteries worldwide with its 30 years of experience in lithium technology, the company is also the market leader for cylindrical lithium batteries. Panasonic is the market leader for both equipping keyless entry systems as well as for measuring devices. Although a brand name and exceptional quality are both aspects highly prized by consumers and industry alike, they are only one side of the coin, just as important for users is our global presence and availability plus the competent consultancy and excellent technical service offered all over the world.

Batteries from Panasonic – safety, long-life and power

Matsushita Batteries Industrial (MBI) started battery production in 1931 as part of the Matsushita Group (widely known under the name Panasonic). Today, the company operates in 16 countries, with a workforce of 16,000 and 27 production plants. With annual production of several billion batteries, it is one of the largest battery manufacturer in the world.

The product portfolio includes Lithium-Ion, Lithium, Nickel Metal Hydride, Nickel-Cadmium, Alkaline, Zinc-Carbon and maintenance-free VRLA batteries. The all-round experience of one of the world's largest electronics groups in the development of high tech products such as camcorders or mobile phones leads again and again to ground-breaking solutions for the batteries needed for this. Panasonic also offers its OEM customers standard charging equipment and customized charging systems and emphasizes its corporate identity as a power solutions provider with a comprehensive product range.

Panasonic batteries are marketed in Germany by Panasonic Industrial Europe GmbH (PIE). The Industry Battery Group (IBG), which is a long-standing group subsidiary, is responsible for OEM business throughout Europe. The head office in Hamburg is responsible for Germany, the Benelux countries, Switzerland, Austria, Scandinavia and Eastern Europe. There are independent offices trading in Great Britain/Ireland, France, Italy and Spain. There is also a close-knit distributors' network.

Panasonic Industrial Europe GmbH (PIE)

In addition to the distribution of industrial batteries Panasonic Industrial Europe GmbH (PIE), with its headquarters in Hamburg, is responsible within the Panasonic organisation for European-wide sales of production equipment, such as electronic components and devices, semiconductors and production systems, to customers in the electronics industry and the audio/video, household goods, telecommunications, computer and automobile markets.

PIE employs a total of 300 staff. The Managing Director is Katsuhiko Otomo. The company maintains subsidiaries in Munich and Bracknell (London), as well as agencies in Moscow and Izmir (Turkey) and sales offices in Paris, Barcelona, Milan, Vienna and Düsseldorf. There are also service offices for telecommunications in Copenhagen and Helsinki, as well as training centres for factory automation in Vienna and Bracknell (London).

Panasonic Battery Sales Europe NV (PBSE)

The Panasonic Battery Sales Europe with its headquarters in Brussels is responsible for the sale of consumer batteries in Europe.

Matsushita Electric Industrial Co. Ltd. (Panasonic)

The Matsushita Electric Industrial Co., Ltd Group, familiar through its brand name Panasonic, is a leading developer and manufacturer of electronic products for private consumers, the corporate sector and industry, known worldwide. In March 2006, the company, whose headquarters is in Osaka, Japan, posted a consolidated net transaction volume for the previous year of 72.02 billion US dollars. Shares in Matsushita are traded on the Tokyo, Osaka, Nagoya and New York (NYSE:MC) stock exchanges. More information about the company and its brand name Panasonic is on the Internet at <http://www.panasonic-industrial.com>, <http://www.panasonic-europe.com> and at <http://www.panasonic.net>.

Technical data

Poly-carbonmonofluoride (BR series) lithium

	Model number* ¹	Nominal electrical data at 20 °C			Dimensions (diameter x height) in mm	Approx. weight in g	IEC
		Nominal voltage(V)	Nominal capacity* ² (mAh)	Continuous standard drain (mAh)			
new	BR-1/2AA* ³	3	1,000	2.5	14.5 x 25.5	8	-
	BR-AA* ³ (x)		2,500		14.5 x 50.5	15	
new	BR-2/3A		1,200		17 x 33.5	13.5	BR17335
	BR-2/3AG		1,450				
	BR-A		1,800				
	BR-AG		2,200				
	BR-C		5,000				

*¹ G indicates higher capacity versions

*² Based on standard discharging current and cut off voltage to 2.0 V at 20 °C

*³ This cell is only available with assembled tag

(x) Development concluded but large-scale production not yet started

Manganese dioxide (CR series) lithium

	Model number	Nominal electrical data at 20 °C			Dimensions (diameter x height) in mm	Approx. weight in g	IEC
		Nominal voltage(V)	Nominal capacity* ¹ (mAh)	Continuous standard drain (mAh)			
new	CR-2	3	850	20	15,6 x 27	11	CR15H270
	CR-123A				17 x 34,5	17	CR17345
new	2CR-5	6	1.400	2.5	34* ² x 45	36	2CR5
	CR-P2				35* ² x 36	37	CR-P2
	CR-AG	3	2.400	17 x 45,5	22	CR17450	
	CR-AAZ (x)		1.650	14,5 x 50,5	19	CR14500	
	CR-2/3AZ (x)		1.400	17 x 33,5	17	CR17335	

*¹ Based on standard discharge current and cut off voltage up to 2.0 V at 20 °C...CR2/CR123A

Based on standard discharge current and cut off voltage to 2.0 V at 20 °C...2CR5/CR-P2

*² Width

(x) Development concluded but large-scale production not yet started