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Lead-Acid Battery
阀控式密封铅酸蓄电池



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For Special
Applications
特别应用电池系列

Products Guide

深圳市雄韬电源科技有限公司
Shenzhen Center Power Tech. Co., Ltd

One of the largest Sealed Lead Acid Battery manufacturers in the world



Center Power Industrial Park, Tongfu Industrial District, Dapeng Town, PC. 518120, Shenzhen, China
Tel: +86-755-8431 8088 Fax: +86-755-8431 8700
E-mail: sales@vision-batt.com Website: www.vision-batt.com

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Deep Cycle Battery

VISION 深循环电池系列



Introduction 产品介绍

VISION deep cycle series batteries are designed to have a large amount of stored current discharged between charging sessions, with very heavy non-porous battery plates to withstand repeated major discharging and charging cycle(deep cycle). The VISION Deep Cycle batteries use the unique plates active paste material, and more excellent electrolyte than normal batteries, which allows a much longer life in deep cycle applications.

VISION深循环系列电池，专为深度放电设计，采用无孔极板适合多次的充放电循环。

VISION深循环系列电池采用独特的极板活性物质和比普通电池更优良的电解液，从而在深循环应用中体现更长的使用寿命。

General Features 一般特性

- Superior Deep Cycle Design
- High Power Density
- Thick Plates and High-density Active Material
- Longer Life in Deep Cycle Applications
- Excellent Recovery from Deep Discharge
- 出众的深循环设计
- 高能量密度
- 厚极板和高密度的活性物质
- 深循环应用中有更长的寿命
- 优秀的深度放电恢复性能

What does deep cycle mean?

Deep-cycle batteries typically feature thick plates and high-density active material. The thick battery plates allows more energy storing within the battery plates and releasing during slow discharge. The high-density active material remains within the batteries' plate/grid structure longer, resisting the normal degradation found in cycling conditions. They are typically used where the battery is discharged to great extent and then recharged.

Deep Cycle refers to applications that typically discharge 60 to 70% or more of the battery capacity. An automotive battery is an SLI battery (Starting, Lighting & Ignition.) Its plates are designed to deliver maximum power for a short duration. Starting an engine typically discharges an SLI battery 3% or less. When an SLI battery is used in a deep-cycle application or in a vehicle with heavy accessory loads, the battery life will be shortened proportionally to how deeply and frequently it is discharged.

Main Application

- Solar, Wind powered systems
- Electric Power Vehicles
- Golf Cars and Buggies
- Wheel Chairs
- Power tools



什么叫深循环电池？

深循环电池拥有更厚的极板和更高密度的活性物质，厚极板适用于更大的能量储备和能量释放，高密度的活性物质能够更久的存在于电池的板栅及极板中，提高了深循环条件下的抗腐蚀能力，应用于需要深度充放电的领域。

深循环是指放电深度达到容量的60-70%甚至更多，汽车用电池称之为SLI(启动、照明和点火)电池，它的极板设计能够在短时间内放出大量的能量。启动发动机通常只要SLI电池放电3%甚至更少，当SLI电池在深循环使用或用在电动车时，电池的使用寿命会随着放电深度的增大和放电频率增加而相应地减少。

VISION深循环电池采用独特的极板活性物质配方，更优良的电解液，能在深循环使用中有更长的使用寿命，在大功率输出的情况下只有轻微的容量损失。

应用领域

- 太阳能，风能
- 电动车
- 高尔夫球车，童车
- 轮椅
- 动力设备

Using a deep cycle battery as starting battery



There is generally no problem while using a deep cycle battery as a starting battery, providing that allowance is made for the lower cranking amps compared to a similar size starting battery. As a general rule, if you are going to use a true deep cycle battery (such as the Concorde also as a starting battery), it should be oversized about 20% compared to the existing or recommended starting battery group size to get the same cranking amps.

With modern engines with fuel injection and electronic ignition, it generally takes much less battery power to crank and start them, so raw cranking amps is less important than it used to be. On the other hand, many cars, boats, and RV's are more heavily loaded with power sucking "appliances", such as megawatt stereo systems etc. that are more suited for deep cycle

使用深循环电池作为启动电池

深循环电池作为启动电池，与相同型号的启动电池相比，有更小的启动电流，如果你打算使用深循环电池作为启动电池，应该选择比现有普通启动电池高20%的深循环电池，以求得到相同的启动电流。现代发动机采用燃料注射和电打火，需要的启动电流更小，所以启动电流不像过去那么重要了。

另一方面，许多的汽车，游艇，娱乐车等载有更大负载的装置（如兆瓦特立体声系统），更适合使用深循环电池。



Product Standards

Compliant with international standards JIS C8702, BS 6290/4 and IEC 896/2. Classified as long life according to the Eurobat Guide/HF, able to be shipped as non-hazardous cargo. SHENZHEN CENTER POWER production facilities are certificated to ISO9001/ISO14001

生产标准

符合JIS C8702, BS 6290/4 and IEC 896/2等国际标准。根据欧洲标准，可定义为长寿命电池，可安全运输，深圳雄韬生产厂区通过了ISO9001/ISO14001验证。

