

SEALED VRLA MONOBLOC GEL BATTERIES**Capacities: 35AH to 220AH @ C/100**

Power-Plus Deep Cycle Gel Range sealed, valve regulated lead acid rechargeable batteries are maintenance free. Power-Plus Deep Cycle Gel Range advanced gelled-electrolyte gas recombination technology ensures reliable performance, safety, outstanding battery life and value. Power-Plus Deep Cycle Gel Range Batteries are designed for universal float service / cycling applications. Battery life will depend on depth of discharge, frequency and temperature of operation. UL Recognized Component.

Features

- Valve regulated Lead Acid (VRLA) design
- Gelled thixotropic electrolyte
- Spill-proof and leak-proof Low self-discharge
- Operates at a low internal pressure
- Multi-position usage
- FAA and IATA Approved as NON Hazardous
- Flame Retardant material V-0 optional

Applications

- Cycling / Float service
- Telecommunications
- Photovoltaic / Solar / Wind Energy
- Cathodic Protection
- Wheelchair / Electric vehicle
- Boats / Marine / Navigation Aids
- Engine Starting
- Golf caddy / Water pumping

Specifications

- Voltage: 6V and 12V nominal
- Plate alloy: Lead calcium grid alloy
- Element, post: Copper Insert or "flag" terminal
- Case & cover: Grade 6 ABS Electrolyte: Sulfuric acid thixotropic gel Specific gravity: 1.300
- Vent: self sealing – 2psi Operation

- Charge Voltage @20~25°C
- Cycle service: 2.30~2.35 VPC
- Float service: 2.25~2.30 VPC

Operating temperature range

Discharge: -60° C (-76° F) to +60° C (140° F)

Charge: -40° C (-40° F) to +50° C (122° F)

Ideal operating temperature range

+20° C (68° F) to +25° C (77° F)



General Features

Power-Plus Deep Cycle Gel Range Monoblock VRLA batteries are suitable for renewable energy deep cycle applications.

The positive and negative grids are cast from a calcium / tin lead alloy to reduce grid growth and corrosion. The active material is manufactured from a high purity lead (99.9999%) to minimize the negative effects of impurities.

Separator is manufactured utilizing the latest German technology. The base material is a micro porous duro-plastic exhibiting excellent high temperature stability and mechanical strength, resulting in very good resistance to vibration and mechanical shock. The integrity of the battery will be maintained under extreme conditions.

Valve Regulated (Sealed) Construction

The Battery is of the Gel (gelled electrolyte technology); valve regulated (sealed) VRLA Rechargeable type. The acid is immobilized in a specially formulated mixture of gelling agent and sulfuric acid electrolyte. All the acid is absorbed in this manner and it provides a safe Non-Spill able Battery.

Gas Recombination System

The gases generated in the normal charge / discharge use of a rechargeable battery are internally recombined during normal operation. In fact, in normal operation, more than 99% of the gases generated are efficiently recombined.

Maintenance Free

The Battery has been designed and built such that no addition of electrolyte is needed for the whole life of the battery. There is no need to add water or take specific gravity readings.

Battery Life – Float Service

Power-Plus Deep Cycle Gel Range Battery is suitable for float (Standby) service with design life of 12 years at 20° C (68° F).

Battery Life – Cycle Service

Power-Plus Deep Cycle Gel Range Battery is designed for 400 to 2800 charge / discharge cycles, actual battery life in cyclic service will depend on the frequency, depth of discharge and ambient temperature.

Safety Valve

If excess pressure builds up within the battery, the safety valve automatically opens then closes, releasing the gas at 1-3 PSI. The valve does not allow the ingress of oxygen which is harmful to the efficient operation and the life of the battery.

Temperature Range for Normal Operation

Power-Plus Deep Cycle Gel Range Battery has a wide operating temperature range. However for maximum life and safety, continuous operation over 45° C is not recommended for any valve regulated battery.

