



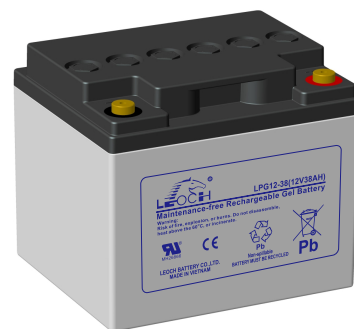
# LPG Series-Gel Battery

## LPG12-38(12V38Ah)

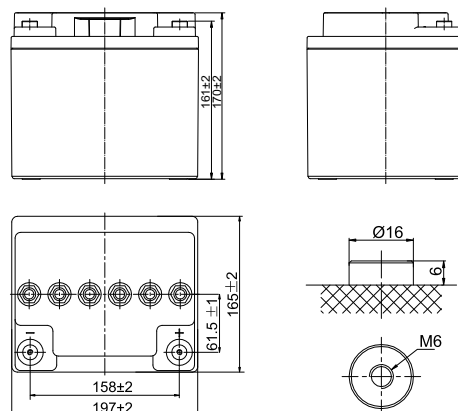


### Specifications

Rated Voltage	12V	
Nominal Capacity	C <sub>20</sub> , 1.80V/cell	38Ah
Dimension	Length	197±2mm (7.76 inches)
	Width	165±2mm (6.50 inches)
	Container Height	170±2mm (6.69 inches)
	Total Height	170±2mm (6.69 inches)
Approx Weight	12.8kg (28.2 lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity(25°C)	38.0 Ah	C20(1.90A, 1.80V/cell)
	35.0 Ah	C10(3.50A, 1.80V/cell)
	31.0 Ah	C5(6.20A, 1.75V/cell)
	27.7 Ah	C3(9.22A, 1.75V/cell)
	22.2 Ah	C1(22.2A, 1.60V/cell)
Max. Discharge Current	380A (5s)	
Internal Resistance(25°C)	Approx 13.3mΩ	
Operating Temp. Range	Discharge	-20 ~ 55°C (-4 ~ 131°F)
	Charge	-20 ~ 40°C (-4 ~ 104°F)
	Storage	-15 ~ 50°C (5 ~ 122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Standby Use	Initial Charging Current less than 9.5A. Voltage 2.23V~2.27V at 25°C(77°F)Temp. Coefficient -3mV/°C	
Equalization Use	Initial Charging Current less than 9.5A. Voltage 2.30V~2.37V at 25°C(77°F)Temp. Coefficient -4mV/°C	
Cycle Use	Initial Charging Current less than 9.5A. Voltage 2.40V~2.50V at 25°C(77°F)Temp. Coefficient -5mV/°C	
Effect of temp. to Capacity	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	LPG 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	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	46.1	39.9	31.4	28.4	20.8	16.5	12.8	10.2	8.08	6.56	5.73	4.99	4.05	3.43	1.77
1.80V/cell	52.3	45.3	35.5	30.9	22.0	18.2	13.5	11.2	8.87	7.13	6.01	5.28	4.22	3.50	1.90
1.75V/cell	56.7	49.0	38.3	31.6	22.8	20.4	14.8	12.0	9.22	7.35	6.20	5.45	4.29	3.61	1.91
1.70V/cell	59.3	51.5	40.4	31.8	23.2	21.1	15.2	12.3	9.38	7.36	6.27	5.46	4.33	3.61	1.93
1.67V/cell	62.4	53.6	41.8	32.7	23.6	21.5	15.5	12.5	9.51	7.48	6.37	5.54	4.36	3.64	1.95
1.60V/cell	64.5	55.2	42.8	33.1	23.9	22.2	15.9	12.8	9.63	7.61	6.51	5.63	4.40	3.68	1.98

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

F.V/Time	10min	15min	20min	30min	45min	1h	1.5h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	86.7	75.6	59.7	54.3	39.9	32.0	24.8	19.9	15.8	12.9	11.3	9.85	8.00	6.79	3.52
1.80V/cell	96.9	84.6	66.8	58.6	42.0	35.1	26.2	21.8	17.3	14.0	11.8	10.4	8.32	6.92	3.77
1.75V/cell	103.5	90.3	71.3	59.4	43.3	39.1	28.5	23.2	17.9	14.3	12.1	10.7	8.44	7.11	3.79
1.70V/cell	106.3	93.5	74.1	59.2	43.7	40.0	29.1	23.6	18.2	14.3	12.2	10.7	8.51	7.10	3.84
1.67V/cell	110.5	96.4	76.2	60.5	44.3	40.7	29.6	24.0	18.4	14.5	12.4	10.8	8.56	7.16	3.87
1.60V/cell	112.1	97.8	77.3	60.7	44.5	41.6	30.1	24.3	18.5	14.7	12.6	10.9	8.60	7.21	3.92