General Specifications

深循环系列电池规格表

型号 Type	额定电压 Nominal Voltage (V)	额定容量 10hr Capacity (Ah)	外形尺寸 (公制) Dimension(mm/Kg[(±5%)])					外形尺寸 (英制) Dimension(Inch/Pound[(±5%)])					端子类型 Terminal
			长 Length	宽 width	高 Height	总高 Total Heigh	重量 Weight	长 Length	宽 Width	高 Height	总高 Total Heigh	重量 Weight	
CP6100D	6	9	151	50	94	100	1.67	5.94	1.97	3.7	3.94	3.67	F1/F2
CP12120D	12	11.8	151	98	95	101	4.4	5.94	3.86	3.74	3.98	9.7	F2
CP12180D	12	17.1	181	77	167	167	5.9	7.13	3.03	6.57	6.57	13	F3/F4
CP12240D	12	23	166	175	125	125	8.6	6.54	6.89	4.92	4.92	19	F3/F4
6FM33D	12	31.4	195	130	155	180	10.2	7.68	5.12	6.1	7.09	22.5	M6
6FM40D	12	38.8	197	165	170	170	13.5	7.76	6.5	6.69	6.69	29.8	M6
6FM45D	12	41.8	197	165	170	170	13.8	7.76	6.5	6.69	6.69	30.4	M6
6FM55D	12	51.7	239	132	205	235	18	9.41	5.2	8.07	9.25	39.7	M6
6FM60D	12	58.7	258	166	206	235	24	10.16	6.54	8.11	9.25	52.9	M6
6FM65D	12	60.7	350	167	179	183	23.4	13.78	6.57	7.05	7.2	51.48	M6
6FM75D	12	74.1	258	166	206	235	24	10.16	6.54	8.11	9.25	52.9	M6
6FM80D	12	75.6	350	167	179	183	24	13.78	6.57	7.05	7.2	52.9	M8
6FM90D	12	88.6	306	169	208	231	30	12.05	6.65	8.19	9.09	66.1	M8
6FM100D	12	95.5	330	171	214	220	32	12.99	6.73	8.43	8.66	70.5	M8
6FM100RD	12	95.5	337	172	220	228	33	13.27	6.77	8.66	8.98	72.8	M8
6FM120D	12	113	410	176	227	227	38	16.14	6.93	8.94	8.94	83.8	M8
6FM134RD	12	131	342	172	273	277	42.5	13.46	6.77	10.75	10.91	93.7	M8
6FM150D	12	143	485	172	240	240	47	19.09	6.77	9.45	9.45	103.6	M8
6FM200D	12	187	522	238	218	240	65	20.55	9.37	8.58	9.45	143.3	M8
CT12-80XD	12	80	564	115	189	189	28.2	22.2	4.53	7.44	7.44	62.2	M8
CT12-100XD	12	100	508	110	223	238	32	20	4.33	8.78	9.37	70.5	M8

For more models and product informations, please visit our website www.vision-batt.com
更多产品型号和相关的产品详细信息, 请登陆我们网站

Performance Data 恒电流放电数据

Constant current discharge ratings-Amperes at 25? (77?)

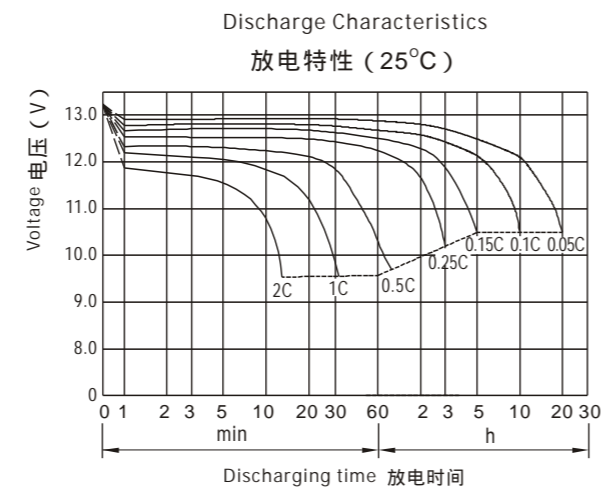
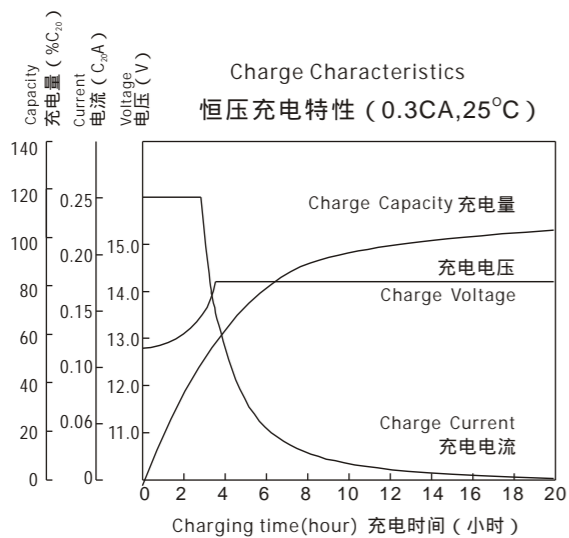
恒电流放电 (安培)

Voltage	Battery Type	5min	10min	15min	30min	1h	3h	5h	10h	20h
		1.60V	CP6100D	35.4	23.5	19.1	10.3	6.40	2.65	1.85
	CP12180D	73.5	50.2	38.8	22.0	13.2	5.31	3.57	1.81	0.93
	CP12240D	88.4	59.5	44.6	26.8	15.2	6.47	4.34	2.42	1.23
1.65V	CP6100D	33.4	22.3	18.2	10.0	6.18	2.56	1.80	0.94	0.50
	CP12180D	71.8	48.9	37.9	21.6	12.9	5.22	3.50	1.78	0.92
	CP12240D	83.8	56.6	42.7	25.7	14.6	6.26	4.23	2.38	1.22
1.70V	CP6100D	31.4	21.1	17.3	9.62	5.94	2.47	1.75	0.92	0.50
	CP12180D	70.1	47.7	37.0	21.3	12.7	5.14	3.44	1.75	0.91
	CP12240D	78.9	53.7	40.6	24.6	14.0	6.00	4.11	2.34	1.21
1.75V	CP6100D	29.5	20.0	16.5	9.18	5.68	2.38	1.70	0.90	0.50
	CP12180D	68.3	46.4	36.2	20.9	12.5	5.06	3.37	1.71	0.90
	CP12240D	74.1	50.6	39.2	23.4	13.4	5.86	3.90	2.30	1.20
1.80V	CP6100D	27.6	18.8	15.5	8.59	5.40	2.27	1.66	0.88	0.49
	CP12180D	66.5	45.2	35.3	20.6	12.3	4.98	3.28	1.67	0.85
	CP12240D	69.10	47.70	36.4	22.20	12.8	5.54	3.83	2.27	1.18

Constant current discharge ratings-Amperes at 20? (68?)

