

# LPCG SERIES- Deep cycle GEL

## LPCG12-140(12V136AH)

### Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	136.4AH	
Dimension	Length	483±3mm (19.02 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 44.2 kg (97.5lbs)	
Terminal	T11	
Container Material	ABS	
Rated Capacity	136.4 AH/6.82A	(20hr ,1.80V/cell,25°C/77°F)
	124.0AH/12.4A	(10hr,1.80V/cell,25°C/77°F)
	109.0 AH/21.8A	(5hr,1.75V/cell,25°C/77°F)
	94.8 AH/31.6A	(3hr,1.75V/cell,25°C/77°F)
	79.6AH/79.6A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	1260A (5s)	
Internal Resistance	Approx 4.2mΩ	
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 27.2A.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	LPCG 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.	



### Typical Applications

- ◆ Railway and marine systems
- ◆ Electric tools
- ◆ Vehicle in place of walking
- ◆ Lawn mowers
- ◆ Golf trolleys and golfcart
- ◆ Electric toys
- ◆ Portable power
- ◆ Wheelchairs
- ◆ Medical equipments.



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

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	150.7	130.5	115.3	90.5	69.1	57.8	36.7	28.0	23.1	20.0	17.3	13.7	11.9	6.54
1.80V/cell	181.0	150.9	132.1	101.2	76.2	63.8	39.7	30.0	24.5	21.0	18.1	14.4	12.4	6.82
1.75V/cell	209.9	171.6	148.5	111.3	82.3	68.3	42.0	31.6	25.7	21.8	18.8	14.8	12.7	6.96
1.70V/cell	233.2	186.9	160.0	119.2	87.5	72.3	44.5	32.9	26.6	22.5	19.4	15.4	13.0	7.04
1.67V/cell	249.7	196.4	166.4	123.8	90.5	75.0	45.8	34.0	27.2	22.9	19.7	15.6	13.1	7.11
1.60V/cell	272.2	210.1	180.4	132.5	97.3	79.6	47.6	35.4	28.2	23.6	20.2	15.9	13.4	7.21

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

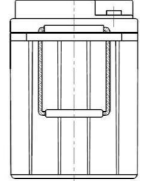
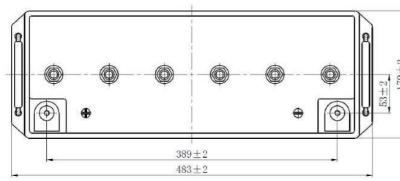
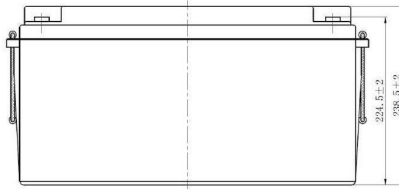
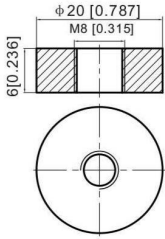
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	283.1	247.1	220.8	174.4	133.9	112.5	71.7	54.7	45.6	39.5	34.1	27.4	23.7	13.0
1.80V/cell	335.1	281.2	249.6	193.1	146.7	123.6	77.2	58.5	48.1	41.3	35.8	28.7	24.7	13.6
1.75V/cell	382.7	316.4	277.3	210.5	157.4	131.6	81.6	61.6	50.2	42.8	36.9	29.5	25.3	13.8
1.70V/cell	418.9	341.0	295.5	223.4	165.8	138.5	86.1	64.0	51.7	44.0	38.1	30.3	25.8	14.0
1.67V/cell	443.7	354.3	304.2	229.8	170.6	142.8	87.9	65.8	52.8	44.7	38.6	30.7	26.1	14.1
1.60V/cell	474.7	373.8	325.9	243.6	181.9	150.9	90.9	68.1	54.6	46.1	39.4	31.2	26.5	14.3



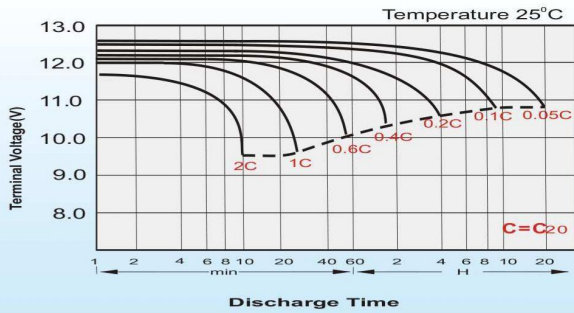
## Dimensions

### T11 Terminal

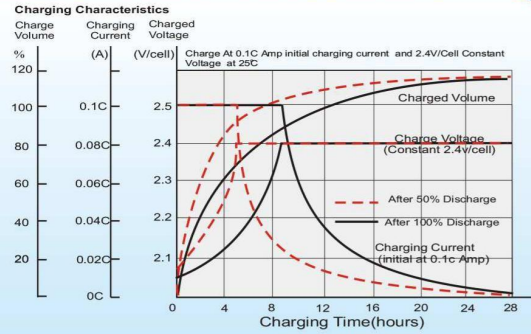
Unit: mm [inches]



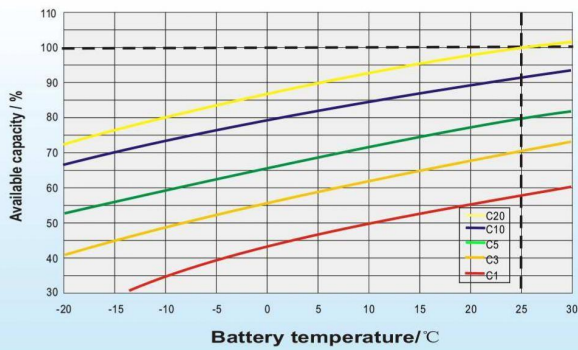
## Discharge Characteristics



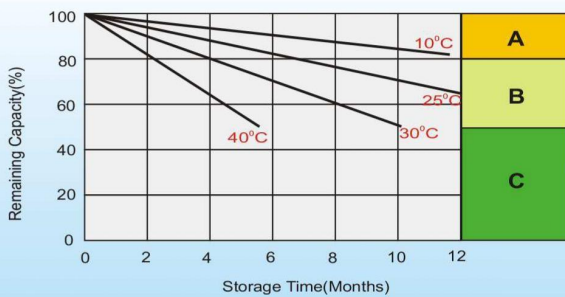
## Charging Characteristics (cycle use)



## Temperature Effects in Relation to Battery Capacity



## Cycle Life in Relation to Depth of Discharge



## Self Discharge Characteristics

- A** No supplementary charge required  
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
  1. Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
  2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
  3. Charged for 8~10hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity.  
The battery should never be left standing till this is reached.