# LPG Series-Gel Battery

## LPG12-38(12V38Ah)



### Applications

- Telecommunications
- Solar system
- Wind power system
- Engine starting
- Wheelchair, Floor cleaning machines, Golf trolley, Boats

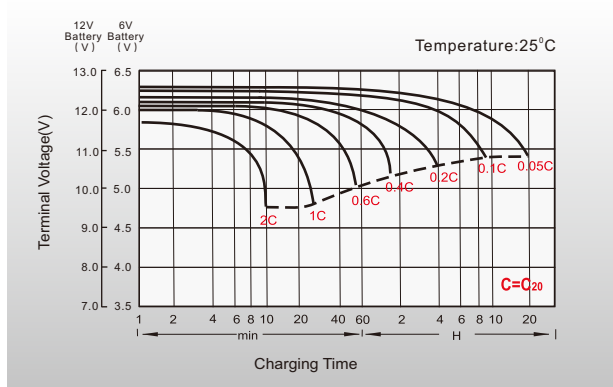
### General Features

- Battery design life up to 12 years
- Special plate design guarantees battery floating life more than 4000 times
- High thermal capacity reduce the risk of thermal out of control and drying hard, and the battery can be used in bad environment
- Little water losing, and no electrolyte stratification phenomenon

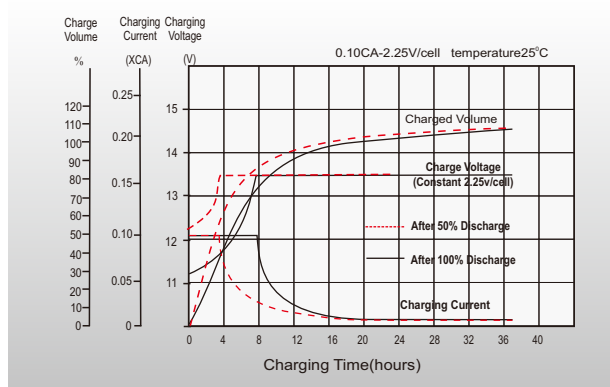
### Standards

- IEC 60896 Certified
- Classified as "Long Life" according to Eurobat
- UL Certified
- Manufactured in Leoch® IATF16949, ISO 9001, ISO 14001 and ISO 45001 certified production facilities

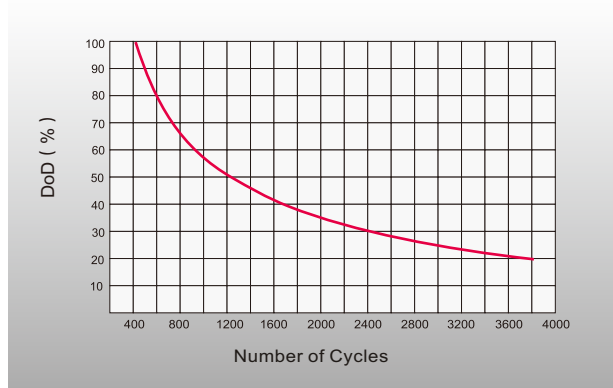
### Discharge Characteristics



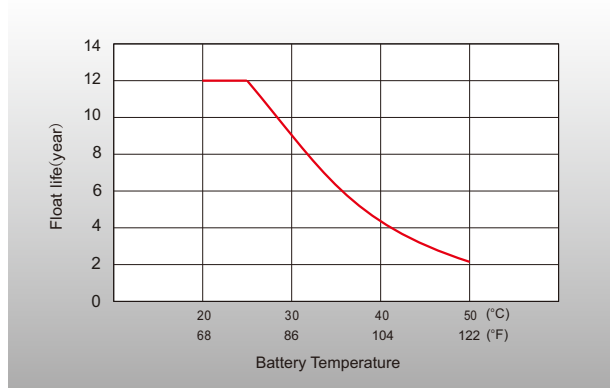
### Float Charging Characteristics



### Cycle Life in Relation to Depth of Discharge



### Effect of Temperature on Long Term Float Life



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