恒电流放电 (安培)

Voltage	Battery Type	10min	15min	30min	45min	1h	3h	5h	10h
		1.60V	CT12-85XD	182	148	82.8	64.1	53.4	23.6
	CT12-105XD	224	189	109	76.1	62.9	26.9	19.3	10.7
1.65V	CT12-85XD	172	145	81.8	60.8	50.7	23.1	14.5	8.54
	CT12-105XD	211	176	105	73.8	61.0	26.5	19.0	10.6
1.70V	CT12-85XD	163	139	80.1	57.1	47.6	21.6	14.3	8.53
	CT12-105XD	196	162	103	71.4	59.0	26.1	18.7	10.6
1.75V	CT12-85XD	155	130	78.6	55.0	45.8	22.1	13.9	8.51
	CT12-105XD	181	153	100	70.2	58.0	24.9	18.4	10.5
1.80V	CT12-85XD	148	115	75.8	52.8	44.0	21.5	13.5	8.50
	CT12-105XD	165	143	96	67.4	55.7	23.8	18.1	10.5



充电方法: 25°C恒压充电
浮充使用: 电流不受限制, 充电电压: 13.6-13.8V.
循环使用: 最大充电电流: 0.3C₂₀A 充电电压: 14.4-14.7.
充电电压应根据环境温度进行补偿 [25°C(-), 25°C(+)] :
浮充使用时补偿: ±0.2mV/°C; 循环使用时补偿为: ±0.3mV/°C.

Charging Methods: Constant voltage Charging at 25°C
Standby use: No current limit is required.
Charging voltage: 13.6-13.8V.
Cycle use: Maximum charging current: 0.3C₂₀A.
Charging current: 14.4-14.7
Temperature compensation [>25°C(-), <25°C(+)] :
Standby use: ±20mV/°C Cycle use: ±30mV/°C.

注: 以上图表以 12V 电池作为示例说明
Notes: Figures above for 12V Models

Constant current discharge ratings-Ampere at 25? (77?) to 1.60V						恒电流放电 (安培)		
Battery Type	5min	10min	15min	30min	45min	1h	3h	5h
3FM225SD				229	172	140	59.4	39.6
3FM225D	571	462	379	232	180	151	61.4	41.8
6FM17D	60.3	41.7	33.3	19.0	14.1	11.6	4.72	3.15
6FM24D	85.5	58.9	44.9	27.1	19.4	15.5	6.61	4.50
6FM33D	109	77.0	59.7	36.1	26.4	22.0	8.99	6.27
6FM40D	125	89.4	71.2	41.0	30.7	25.5	10.6	7.32
6FM45D	142	96.0	75.5	44.6	34.3	27.6	11.7	7.76
6FM55D	167	124	96.5	57.8	42.3	34.6	14.5	9.77
6FM55SGD	167	124	96.5	57.8	42.3	34.6	14.5	9.77
6FM60D	192	143	112	65.4	49.3	40.4	16.5	11.3
6FM65D	205	154	121	68.8	52.0	43.5	17.5	12.0
6FM75D	228	171	133	79.8	60.5	49.5	21.6	14.2
6FM80D	212	163	130	76.7	58.4	47.6	20.2	13.4
6FM90TD	274	210	168	97.6	73.2	61.1	26.7	17.1
6FM100D	298	220	180	105	78.9	65.2	27.6	18.9
6FM120D	327	240	190	117	86.0	70.5	31.7	20.9
6FM134D	394	301	241	143	105	85.2	37.8	25.5
6FM150D	434	346	280	165	121	100	44.1	28.7
6FM200D	537	423	350	215	156	126	57.0	38.0
6FM230D	523	395	232	180	150	68.5	45.2	23.9

Constant current discharge ratings-Ampere at 25? (77?) to 1.70V						恒电流放电 (安培)		
Battery Type	5min	10min	15min	30min	45min	1h	3h	5h
3FM225SD				211	159	129	55.7	37.8
3FM225D	488	413	348	224	173	137	60.4	40.6
6FM17D	56.7	39.7	31.3	18.1	13.4	11.3	4.34	3.04
6FM24D	72.5	53.2	40.9	24.9	18.3	14.4	6.17	4.27
6FM33D	94.1	70.1	52.9	32.4	24.7	20.9	8.37	6.12
6FM40D	113	80.5	64.8	38.0	29.9	24.8	10.1	7.07
6FM45D	127	86.4	70.8	42.8	31.3	26.8	11.2	7.48
6FM55D	148	111	88.0	54.2	39.9	32.8	13.8	9.35
6FM55SGD	148	111	88.0	54.2	39.9	32.8	13.8	9.35
6FM60D	171	128	102	61.5	46.7	38.6	16.1	10.8
6FM65D	182	138	111	64.7	49.1	40.9	16.7	11.4
6FM75D	196	152	118	75.1	53.9	46.2	20.8	13.8
6FM80D	187	145	115	70.5	53.8	44.2	20.0	13.2
6FM90TD	240	179	149	87.8	66.6	55.2	24.8	16.6
6FM100D	257	192	159	93.6	71.5	60.6	26.9	17.9
6FM120D	289	214	182	109	82.2	68.7	30.7	20.6
6FM134D	354	269	224	139	100	80.9	36.4	24.2
6FM150D	383	301	251	156	116	94.9	43.4	27.5
6FM200D	459	385	327	201	146	118	54.5	36.4
6FM230D	475	373	230	174	145	67.8	44.6	23.6

Constant current discharge ratings-Ampere at 25? (77?) to 1.65V						恒电流放电 (安培)		
Battery Type	5min	10min	15min	30min	45min	1h	3h	5h
3FM225SD				220	166	135	57.6	38.7
3FM225D	520	434	356	221	175	145	60.5	41.3
6FM17D	58.4	40.7	31.8	18.6	13.8	11.4	4.51	3.10
6FM24D	75.4	56.0	44.1	26.7	18.6	14.9	6.51	4.40
6FM33D	101	74.2	57.6	35.4	26.4	21.6	8.88	6.22
6FM40D	118	85.0	66.9	39.7	30.0	25.2	10.3	7.20
6FM45D	129	91.2	72.1	44.4	33.7	27.2	11.5	7.62
6FM55D	157	119	92.6	56.0	41.1	33.7	14.1	9.52
6FM55SGD	157	119	92.6	56.0	41.1	33.7	14.1	9.52
6FM60D	179	138	107	63.4	47.9	38.8	16.1	11.0
6FM65D	193	145	113	66.3	51.8	41.3	16.9	11.6
6FM75D	211	162	127	76.3	55.3	46.8	21.2	14.0
6FM80D	200	154	120	72.9	54.9	45.8	20.0	13.2
6FM90TD	256	200	157	92.7	70.1	55.8	25.7	16.9
6FM100D	281	212	173	101	77.1	61.6	27.4	18.2
6FM120D	313	236	189	113	84.4	70.0	31.2	20.9
6FM134D	363	280	230	141	103	83.0	37.0	24.9
6FM150D	403	314	259	158	118	97.5	43.8	28.1
6FM200D	489	403	340	207	150	122	55.0	37.0
6FM230D	506	384	231	176	147	68.2	49.8	23.8

