

PRODUCT SPECIFICATION	
Individual Product Specification	

Specifications for
Cylindrical Zinc Carbon Battery
R20 (DRNF-W)

PRODUCT SPECIFICATION	Panasonic
Individual Product Specification	DRNF-W

1. Battery identification

name	R20 / UM 1
type	zinc carbon / metal jacket
nominal voltage	1.5 V
average weight	100 gr.
manufactured by	PMBP

2. Battery dimensions As per attached drawing

3. Typical battery performance Discharge modes

Test	Resistance	Daily period	End point	Result *	Result**
Radio	10 Ω	4 h	0.9 V	43.0 h	37.8 h
Recorder	3.9 Ω	1 h	0.9 V	14.7 h	13.1 h
Motor	2.2 Ω	1 h	0.8 V	6.7 h	5.4 h
LIF	2.2 Ω	4 min./h , 8 h/ day	0.9 V	425 min	360 min

Open circuit voltage (OCV)
Minimum average duration

	Initial*	After 12 months storage **
OCV (at 20±2°C)	1.6 V	1.52 V
Min. aver. duration (at 20±2°C)***	35.7 h	27.2 h

* The initial discharge test shall commence with 30 days since manufacture. During this period, the batteries are kept under the condition of 20±2°C.

** During this period, the batteries shall also be kept under the condition of 20±2°C.

*** 10 Ω, 4 h / day, 0.9 V

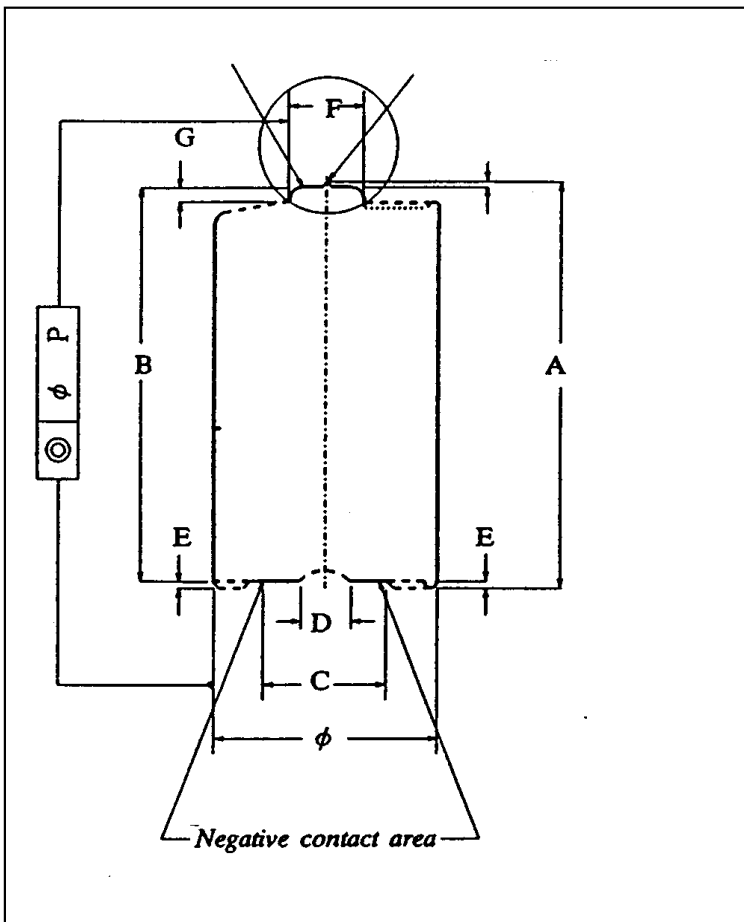
4. Mercury and Cadmium contents

No Mercury (Hg) and Cadmium (Cd) are used in battery.

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Size:
IEC: R20



Dim	Max	Min
\varnothing	34.2	32.3
A	61.5	59.5
B		59.5
C		18.0
D	7.5	
E	1.0	
F	9.5	7.8
G		1.5
Pip	0.4	

Voltage	1.5 V
Terminal	(+) Cap (-) Base
Average weight	100 g
Jacket	Metal