GEL Gel Technology Batteries

Upower
Unlimited power

UP Series
G200-12
GENERAL PURPOSE GEL

Main Features

- **Longer Design Life**
  Designed for 12 years of service life at 25°C.

- **Uniform Electrolyte Distribution**
  Using high quality silica (silicon dioxide) we obtain a uniform electrolyte distribution for a better performance.

Technical Specifications

Nominal Voltage (V)	12	
Nominal Capacity (20 Hr)	200 Ah	
Dimensions	Length:	522 ± 1 mm (20.55 inches)
	Width:	240 ± 1 mm (9.45 inches)
	Container Height:	219 ± 1 mm (8.62 inches)
	Total Height (+terminal):	223 ± 1 mm (8.78 inches)
Approx. Weight	Approx. 58.5 kg (128.97 lbs)	
Terminal	M8	
Container Material	ABS	
Rated Capacity	214.0 Ah / 10.7 A	(20hr, 1.75V/cell, 25ºC/77ºF)
	200.0 Ah / 20.0 A	(10hr, 1.80V/cell, 25ºC/77ºF)
	176.0 Ah / 35.2 A	(5hr, 1.75V/cell, 25ºC/77ºF)
	127.6 Ah / 127.6 A	(1hr, 1.60V/cell, 25ºC/77ºF)
Maximum Discharge Current	2000 A (5 s)	
Internal Resistance	Approx. ≤ 3.9 mΩ	
Operating Temperature Range	Discharge:	-20 ~ 55ºC (-4 ~ 131ºF)
	Charge:	0 ~ 40ºC (32 ~ 104ºF)
	Storage:	-20 ~ 50ºC (-4 ~ 122ºF)
Nominal Operating Temperature Range	25ºC ± 3 (77ºF ± 5)	
Cycle Use	Initial Charging Current Less than 40 A Voltage 14.4 V - 14.9 V	
Standby Use	Initial Charging Current Less than 40 A Voltage 13.6 V - 13.8 V	
Capacity affected by Temperature	40ºC (104ºF) 108%	
	25ºC (77ºF) 100%	
	0ºC (32ºF) 90%	
	-15ºC (5ºF) 70%	
Self Discharge	Batteries may be stored for up to 9 months at 25ºC (77ºF) and then a freshening charge is requiered.	

MASTER BATTERY

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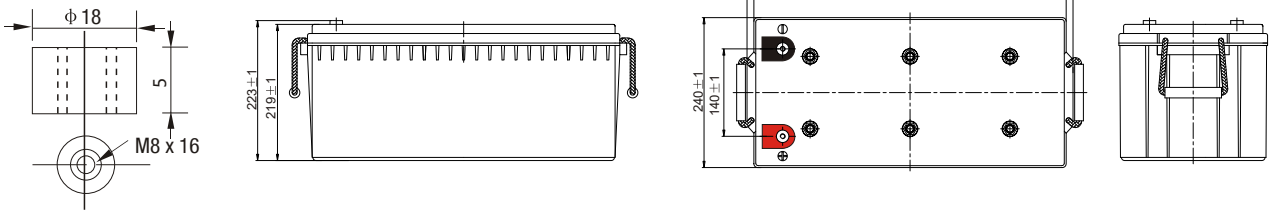
Battery Dimensions

Terminal M8

Unit: mm (inches)



Battery Discharge Tables

Constant Current Discharge (Amperes) at 25ºC (77ºF)											
F.V/Time	15min	30min	45min	1h	2h	3h	5h	6h	8h	10h	20h
1.80V/cell	281.4	180.2	137.4	110.2	66.2	49.2	34.4	30.0	24.0	20.0	10.60
1.75V/cell	300.0	187.0	142.6	114.2	68.8	50.8	35.2	30.6	24.4	20.2	10.70
1.70V/cell	320.2	195.6	149.2	119.0	70.6	52.0	35.8	31.2	24.8	20.4	10.84
1.67V/cell	341.0	201.4	154.8	123.8	72.6	53.4	36.6	31.8	25.2	20.6	11.00
1.60V/cell	361.0	212.6	161.0	127.6	75.0	55.2	37.2	32.4	25.4	21.0	11.10

Constant Power Discharge (Watts/cell) at 25ºC (77ºF)											
F.V/Time	15min	30min	45min	1h	2h	3h	5h	6h	8h	10h	20h
1.80V/cell	542.0	353.6	265.4	214.4	127.6	95.4	67.2	58.8	47.4	39.6	21.1
1.75V/cell	577.4	368.6	274.6	221.6	132.0	98.2	68.6	59.8	48.0	39.8	21.3
1.70V/cell	615.4	387.2	286.0	230.0	135.2	100.2	69.6	60.8	48.6	40.2	21.5
1.67V/cell	660.4	395.8	295.4	238.2	138.4	102.6	70.6	61.6	49.2	40.6	21.8
1.60V/cell	690.2	422.2	305.8	244.8	142.2	105.4	71.8	62.6	49.6	41.0	21.9

