



APPLICATIONS

- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS
- CATV
- MEDICAL EQUIPMENT
- COMMUNICATIONS
- EMERGENCY LIGHTING
- CONTROL SYSTEMS
- EMERGENCY POWER SYSTEMS
- DATA CENTERS
- FIRE ALARM SYSTEMS
- SECURITY SYSTEMS

The **General Purpose (GP)** Valve Regulated Lead Acid batteries are designed to provide superior performance and feature the latest advancement in plate and battery technology offering exceptional service life, low self discharge, high cycling capabilities and low float charge current characteristics.

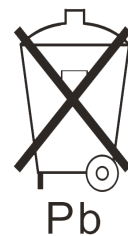
GP batteries with optimized recombination technology and superior performance are specifically designed and engineered for high rate short duration constant power discharges where mission critical performance is mandatory.

GP batteries are manufactured in compliance with IEC, UL, ISO, and CE quality and performance standards.

GP batteries are available with racks and cabinets meeting NEBS and UBC Seismic Zone 4 Requirements

FEATURES

- 10-Year Design Life >20Ah; 5-Year Design Life<20Ah
- Initial capacity at 100%
- 6 month of storage at 77°F (25°C) capacity > 86%
- Low pressure one-way flame arresting valve(s) UL1989
- Absorbent Glass Mat (AGM) technology, Recombination efficiency of 99.9%
- Flame Retardant ABS Cover and Container, UL94 V-0, LOI>28%
- Copper alloy insert terminals for ease of installation and maximum current carrying capabilities
- High reliability case to cover seal
- UL Recognized Component
- Classified as Nonspillable UN 2800 (no air, ground, or sea transportation restrictions)
- Monoblock 6v & 12v construction
- Low-Calcium-Tin grid alloy



INDUSTRY COMPLIANCE

- UL Recognized Component 924, for use in or width listed UL1778, UL1989 and UL924 systems
- UL Certified Vertical Flame Test Rating 94V-0
- ISO9001:2000 , ISO14001

TRANSPORTATION

- Classified as Nonspillable UN 2800 and meet the Nonspillable criteria listed in DOT-CFR Title 49, 171-189 (d) (3) (i) and (ii) and exempt from CFR 49, Subchapter C requirements
- Meets transportation conditions of IMDG exemption 238, IATA/ICAO Special Provision A67 (Not Restricted)

SPECIFICATIONS

Float Charging Voltage	Equalize /Cycle or Freshening at Installation Charging Voltage
2.25Vpc to 2.27Vpc @ 77°F (25°C)	2.35Vpc to 2.40Vpc @ 77°F (25°C)
See Operations and Maintenance Manual for specific guidelines and recharge times	

Charging Temperature Compensation	-2 mV/cell/°F > 77°F (-3.6 mV/cell /°C > 25°C)
	+2 mV/cell/°F < 77°F (+3.6 mV/cell/°C < 25°C)

Maximum AC Ripple (Charger)	Maximum Charge Current
0.5% RMS, 1.5% peak-to-peak for float charge voltage for best results	C ₅ Rate Amps (5 hour rate @ 1.75vpc)

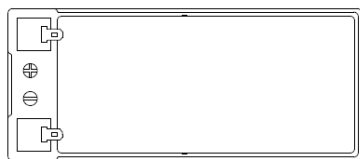
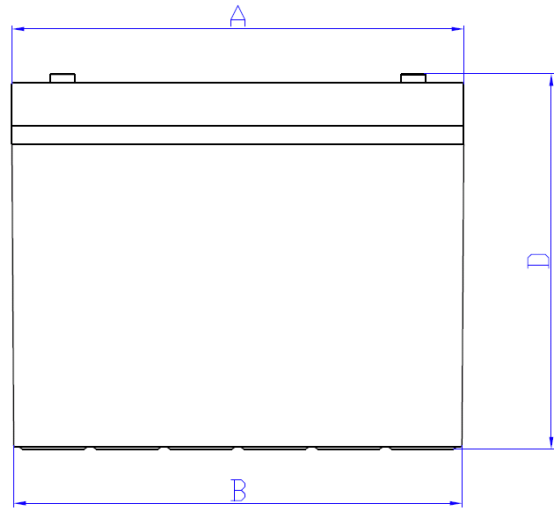
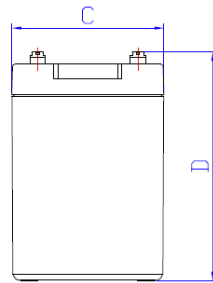
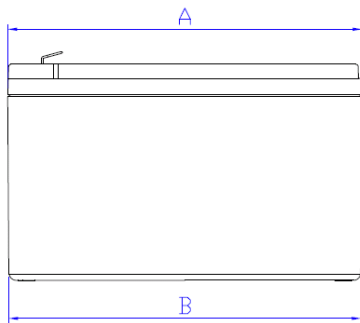
Electrolyte	Self Discharge Rate
Absorbed 1.300 s.g. H ₂ SO ₄	<2% per month at 77°F (25°C)

