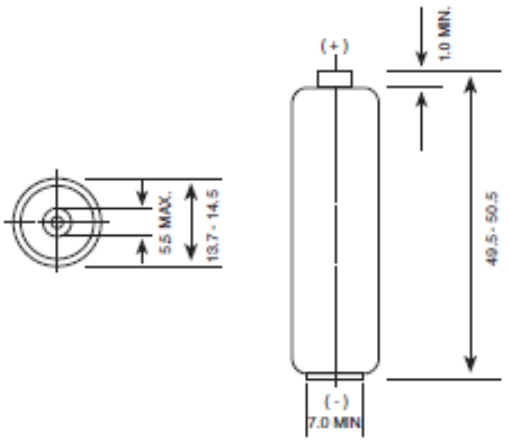
GP Batteries DATA SHEET

Model No.: GN15A

FOR INDUSTRIAL MARKET ONLY

NO MERCURY AND CADMIUM ADDED

Description	: Mercury & Cadmium Free Alkaline Manganese Battery, AA Size
Chemical System	: Alkaline Manganese
Nominal Voltage	: 1.5 Volts
Nominal Dimensions	: ø14.5 mm x 50.5 mm
Terminals	: Protruded positive (+) and flat negative (-) contacts
Jacket	: Foil jacket
Applications	: Internet of Things (IoT), sensors, home security products, smart remote control, wireless mouse/ keyboard, toys, smart meters, medical/ smart healthcare, thermometers, dispensers
Average Weight	: 23g

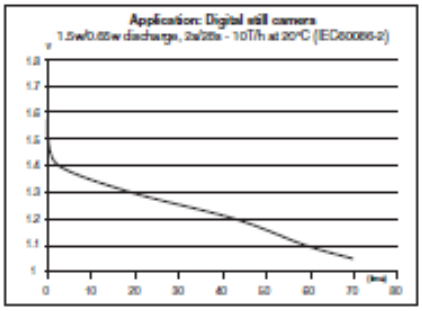


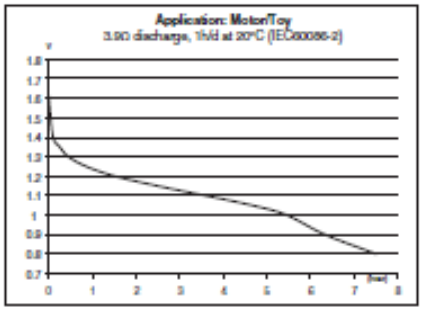
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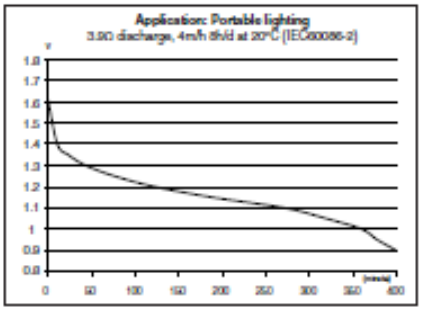
Cross References:

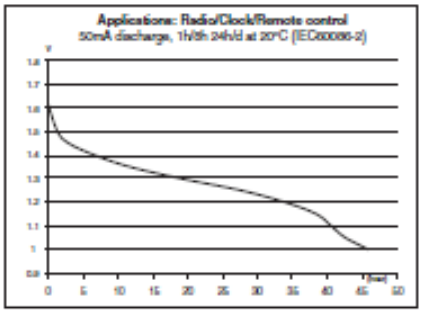
GP	JIS	IEC	Eveready	Duracell
15A	LR6	LR6	E91	MN1500

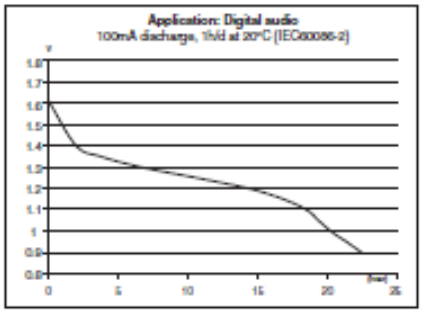
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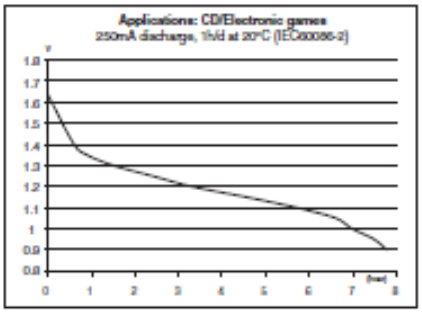












