

The BPDG series uses the newly developed nano gel electrolyte with super-C additive plus heavy duty plates design inside. The BPDG series has a long service life and can provide optimum and reliable service under extreme condition such as high temperature and frequent power failure, This series is highly suited for tropical area in outdoor applications such as Telecom BTS stations and Off-grid PV system.

12V Voltage	100Ah Capacity	GEL Technology	Deep Cycle Gel
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GENERAL FEATURES

- Able to operate at 60°C
- Integrated design to ensure the best uniformity and reliability
- Long life and high stability under high temp. environment (no air-con needed)
- Use super-C additives: Deep discharge recovery capability

APPLICATIONS

- BTS Stations
- Solar & Wind energy system
- UPS system
- Telecom systems
- Wheel chair, Golf Car
- Marine Svstem

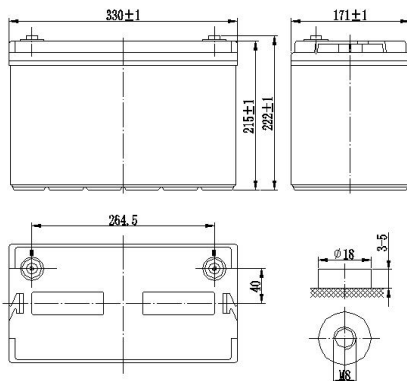


COMPLIED

IEC 60896-21/22 JIS C8704
 YD/T1360 BS6290 part4
 GB/T 19638 UL 1989

DIMENSIONS & WEIGHT

Length(mm)	307 ± 1
Width(mm)	169 ± 1
Height(mm)	211 ± 1
Total Heigth(mm)	215 ± 1
Weight(kg)	30.5 ± 3%



TECHNICAL SPECIFICATIONS

Nominal Voltage		12V(6 cells per unit)
Design Floating Life @25°C		12~15 Years
Nominal Capacity @25°C (20 hour rate@5.5A,10.8V)		100Ah
Capacity @25°C	10hour rate (9.1A,10.8V)	91.0Ah
	5 hour rate (15.90A,10.5V)	79.50Ah
	1 hour rate (55.6A,9.6V)	55.6Ah
Internal Resistance	Full Charged Battery@25°C	Approx. 6.5mΩ
Ambient Temperature	Discharge	-25°C~60°C
	Charge	-25°C~60°C
	Storage	-25°C~45°C
Max Discharge Current@25° C		1000A(5S)
Capacity affected by Temperature (10 hour)	40°C	102%
	25°C	100%
	0°C	90%
	-15°C	70%
Self-Discharge@25°C per Month		3%
Charge (Constant Voltage) @25°C	Standby Use	13.6-13.8V(-20mV/°C)
	Cycle Use	14.4-14.7V(-30mV/°C), max. Current: 22.50A

BATTERY DISCHARGE TABEL

Discharge Constant Current per Cell (Amperes at 25°C)

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	128.7	82.2	60.4	55.6	35.3	24.8	16.8	11.1	9.90	5.30	1.20
1.67V	126.4	80.7	59.3	54.5	34.6	24.3	16.5	10.9	9.70	5.20	1.18
1.70V	124.0	79.2	58.2	53.5	34.0	23.9	16.2	10.7	9.50	5.10	1.15
1.75V	121.7	77.7	57.1	52.5	33.3	23.4	15.9	10.5	9.40	5.00	1.13
1.80V	117.0	74.7	54.9	50.5	32.0	22.5	15.3	10.1	9.10	4.95	1.11

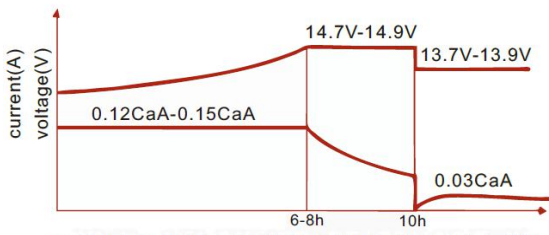
Discharge Constant Power per Cell (Watts at 25°C)

F.V/Time	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h	100h
1.60V	247.7	158.2	116.3	106.7	67.8	47.6	32.4	21.3	19.1	10.3	2.31
1.67V	243.2	155.3	114.1	104.8	66.6	46.8	31.8	21.0	18.7	10.1	2.26
1.70V	238.7	152.4	112.0	102.8	65.4	45.9	31.2	20.6	18.4	10.1	2.22
1.75V	234.2	149.5	109.9	100.9	64.1	45.0	30.6	20.2	18.0	9.9	2.18
1.80V	225.2	143.8	105.7	97.0	61.7	43.3	29.5	19.4	17.3	9.6	2.14

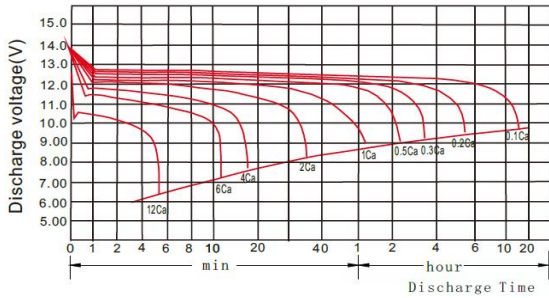
Note The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice.

