



LPCG Series-Deep Cycle Gel

LPCG12-90(12V90Ah)

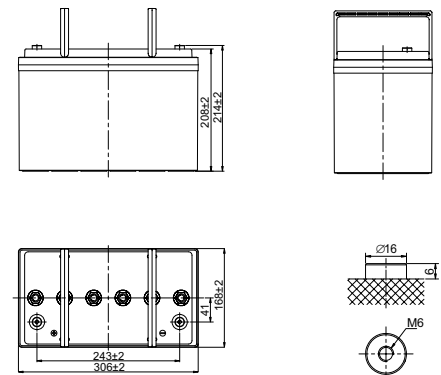


Specifications

Rated Voltage	12V	
Nominal Capacity	90Ah	(C ₂₀ , 1.80V/cell)
Dimension	Length	306±2mm (12.0 inches)
	Width	168±2mm (6.61 inches)
	Container Height	208±2mm (8.19 inches)
	Total Height	214±2mm (8.43 inches)
Approx Weight	27.5 Kg (60.6lbs)	
Terminal	M6	
Container Material	ABS	
Rated Capacity (25°C)	90.0 Ah	(20hr, 4.50A, 1.80V/cell)
	85.0 Ah	(10hr, 8.50A, 1.80V/cell)
	75.0 Ah	(5hr, 15.0A, 1.75V/cell)
	67.2 Ah	(3hr, 22.4A, 1.75V/cell)
	52.1 Ah	(1hr, 52.1A, 1.67V/cell)
Max. Discharge Current	900A (5s)	
Internal Resistance (25°C)	Approx 7.4mΩ	
Operating Temp. Range	Discharge : -20 ~ 55°C (-4 ~ 131°F)	
	Charge : -20 ~ 40°C (-4 ~ 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 21,3A. Voltage 14.4V~14.7V at 25°C(77°F)Temp. Coefficient -30mV/°C	
Standby Use	Initial Charging Current less than 21,3A. Voltage 13.5V~13.8V at 25°C(77°F)Temp. Coefficient -20mV/°C	
Effect of temp. to Capacity	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.	



Layout



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

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	40.0	24.7	19.6	15.9	13.9	12.1	9.83	8.33	4.30
1.80V/cell	44.2	27.2	21.5	17.3	14.6	12.8	10.3	8.50	4.50
1.75V/cell	49.6	29.2	22.4	17.9	15.0	13.2	10.4	8.76	4.64
1.67V/cell	52.1	30.3	23.1	18.2	15.5	13.5	10.6	8.84	4.74
1.60V/cell	53.8	31.0	23.4	18.5	15.8	13.7	10.7	8.93	4.80

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

F.V/Time	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	77.7	48.3	38.5	31.3	27.3	23.9	19.4	16.5	8.56
1.80V/cell	85.3	52.9	42.0	33.9	28.7	25.2	20.2	16.8	8.94
1.75V/cell	95.0	56.4	43.5	34.8	29.4	26.0	20.5	17.3	9.20
1.67V/cell	98.7	58.2	44.6	35.2	30.1	26.3	20.8	17.4	9.39
1.60V/cell	101.0	59.0	44.8	35.7	30.6	26.6	20.9	17.5	9.51

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Applications

- Electrically powered wheelchair
- Vehicle in place of walking
- Lawn-mower
- Golf trolleys and golf cart
- Railway and marine systems

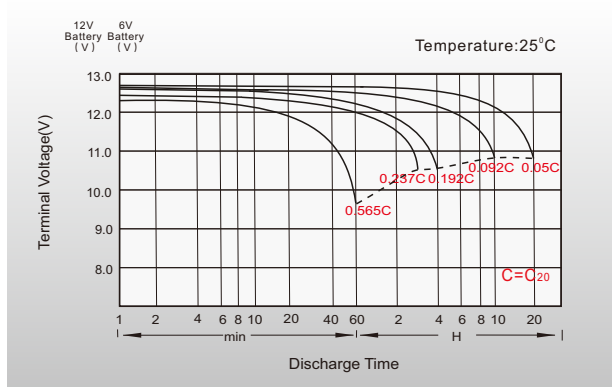
General Features

- Special plate design, long cycle life
- ≥ 600 Cycles @ 80%DOD
- Operation temperature $-20 \sim 55^{\circ}\text{C}$
- $\leq 2\%$ Self discharge per month
- Good deep discharge resilience performance

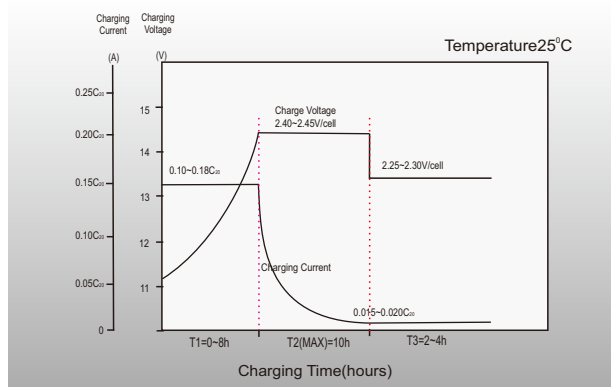
Standards

- 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

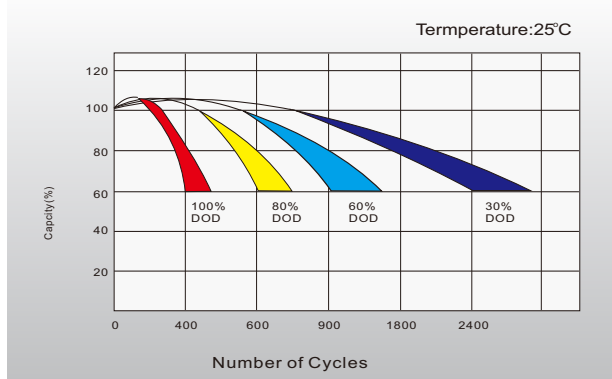
Discharge Characteristics



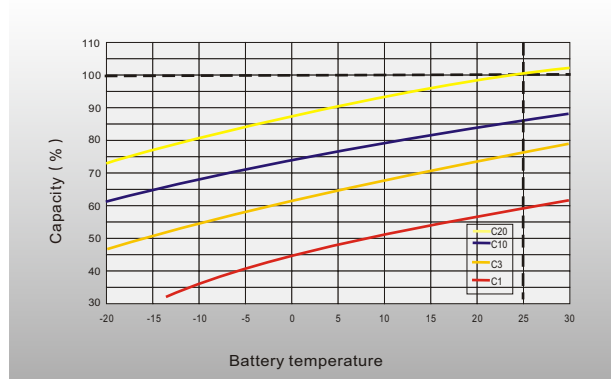
Charging Characteristics



Cycle Life in Relation to Depth of Discharge



Temperature Effects in Relation to Battery Capacity



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Publication No.:LB-LPCG12-90-PD-EN-V2.2-202007