Constant current discharge ratings-Ampere at 25? (77?) to 1.75V						恒电流放电 (安培)		
Battery Type	5min	10min	15min	30min	45min	1h	3h	5h
3FM225SD				200	152	123	53.8	36.8
3FM225D	476	394	335	214	162	139	59.5	39.8
6FM17D	54.1	38.5	29.9	17.8	13.2	10.5	4.27	2.98
6FM24D	67.1	50.1	38.4	23.7	18.0	14.1	5.93	4.13
6FM33D	83.4	66.2	50.4	32.0	24.0	20.0	8.17	5.55
6FM40D	105	76.1	63.0	37.1	28.7	24.5	9.85	6.97
6FM45D	112	81.6	66.9	38.9	30.6	26.5	11.0	7.34
6FM55D	138	102	83.3	52.5	38.8	32.0	13.5	9.18
6FM55SGD	138	102	83.3	52.5	38.8	32.0	13.5	9.18
6FM60D	159	118	96.5	59.4	45.3	38.3	15.8	10.6
6FM65D	170	127	105	64.6	48.8	40.3	16.5	11.2
6FM75D	185	145	114	71.8	52.6	44.6	20.4	13.4
6FM80D	175	138	110	68.1	50.6	41.8	19.4	12.9
6FM90TD	217	168	138	85.2	64.2	53.8	24.0	16.1
6FM100D	230	180	148	90.7	69.9	59.6	26.6	17.4
6FM120D	264	202	174	105	79.4	66.5	30.2	19.9
6FM134D	334	247	208	136	97.8	79.0	35.7	23.5
6FM150D	361	277	233	152	112	92.0	43.0	26.9
6FM200D	439	367	310	195	142	115	52.9	35.8
6FM230D	442	362	226	172	144	66.8	44.3	23.1

Constant current discharge ratings-Amperes at 25? (77?) to 1.80V							恒电流放电 (安培)		
Battery Type	5min	10min	15min	30min	45min	1h	3h	5h	
3FM225SD				189	145	117	51.6	35.7	
3FM225D	463	365	290	194	154	124	54.2	38.9	
6FM17D	51.7	37.5	29.0	17.1	13.0	10.2	4.19	2.90	
6FM24D	62.8	47.2	36.6	22.4	16.2	13.1	5.66	3.98	
6FM33D	75.5	57.6	48.0	31.1	23.3	19.5	8.10	5.47	
6FM40D	96.2	69.1	57.0	35.4	28.3	23.4	9.62	6.77	
6FM45D	108	76.8	64.0	38.0	29.9	26.1	10.8	7.26	
6FM55D	128	96.0	77.2	50.6	37.6	31.2	13.2	9.01	
6FM55SGD	128	96.0	77.2	50.6	37.6	31.2	13.2	9.01	
6FM60D	148	108	89.3	57.3	44.0	36.1	15.0	10.4	
6FM65D	157	115	97.1	60.3	46.4	37.7	16.1	11.0	
6FM75D	171	133	109	71.3	52.2	42.8	19.6	13.2	
6FM80D	163	129	103	65.9	49.3	41.1	18.4	12.6	
6FM90TD	193	157	128	82.1	61.8	51.6	22.9	15.6	
6FM100D	210	168	139	88.7	68.6	56.5	25.1	17.1	
6FM120D	241	189	162	103	77.4	64.4	27.8	19.2	
6FM134D	301	226	191	131	94.8	76.8	34.9	22.9	
6FM150D	324	254	216	146	108	89.2	41.0	26.4	
6FM200D	408	318	261	182	137	112	50.5	35.2	
6FM230D	413	350	223	170	142	66.5	44.0	23.0	

Constant power discharge ratings-Watts at 20? (68?)							恒功率放电 (瓦特)			
1.60V per cell 每单格	Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	
	CT12-85XD	310	258	156	117	97.8	58.4	44.8	28.2	
CT12-105XD	355	291	195	146	123	71.3	54.7	36.7		
1.65V per cell 每单格	Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	
CT12-85XD	291	246	152	112	94.3	56.9	44.0	28.0		
CT12-105XD	331	277	189	143	121	70.5	54.1	36.1		
1.70V per cell 每单格	Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	
CT12-85XD	276	234	150	106	90.0	55.0	43.0	27.7		
CT12-105XD	318	264	185	140	119	69.4	53.3	35.7		
1.75V per cell 每单格	Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	
CT12-85XD	263	216	148	104	87.4	54.3	42.2	27.2		
CT12-105XD	299	244	182	137	116	67.5	51.6	35.5		
1.80V per cell 每单格	Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	
CT12-85XD	248	192	145	101	85.2	53	42.0	26.8		
CT12-105XD	279	217	180	134	114	66.0	50.3	35.3		

Performance Data 恒功率放电数据

Constant power discharge ratings-Watts at 25? (77?) 恒功率放电 (瓦特)

1.60V per cell 每单格	Battery Type	5min	10min	15min	30min	1h	3h	5h	10h	20h
	CP6100D	66.0	46.6	38.2	22.9	17.0	13.3	7.46	5.22	3.68
CP12180D	149	103	82.3	45.0	34.6	26.8	15.0	10.4	7.12	
CP12240D	172	114	83.7	51.7	38	30.1	18.8	12.9	8.29	
1.65V per cell 每单格	Battery Type	5min	10min	15min	30min	1h	3h	5h	10h	20h
CP6100D	61.8	43.7	35.9	21.7	16.3	12.7	7.28	5.09	3.61	
CP12180D	144	101	80.9	44.4	34.2	26.6	14.8	10.3	7.04	
CP12240D	161	107	78.9	49.2	36.8	28.8	18.2	12.6	8.14	
1.70V per cell 每单格	Battery Type	5min	10min	15min	30min	1h	3h	5h	10h	20h
CP6100D	57.5	40.8	33.8	20.5	15.5	12.1	7.06	4.94	3.54	
CP12180D	139	99.2	79.5	43.7	33.8	26.3	14.7	10.2	6.95	
CP12240D	150	101	74.2	46.6	34.7	27.4	17.5	12.1	7.96	
1.75V per cell 每单格	Battery Type	5min	10min	15min	30min	1h	3h	5h	10h	20h
CP6100D	54.1	38.4	31.6	19.4	14.6	11.5	6.86	4.80	3.46	
CP12180D	134	97.3	78.1	43.1	33.3	26.1	14.5	10.1	6.86	
CP12240D	140	93.7	69.8	43.8	32.7	26	16.9	11.6	7.77	
1.80V per cell 每单格	Battery Type	5min	10min	15min	30min	1h	3h	5h	10h	20h
CP6100D	49.7	35.8	29.6	18.2	13.8	10.9	6.64	4.64	3.37	
CP12180D	130	95.8	76.7	42.5	32.9	25.8	14.3	10.0	6.85	
CP12240D	129	87.2	65.4	41.1	30.6	24.7	16.2	10.9	7.59	

