

LPCG SERIES- Deep cycle GEL

LPCG12-85(12V85AH)

Specification

Nominal Voltage	12V	
Nominal Capacity(20HR)	85.0AH	
Dimension	Length	305±3mm (12.01 inches)
	Width	168±2mm (6.61 inches)
	Container Height	207±3mm (8.15 inches)
	Total Height (with Terminal)	213±3mm (8.38 inches)
Approx Weight	Approx 26.7 kg (59.8lbs)	
Terminal	T6	
Container Material	ABS	
Rated Capacity	85.0 AH/4.25A	(20hr ,1.80V/cell,25°C/77°F)
	77.2AH/7.72A	(10hr,1.80V/cell,25°C/77°F)
	68.5 AH/13.7A	(5hr,1.75V/cell,25°C/77°F)
	59.7 AH/19.9A	(3hr,1.75V/cell,25°C/77°F)
	50.1 AH/50.1A	(1hr,1.60V/cell,25°C/77°F)
Max. Discharge Current	850A (5s)	
Internal Resistance	Approx 6.0mΩ	
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 17.0 A.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	94.9	82.2	72.6	57.0	43.5	36.4	23.1	17.6	14.5	12.6	10.9	8.68	7.39	4.12
1.80V/cell	114.0	95.0	83.2	63.7	48.0	40.2	24.9	18.9	15.5	13.2	11.4	9.09	7.72	4.25
1.75V/cell	132.2	108.1	93.5	70.1	51.8	43.0	26.5	19.9	16.2	13.7	11.8	9.38	7.88	4.38
1.70V/cell	146.9	117.7	100.7	75.0	55.0	45.6	28.1	20.7	16.8	14.1	12.2	9.66	8.06	4.43
1.67V/cell	157.3	123.7	104.8	78.0	57.0	47.3	28.8	21.4	17.2	14.4	12.4	9.81	8.15	4.47
1.60V/cell	171.5	132.4	113.6	83.4	61.2	50.1	30.0	22.2	17.8	14.9	12.7	10.0	8.31	4.55

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

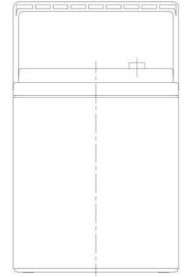
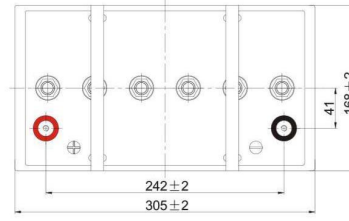
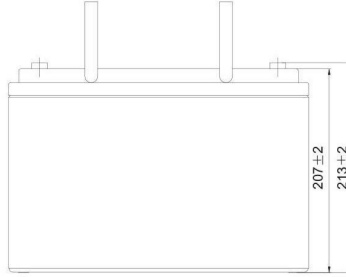
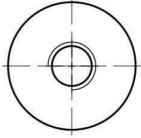
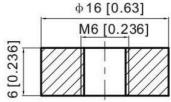
F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	178.3	155.6	139.0	109.9	84.3	70.9	45.1	34.4	28.7	24.8	21.5	17.3	15.8	8.22
1.80V/cell	211.1	178.5	157.2	121.6	92.3	77.9	48.6	36.8	30.3	26.0	22.5	18.1	16.6	8.47
1.75V/cell	241.1	200.6	174.6	132.5	99.1	82.9	51.3	38.8	31.6	27.0	23.2	18.6	17.1	8.72
1.70V/cell	263.9	214.8	186.1	140.7	104.4	87.2	54.1	40.3	32.5	27.7	24.0	19.1	17.5	8.82
1.67V/cell	279.5	223.2	191.5	144.6	107.4	90.0	55.3	41.4	33.2	28.2	24.3	19.4	17.7	8.90
1.60V/cell	299.0	239.1	203.7	153.4	114.5	95.0	57.3	42.8	34.4	29.0	24.8	19.6	18.0	9.01



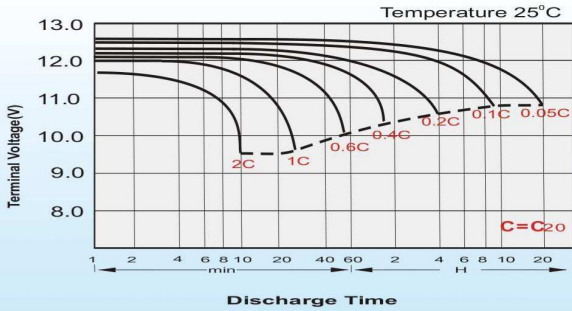
Dimensions

T6 Terminal

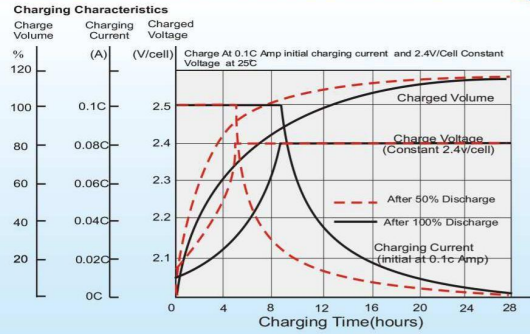
Unit: mm [inches]



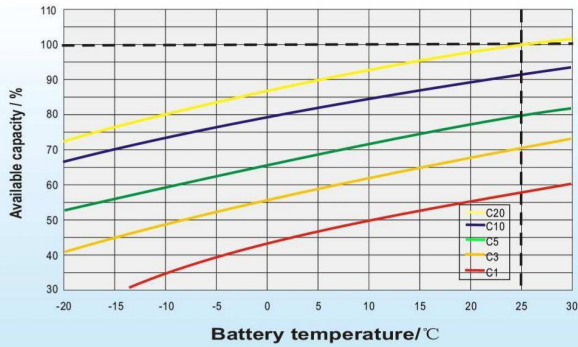
Discharge Characteristics



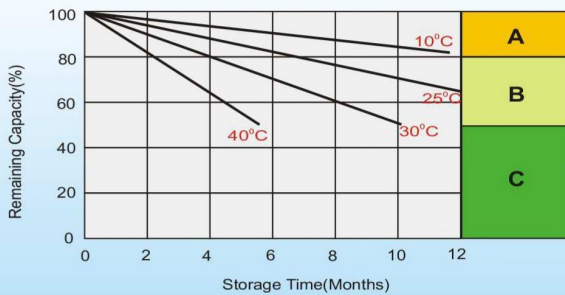
Charging Characteristics (cycle use)



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.