

# LPGS SERIES - TRUE Hybrid GEL Battery

## LPGS12-140(12V140AH)



### Specification

Nominal Voltage	12V	
Nominal Capacity(10HR)	140.0AH	
Dimensions	Length	483±3mm (19.0 inches)
	Width	170±2mm (6.69 inches)
	Container Height	238.5±3mm (9.39 inches)
	Total Height (with Terminal)	238.5±3mm (9.39 inches)
Approx Weight	Approx 41.8 kg (92.2lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	144.2 AH/7.21A	(20hr, 1.80V/cell, 25°C/77°F)
	140.0 AH/14.0A	(10hr, 1.80V/cell, 25°C/77°F)
	119.0 AH/23.8A	(5hr, 1.75V/cell, 25°C/77°F)
	103.2 AH/34.4A	(3hr, 1.75V/cell, 25°C/77°F)
	83.6 AH/83.6A	(1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1400A (5s)	
Internal Resistance	Approx 4.1mΩ	
Operating Temp. Range	Discharge	-15~50°C (5~122°F)
	Charge	0~40°C (32~104°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 42.0A. 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 LPGS 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

- ◆ All purpose
- ◆ Uninterruptable Power Supply (UPS)
- ◆ Electric Power System (EPS)
- ◆ Emergency backup power supply
- ◆ Emergency light
- ◆ Railway signal
- ◆ Aircraft signal
- ◆ Alarm and security system
- ◆ Electronic apparatus and equipment
- ◆ Communication power supply
- ◆ DC power supply
- ◆ Auto control system

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

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	225.7	177.4	150.9	126.2	99.8	75.8	62.7	39.9	31.0	25.5	21.7	18.9	15.3	13.0	7.00
1.80V/cell	298.6	223.4	179.7	147.0	114.8	86.0	69.7	43.3	33.2	27.1	23.2	20.3	16.3	14.0	7.21
1.75V/cell	343.6	250.6	200.3	161.5	122.4	90.9	73.7	45.4	34.4	28.0	23.8	20.8	16.6	14.1	7.28
1.70V/cell	382.8	276.4	216.3	171.6	129.1	95.5	77.0	47.6	35.7	28.8	24.5	21.2	16.9	14.2	7.42
1.65V/cell	418.0	295.3	227.8	180.6	135.1	98.4	79.7	48.9	37.0	29.7	25.0	21.7	17.1	14.4	7.49
1.60V/cell	464.8	323.2	245.7	193.9	143.6	104.0	83.6	50.7	38.3	30.4	25.5	22.1	17.3	14.6	7.56

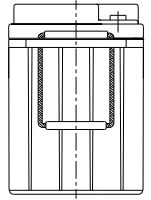
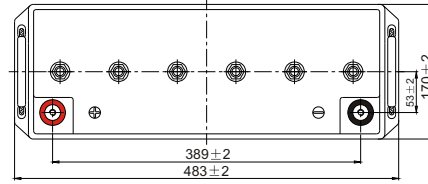
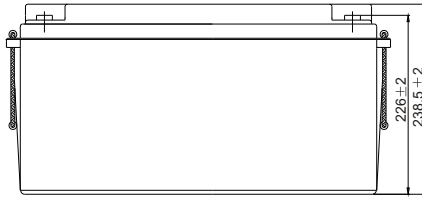
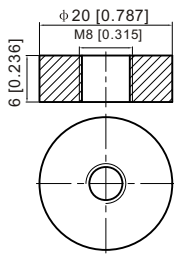
### Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	5min	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	415.9	330.3	283.7	239.8	191.1	146.3	121.4	77.7	60.5	49.9	42.6	37.1	30.4	25.9	13.9
1.80V/cell	544.7	411.3	333.6	275.4	217.3	164.7	134.4	83.9	64.7	52.9	45.5	39.8	32.3	27.7	14.3
1.75V/cell	612.9	453.6	367.0	299.2	229.6	172.8	141.5	87.6	66.8	54.5	46.5	40.7	32.8	28.0	14.4
1.70V/cell	662.9	488.0	390.3	315.3	240.4	180.4	147.1	91.7	69.0	56.0	47.6	41.5	33.2	28.1	14.7
1.65V/cell	712.2	515.9	407.0	328.6	249.5	184.3	151.3	93.6	71.2	57.5	48.5	42.3	33.6	28.4	14.8
1.60V/cell	773.6	551.7	431.6	349.0	262.9	193.7	157.7	96.6	73.4	58.6	49.4	43.0	34.0	28.7	14.9