Relief Valve	Self Resealing; Operates at 2 to 3 psi and is complete with integral flame arrestor
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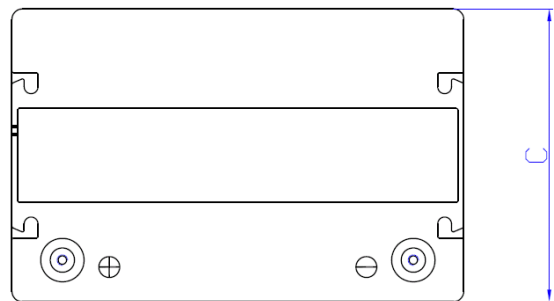
Terminal Type	Torque	Retorque
F2 (7.2Ah)	N/A	N/A
M5-F (Female)	40 in-lbs (5 Nm)	32 in-lbs (4 Nm)
M6-F (Female <70Ah)	60 in-lbs (7 Nm)	48 in-lbs (5.6 Nm)
M6-F (Female >70Ah)	90 in-lbs (10 Nm)	78 in-lbs (8 Nm)

Operating Temperature Range	
Nominal	Discharge
+74°F (24°C) to 80°F (27°C)	-40°F (-40°C) to +140°F (60°C)
Charge	Storage Temperature Range
-20°F (-28°C) to +122°F (50°C)	-4°F (-20°C) to +104°F (40°C)

PHYSICAL PROPERTIES - DIMENSIONS



F2 - Terminal



M5-F / M6-F Terminal

Model	V	Ah @ 20 hrs to 1.75 VPC @ °77F	Length (A)		Length (B)		Width (C)		Height (D)		Weight		Terminal
			in	mm	in	mm	in	mm	in	mm	lbs.	kg	
GP7-12	12	7	5.94	151	-	-	2.56	65	3.98	101	4.8	2.15	F2
GP9-12	12	9	5.94	151	-	-	2.56	65	3.98	101	5.4	2.45	F2
GP12-12	12	12	5.94	151	-	-	3.86	98	3.98	101	8.2	3.7	F2
GP18-12	12	18.4	7.13	181	-	-	3.03	77	6.57	167	11.7	5.3	M5-F
GP20-12	12	20	7.13	181	-	-	3.03	77	6.57	167	13.0	5.9	M5-F
GP24-12	12	26	6.89	175	-	-	6.54	166	4.96	126	19.0	8.6	M5-F
GP38-12	12	42	7.76	197	-	-	6.5	165	6.69	170	29.8	13.5	M6-F
GP65-12	12	67	13.78	350	-	-	6.54	166	7.05	179	46.4	21.0	M6-F
GP90-12	12	92	12.09	306	-	-	6.62	168	8.54	217	63.3	28.7	M6-F
GP100-12	12	104	12.09	306	-	-	6.62	168	8.5	216	70.6	32.0	M6-F
GP150-12	12	136	13.43	341	12.90	328	6.77	172	11.34	288	91.5	41.5	M6-F

Constant Power Discharge in Watts per Cell at 77°F (25°C)

Model	Operating Time								
	5 min	10 min	15 min	30 min	1hr	3 hr	5 hr	10 hr	20 hr
GP7-12	46.3	29.9	23.1	13.8	8.92	3.75	2.25	1.44	0.76
GP9-12	67.2	47.9	34.9	21.8	12.8	5.36	3.21	2.06	1.08
GP12-12	79.4	51.3	39.7	23.7	15.3	6.43	3.85	2.54	1.3
GP18-12	119	77	59.5	35.5	22.9	9.65	5.78	3.82	1.94
GP20-12	119	77	59.5	35.5	22.9	9.65	5.78	3.82	1.94
GP24-12	137	98.3	76.8	48.5	31.4	13.1	9.13	5.22	2.63
GP38-12	219	157	123	77.6	50.3	21	14.6	8.36	4.2
GP65-12	356	255	200	126	81.7	34.1	23.7	13.6	6.83
GP90-12	492	354	276	175	113	47.2	32.9	18.8	9.45
GP100-12	547	393	307	194	126	52.4	36.5	20.9	10.5
GP150-12	733	527	411	260	168	70.2	48.9	28	14.1

Constant Power Discharge in Watts per Cell at 77°F (25°C)

Model	Operating Time								
	5 min	10 min	15 min	30 min	1 hr	3 hr	5 hr	10 hr	20 hr
GP7-12	23.1	15.1	11.7	6.5	4.54	1.89	1.25	0.71	0.36
GP9-12	33.1	22.1	17.3	10.4	5.90	2.40	1.50	0.90	0.50
GP12-12	39.5	25.8	20	11.1	7.78	3.25	2.14	1.25	0.62
GP18-12	59.3	38.8	30.0	16.6	11.7	4.87	3.22	1.87	0.93
GP20-12	61.7	42.1	33.0	19.21	13.22	5.5	3.71	2.1	1.06
GP24-12	66.5	48.8	38.8	24.5	16.3	6.75	4.69	2.55	1.31
GP38-12	106	78	62	39.2	26.0	10.8	7.51	4.07	2.1
GP65-12	173	127	101	63.7	42.3	17.6	12.2	6.62	3.4
GP90-12	239	176	140	88.2	58.5	24.3	16.9	9.17	4.7
GP100-12	266	195	155	98.0	65.0	27.0	18.8	10.2	5.2
GP150-12	356	261	208	131	87.1	36.2	25.2	13.6	7.0