



LP Series-General Purpose LP12-4.0(12V4.0Ah)

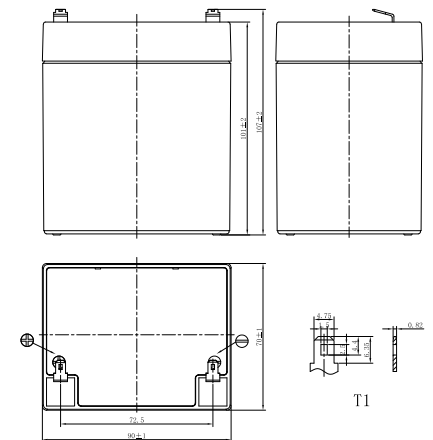


Specifications

Rated Voltage	12V	
Nominal Capacity	4.0Ah	(C ₂₀ , 1.75V/cell)
Dimension	Length	90±1mm (3.54 inches)
	Width	70±1mm (2.76 inches)
	Container Height	101±2mm (3.98 inches)
	Total Height	107±2mm (4.21 inches)
Approx Weight	1.26 Kg (2.78 lbs)	
Terminal	T1/T2	
Container Material	ABS	
Rated Capacity (25°C)	4.00 Ah	(20hr, 0.200A, 1.75V/cell)
	3.72 Ah	(10hr, 0.372A, 1.75V/cell)
	3.39 Ah	(5hr, 0.679A, 1.75V/cell)
	3.03 Ah	(3hr, 1.01A, 1.75V/cell)
	2.33 Ah	(1hr, 2.33A, 1.60V/cell)
Max. Discharge Current	60A (5s)	
Internal Resistance (25°C)	Approx 63mΩ	
Operating Temp. Range	Discharge	-15 ~ 50°C (5 ~ 122°F)
	Charge	-20 ~ 40°C (-4 ~ 104°F)
	Storage	-15 ~ 40°C (5 ~ 104°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 1.2A. Voltage 14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
	Initial Charging Current less than 1.2A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Standby Use	Initial Charging Current less than 1.2A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	LP series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Layout



Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	9.60	7.09	5.63	4.66	3.46	2.62	2.14	1.63	1.36	0.978	0.778	0.662	0.566	0.445	0.363	0.195
1.80V/cell	10.5	7.45	5.85	4.80	3.55	2.67	2.18	1.65	1.38	0.990	0.789	0.671	0.574	0.450	0.367	0.198
1.75V/cell	11.3	7.81	6.06	4.94	3.64	2.72	2.22	1.68	1.40	1.01	0.799	0.679	0.581	0.456	0.372	0.200
1.70V/cell	12.1	8.18	6.27	5.09	3.72	2.77	2.26	1.71	1.43	1.02	0.811	0.688	0.589	0.461	0.376	0.202
1.67V/cell	12.6	8.40	6.41	5.18	3.77	2.81	2.28	1.73	1.44	1.03	0.817	0.694	0.593	0.465	0.379	0.203
1.60V/cell	13.8	8.91	6.70	5.38	3.88	2.88	2.33	1.76	1.47	1.05	0.833	0.706	0.603	0.472	0.385	0.206

Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	18.3	13.6	10.8	8.96	6.70	5.07	4.16	3.18	2.66	1.92	1.53	1.31	1.12	0.882	0.721	0.391
1.80V/cell	19.7	14.2	11.2	9.20	6.83	5.16	4.22	3.22	2.70	1.95	1.55	1.32	1.13	0.892	0.730	0.395
1.75V/cell	21.2	14.8	11.5	9.40	6.97	5.24	4.28	3.26	2.73	1.97	1.57	1.34	1.15	0.902	0.738	0.399
1.70V/cell	22.6	15.4	11.9	9.70	7.09	5.32	4.34	3.31	2.77	2.00	1.59	1.35	1.16	0.912	0.746	0.403
1.67V/cell	23.5	15.8	12.1	9.80	7.17	5.37	4.38	3.33	2.79	2.01	1.60	1.36	1.17	0.919	0.751	0.406
1.60V/cell	25.3	16.6	12.5	10.1	7.35	5.48	4.46	3.39	2.84	2.04	1.63	1.38	1.18	0.933	0.762	0.411