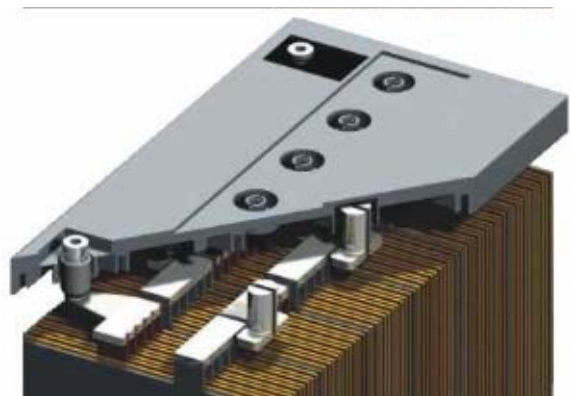
Grid Design and Paste Formation

Power-Plus has optimized the grid design and paste formation to maximize the operating and storage life of the battery. This optimized design provides the following advantages:

- Excellent recovery from deep discharge or over discharge
- Excellent cycling capability
- Low self-discharge to ensure maximum storage time when not in use
- Adequate safety margins in tough operating conditions.

Use in any Position

Power-Plus Deep Cycle Gel Range battery is designed to use in both vertical and horizontal positions.



Deep Cycle Gel Range Discharge Ampere Hour Data @ 20° C (68° F)

Battery Model	End VPC	Discharge Data Amps				End VPC	Discharge Data Ampere Hours @ 20° C (68° F)												
		Time In Minutes					Discharge Time In Hours												
		15	30	45	60		1.5	2	3	4	5	8	10	12	20	24	48	72	100
12-40G	1.80	41.9	26.9	20.1	16.6	1.85	17.0	19.1	20.7	21.7	22.5	25.1	25.9	26.4	29.1	29.7	31.0	32.1	33.3
	1.75	45.5	27.8	20.7	17.0	1.80	18.0	20.3	21.9	23.0	23.9	26.6	27.7	28.2	30.7	31.1	32.2	33.1	34.1
	1.67	47.8	28.4	20.8	17.1	1.75	18.5	20.8	22.5	23.6	24.5	27.3	28.4	29.0	31.6	32.1	33.0	34.0	35.0
12-50G	1.80	53.1	34.0	25.4	21.0	1.85	21.5	24.2	26.2	27.5	28.5	31.8	32.8	33.4	36.4	37.6	39.3	40.7	42.1
	1.75	57.6	35.2	26.2	21.5	1.80	22.8	25.6	27.8	29.2	30.2	33.7	35.1	35.7	38.9	39.4	40.7	42.1	43.4
	1.67	60.5	36.0	26.3	21.7	1.75	23.4	26.3	28.4	29.9	31.0	34.6	36.0	36.7	40.0	40.6	41.8	43.0	44.3
12-60G	1.80	73.0	46.8	34.9	28.9	1.85	29.6	33.2	36.0	37.8	39.2	43.7	45.0	45.9	50.1	51.6	54.0	55.9	57.8
	1.75	79.2	48.4	36.0	29.6	1.80	31.4	35.3	38.2	40.1	41.5	46.3	48.2	49.1	53.5	54.2	56.0	57.8	59.7
	1.67	83.2	49.5	36.1	29.8	1.75	32.2	36.1	39.1	41.1	42.6	47.5	49.5	50.5	55.0	55.8	57.4	59.2	60.9
12-70G	1.80	92.9	59.5	44.4	36.7	1.85	37.7	42.3	45.8	48.1	49.8	55.6	57.3	58.5	63.7	65.7	68.7	71.2	73.6
	1.75	101	61.6	45.8	37.6	1.80	40.0	44.9	48.6	51.0	52.9	59.0	61.4	62.5	68.0	69.0	71.3	73.6	75.9
	1.67	106	63.0	46.0	37.9	1.75	41.0	46.0	49.8	52.3	54.2	60.5	63.0	64.3	70.0	71.1	73.1	75.3	77.5
12-80G	1.80	104	66.3	49.5	40.9	1.85	42.0	47.1	51.0	53.6	55.5	62.0	63.9	65.2	71.0	73.2	76.5	79.3	82.0
	1.75	112	68.6	51.1	41.9	1.80	44.5	50.0	54.1	56.9	58.9	65.7	68.4	69.7	75.8	76.9	79.4	82.0	84.6
