

LPG SERIES-GEL Battery

LPG12-31 (12V30AH)

Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	30.0AH	
Dimension	Length	195±2mm (7.68 inches)
	Width	130±2mm (5.12 inches)
	Container Height	164±2mm (6.46 inches)
	Total Height (with Terminal)	178±2mm (7.01 inches)
Approx Weight	Approx 10.7 kg (23.6lbs)	
Terminal	T5	
Container Material	ABS	
Rated Capacity	30.0 AH/1.50A	(20hr, 1.80V/cell, 25°C/77°F)
	27.0 AH/2.70A	(10hr, 1.75V/cell, 25°C/77°F)
	24.0 AH/4.80A	(5hr, 1.75V/cell, 25°C/77°F)
	20.1 AH/6.69A	(3hr, 1.75V/cell, 25°C/77°F)
	17.1 AH/17.1A	(1hr, 1.67V/cell, 25°C/77°F)
Max. Discharge Current	300A (5s)	
Internal Resistance	Approx 14.6mΩ	
Operating Temp. Range	Discharge	-20~55°C (-4~131°F)
	Charge	0~40°C (32~104°F)
	Storage	-20~50°C (-4~122°F)
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Cycle Use	Initial Charging Current less than 7.5A. Voltage	
	14.4V~15.0V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	No limit on Initial Charging Current Voltage	
	13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Capacity affected by Temperature	40°C (104°F)	103%
	25°C (77°F)	100%
	0°C (32°F)	86%
Self Discharge	Leoch LPG series batteries may be stored for up to 9 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.	



Applications

- ◆ Telecommunications
- ◆ Solar system
- ◆ Wind power system
- ◆ Wheelchair
- ◆ Floor cleaning machines
- ◆ Golf trolley
- ◆ Boats



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

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	25.4	19.9	15.2	13.2	8.07	6.15	5.09	4.40	3.80	3.36	3.03	2.77	2.53	1.44
1.80V/cell	29.1	22.3	16.8	14.6	8.73	6.59	5.40	4.62	3.99	3.52	3.18	2.91	2.65	1.50
1.75V/cell	32.7	24.5	18.1	15.6	9.26	6.96	5.66	4.80	4.13	3.64	3.28	3.00	2.70	1.53
1.70V/cell	35.2	26.2	19.2	16.5	9.81	7.25	5.84	4.95	4.27	3.76	3.38	3.08	2.76	1.55
1.67V/cell	36.6	27.2	19.9	17.1	10.1	7.48	5.99	5.05	4.34	3.82	3.43	3.12	2.80	1.56
1.60V/cell	39.7	29.2	21.4	18.2	10.5	7.78	6.21	5.21	4.45	3.90	3.49	3.19	2.85	1.59

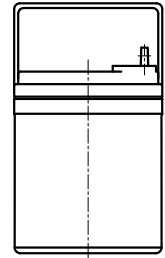
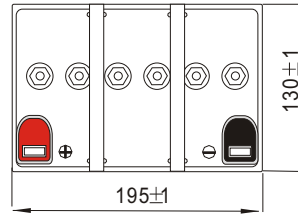
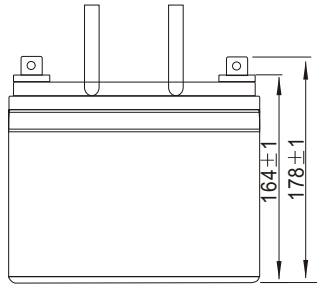
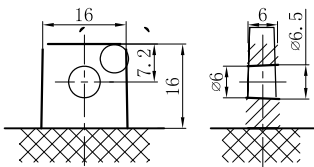
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	20min	30min	45min	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	20h
1.85V/cell	48.6	38.4	29.5	25.7	15.8	12.0	10.0	8.68	7.52	6.67	6.03	5.52	5.05	2.87
1.80V/cell	54.9	42.5	32.3	28.2	17.0	12.9	10.6	9.09	7.87	6.96	6.30	5.79	5.27	2.99
1.75V/cell	61.0	46.3	34.6	30.0	17.9	13.6	11.0	9.41	8.12	7.19	6.49	5.96	5.37	3.05
1.70V/cell	65.0	49.2	36.5	31.6	18.9	14.1	11.4	9.68	8.39	7.42	6.67	6.11	5.49	3.08
1.67V/cell	66.9	50.5	37.5	32.6	19.3	14.5	11.6	9.85	8.50	7.50	6.76	6.17	5.54	3.11
1.60V/cell	71.7	53.6	40.0	34.4	20.0	15.0	12.0	10.1	8.68	7.64	6.86	6.29	5.64	3.15

