

# PLBC

## SERIES

### PLBC 12FT 12V 170Ah



EnSmart PLBC series is designed specially for power supply cabinets for telecommunication systems and mainly used in outdoor base stations which require high cycle levels.

EnSmart PLBC battery uses lead carbon technology and excellent heat dissipation performance and the floating standby performance, specially designed for gas gathering and exhaust system. The PLBC Series performs greatly under high and low ambient temperature and ensures the security of the system.

### Benefits

- + High energy density
- + Low internal resistance and self-discharge rate
- + Excellent fast charging acceptance: 1.5 hour to 90% SOC
- + Excellent high rate discharge performance in low temperature
- + Super high PSoc cycle life

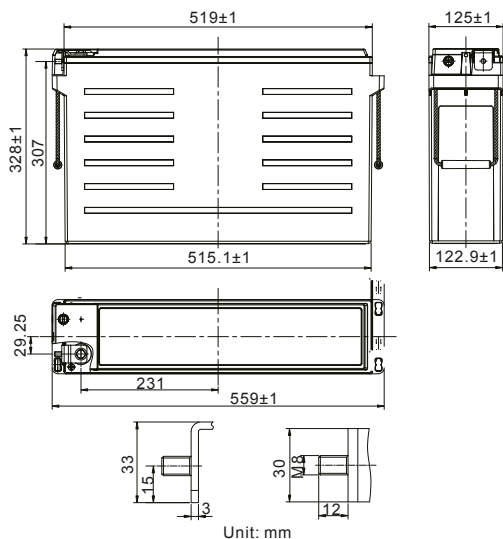
### Standards

- + Compliance with IEC 60896 standards
- + Manufactured in OHSAS 18001, ISO 9001 and ISO 14001 certified production facilities

### Application

- + Telecommunications Power system
- + Backup Power
- + Grid-Connected Energy Storage System
- + Off-Grid Energy Storage System
- + Demand Charge Reduction
- + Time-of-Use Bill Management

### Layout



### Specifications

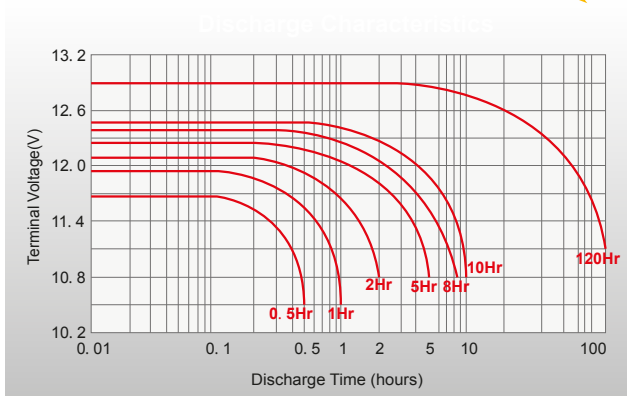
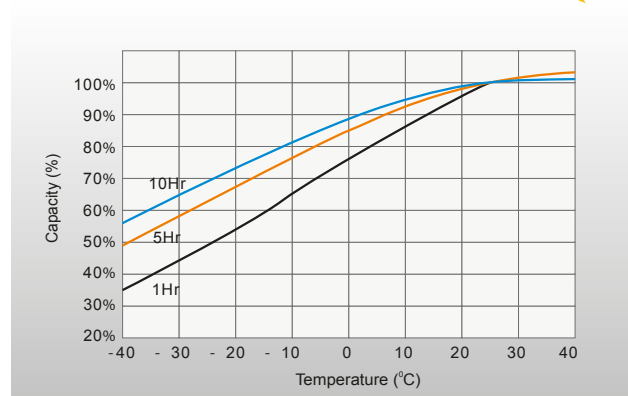
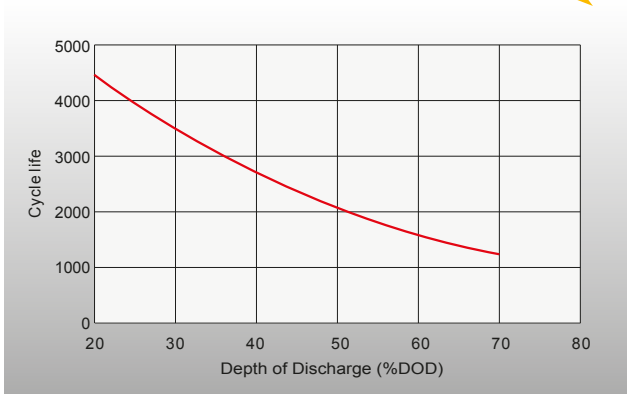
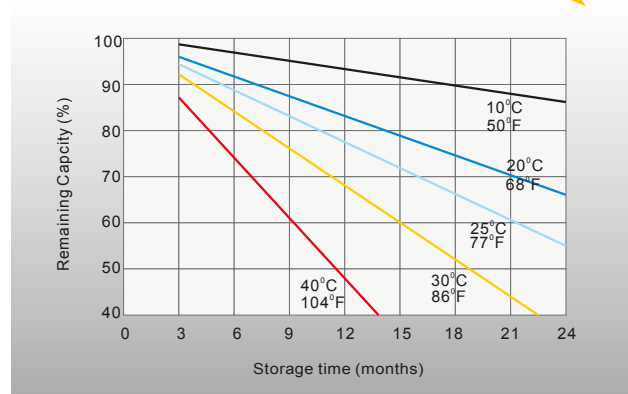
Rated Voltage	12V	
Nominal Capacity	C <sub>10</sub> , 1.80V/cell	170Ah
	C <sub>8</sub> , 1.75V/cell	170Ah
Dimension	Length	559±1mm (22.01 inches)
	Width	125±1mm (4.92 inches)
	Container Height	320±1mm (12.6 inches)
	Total Height	320±1mm (12.6 inches)
Approx. Weight	54.2 Kg (119.5 lbs)	
Terminal	M8	
Container Material	PC-ABS flame retardant jar and cover to UL94 V-0	
Rated Capacity (25°C)	170.0 Ah	(10hr, 17.0A, 1.80V/cell)
	170.4 Ah	(8hr, 21.3A, 1.75V/cell)
	166.5 Ah	(5hr, 33.3A, 1.75V/cell)
	135.9 Ah	(3hr, 45.3A, 1.75V/cell)
	115.6 Ah	(1hr, 115.6A, 1.67V/cell)
Max. Discharge Current	2040A	
Internal Resistance (25°C)	Approx. 3.2mΩ(Fully charged)	
Operating Temp. Range	-40 ~ 65°C (-40 ~ 149°F)	
Nominal Operating Temp. Range	25±3°C (77±5°F)	
Max. Charging Current(25°C)	Normal Charge 0.3C	
	Float	13.62V
	Temp. Coefficient	-3mV/cell/°C
Charge voltage(25°C)	Equalization	14.1~14.4V
	Effect of temp. to Capacity	40°C (104°F) 103%
		25°C (77°F) 100%
		0°C (32°F) 86%
Self Discharge	PLBC series batteries can be stored up to 24 months at 25°C(77°F). For higher temperatures the time interval will be shorter. Battery needs to be given a freshening charge when the OCV approach 2.10V/cell or when the maximum storage time is reached, whichever occurs first. Storage temp. advised: 0 - 40°C	