	1.67	118	70.1	51.3	42.2	1.75	45.6	51.2	55.5	58.3	60.4	67.4	70.2	71.6	78.0	79.2	81.4	83.9	86.3
12-90G	1.80	119	76.5	57.1	47.2	1.85	48.4	54.4	58.9	61.9	64.1	71.5	73.7	75.2	81.9	84.5	88.3	91.5	94.6
	1.75	130	79.2	58.9	48.4	1.80	51.4	57.7	62.5	65.6	68.0	75.8	78.9	80.4	87.5	88.7	91.6	94.6	97.6
	1.67	136	80.9	59.1	48.7	1.75	52.7	59.1	64.0	67.2	69.7	77.8	81.0	82.6	90.0	91.4	94.0	96.8	99.6
12-100G	1.80	133	85.0	63.5	52.5	1.85	53.8	60.4	65.4	68.7	71.2	79.5	81.9	83.5	91.0	93.9	98.1	102	105
	1.75	144	88.0	65.5	53.8	1.80	57.1	64.1	69.4	72.9	75.5	84.2	87.7	89.3	97.2	98.6	102	105	108
	1.67	151	89.9	65.7	54.1	1.75	58.5	65.7	71.1	74.7	77.4	86.4	90.0	91.8	100	102	104	108	111
12-110G	1.80	146	93.5	69.9	57.8	1.85	59.2	66.4	71.9	75.6	78.3	87.5	90.1	91.9	100	103	108	112	116
	1.75	158	96.8	72.1	59.2	1.80	62.8	70.5	76.3	80.2	83.1	92.6	96.5	98.2	107	108	112	116	119
	1.67	166	98.9	72.3	59.5	1.75	64.4	72.3	78.2	82.2	85.1	95.0	99.0	101	110	112	114	119	122
12-120G	1.80	159	102	76.2	63.0	1.85	64.6	72.5	78.5	82.5	85.5	95.5	98.3	109	112	115	118	122	126
	1.75	173	106	78.5	64.5	1.80	68.5	76.9	83.3	87.5	90.7	101	105	117	120	121	123	126	130
	1.67	182	108	78.9	65.0	1.75	70.2	78.8	85.3	89.6	92.9	104	108	120	121	122	125	129	133
12-150G	1.80	199	128	95.2	78.7	1.85	80.7	90.7	98.1	103	107	119	123	125	137	141	147	152	158
	1.75	216	132	98.2	80.7	1.80	85.6	96.2	104	109	113	126	131	134	146	148	153	158	163
	1.67	227	135	98.6	81.2	1.75	87.8	98.6	107	112	116	130	135	138	150	152	157	161	166
12-180G	1.80	239	153	114	94.4	1.85	96.9	109	118	124	128	143	147	150	164	169	177	183	190
	1.75	259	158	118	96.8	1.80	103	115	125	131	136	152	158	161	175	177	183	189	196
	1.67	272	162	118	97.5	1.75	105	118	128	134	139	156	162	165	180	183	188	194	200
12-200G	1.80	265	170	127	105	1.85	108	121	131	137	142	159	164	167	182	188	196	203	210
	1.75	288	176	131	108	1.80	114	128	139	146	151	168	175	179	194	197	204	210	217
	1.67	305	181	133	110	1.75	118	131	142	149	155	173	180	184	200	203	209	215	221
6-200G	1.80	265	170	127	105	1.85	108	121	131	137	142	159	164	167	182	188	196	203	210
	1.75	288	176	131	108	1.80	114	128	139	146	151	168	175	179	194	197	204	210	217
	1.67	305	181	133	110	1.75	118	131	142	149	155	173	180	184	200	203	209	215	221