Constant power discharge ratings-Watts at 25? (77?) to 1.60V per cell 每单格 恒功率放电 (瓦特)								
Battery Type	5min	10min	15min	30min	45min	1h	3h	5h
3FM225SD				420	319	256	153	109
3FM225D	950	800	677	454	341	275	160	122
6FM17D	120	76.9	60.8	36.4	28.2	22.7	12.4	8.92
6FM24D	167	111	84.2	52.3	38.4	30.7	17.6	13.1
6FM33D	204	144	114	70.6	52.7	40.3	23.0	17.2
6FM40D	239	170	137	90.6	68.6	54.8	30.8	22.8
6FM45D	250	180	143	96.1	73.1	58.3	32.8	24.3
6FM55D	303	220	177	108	83.6	67.9	38.6	28.8
6FM55SGD	303	220	177	108	83.6	67.9	38.6	28.8
6FM60D	333	249	194	119	92.3	76.5	43.9	32.7
6FM65D	363	271	216	129	96.1	79.6	45.5	34.2
6FM75D	392	301	239	154	118	94.3	53.4	39.8
6FM80D	371	280	225	145	109	87.4	37.8	25.0
6FM90TD	491	359	299	184	142	115	64.7	47.8
6FM100D	520	376	311	194	147	122	69.7	52.3
6FM120D	574	432	359	221	169	139	78.6	58.6
6FM134D	701	543	460	280	202	161	93.4	71.1
6FM150D	773	613	526	325	238	189	110	83.7
6FM200D	876	727	607	392	288	227	137	108
6FM230D	930	640	439	341	286	172	131	86.7

Constant power discharge ratings-Watts at 25? (77?) to 1.65V per cell 每单格 恒功率放电 (瓦时)

Battery Type	5min	10min	15min	30min	45min	1h	3h	5h
3FM225SD				405	308	248	149	106
3FM225D	899	761	631	418	315	261	154	118
6FM17D	114	75.6	60.4	35.9	27.9	22.5	12.3	8.83
6FM24D	156	105	79.6	49.7	36.7	29.4	17.0	12.8
6FM33D	197	139	107	67.6	52.1	39.9	22.8	17.1
6FM40D	222	157	124	80.9	62.5	50.4	28.7	21.5
6FM45D	234	167	136	84.7	66.3	54.0	30.4	22.6
6FM55D	286	216	172	106	82.4	66.3	37.7	28.2
6FM55SGD	286	216	172	106	82.4	66.3	37.7	28.2
6FM60D	321	238	184	113	90.8	74.7	43.0	32.5
6FM65D	342	257	200	124	94.6	77.8	44.5	33.5
6FM75D	383	288	234	149	116	92.2	52.1	38.8
6FM80D	360	268	218	138	108	86.7	36.5	24.5
6FM90TD	479	350	294	176	136	110	63.3	47.7
6FM100D	491	364	306	183	143	116	66.9	50.7
6FM120D	540	410	348	215	168	135	75.8	56.0
6FM134D	657	508	420	255	196	156	91.0	69.6
6FM150D	714	590	489	297	230	183	108	83.1
6FM200D	856	701	586	380	280	222	135	106
6FM230D	905	630	436	339	284	171	130	86.4

Constant power discharge ratings-Watts at 25? (77?) to 1.70V per cell 每单格 恒功率放电 (瓦时)

Battery Type	5min	10min	15min	30min	45min	1h	3h	5h
3FM225SD				390	298	241	144	103
3FM225D	849	720	611	403	309	255	148	112
6FM17D	106	74.3	58.9	35.3	27.6	22.3	12.1	8.72
6FM24D	145	98.4	75.0	47.1	34.8	28.0	16.2	12.3
6FM33D	176	131	104	62.9	50.2	39.3	22.3	16.6
6FM40D	205	149	120	78.3	59.3	49.6	27.9	20.7
6FM45D	220	159	131	81.7	64.0	53.2	30.0	22.3
6FM55D	268	205	164	104	80.7	64.8	36.9	27.6
6FM55SGD	268	205	164	104	80.7	64.8	36.9	27.6
6FM60D	302	225	182	111	88.9	73.0	42.1	31.8
6FM65D	321	242	191	115	92.6	76.1	44.0	33.4
6FM75D	356	278	230	141	109	88.5	50.9	38.5
6FM80D	334	259	215	133	103	83.2	35.9	24.2
6FM90TD	430	332	276	167	126	105	61.0	46.3
6FM100D	454	346	290	178	134	112	65.9	50.4
6FM120D	505	388	336	208	154	129	73.1	54.5
6FM134D	656	492	414	252	191	152	89.4	68.8
6FM150D	692	544	455	293	225	178	107	82.5
6FM200D	816	677	569	373	274	218	132	104
6FM230D	870	624	432	327	280	169	129	86.1

Constant power discharge ratings-Watts at 25? (77?) to 1.75V per cell 每单格 恒功率放电 (瓦时)

Battery Type	5min	10min	15min	30min	45min	1h	3h	5h
3FM225SD				373	285	232	139	100
3FM225D	797	678	590	386	302	250	145	111
6FM17D	104	73.0	58.0	34.9	27.3	22.0	12.0	8.65
6FM24D	127	91.7	70.3	44.3	32.9	26.7	15.5	11.8
6FM33D	162	127	99.9	61.1	48.1	38.5	21.5	15.8
6FM40D	189	142	117	75.8	58.1	48.8	27.4	20.4
6FM45D	201	150	123	79.8	62.8	52.3	29.6	22.1
6FM55D	249	192	157	102	78.9	63.3	36.1	27.0
6FM55SGD	249	192	157	102	78.9	63.3	36.1	27.0
6FM60D	282	212	178	109	87.0	71.3	41.2	31.1
6FM65D	300	228	187	113	90.6	74.3	42.6	32.1
6FM75D	338	263	216	139	109	85.2	49.7	37.9
6FM80D	315	248	203	131	101	81.8	35.4	24.0
6FM90TD	405	330	273	163	125	101	59.0	45.0
6FM100D	419	339	285	173	131	109	63.7	48.6
6FM120D	470	368	324	201	151	126	71.7	53.6
6FM134D	628	464	402	248	188	150	88.3	67.9
6FM150D	668	512	431	287	220	174	105	81.3
6FM200D	774	653	561	363	269	214	128	100
6FM230D	825	610	429	325	278	168	128	85.8

