

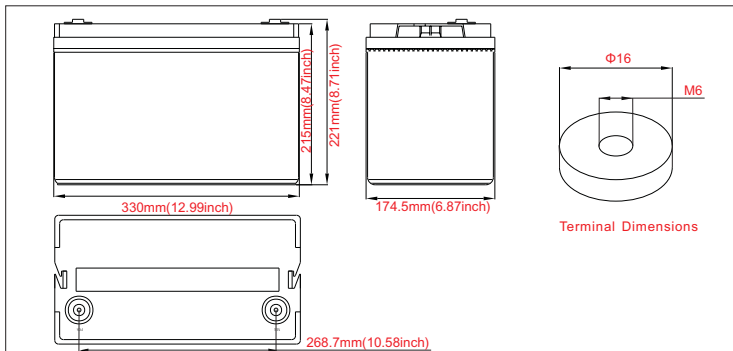
Model: GPG12V100A

GPG SERIES

General Features

GPG series VRLA Gel batteries is designed for a wide range of applications in UPS, Cable Television, Emergency Power System etc. With patent polymer gel technology, the GPG range batteries ensures reliability in performance. The design float life is 10 years.

Dimensions



General Characteristics

Nominal Voltage	12V
Rated Capacity	100Ah - 10A for 10h to 1.80V/cell @25°C(77°F)
Weight	32.5kg
Internal Resistance	Approx 4.2mΩ
Operating Temperature Range	Discharge: -40°C~50°C(-40°F~122°F)
	Charge: -20°C~50°C(-4°F~122°F)
	Storage: -20°C~40°C(-4°F~104°F)
Recommended temperature	15°C~25°C(59°F~77°F)
Float Voltage	13.6V-13.8V/block@25°C(77°F)
Recommended Maximum Charging Current	25A
Equalize and Cycle Service	14.4V-14.7V/block@25°C(77°F)
Self Discharge	The residual capacity is above 90% after 90 days storage(25°C/77°F)
Terminal	M6 Female
Container Material	ABS

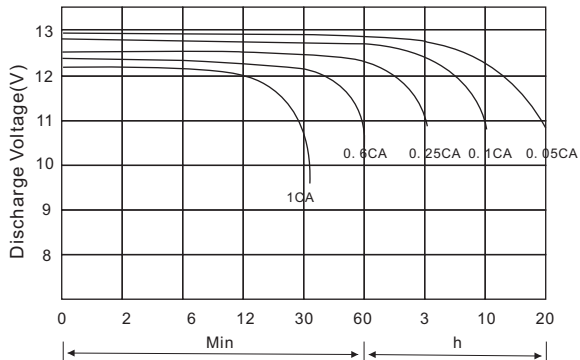
Constant Current Discharge Characteristics Units: Amperes (25°C, 77°F)

End voltage per cell	5min	10min	15min	30min	1hr	2hr	3hr	5hr	6hr	8hr	10hr	12h	20hr	24hr
1.60V	343.0	235.2	171.5	102.9	64.9	41.7	26.7	18.7	16.3	12.7	10.4	8.69	5.22	4.41
1.67V	308.7	214.4	166.6	100.5	64.7	41.3	26.7	18.5	16.1	12.6	10.3	8.62	5.21	4.41
1.70V	292.8	207.0	161.7	98.0	64.4	40.3	26.7	18.5	16.0	12.6	10.2	8.61	5.21	4.39
1.75V	260.9	191.1	151.9	96.0	63.7	39.8	26.5	18.4	16.0	12.5	10.1	8.53	5.15	4.33
1.80V	235.2	177.6	145.8	93.1	62.8	39.2	26.3	18.3	15.8	12.2	10.0	8.37	4.99	4.18
1.85V	178.9	145.8	125.0	85.8	62.5	39.7	26.2	18.1	15.8	12.0	9.70	8.23	4.86	4.06
1.90V	136.0	115.8	106.2	75.5	60.3	38.7	25.7	17.8	15.5	11.7	9.55	8.06	4.65	3.90

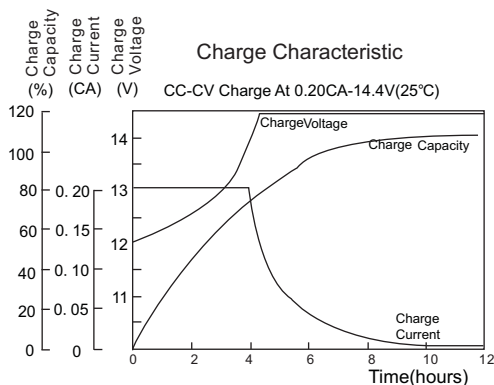
Discharge Data with Constant Power Units: Watts per cell (25°C, 77°F)

