



## Batteries for Metering Applications

**Applications:** heat cost allocators, electricity, gas and water meters.

To ensure trouble-free data security, utility meters need a reliable power source. The battery must function reliably even under widely fluctuating ambient temperatures and must also be designed for a long service life to reduce maintenance costs. In the case of automated meter reading, the battery must also be able to deliver high pulse currents even after long periods.

Panasonic is the battery manufacturer with the most diverse product spectrum worldwide and more than 85 years of experience in the production of high-quality industrial batteries.

Our Lithium batteries are ideal for long-term use in applications with different temperature requirements. Due to our time-proven CR technology, which is not affected by passivation, the battery voltage is retained over a period of many years. With a life of more than 10 years, our batteries therefore always deliver reliable power even after long storage.

### KEY BENEFITS:

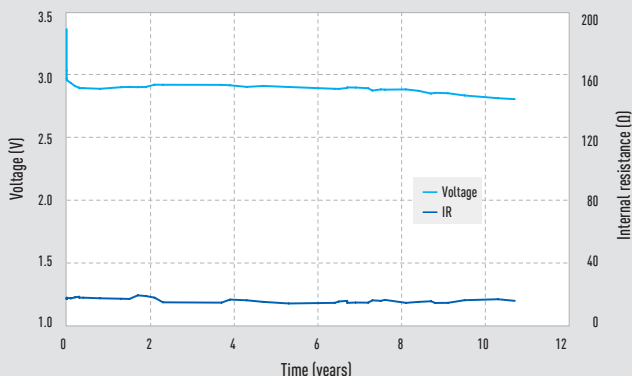
- No Passivation
- Stable Internal Resistance
- No Capacitor Required
- Low Self-Discharge
- Large Temperature Range



# Batteries for Metering Applications

## LITHIUM COIN TYPE BATTERIES BR-A SERIES

### DISCHARGING CHARACTERISTICS BR-2477A



Test condition  
Discharge: 300kΩ at 20°C

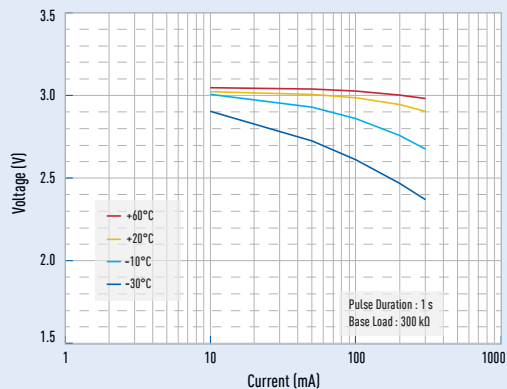
## Panasonic BR-A SERIES

- Ideal for high temperature applications
- Wide temperature range (-40 to 125°C)
- Low self-discharge (<0.5% per year at 20°C)

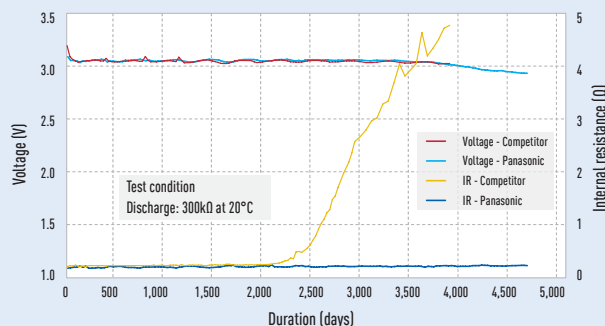


## LITHIUM CYLINDRICAL TYPE BATTERIES CR SERIES

### PULSE DISCHARGE CAPABILITY CR-AGZ (DEPTH OF DISCHARGE 50%)



### INTERNAL RESISTANCE BEHAVIOR OF PANASONIC CR-AG AND OTHER'S



## Panasonic CR SERIES

- Stable internal resistance
- Excellent pulse discharging characteristics
- Wide temperature range (-40 to 85°C)
- Low self-discharge (<1% per year at 20°C)



## SUITABLE BATTERIES

Specifications	BR-2477A	CR-2Z	CR-2/3AZ	CR-AG	CR-AGZ	CR-AAU
Diameter (mm)	24.5	15.6	17.0	17.0	17.0	14.5
Height (mm)	7.7	27.0	33.5	45.5	45.5	50.5
Approximate weight (g)	8.0	11.0	16.0	24.0	23.0	18.0
Nominal voltage (V)	3.0	3.0	3.0	3.0	3.0	3.0
Nominal capacity (mAh)	1,000	1,000	1,600	2,400	2,700	1,800
Ambient Temperature (°C)	-40 to 125	-40 to 85*	-40 to 85*	-40 to 85*	-40 to 85*	-40 to 85
Applications	Electricity meter	●				
	Gas meter			●	●	●
	Water meter	●	●	●	●	●
	Heat cost allocator	●	●	●		

The battery performance is strongly affected by how the batteries are used. The data in this document are for descriptive purposes only and are not intended to make or imply any guarantee or warranty.

\* Please consult Panasonic when anticipating usage in operating temperature of 70°C or above.

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INDUSTRY