



LPC SERIES -Deep Cycle

LPC12-120 (12V120AH)

Specification

Nominal Voltage	12V
Nominal Capacity(10HR)	120.0AH
Dimension	Length 410±3mm (16.14 inches)
	Width 177±2mm (6.97 inches)
	Container Height 225±3mm (8.86 inches)
	Total Height (with Terminal) 225±3mm (8.86 inches)
Approx Weight	Approx 37.6 Kg (82.9 lbs)
Terminal	T11
Container Material	ABS
Rated Capacity	128.6 AH/6.43A (20hr, 1.80V/cell, 25°C/77°F)
	120.0 AH/12.0A (10hr, 1.80V/cell, 25°C/77°F)
	105.2 AH/21.0A (5hr, 1.75V/cell, 25°C/77°F)
	95.4 AH/31.8A (3hr, 1.75V/cell, 25°C/77°F)
	77.5 AH/77.5A (1hr, 1.60V/cell, 25°C/77°F)
Max. Discharge Current	1300A (5s)
Internal Resistance	Approx 4.0mΩ
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 36.0A. 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%



Applications

- ◆ Electric tools
- ◆ Vehicle in place of walking
- ◆ Lawn mowers
- ◆ Golf trolleys and golf cart
- ◆ Portable apparatus, lights and instruments;
- ◆ Electric toys
- ◆ Illumination light
- ◆ Fire alarms
- ◆ Portable power
- ◆ Wheelchairs
- ◆ Medical equipments.

Leoch LPC series batteries may be stored for up to 6 months at 25°C(77°F) and then a freshening charge is required. For higher temperatures the time interval will be shorter.



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	175.7	147.8	129.2	93.0	73.8	59.9	37.2	29.0	23.5	19.1	16.7	13.6	11.3	6.37
1.80V/cell	224.5	178.6	152.7	109.7	85.9	67.1	40.6	31.2	25.1	20.5	17.9	14.4	12.0	6.43
1.75V/cell	246.7	195.1	164.3	113.9	89.1	70.2	42.1	31.8	25.7	21.0	18.4	14.7	12.1	6.49
1.70V/cell	268.9	208.3	172.6	118.5	92.7	72.4	43.8	32.7	26.3	21.6	18.7	14.9	12.2	6.61
1.65V/cell	290.2	221.5	183.4	125.0	95.0	74.9	45.0	34.1	27.2	22.2	19.2	15.1	12.5	6.70
1.60V/cell	315.0	236.9	195.4	132.0	99.0	77.5	46.5	35.1	28.1	22.9	19.6	15.3	12.6	6.73

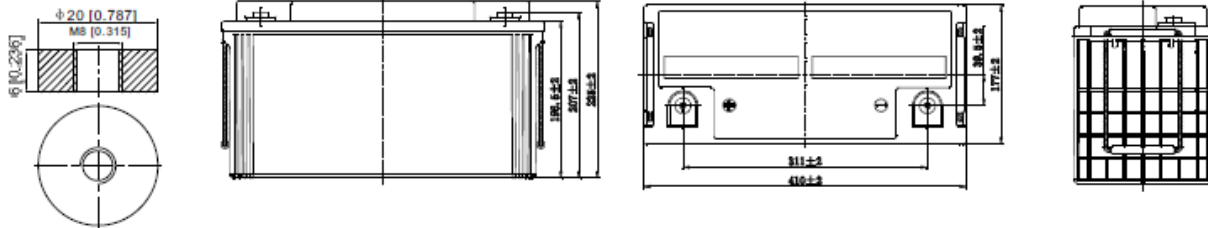
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10min	15min	20min	30min	45min	1h	2h	3h	4h	5h	6h	8h	10h	20h
1.85V/cell	327.8	278.7	246.2	178.6	142.8	116.3	72.5	56.7	46.0	37.5	32.9	26.9	22.4	12.8
1.80V/cell	413.3	331.7	286.6	208.2	164.8	129.5	78.7	60.7	48.9	40.2	35.2	28.5	23.8	12.9
1.75V/cell	448.5	358.9	305.7	215.1	170.2	135.0	81.4	61.7	49.9	41.1	36.1	29.0	24.0	13.0
1.70V/cell	482.0	380.3	319.5	223.0	176.4	138.9	84.4	63.2	51.1	42.1	36.8	29.3	24.2	13.2
1.65V/cell	516.5	401.8	337.8	234.2	180.2	143.1	86.5	65.8	52.8	43.2	37.5	29.8	24.7	13.3
1.60V/cell	551.2	424.6	356.2	244.8	186.1	147.0	88.9	67.4	54.2	44.4	38.3	30.0	24.9	13.4

