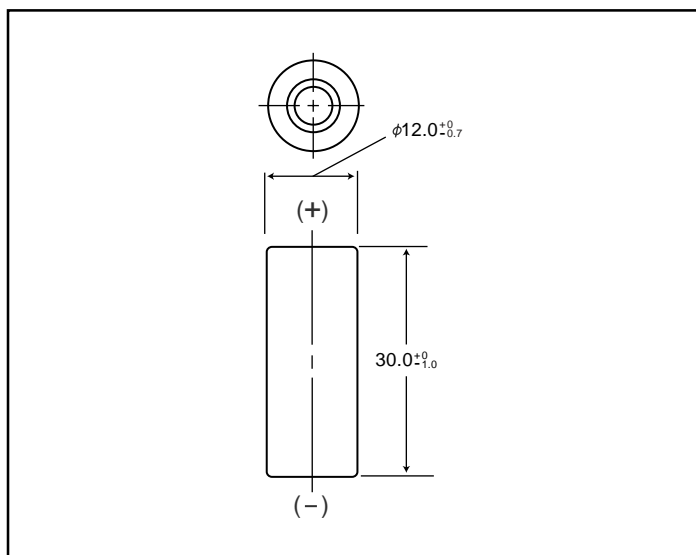


# NICKEL CADMIUM BATTERIES: INDIVIDUAL DATA SHEET

## P-18N N size (KR12/30) Type: N

Dimensions (with tube) (mm)



### Specifications

	mm	inch
Diameter	12.0 +0/-0.7	0.47 +0/-0.03
Height	30.0 +0/-1.0	1.18 +0/-0.04
Approximate Weight	Grams	Ounces
	8g	0.28

Nominal Voltage		1.2V		
Discharge Capacity*	Average**	190mAh		
	Rated (Min.)	180mAh		
Approx. Internal impedance at 1000Hz at charged state		24mΩ		
Charge	Standard	18mA (0.1C) x 16 hrs.		
	Short Time	45mA (0.25C) x 6 hrs.		
	Trickle	Max Current	9mA (0.05It) x 30h and over	
		Min Current	6mA (0.033It) x 45h and over	
Ambient Temperature	Charge	Standard	°C	
			°F	
	Discharge	Short Time	0°C to 45°C	32°F to 113°F
			10°C to 45°C	50°F to 113°F
Storage	Discharge	-20°C to 65°C	-4°F to 149°F	
		< 2 years	-20°C to 35°C	-4°F to 95°F
	< 6 months	-20°C to 45°C	-4°F to 113°F	

\* 0.2It discharge capacity after charging at 0.1It for 16 hours.

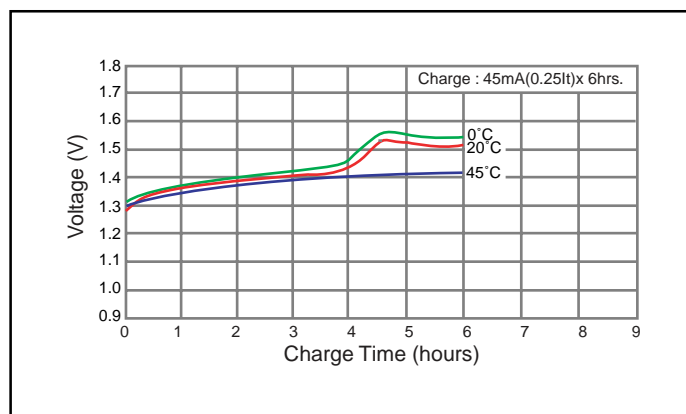
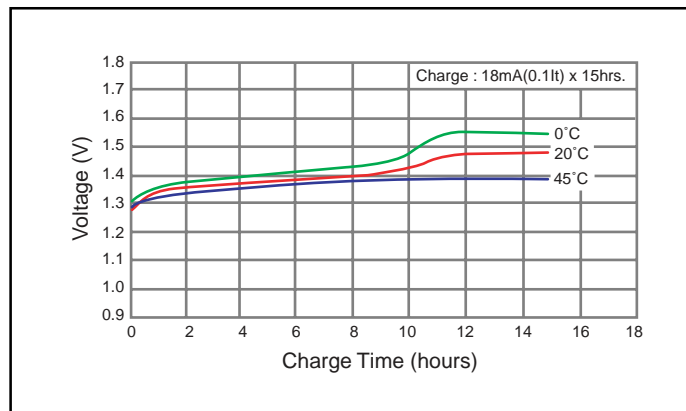
\*\* For reference only.

Battery performance and cycle life are strongly affected by how they are used. In order to maximize battery safety, please consult Panasonic when determining charge / discharge specs, warning label contents and unit design.

**Note:** [It] was previously expressed as [C]. [It] is an IEC standard expression for the amount of charge or discharge current and is expressed as: It(A) = Cn (Ah)/1h.

- [It] is the reference test current in amperes
- [Cn] is the rated capacity of the cell or battery in Ampere-hours.  
n = the time base [hours] for which the rated capacity is declared

### Typical Charge Characteristics



### Typical Discharge Characteristics