Constant power discharge ratings-Watts at 25? (77?) to 1.80V per cell 每单格 恒功率放电 (瓦时)

Battery Type	5min	10min	15min	30min	45min	1h	3h	5h
3FM225SD				355	272	221	133	95.0
3FM225D	774	644	555	380	296	238	141	109
6FM17D	99.9	71.7	56.5	34.3	26.9	21.8	11.9	8.57
6FM24D	117	85.3	65.7	41.5	31.0	25.2	14.7	11.2
6FM33D	147	111	95.0	59.5	47.8	37.7	20.7	15.1
6FM40D	177	135	113	73.2	56.9	47.9	26.9	20.0
6FM45D	193	147	122	78.0	61.7	51.5	29.2	21.8
6FM55D	236	179	150	101	76.9	63.1	35.5	26.4
6FM55SGD	236	179	150	101	76.9	63.1	35.5	26.4
6FM60D	264	197	169	106	86.2	70.0	40.3	30.4
6FM65D	280	212	178	111	89.4	73.9	42.0	31.4
6FM75D	324	251	206	138	104	82.9	49.0	37.6
6FM80D	299	238	190	128	98	78.5	34.6	23.6
6FM90TD	372	302	259	159	123	99.5	58.3	44.8
6FM100D	394	316	271	167	128	102	61.7	48.0
6FM120D	444	344	301	194	147	122	69.9	52.5
6FM134D	575	430	379	241	185	148	87.6	67.5
6FM150D	611	479	413	282	217	172	103	80.0
6FM200D	737	619	538	355	265	212	125	97.0
6FM230D	770	600	425	322	275	166	126	85.4

Gel Battery Series

VISION 胶体电池系列



Introduction 产品介绍

VISION Gel series battery is manufactured with special sheet separator and foamed silica.

The batteries use silica gel to immobilize the electrolyte inside the battery.

The proven silica gel technology improves battery cycle life and performance at cold ambient temperatures.

The deep discharge cycles is increased by 50% as compared with the AGM battery.

VISION胶体系列电池采用独特的隔板和二氧化硅凝胶制造

电池采用二氧化硅凝胶固定电解液于电池中

二氧化硅凝胶技术被证明能够延长电池的循环寿命，并且体现出良好的低温性能。

与普通的AGM电池相比，胶体电池能够提高50%的深循环放电次数。

General Features 一般特性：

- High Reliability and Quality
- Good deep discharge cycle capability
- Excellent Recovery from Deep Discharge
- Longer Service Life
- Living Up to Prevailing Standards

- 高度的可靠性和品质保证。
- 良好的深循环放电性能。
- 优秀的深放电恢复性能。
- 更长的使用寿命。
- 顺应流行的使用要求

Main Application 应用领域

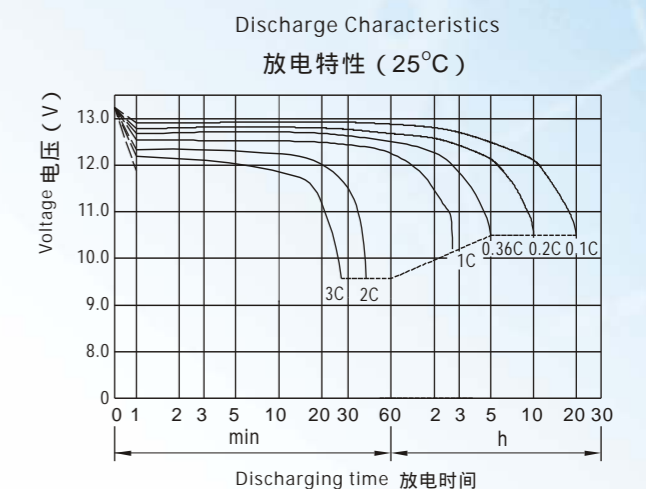
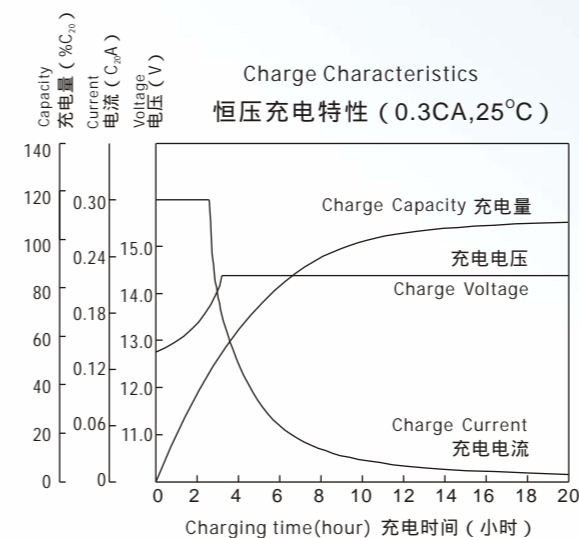
- Solar, wind powered systems
- Golf cart, Electric vehicle
- Fire & security systems, Uninterruptible power supplies
- Golf cart, Electric vehicle
- Electric powered bicycle and wheelchairs
- Marine equipment
- Communication equipment
- Power tools
- Telecommunication systems
- 太阳能，风能设备
- 高尔夫球车，电动车，电动自行车和轮椅
- 安全通道系统，不间断电源
- 航海设备，通信设备
- 能源设备
- 通讯设备



Product Standards 生产标准

You can expect our batteries meet with the standards JIS, DIN, IEC & BS6290-4. We have obtained ISO9001 & ISO14001 certification. We have obtained UL approval (MH25860) for all types of batteries. We have obtained CE approval for all type of batteries. All these render our batteries to be compatible with requirements of world-level equipments.