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

F.V/Time	10 min	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	246.9	212.2	185.3	144.2	110.6	98.6	57.0	42.5	35.7	31.6	20.2	16.8	8.67
1.80V/cell	272.3	233.8	200.9	154.9	117.9	103.7	59.5	44.2	37.0	32.6	20.8	17.0	8.76
1.75V/cell	294.9	249.9	212.9	161.9	122.6	108.8	61.2	45.3	38.3	33.3	21.3	17.3	8.84
1.70V/cell	313.6	263.7	223.0	167.7	126.4	112.2	62.9	46.5	39.1	33.7	21.7	17.7	8.93
1.67V/cell	322.6	270.6	228.0	170.5	128.2	115.6	64.6	47.6	40.0	34.0	22.1	17.9	9.01
1.60V/cell	336.0	281.3	235.7	174.9	130.9	119.0	65.5	48.2	40.4	34.7	22.3	18.0	9.10

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

F.V/Time	10 min	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	482.6	409.8	358.4	281.3	217.3	196.4	119.6	94.7	77.0	64.1	42.8	35.0	18.8
1.80V/cell	522.9	444.9	388.4	302.6	232.6	200.6	125.7	96.8	78.9	65.7	43.9	36.1	19.3
1.75V/cell	559.0	466.1	406.6	313.2	239.6	204.7	128.7	98.0	79.8	66.5	44.5	36.2	19.6
1.70V/cell	589.6	483.4	420.7	321.4	245.0	208.5	130.6	98.9	80.4	66.9	44.6	36.3	19.7
1.67V/cell	604.7	491.5	426.5	325.1	247.6	213.4	131.2	99.1	80.6	67.1	44.8	36.4	19.7
1.60V/cell	629.7	500.5	430.7	327.4	248.4	214.2	131.6	99.2	80.9	67.3	44.9	36.6	19.8

**Discharge Characteristics**

**Temperature in Relation to Capacity**

**Cycle Life vs. Depth of Discharge**

**Self-discharge Characteristics**

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