Actual battery performance data may be ± 5% of figures shown above

Deep Cycle Gel Range Discharge Amperes Data @ 20° C (68° F)

Battery Model	End VPC	Discharge Data Amps				End VPC	Discharge Data Amperes @ 20° C (68° F)												
		Time In Minutes					Discharge Time In Hours												
		15	30	45	60		1.5	2	3	4	5	8	10	12	20	24	48	72	100
12-40G	1.80	41.9	26.9	20.1	16.6	1.85	11.3	9.55	6.89	5.43	4.50	3.14	2.59	2.20	1.45	1.24	0.65	0.45	0.33
	1.75	45.5	27.8	20.7	17.0	1.80	12.0	10.1	7.31	5.76	4.77	3.33	2.77	2.35	1.54	1.30	0.67	0.46	0.34
	1.67	47.8	28.4	20.8	17.1	1.75	12.3	10.4	7.49	5.90	4.89	3.41	2.84	2.42	1.58	1.34	0.69	0.47	0.35
12-50G	1.80	53.1	34.0	25.4	21.0	1.85	14.4	12.1	8.72	6.87	5.70	3.97	3.28	2.78	1.82	1.56	0.82	0.56	0.42
	1.75	57.6	35.2	26.2	21.5	1.80	15.2	12.8	9.25	7.29	6.04	4.21	3.51	2.98	1.94	1.64	0.85	0.58	0.43
	1.67	60.5	36.0	26.3	21.7	1.75	15.6	13.1	9.48	7.47	6.19	4.32	3.60	3.06	2.00	1.69	0.87	0.60	0.44
12-60G	1.80	73.0	46.8	34.9	28.9	1.85	19.7	16.6	12.0	9.45	7.83	5.46	4.50	3.83	2.50	2.15	1.12	0.78	0.58
	1.75	79.2	48.4	36.0	29.6	1.80	20.9	17.6	12.7	10.0	8.31	5.79	4.82	4.09	2.67	2.26	1.17	0.80	0.60
	1.67	83.2	49.5	36.1	29.8	1.75	21.5	18.1	13.0	10.3	8.51	5.94	4.95	4.21	2.75	2.33	1.20	0.82	0.61
12-70G	1.80	92.9	59.5	44.4	36.7	1.85	25.1	21.2	15.3	12.0	10.0	6.96	5.73	4.87	3.19	2.74	1.43	0.99	0.74
	1.75	101	61.6	45.8	37.6	1.80	26.6	22.4	16.2	12.8	10.6	7.37	6.14	5.21	3.40	2.87	1.48	1.02	0.76
	1.67	106	63.0	46.0	37.9	1.75	27.3	23.0	16.6	13.1	10.8	7.56	6.30	5.36	3.50	2.96	1.52	1.05	0.77
12-80G	1.80	104	66.3	49.5	40.9	1.85	28.0	23.6	17.0	13.4	11.1	7.75	6.39	5.43	3.55	3.05	1.59	1.10	0.82
	1.75	112	68.6	51.1	41.9	1.80	29.7	25.0	18.0	14.2	11.8	8.21	6.84	5.81	3.79	3.20	1.65	1.14	0.85
	1.67	118	70.1	51.3	42.2	1.75	30.4	25.6	18.5	14.6	12.1	8.42	7.02	5.97	3.90	3.30	1.70	1.17	0.86
12-90G	1.80	119	76.5	57.1	47.2	1.85	32.3	27.2	19.6	15.5	12.8	8.94	7.37	6.27	4.10	3.52	1.84	1.27	0.95
	1.75	130	79.2	58.9	48.4	1.80	34.3	28.9	20.8	16.4	13.6	9.48	7.89	6.70	4.37	3.70	1.91	1.31	0.98
	1.67	136	80.9	59.1	48.7	1.75	35.1	29.6	21.3	16.8	13.9	9.72	8.10	6.89	4.50	3.81	1.96	1.34	1.00