电池符合JIS, DIN, IEC 和 BS6290-4 标准，通过了ISO9001 和 ISO14001 验证，所有系列电池均通过了UL认证和CE认证。保证了我司电池能够适应各种国际化标准的仪器。



充电方法：25°C恒压充电
浮充使用：电流不受限制，充电电压：13.38-13.68V。
循环使用：最大充电电流：0.3C₁₀A 充电电压：14.28-14.52。
充电电压应根据环境温度进行补偿 [25°C(-), 25°C(+)]：
浮充使用时补偿：±0.02V/°C；循环使用时补偿为：±0.05V/°C。

Charging Methods: Constant voltage Charging at 25°C
Standby use: No current limit is required.
Charging voltage: 13.38-13.68V.
Cycle use: Maximum charging current: 0.3C₂₀A.
Charging current: 14.28-14.52
Temperature compensation [>25°C(-), <25°C(+)] :
Standby use: ±20mV/°C Cycle use: ±30mV/°C.

注：以上图表以12V电作为示例说明
Notes: Figures above for 12V Models

General Specifications 胶体系列电池规格表

型号 Type	额定电压 Nominal Voltage (V)	额定容量 10hr Capacity (Ah)	外形尺寸 (公制) Dimension(mm/Kg[(±5%)])					外形尺寸 (英制) Dimension(Inch/Pound[(±5%)])					端子类型 Terminal
			长 Length	宽 width	高 Height	总高 Total Height	重量 Weight	长 Length	宽 Width	高 Height	总高 Total Height	重量 Weight	
CG6-7	6	6.5	151	34	94	100	1.36	5.94	1.34	3.7	3.94	2.99	F1/F2
CG6-10	6	10	151	50	94	100	2	5.94	1.97	3.7	3.94	4.4	F1/F2
CG6-200R	6	200	260	180	254	275	31.4	10.24	7.09	10	10.83	69.1	F20
CG8-3.2	8	2.8	68	49	91	91	0.85	2.68	1.93	3.58	3.58	1.87	T12
CG8-150R	8	150	260	180	254	275	30	10.24	7.09	10	10.83	66	F20
CG12-7	12	6.5	151	65	94	100	2.65	5.94	2.56	3.7	3.94	5.83	F1/F2
CG12-12	12	10	151	98	95	101	3.9	5.94	3.86	3.74	3.98	8.58	F2
CG12-17	12	15	181	77	167	167	5.7	7.13	3.03	6.57	6.57	12.54	F3
CG12-24	12	21	166	175	125	125	8.6	6.54	6.89	4.92	4.92	18.92	F4
CG12-24S	12	21	165	125	175	182	8.5	6.5	4.92	6.89	7.17	18.7	F6
CG12-33	12	28	195	130	155	180	10.2	7.68	5.12	6.1	7.09	22.44	F7
CG12-40	12	35	197	165	170	170	13.5	7.76	6.5	6.69	6.69	29.7	F4
CG2-100	2	90	171	72	206	211	7.2	6.73	2.83	8.11	8.31	15.84	F10
CG2-150	2	135	171	102	206	221	8.2	6.73	4.02	8.11	8.7	18.04	F10
CG2-200	2	180	173	111	330	364	15	6.81	4.37	12.99	14.33	33	F10
CG2-300	2	270	171	151	330	364	21	6.73	5.94	12.99	14.33	46.2	F10
CG2-400	2	360	210	176	330	367	28	8.27	6.93	12.99	14.45	61.6	F10
CG2-500	2	450	241	175	330	365	33	9.49	6.89	12.99	14.37	72.6	F10
CG2-600	2	540	302	175	330	367	42	11.89	6.89	12.99	14.45	92.4	F10
CG2-800	2	720	410	175	330	367	57	16.14	6.89	12.99	14.45	125	F10
CG2-1000	2	900	475	175	330	367	66.5	18.7	6.89	12.99	14.45	146	F10

For more models and product informations, please visit our website www.vision-batt.com
更多产品型号和相关的产品详细信息，请登陆我们网站

Performance Data 恒电流放电数据

Constant current discharge ratings-Ampere at 25? (77?) to 1.60V 恒电流放电 (安培)									
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	374	285	185	140	113	52.6	35.9	20.0	10.1
CG2-300	500	426	299	230	188	84.5	52.9	29.5	14.9
CG2-400	749	570	371	279	225	105	71.9	40.1	20.2
CG2-500	906	710	462	343	277	127	87.0	48.5	24.4
CG2-600	1104	865	588	444	347	169	106	59.1	29.7
CG2-800	1498	1157	763	603	464	229	144	80.1	40.3
CG2-1000	1697	1366	940	709	589	263	180	100	50.4
CG2-1500	2607	2130	1406	1076	880	393	269	150	75.4
CG2-2000	3586	2850	1966	1439	1178	526	359	200	101
CG2-3000	5169	4050	2794	2109	1755	815	511	285	143

Constant current discharge ratings-Ampere at 25? (77?) to 1.65V 恒电流放电 (安培)									
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	349	269	178	136	110	51.6	35.2	19.7	9.95
CG2-300	467	402	287	223	183	83.0	51.9	29.0	14.7
CG2-400	699	537	356	271	219	103	70.5	39.4	19.9
CG2-500	846	670	443	333	269	125	85.3	47.7	24.1
CG2-600	1029	815	564	431	338	166	104	58.0	29.3
CG2-800	1397	1090	732	585	451	225	141	78.8	39.8
CG2-1000	1583	1288	902	688	573	258	176	98	49.7
CG2-1500	2432	2008	1348	1043	856	386	263	147	74.4
CG2-2000	3345	2687	1886	1396	1146	516	352	197	99.5
CG2-3000	4821	3819	2680	2046	1707	800	501	280	141

Constant current discharge ratings-Ampere at 25? (77?) to 1.70V 恒电流放电 (安培)									
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	327	253	170	131	106	50.4	34.5	19.3	9.81
CG2-300	437	379	275	215	178	80.9	50.9	28.5	14.5
CG2-400	654	506	341	262	213	101	69.1	38.7	19.6
CG2-500	791	631	425	321	262	122	83.6	46.8	23.8
CG2-600	964	768	541	416	328	162	102	57.0	28.9
CG2-800	1308	1028	702	565	439	220	138	77.4	39.2
CG2-1000	1482	1214	865	664	557	252	173	97	49.1
CG2-1500	2276	1893	1292	1007	832	376	258	145	73.3
CG2-2000	3131	2532	1808	1347	1114	504	345	193	98.1
CG2-3000	4513	3599	2569	1974	1659	781	491	275	139