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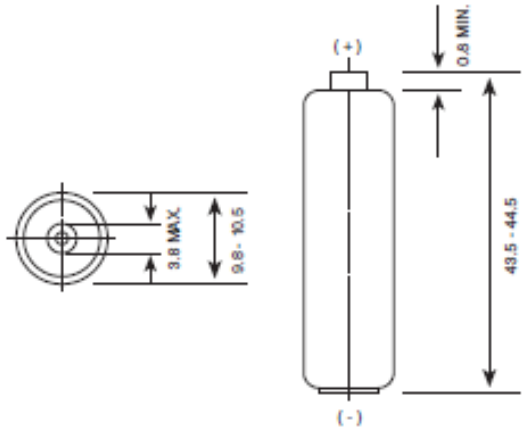
GP Batteries DATA SHEET

NO MERCURY AND CADMIUM ADDED

Description	: Mercury & Cadmium Free Alkaline Manganese Battery, AAA Size
Chemical System	: Alkaline Manganese
Nominal Voltage	: 1.5 Volts
Nominal Dimensions	: ø10.5 mm x 44.5 mm
Terminals	: Protruded positive (+) and flat negative (-) contacts
Jacket	: Foil jacket
Applications	: Internet of Things (IoT), sensors, home security products, smart remote control, wireless mouse/ keyboard, toys, smart meters, medical/ smart healthcare, thermometers, dispensers
Average Weight	: 11.5g

Model No.: GN24A

FOR INDUSTRIAL MARKET ONLY

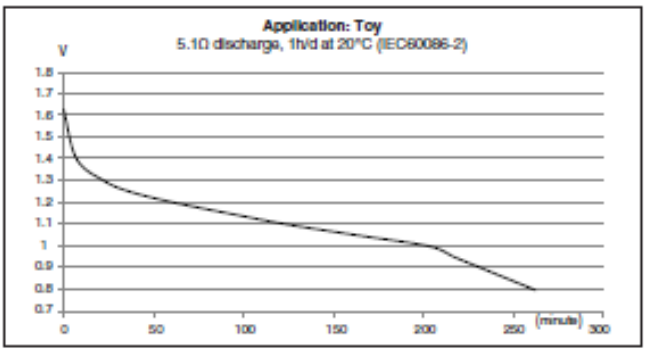


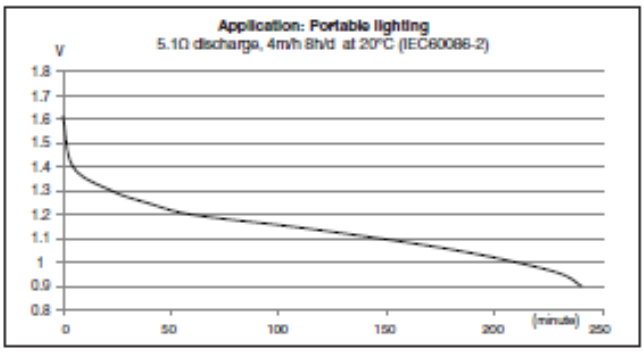
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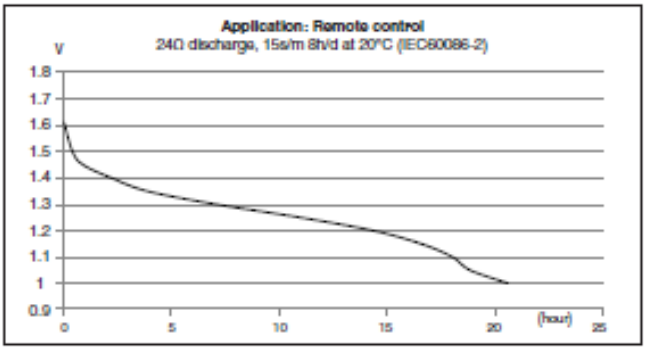
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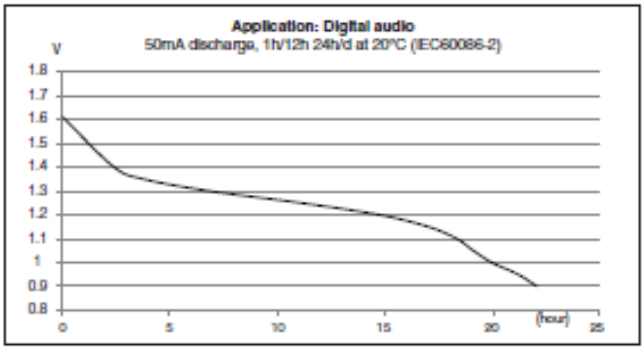
GP	JIS	IEC	Eveready	Duracell	Varta
24A	LR03	LR03	E92	MN2400	4003