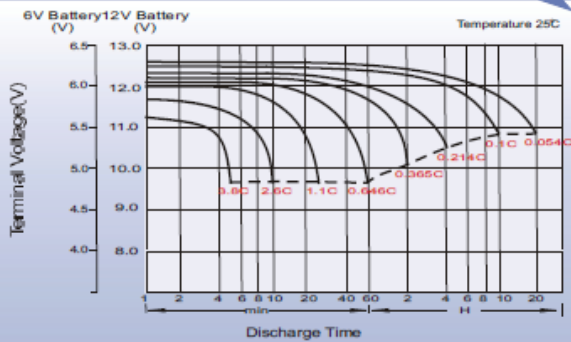
Dimensions

T11 Terminal

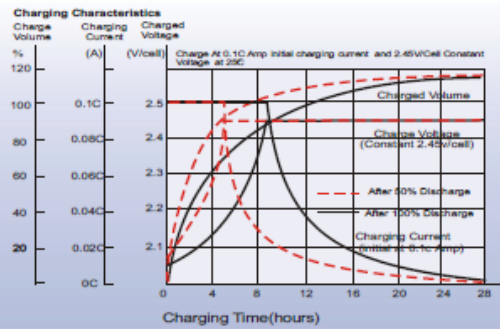
Unit: mm [inches]



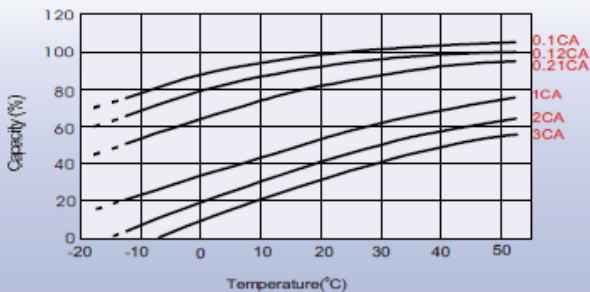
Discharge Characteristics



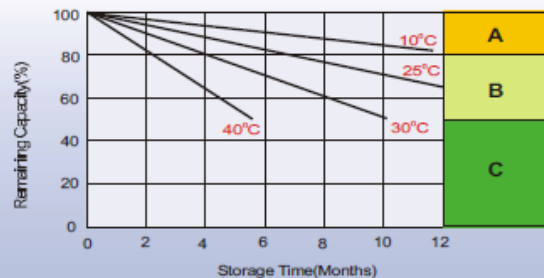
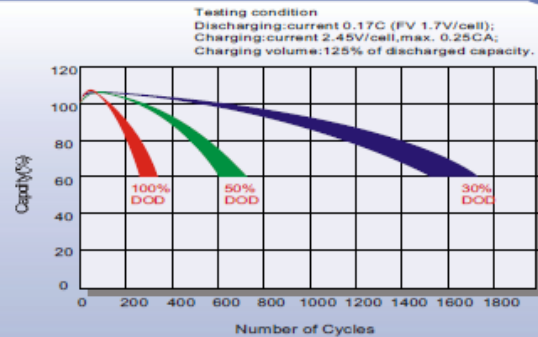
Charging Characteristics (cycle use)



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 voltage 2.25V/cell.
 2. Charged for above 20 hours at limited current 0.25CA and constant voltage 2.45V/cell.
 3. Charged for 8-10 hours 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.