12-100G	1.80	133	85.0	63.5	52.5	1.85	35.9	30.2	21.8	17.2	14.2	9.94	8.19	6.96	4.55	3.91	2.04	1.41	1.05
	1.75	144	88.0	65.5	53.8	1.80	38.1	32.1	23.1	18.2	15.1	10.5	8.77	7.44	4.86	4.11	2.12	1.46	1.08
	1.67	151	89.9	65.7	54.1	1.75	39.0	32.9	23.7	18.7	15.5	10.8	9.00	7.65	5.00	4.23	2.18	1.49	1.11
12-110G	1.80	146	93.5	69.9	57.8	1.85	39.5	33.2	24.0	18.9	15.6	10.9	9.01	7.66	5.01	4.30	2.24	1.55	1.16
	1.75	158	96.8	72.1	59.2	1.80	41.9	35.3	25.4	20.0	16.6	11.6	9.65	8.18	5.35	4.52	2.33	1.61	1.19
	1.67	166	98.9	72.3	59.5	1.75	42.9	36.2	26.1	20.6	17.1	11.9	9.90	8.42	5.50	4.65	2.40	1.64	1.22
12-120G	1.80	159	102	76.2	63.0	1.85	43.1	36.3	26.2	20.6	17.1	11.9	9.83	9.10	5.46	4.69	2.45	1.69	1.26
	1.75	173	106	78.5	64.5	1.80	45.7	38.5	27.8	21.9	18.1	12.6	10.5	9.73	5.83	4.93	2.54	1.75	1.30
	1.67	182	108	78.9	65.0	1.75	46.8	39.6	28.4	22.5	18.6	13.0	10.8	10.0	6.00	5.08	2.61	1.79	1.33
12-150G	1.80	199	128	95.2	78.7	1.85	53.8	45.3	32.7	25.8	21.4	14.9	12.3	10.4	6.83	5.87	3.07	2.12	1.58
	1.75	216	132	98.2	80.7	1.80	57.1	48.1	34.7	27.3	22.7	15.8	13.1	11.2	7.29	6.16	3.18	2.19	1.63
	1.67	227	135	98.6	81.2	1.75	58.5	49.3	35.6	28.0	23.2	16.2	13.5	11.5	7.50	6.34	3.26	2.24	1.66
12-180G	1.80	239	153	114	94.4	1.85	64.6	54.4	39.2	30.9	25.6	17.9	14.7	12.5	8.19	7.04	3.68	2.54	1.90
	1.75	259	158	118	96.8	1.80	68.5	57.7	41.6	32.8	27.2	19.0	15.8	13.4	8.75	7.39	3.82	2.63	1.96
	1.67	272	162	118	97.5	1.75	70.2	59.1	42.7	33.6	27.9	19.4	16.2	13.8	9.00	7.61	3.92	2.69	2.00
12-200G	1.80	265	170	127	105	1.85	71.8	60.4	43.6	34.4	28.5	19.9	16.4	13.9	9.15	7.82	4.09	2.82	2.10
	1.75	288	176	131	108	1.80	76.1	64.1	46.3	36.5	30.2	21.1	17.5	14.9	9.72	8.21	4.25	2.92	2.17
	1.67	305	181	133	110	1.75	78.0	65.7	47.6	37.5	31.0	21.6	18.0	15.3	10.0	8.46	4.35	2.99	2.21
6-200G	1.80	265	170	127	105	1.85	71.8	60.4	43.6	34.4	28.5	19.9	16.4	13.9	9.15	7.82	4.09	2.82	2.10
	1.75	288	176	131	108	1.80	76.1	64.1	46.3	36.5	30.2	21.1	17.5	14.9	9.72	8.21	4.25	2.92	2.17
	1.67	305	181	133	110	1.75	78.0	65.7	47.6	37.5	31.0	21.6	18.0	15.3	10.0	8.46	4.35	2.99	2.21