End voltage per cell	5min	10min	15min	30min	1hr	2hr	3hr	5hr	6hr	8hr	10hr	12h	20hr	24hr
1.60V	571.7	393.5	306.9	196.8	128.7	72.9	52.6	36.3	31.3	25.5	21.0	17.7	10.5	8.75
1.67V	542.0	389.8	304.4	193.1	125.0	72.3	52.3	36.1	31.2	25.0	20.8	17.6	10.4	8.74
1.70V	506.1	379.9	299.5	186.9	121.3	70.7	51.9	36.1	30.8	24.8	20.7	17.4	10.4	8.74
1.75V	470.3	353.9	280.9	181.9	120.0	69.9	51.1	35.8	30.7	24.1	20.2	17.1	10.4	8.70
1.80V	426.9	329.2	264.8	178.2	117.7	68.4	50.4	35.1	30.4	23.8	19.8	16.7	10.0	8.40
1.85V	339.1	273.5	231.4	162.1	116.8	66.2	50.2	34.7	29.9	24.1	19.6	16.5	9.76	8.17
1.90V	272.3	235.1	210.4	151.0	109.3	62.9	47.8	33.3	28.8	23.0	18.8	16.0	9.28	7.76

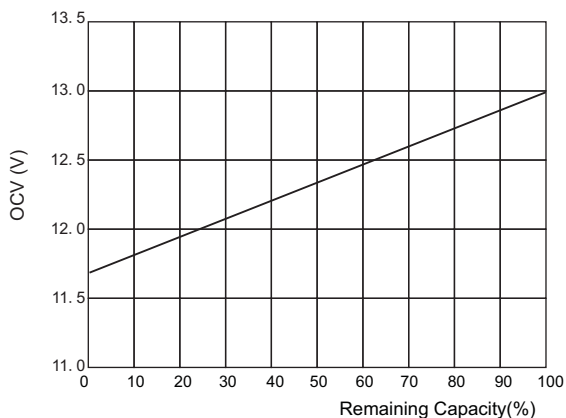
Terminal Voltage(V) vs. Discharge Time (25°C, 77°F)



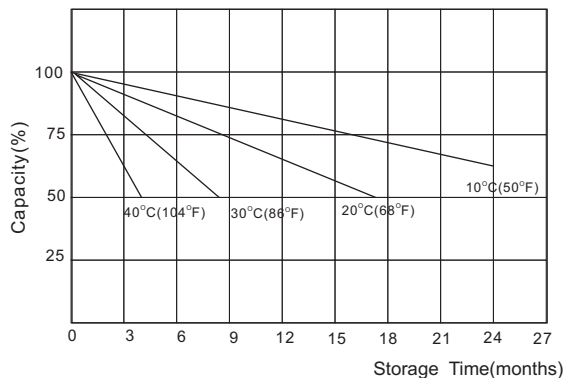
Battery Voltage vs Charge Time



Relationship of OCV vs. State of Charge



Capacity Retention Characteristic



Charging Procedures

Application	Charge Voltage			Max. Charge Current
	Temp.	Set Range (V/block)	Temperature Compensation Coefficient (mV/°C/cell)	
Cycle	25°C	14.4 - 14.7	-5	0.25C
Standby	25°C	13.6 - 13.8	-3	

Discharge Current vs. Discharge Voltage

Final Discharge Voltage V/Cell	1.85	1.80	1.70	1.60
Discharge Current (A)	0.02C ≥ (A)	0.02C < (A) < 0.2C	0.2C < (A) < 0.5C	0.5C < (A) < 1.0C

NARADA POWER SOURCE CO.,LTD.
 No.459 Wensan Road, Hangzhou, Zhejiang, P.R.China
 Tel:+86-571-28827013 Fax:+86-571-85126942
 Website:www.naradabattery.com E-mail:intl@narada.biz

NARADA ASIA PACIFIC PTE.LTD.
 65 Ubi Crescent #07-05 HOLA centre, Singapore
 Tel: +65-6848 1191 Fax: +65-6749 3498
 E-mail: sales@narada.com.sg

NARADA EUROPE (UK) LIMITED
 Spectrum House, Dunstable Road, Redbourn,
 St. Albans, Herts AL3 7PR
 Tel: +44 (0)845 371 7095 Fax:+44 (0)845 612 2031
 E-mail: sales@naradaeurope.com

