

Technology Specification

Model: PR41/PR44/PR48/PR70

Document No.: QTPR21-1

Version: QT2021-1

Date: 2021.01.01



1. Scope:

This specification defines the technical requirements for PR41/PR44/PR48/PR70 battery supplied by Gigacell.

2. Reference documents:

This product complies with EU's battery directive (2006/66/EC).

3. Chemical systems , voltages and designation:

3.1 Chemical systems: Zn/KOH/O₂

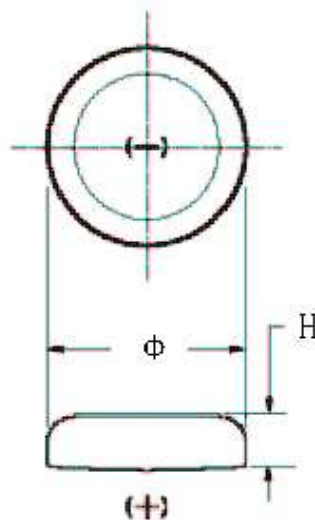
3.2 Nominal voltage: 1.4 V

3.3 Designation:

IEC: PR41(A312),PR44(A675),PR48(A13),PR70(A10)

4. Battery Weight (g):

Designation	PR41	PR44	PR48	PR70
Approximate	0.49	1.8	0.81	0.29



5. Dimension (mm)

Designation	PR41	PR44	PR48	PR70
ϕ	7.55~7.9	11.35~11.6	7.65~7.9	5.55~5.8
H	3.3~3.6	5.0~5.4	5.0~5.4	3.3~3.6

6. Capacity: (20±2°C, RH: 35%-75%)

Designation	PR41	PR44	PR48	PR70
Approximate(mAh)	130	450	200	70
Discharge mode	300Ω, 24h/d e.v.:0.9V	100Ω, 24h/d e.v.:0.9V	200Ω, 24h/d e.v.:0.9V	1kΩ, 24h/d e.v.:0.9V

(The manufacturer reserves the right to modify product technology specification herein without additionally Notice)

Ningbo Gigacell Electronics Co., Ltd.

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7. Electrical Characteristics

Unless otherwise stated, all measurements are to be performed at a

Standard Environment of **20°C±2 °C 55±20% RH.**

All samples are normalized for 8 hours at least at the above environment prior to measurement.

The measurement accuracy for DCV shall be ±0.1% or better.

The load resistance of the total circuit is accurate within ±0.5% of the specified value.

7.1 Open Circuit Voltage

/	OCV(V)
Initial	≥1.40

7.2 Battery performance

Designation	PR41		PR44		PR48		PR70	
Load	300Ω	1.5KΩ	100Ω	620Ω	200Ω	1.5KΩ	1KΩ	3KΩ
Test mode	24h/d	12h/d	24h/d	12h/d	24h/d	12h/d	24h/d	12h/d
end voltage	0.9V	0.9V	0.9V	0.9V	0.9V	0.9V	0.9V	0.9V
Initial	≥18h	≥100h	≥30h	≥195h	≥20h	≥195h	≥50h	≥90h

h: hour

d: day

*The initial discharge test shall commence within 30 days of manufacture. During stored period, the cells shall be stored under room temperature conditions.

8. Leakage Resistance

8.1 High temperature leakage test

Samples: 20pcs

Test conditions: 45±2°C、RH 55±20%， stored for 30 days

Requirement: no visible leakage

Criterion: 0/20

8.2 Over-discharge leakage test

Samples: 20pcs

Test conditions: After loading with a resistance(1.5kΩfor PR41, 620Ωfor PR44, 1.5kΩfor PR48, 3kΩfor PR70 respectively) continuously down to 0.56V at 20±2°C, 55±20%RH, no leakage shall be observed with the naked eye.

Requirement: no visible leakage

Criterion: 0/20

9. Expiry Period

3 years

10. Precautions in Handling of Batteries:

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- 10.1 Insert batteries correctly with regard to the polarities (+ and –) marked on the battery and the equipment
 - 10.2 Do not short-circuit batteries
 - 10.3 Do not charge batteries and force discharge batteries.
 - 10.4 Do not mix old and new batteries or batteries of different types or brands.
 - 10.5 Exhausted batteries should be immediately removed from equipment and properly disposed of.
 - 10.6 Do not heat batteries.
 - 10.7 Do not weld or solder directly to batteries
 - 10.8 Do not dismantle batteries
 - 10.9 Do not deform batteries
 - 10.10 Do not dispose of batteries in fire
 - 10.11 Keep batteries out of the reach of children
 - 10.12 Do not allow children to replace batteries without adult supervision
 - 10.13 Do not encapsulate and/or modify batteries
 - 10.14 Store unused batteries in their original packaging away from metal objects. If already unpacked, do not mix or jumble batteries.
 - 10.15 Remove batteries from equipment if it is not to be used for an extended period of time unless it is for emergency purposes.