Actual battery performance data may be ± 5% of figures shown above

Deep Cycle Gel Range Discharge Data Watts Per Cell (WPC) @ 20° C (68° F)

Battery Model	End VPC	Watts Per Cell				End VPC	Discharge Data Watts Per Cell @ 20° C (68° F)									
		Time In Minutes					Discharge Time In Hours									
		15	30	45	60		1.5	2	3	4	5	8	10	12	20	24
12-40G	1.80	77.2	50.2	38.1	31.8	1.85	21.8	18.5	13.4	10.7	8.87	6.24	5.16	4.40	2.91	2.48
	1.75	83.7	52.0	39.3	32.6	1.80	23.0	19.5	14.2	11.2	9.35	6.58	5.46	4.68	3.06	2.60
	1.67	88.0	53.1	39.5	32.9	1.75	23.4	19.9	14.5	11.4	9.50	6.69	5.57	4.76	3.13	2.65
12-50G	1.80	98.0	63.6	48.3	40.3	1.85	27.6	23.4	17.0	13.5	11.2	7.90	6.53	5.57	3.65	3.14
	1.75	106	65.8	49.7	41.3	1.80	29.1	24.6	17.9	14.2	11.8	8.33	6.91	5.92	3.88	3.29
	1.67	111	67.3	49.9	41.6	1.75	29.6	25.2	18.3	14.5	12.1	8.47	7.06	6.03	3.96	3.35
12-60G	1.80	134	87.4	66.3	55.4	1.85	38.0	32.1	23.4	18.5	15.4	10.9	8.98	7.65	5.02	4.32
	1.75	146	90.5	68.4	56.8	1.80	40.0	33.9	24.6	19.5	16.3	11.4	9.50	8.14	5.33	4.52
	1.67	153	92.5	68.7	57.2	1.75	40.8	34.7	25.2	19.9	16.6	11.6	9.70	8.29	5.44	4.61
12-70G	1.80	171	111	84.4	70.5	1.85	48.3	40.9	29.7	23.6	19.6	13.8	11.4	9.74	6.38	5.50
	1.75	186	115	87.1	72.3	1.80	50.9	43.1	31.4	24.9	20.7	14.6	12.1	10.4	6.78	5.75
	1.67	195	118	87.4	72.8	1.75	51.9	44.2	32.0	25.4	21.1	14.8	12.3	10.5	6.92	5.86
12-80G	1.80	191	124	94.1	78.6	1.85	53.8	45.6	33.1	26.3	21.9	15.4	12.7	10.9	7.11	6.12
	1.75	207	128	97.0	80.5	1.80	56.7	48.0	34.9	27.7	23.1	16.2	13.5	11.5	7.56	6.41
	1.67	217	131	97	81.1	1.75	57.8	49.2	35.7	28.3	23.5	16.5	13.8	11.8	7.71	6.53
12-90G	1.80	220	143	109	90.7	1.85	62.1	52.6	38.2	30.3	25.3	17.8	14.7	12.5	8.21	7.07
	1.75	239	148	112	92.9	1.80	65.4	55.4	40.3	32.0	26.6	18.7	15.5	13.3	8.72	7.39
	1.67	251	151	112	93.6	1.75	66.7	56.8	41.2	32.6	27.2	19.1	15.9	13.6	8.90	7.54
12-100G	1.80	244	159	121	101	1.85	69.0	58.4	42.5	33.7	28.1	19.7	16.3	13.9	9.12	7.85
	1.75	265	165	124	103	1.80	72.7	61.6	44.8	35.5	29.6	20.8	17.3	14.8	9.69	8.21
	1.67	278	168	125	104	1.75	74.1	63.1	45.8	36.2	30.2	21.2	17.6	15.1	9.89	8.37
12-110G	1.80	268	175	133	111	1.85	75.9	64.2	46.8	37.1	30.9	21.7	17.9	15.3	10.0	8.64
	1.75	292	182	136	113	1.80	80.0	67.8	49.3	39.1	32.6	22.9	19.0	16.3	10.7	9.03
	1.67	306	185	138	114	1.75	81.5	69.4	50.4	39.8	33.2	23.3	19.4	16.6	10.9	9.21
12-120G	1.80	293	191	145	121	1.85	82.8	70.1	51.0	40.5	33.7	23.7	19.6	16.7	10.9	9.40
	1.75	318	197	149	124	1.80	87.2	73.9	53.8	42.7	35.5	25.0	20.7	17.8	11.6	9.90
	1.67	334	202	150	125	1.75	89.0	75.7	54.9	43.5	36.2	25.4	21.2	18.1	11.9	10.0
12-150G	1.80	366	238	181	151	1.85	104	87.6	63.7	50.6	42.1	29.6	24.5	20.9	13.7	11.8
	1.75	398	247	187	155	1.80	109	92.5	67.2	53.3	44.5	31.2	25.9	22.2	14.5	12.3
	1.67	418	252	189	156	1.75	111	94.6	68.6	54.3	45.5	31.8	26.5	22.6	14.9	12.6
12-180G	1.80	440	286	217	181	1.85	124	105	76.5	60.7	50.5	35.5	29.4	25.0	16.4	14.2
	1.75	477	296	224	186	1.80	131	111	80.6	64.0	53.3	37.5	31.1	26.6	17.4	14.8
	1.67	501	303	225	188	1.75	133	114	82.3	65.2	54.3	38.1	31.9	27.5	17.9	15.5
12-200G	1.80	489	318	241	201	1.85	138	117	85.0	67.5	56.1	39.5	32.8	27.8	18.2	15.8
	1.75	530	329	249	207	1.80	145	123	89.6	71.1	59.2	41.6	34.5	29.6	19.5	15.5
	1.67	558	336	250	209	1.75	148	126	91.5	72.5	60.5	42.3	35.3	30.1	19.8	16.8
6-200G	1.80	489	318	241	201	1.85	138	117	85.0	67.5	56.1	39.5	32.8	27.8	18.2	15.8
	1.75	530	329	249	207	1.80	145	123	89.6	71.1	59.2	41.6	34.5	29.6	19.5	15.5
	1.67	558	336	250	209	1.75	148	126	91.5	72.5	60.5	42.3	35.3	30.1	19.8	16.8

Actual battery performance data may be ± 5% of figures shown above

NOTE: ALL RATINGS ARE AFTER 15 CYCLES AND CONFORM TO B.C.I. SPECIFICATIONS.