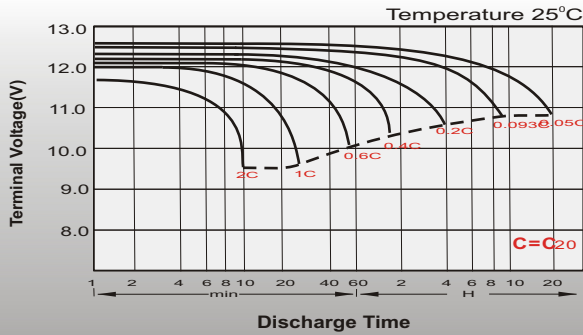
Dimensions

T5 Terminal

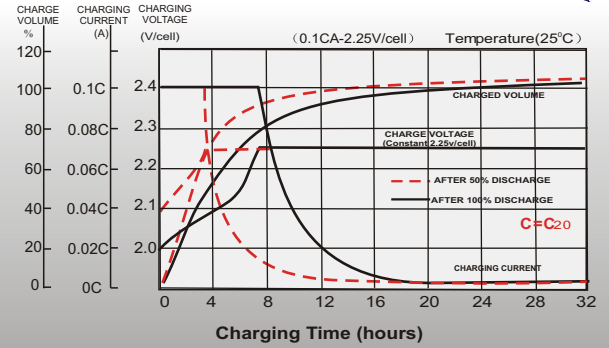
Unit: mm



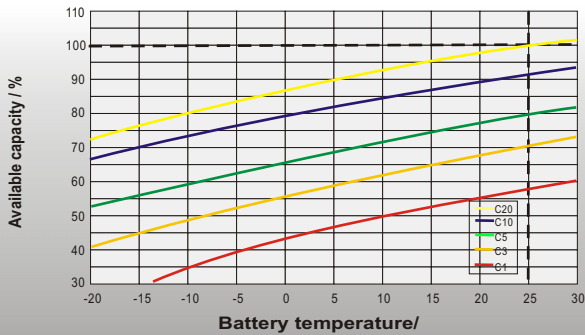
Discharge Characteristics



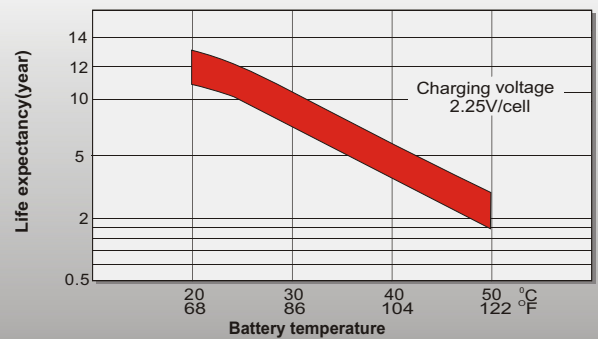
Float Charging Characteristics



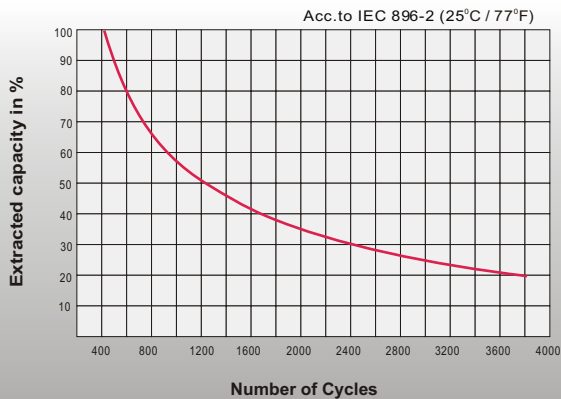
Temperature Effects in Relation to Battery Capacity



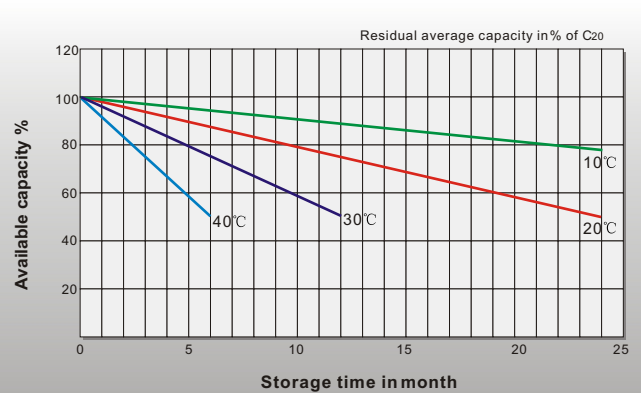
Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



General Relation of Capacity VS. Storage Time



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