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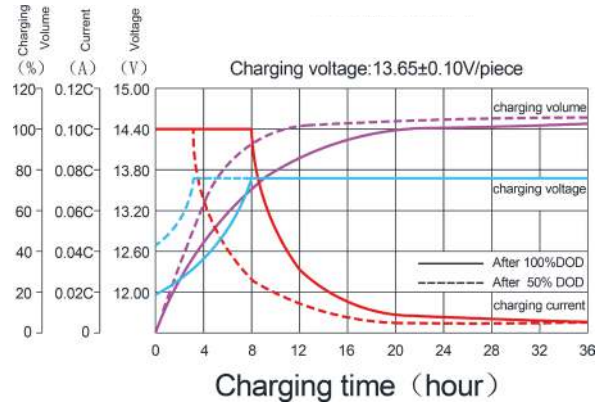
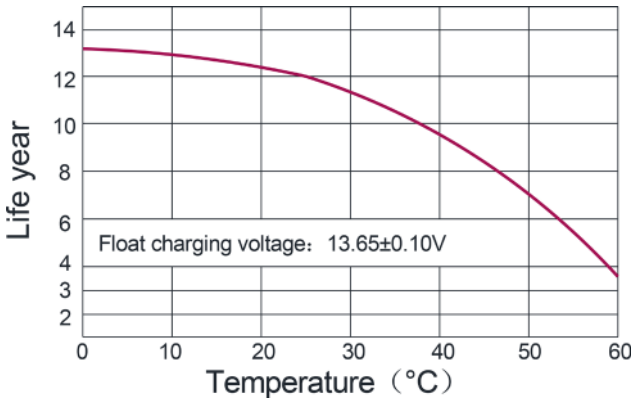
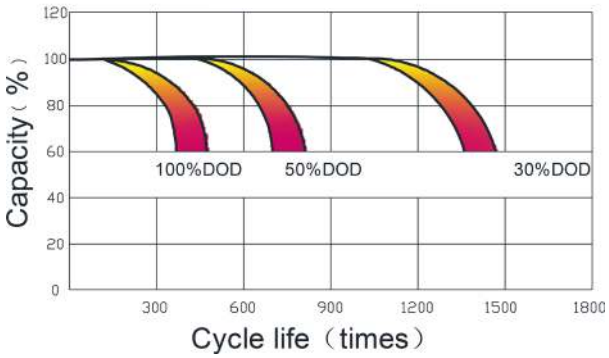
Charging Characteristics (@25ªC/77ªF)



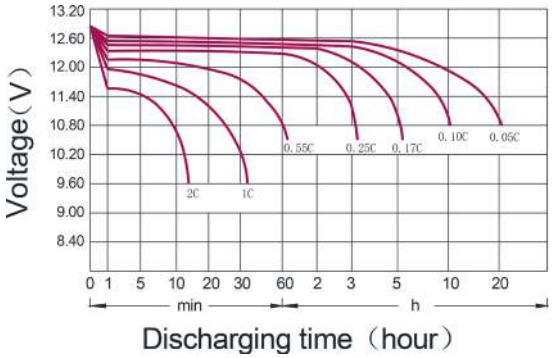
Temperature Effects on Design Service Life



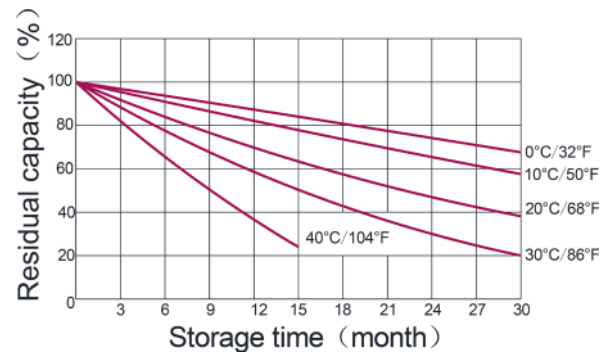
Cycle Life vs. Depth of Discharge (@25ªC/77ªF)



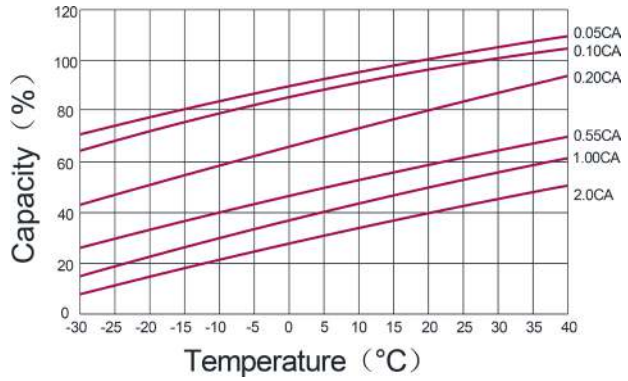
Discharge Characteristics (@25ªC/77ªF)



Temperature Effects on Battery Self-Discharge



Temperature Effects on Capacity



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