Deep Cycle Gel Range Electrical Specifications & Dimensions

Battery Model	Capacity C/20 1.75VPC	CCA at -18°C (0°F)	CCA at 0°C (32°F)	Short Circuit Amps	Internal Resistance Milli-ohms	Terminal Type	Battery Weight (kg/lb)		Outline Dimensions (mm/inch)					
									Length		Width		Height	
12-40G	31	240	320	1500	7.3	FT1 or Flag	12.0	26.4	192	7.56	127	5.00	165	6.50
12-50G	40	260	350	1700	6.0	FT2	14.0	30.8	196	7.72	164	6.46	171	6.73
12-60G	55	280	380	1900	5.6	FT2	18.7	41.1	228	8.98	137	5.39	215	8.50
12-70G	70	410	550	2100	5.4	FT2	25.0	55.0	256	10.1	168	6.62	215	8.50
12-80G	78	460	620	2400	4.5	FT2	28.0	61.6	256	10.1	168	6.62	215	8.50
12-90G	90	510	680	2650	4.3	FT2	29.5	64.9	305	12.0	168	6.62	215	8.50
12-100G	100	580	780	2900	3.9	FT2	30.0	66.0	305	12.0	168	6.62	215	8.50
12-110G	110	710	960	3000	3.4	FT2	33.0	72.6	327	12.9	171	6.73	220	8.66
12-120G	120	760	1020	3300	3.1	FT2	39.0	85.8	406	16.0	172	6.77	234	9.21
12-150G	150	970	1300	4200	2.9	FT3	47.0	103	480	18.9	170	6.69	240	9.45
12-180G	180	1100	1450	4700	2.3	FT3	55.0	121	530	20.9	209	8.23	215	8.50
12-200G	200	1250	1300	5400	2.2	FT3	65.0	143	530	20.9	238	9.37	240	9.45
6-200G	200	1200	1600	5000	2.3	FT3	36.0	79.2	374	14.7	170	6.69	215	8.50

Terminal Type



Battery Model	BCI Group Size
12-40G	U1
12-60G	22NF
12-70G	24
12-80G	24
12-90G	27
12-100G	27
12-110G	31
6-200G	4

<p>M6 SS Bolt 14 mm Dia. Copper Insert</p>	<p>M6 SS Bolt 16 mm Dia. Copper Insert</p>	<p>M8 SS Bolt 18 mm Dia. Copper Insert</p>
<p>Threaded Copper Insert 14 mm Dia. for M6 Bolt TYPE "FT1"</p>	<p>Threaded Copper Insert 16 mm Dia. for M6 Bolt TYPE "FT2"</p>	<p>Threaded Copper Insert 18 mm Dia. for M8 Bolt TYPE "FT3"</p>

Constant Voltage Charging

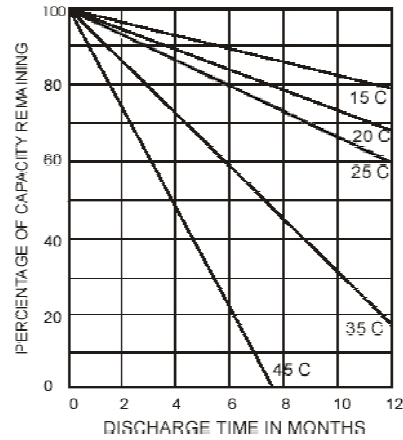
It is recommended to use Constant Voltage method of charging for Valve Regulated lead acid (VRLA) Batteries. Charging voltages must be regularly checked. To optimize the battery performance, it is necessary to ensure that the voltage is kept within the following limits.

Float Service: 2.25 +/- 1% Volts Per Cell at 20° C (68°F).

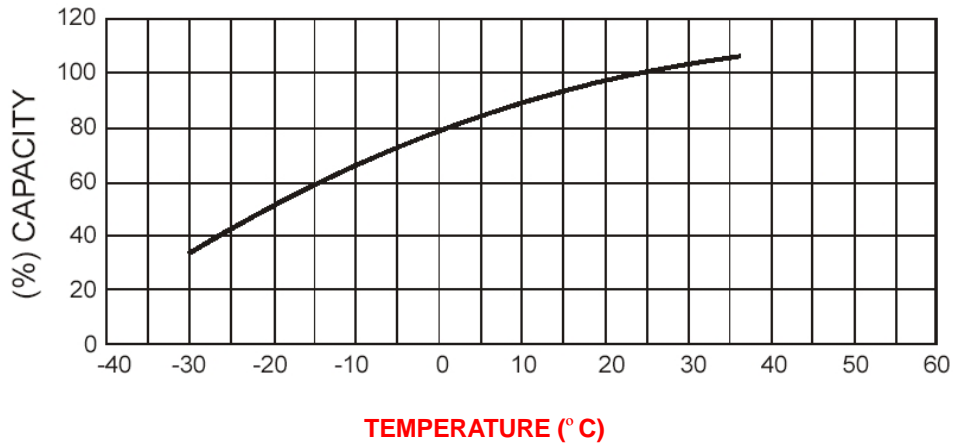
Cycle Service: 2.35 +/- 1% Volts Per Cell at 20° C (68°F).