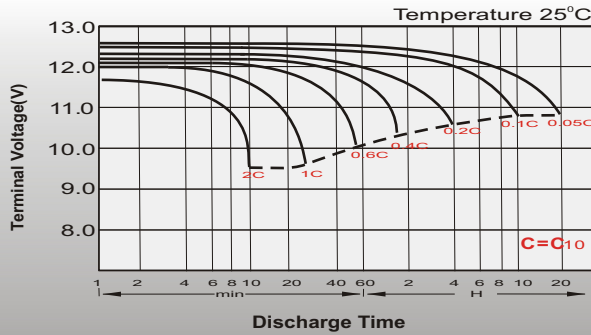
# Dimensions

## T11 Terminal

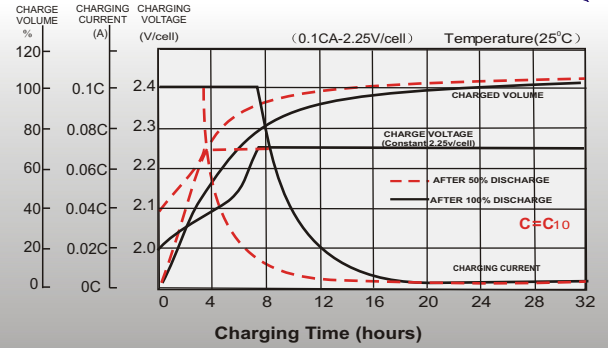
Unit: mm [inches]



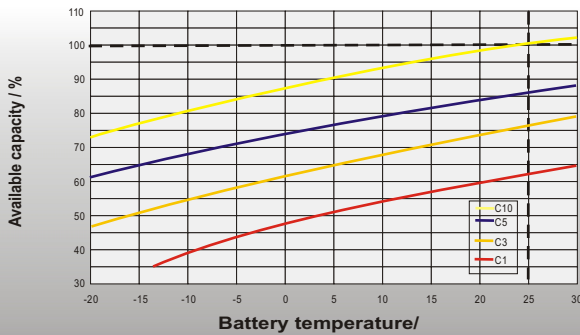
## Discharge Characteristics



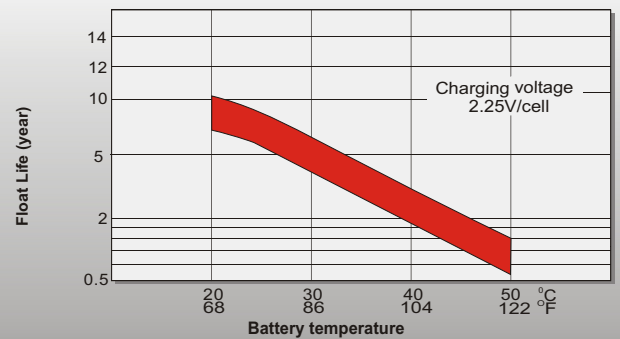
## Float Charging Characteristics



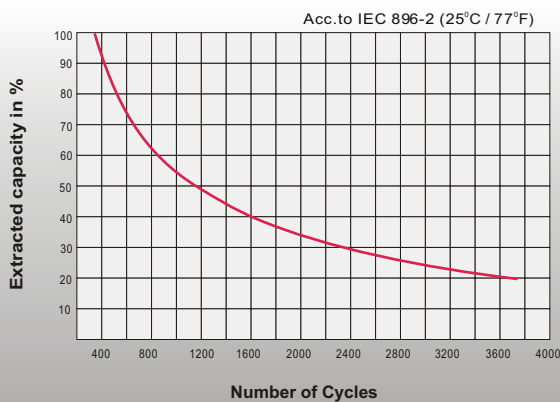
## Temperature Effects in Relation to Battery Capacity



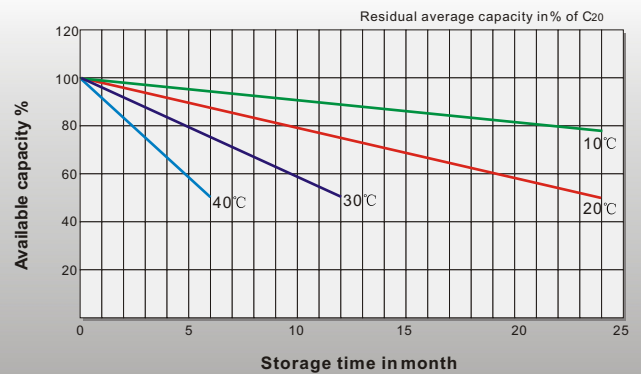
## Effect of Temperature on Long Term Float Life



## Cycle Life in Relation to Depth of Discharge



## General Relation of Capacity VS. Storage Time



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