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GP Batteries DATA SHEET

Model No.: GP13A

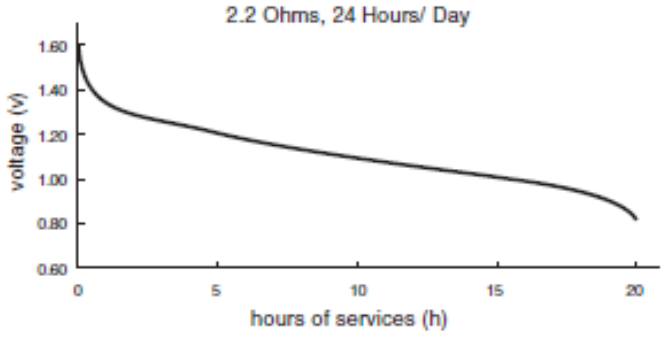
NO MERCURY ADDED	
Description	: Mercury & Cadmium Free Alkaline Manganese Battery, D Size
Chemical System	: Alkaline Manganese
Nominal Voltage	: 1.5 Volts
Nominal Dimensions	: ø34 mm x 61 mm
Terminals	: Protruded positive (+) and flat negative (-) contacts
Jacket	: Foil jacket
Applications	: All electronic devices, e.g. transistor radios, cassette recorders, toys, alarm clocks, portable fans, portable hand-tools.
Shelf Life	: 10 years at 20°C in a well ventilated area
Average Weight	: 135g

Cross References:

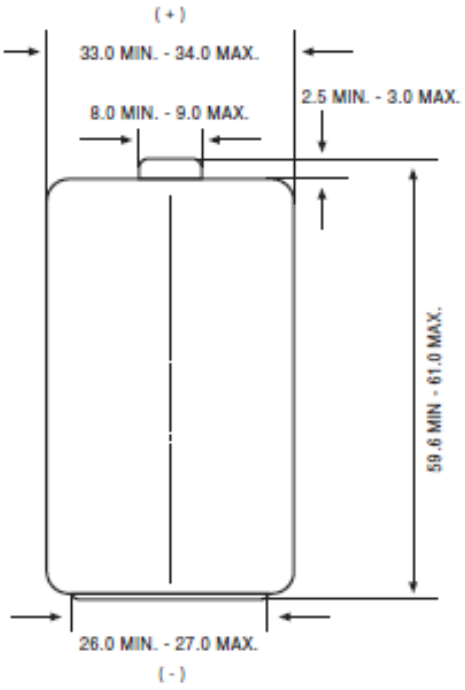
GP	JIS	IEC	Energizer	Duracell	Varta
13A	LR20	LR20	E95	MN1300	4020

Typical Service Life:

Discharge Resistance	Discharge Condition	End Point Voltage	Service Life
2.2 Ohms	24 Hrs/ Day	0.9V	19 Hrs



At 20˚C±2˚C within 30 days of manufacture



Unit : mm

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GP Batteries DATA SHEET

Model No.: GP14A

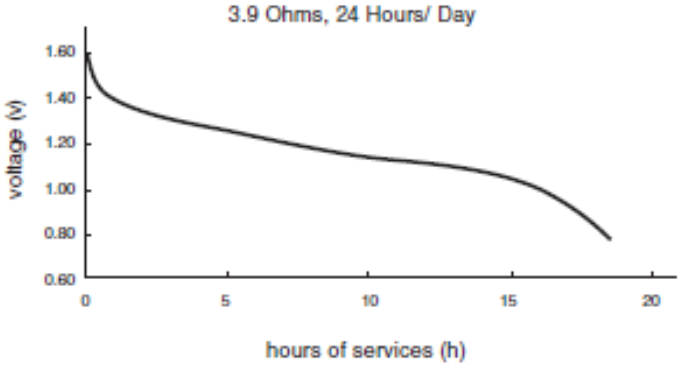
NO MERCURY ADDED	
Description	: Mercury & Cadmium Free Alkaline Manganese Battery, C Size
Chemical System	: Alkaline Manganese
Nominal Voltage	: 1.5 Volts
Nominal Dimensions	: ø26 mm x 50 mm
Terminals	: Protruded positive (+) and flat negative (-) contacts
Jacket	: Foil jacket
Applications	: All electronic devices, e.g. transistor radios, cassette recorders, toys, alarm clocks, lighting & torches, portable fans.
Shelf Life	: 10 years at 20°C in a well ventilated area
Average Weight	: 60g