Temperature Effects

Temperature affects the battery in a number of different ways. The battery will operate in extreme temperature ranges from -40° C(-40° F) to 60° C (140° F). However the Valve Regulated lead acid (VRLA) Battery nominal capacity, and optimum performance are based on operating temperature of 20° C . Above this temperature the battery capacity will increase slightly, however the battery life will decrease at the higher temperature.



When designing your battery system, the different discharge and recharge performance at different temperature should be taken into account, details of both listed below.

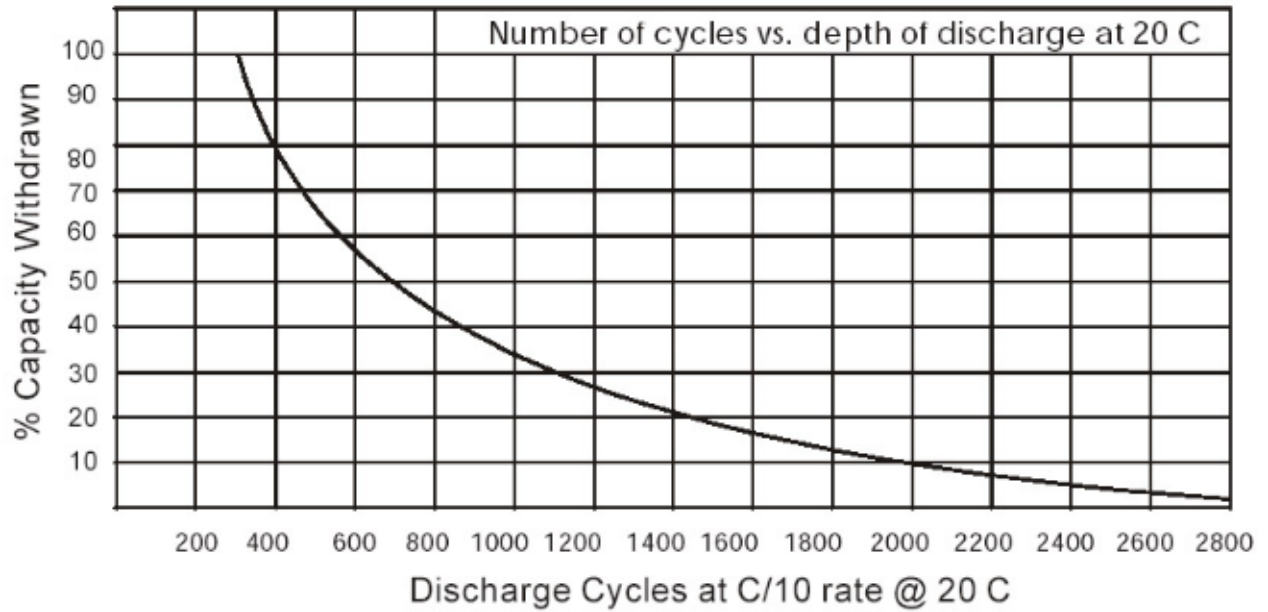


Battery Charging (Temperature compensation)	
Temperature (° C)	Float Charge (Volts/ Cell)
5	2.31
10	2.29
15	2.27
20	2.25
25	2.25
30	2.23
35	2.20

Temperature Compensation is the process whereby the charge voltage is changed as a function of the battery temperature.

For higher or lower temperatures outside the table range use temperature correction factor of 0.004 ± 0.01 per volt per cell per °C

Cycling Ability



Typical Cyclic Performance

Capacity Withdrawn	Cycles
100%	300
80%	400
50%	700
40%	850
30%	1110
20%	1400
10%	2000
5%	2400

POWER-PLUS

Providing reliable power solutions
visit our website for more product information
www.powerplusbatteries.com