Constant current discharge ratings-Ampere at 25? (77?) to 1.75V 恒电流放电 (安培)									
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	302	238	163	126	103	49.1	33.9	19.0	9.67
CG2-300	403	355	263	207	173	78.9	49.9	28.0	14.3
CG2-400	604	476	326	251	207	98.2	67.7	38.0	19.3
CG2-500	731	593	406	309	254	119	82.0	46.0	23.4
CG2-600	889	721	517	400	319	158	99.8	56.0	28.5
CG2-800	1207	965	671	543	426	214	135	76.0	38.7
CG2-1000	1368	1140	826	638	541	245	169	95.0	48.4
CG2-1500	2101	1777	1235	968	808	367	253	142	72.3
CG2-2000	2890	2378	1727	1295	1082	491	339	190	96.7
CG2-3000	4166	3379	2455	1898	1611	761	481	270	137

Constant current discharge ratings-Amperes at 25? (77?) to 1.80V									恒电流放电 (安培)
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	278	222	156	121	100	47.8	33.2	18.7	9.53
CG2-300	371	332	251	199	168	76.9	48.9	27.5	14.1
CG2-400	556	445	311	242	201	95.6	66.3	37.3	19.1
CG2-500	673	554	388	297	246	116	80.3	45.2	23.1
CG2-600	819	674	494	385	309	154	97.7	55.0	28.1
CG2-800	1112	902	640	522	413	209	133	74.6	38.1
CG2-1000	1260	1066	789	614	525	239	166	93.3	47.7
CG2-1500	1935	1661	1179	932	784	357	248	139	71.3
CG2-2000	2663	2223	1650	1247	1049	478	332	187	95.3
CG2-3000	3838	3159	2344	1827	1563	741	471	265	135

Performance Data 恒功率放电数据

Constant power discharge ratings-Watts at 25? (77?) to 1.60V per cell 每单格 恒功率放电 (瓦特)									
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	657	516	339	260	212	99.8	69.1	39.0	19.7
CG2-300	877	760	565	441	373	160	102	57.5	29.0
CG2-400	1240	976	679	520	425	200	138	78.1	39.4
CG2-500	1544	1249	885	679	538	242	167	94.5	47.7
CG2-600	1880	1520	1029	777	626	321	204	115	58.0
CG2-800	2319	1925	1357	1039	849	435	276	156	78.8
CG2-1000	2899	2407	1721	1319	1111	544	345	195	98.5
CG2-1500	4224	3415	2500	1942	1611	813	516	292	147
CG2-2000	5652	4570	3299	2524	2155	998	691	390	197
CG2-3000	7931	6181	4272	3348	2736	1308	900	555	280

Constant power discharge ratings-Watts at 25? (77?) to 1.650V per cell 每单格 恒功率放电 (瓦特)									
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	618	489	326	251	207	97.9	68.1	38.7	19.5
CG2-300	825	720	542	427	364	157	100	57.0	28.8
CG2-400	1166	924	651	503	414	196	136	77.4	39.0
CG2-500	1452	1183	849	657	524	237	165	93.7	47.3
CG2-600	1768	1440	988	752	609	315	201	114	57.5
CG2-800	2181	1824	1303	1006	827	427	272	155	78.1
CG2-1000	2727	2280	1652	1276	1082	534	340	193	97.6
CG2-1500	3972	3235	2400	1879	1568	798	509	289	146
CG2-2000	5315	4329	3167	2443	2099	979	681	387	195
CG2-3000	7459	5855	4101	3240	2664	1284	887	550	277

Constant power discharge ratings-Watts at 25? (77?) to 1.70V per cell 每单格 恒功率放电 (瓦特)									
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	576	461	315	243	201	96.0	67.0	38.0	19.3
CG2-300	769	680	524	413	354	154	98.8	56.0	28.5
CG2-400	1087	873	630	486	402	192	134	76.0	38.7
CG2-500	1354	1117	821	635	510	232	162	92.0	46.8
CG2-600	1648	1360	955	727	593	309	198	112	57.0
CG2-800	2033	1723	1259	972	805	419	268	152	77.4
CG2-1000	2542	2153	1597	1234	1052	523	335	190	96.7
CG2-1500	3703	3056	2320	1817	1526	782	501	284	145
CG2-2000	4954	4089	3061	2361	2042	960	670	380	193
CG2-3000	6953	5530	3965	3132	2592	1259	873	540	275

Constant power discharge ratings-Watts at 25? (77?) to 1.75V per cell 每单格 恒功率放电 (瓦特)									
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	536	434	301	235	196	93.7	66.0	37.7	19.2
CG2-300	717	640	501	399	344	151	97.2	55.5	28.3
CG2-400	1013	822	603	469	391	187	132	75.3	38.3
CG2-500	1262	1051	786	613	495	227	160	91.2	46.4
CG2-600	1536	1280	914	702	576	301	194	111	56.5
CG2-800	1895	1621	1205	939	782	409	264	151	76.7
CG2-1000	2369	2027	1528	1191	1023	511	330	188	95.9
CG2-1500	3451	2876	2220	1754	1484	764	493	281	143
CG2-2000	4618	3848	2929	2280	1985	937	660	377	192
CG2-3000	6480	5205	3794	3024	2520	1230	860	535	272

Constant power discharge ratings-Watts at 25? (77?) to 1.80V per cell 每单格 恒功率放电 (瓦特)									
Battery Type	10min	15min	30min	45min	1h	3h	5h	10h	20h
CG2-200	495	407	288	226	190	91.8	64.9	37.0	19.0
CG2-300	661	600	479	384	334	148	95.7	54.5	28.0
CG2-400	934	770	575	453	380	184	130	73.9	38.0
CG2-500	1163	986	750	591	481	222	157	89.5	46.0
CG2-600	1458	1200	873	677	560	295	191	109	56.0
CG2-800	1747	1520	1151	905	760	401	260	148	76.0
CG2-1000	2184	1900	1459	1149	994	501	325	185	95.0
CG2-1500	3182	2696	2120	1691	1441	749	485	276	142
CG2-2000	4257	3608	2797	2199	1928	918	649	370	190
CG2-3000	5974	4880	3623	2916	2448	1205	846	525	270