Cross References:

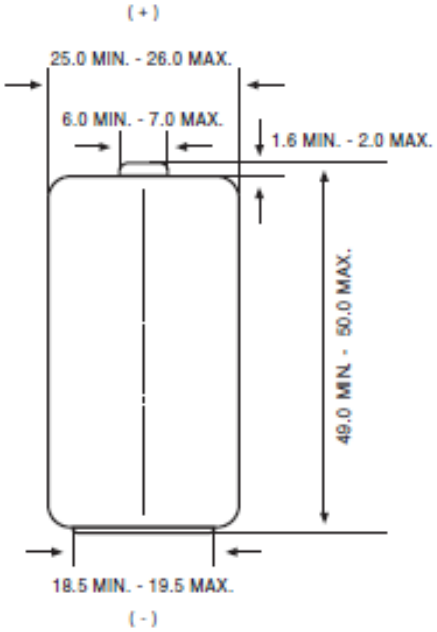
GP	JIS	IEC	Energizer	Duracell	Varta
14A	LR14	LR14	E39	MN1400	4014

Typical Service Life:

Discharge Resistance	Discharge Condition	End Point Voltage	Service Life
3.9 Ohms	24 Hrs/ Day	0.9V	18 Hrs



At 20°C±2°C within 30 days of manufacture



Unit : mm

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GP Batteries DATA SHEET

Model No.: GN1604A-2

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NO MERCURY AND CADMIUM ADDED	
Description	Alkaline Manganese 9V Battery
Chemical System	Alkaline Manganese Dioxide
Nominal Voltage	9.0 Volts
Operating Temp.	-18°C ~ 50°C, 65±20%RH
Storage Temp.	-20°C ~ 30°C, 65±20%RH
Nominal Dimensions	Refer to drawing
Terminal	Miniature snap fasteners
Jacket	Printed metal jacket
Application	All electronic devices
Nominal Weight	47g

Cross References:

GP	JIS	IEC	Eveready	Duracell
1604A	6LR61	6LR61	522	MN1604

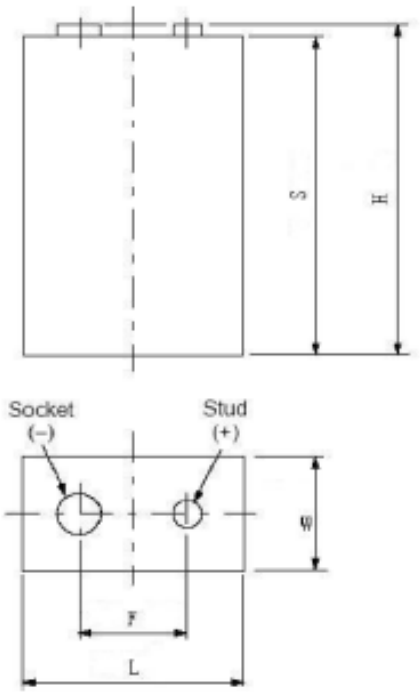
Electrical Characteristics

Test Items	Test Conditions 20±2°C	Specification (Volt), min	
		Initial	1 year
OCV		9.2V	9.0V
CCV	180Ω ± 0.5%, 0.3s	8.8V	8.5V

Discharge Capacity

Test Items	Test Conditions 20±2°C, 55±20%RH (EPV = End Point Voltage)	Specification (Hours), MAD	
		Initial	1 year
Service life at 20±2°C	620Ω 2H/D (EV=5.4V)	49.0	47.0
	270Ω 1H/D (EPV=5.4V)	20.0	19.0
	Background 10KΩ Pulse: 620Ω 24H, 1s/H (EPV=7.5V)	19.5	18.0
	35mA 24H/D (EPV=5.4V)	14.0	13.0

Dimensions



/	min	max
H	46.5	48.5
S	43.7	44.7
F	12.45	12.95
L	25.3	26.1
W	16.3	17.1

Unit : mm

* Storage performance are estimated.

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