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Applications

- All purpose
- Uninterruptable Power Supply (UPS)
- Electric Power System (EPS)
- Emergency backup power supply
- Alarm and security system
- Communication power supply
- DC power supply
- Auto control system

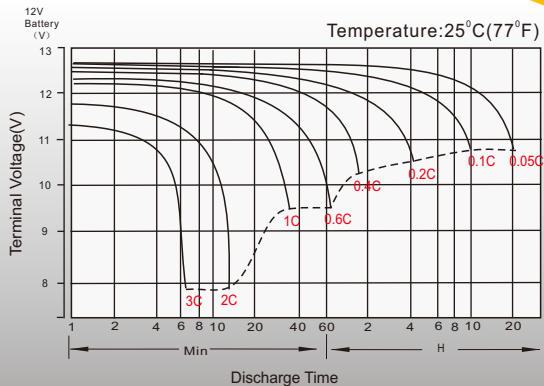
General Features

- 5 years design life(25°C)
- Special exhaust structure and sealing technology, safe and reliable, flexible installation, convenient maintenance
- PbCaSn alloy for plate grids: less gassing, less self-discharging
- High quality AGM separator: extend cycle life and prevent micro short circuit
- High purity raw material: ensure low self discharge rate

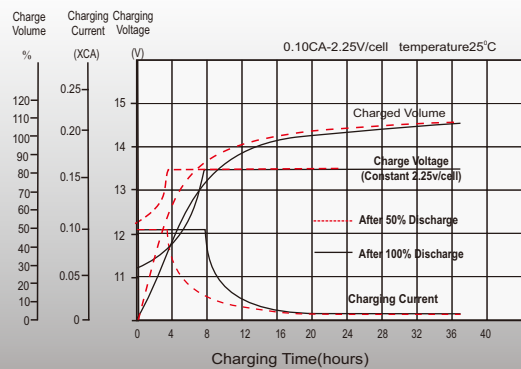
Standards

- Compliance with IEC 60896 standards, EU Battery Directive
- UL, CE Certified
- Manufactured in Leoch®IATF 16949, ISO45001, ISO 9001 and ISO 14001 certified production facilities

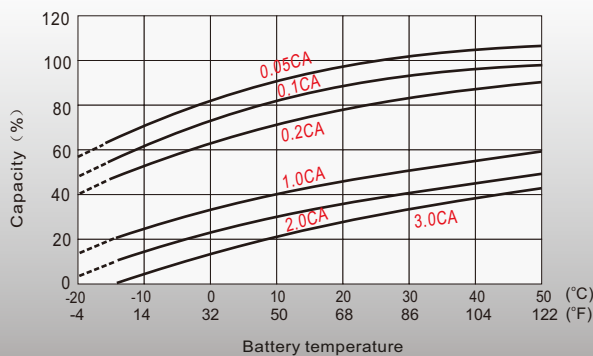
Discharge Characteristics



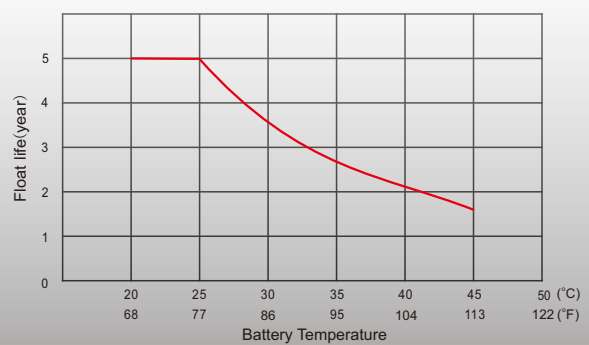
Float Charging Characteristics



Temperature Effects in Relation to Battery Capacity



Float Service Life



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