PERFORMANCE CHARACTERISTICS

When battery for Motive power

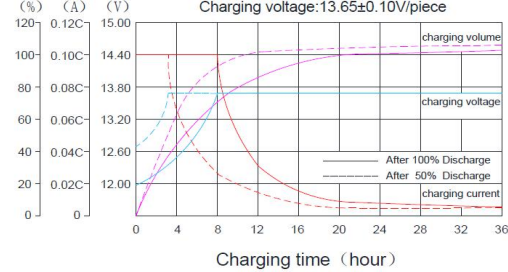


step 1: Constant current charging with 0.12-0.15CaA until voltage rise to 14.8V
 step 1: Constant voltage charging with 14.8V±0.1V until current fall to 0.03CaA
 step 1: Trickle charging limiting voltage in 13.8V

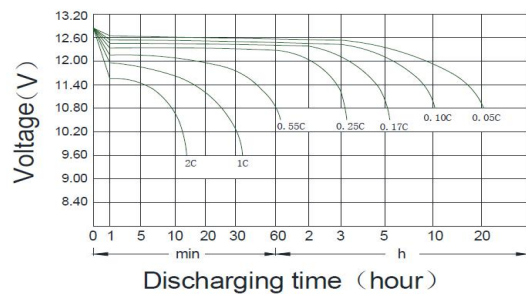


When battery for Storage power

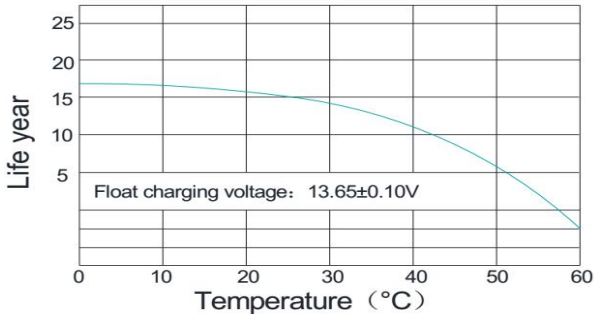
Charging characteristics @25°C/77°F



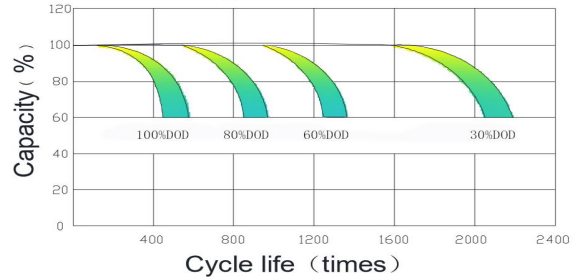
Discharge characteristics (@25°C/77°F)



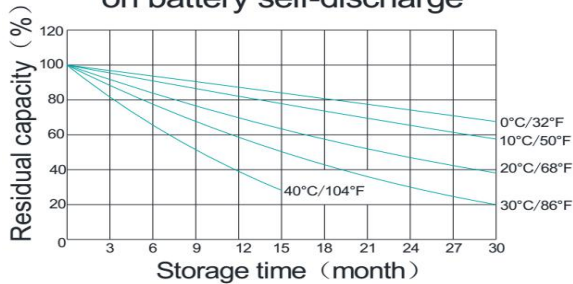
Temperature effect on Design Service life



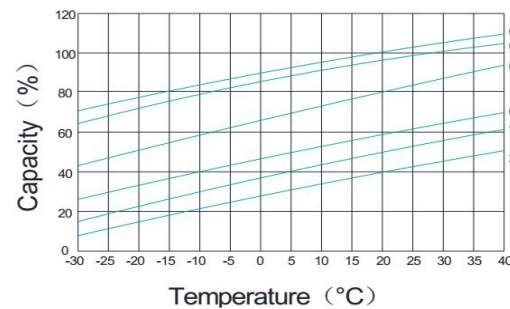
Cycle life vs. Depth of discharge @25°C/77°F



Temperature effect on battery self-discharge



Temperature effect on capacity



BATTERY CONSTRUCTION

Component	Positive plate	Negative plate	Container & Cover	Safety valve	Terminal	Separator	Electrolyte	Pillar seal
Features	Thick high Sn low Ca grid with special paste	Balanced Pb-Ca grid for improved recombination efficiency	ABS (UL94-V0 optional)	Flame Si-Rubber and aging resistancer	Female Copper Insert M8(torque:10 ~12N.m)	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid with fumed Silica Gel	Two layers epoxy resin seal