

PLBC

SERIES

PLBC 12FT 12V 100Ah



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

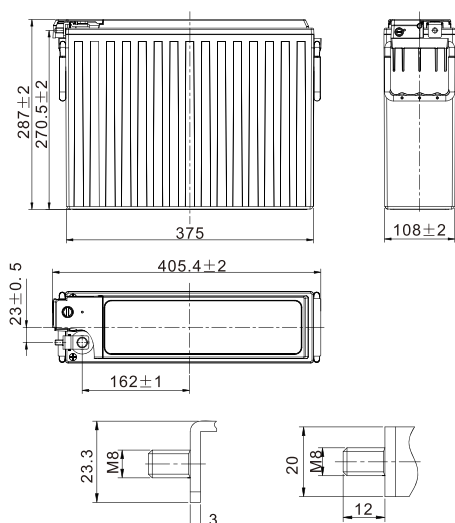
Standards

- + 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 ₁₀ , 1.80V/cell	100Ah
	C ₈ , 1.75V/cell	100Ah
Dimension	Length	405.4±2mm (15.96 inches)
	Width	108±2mm (4.25 inches)
	Container Height	287±2mm (11.30 inches)
	Total Height	287±2mm (11.30 inches)
Approx. Weight	30.8 Kg (67.9 lbs)	
Terminal	M8	
Container Material	PC-ABS flame retardant jar and cover to UL94 V-0	
Rated Capacity (25°C)	100 Ah	(10hr, 10.0A, 1.80V/cell)
	100 Ah	(8hr, 12.5A, 1.75V/cell)
	94.5 Ah	(5hr, 18.9A, 1.75V/cell)
	84.0 Ah	(3hr, 28.0A, 1.75V/cell)
	72.4 Ah	(1hr, 72.4A, 1.67V/cell)
Max. Discharge Current	1200A	
Internal Resistance (25°C)	Approx. 4.5mΩ(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
Charge voltage(25°C)	Temp. Coefficient	-3mV/cell/°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	

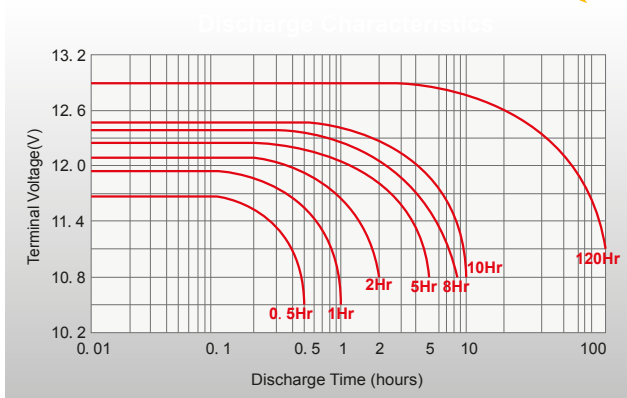
Constant Current Discharge (Amperes) at 25 °C (77°F)

F.V/Time	10 min	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	185.9	153.1	131.0	102.5	78.2	63.8	37.4	26.7	21.0	18.3	12.1	9.90	5.31
1.80V/cell	206.4	167.6	142.0	109.8	82.7	66.9	38.5	27.4	21.4	18.6	12.3	10.0	5.43
1.75V/cell	225.6	180.8	151.7	115.9	86.5	69.4	39.6	28.0	21.7	18.9	12.5	10.2	5.54
1.70V/cell	242.7	192.1	160.0	120.9	89.6	71.4	40.3	28.3	22.0	19.2	12.7	10.3	5.62
1.67V/cell	251.9	197.8	163.9	123.3	90.9	72.4	40.6	28.5	22.2	19.3	12.8	10.3	5.65
1.60V/cell	268.5	207.3	170.2	126.7	92.7	73.6	41.2	28.9	22.5	19.5	12.9	10.5	5.70

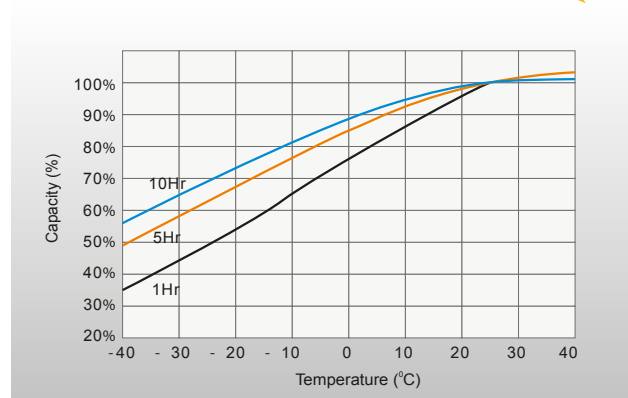
Constant Power Discharge (Watts/cell) at 25 °C (77°F)

F.V/Time	10 min	15min	20min	30min	45min	1h	2h	3h	4h	5h	8h	10h	20h
1.85V/cell	358.5	286.8	251.0	192.6	150.9	123.5	73.2	52.6	41.3	36.1	24.0	19.7	10.5
1.80V/cell	401.2	314.7	271.4	204.5	157.3	130.3	76.1	53.7	42.1	36.6	24.3	19.9	10.8
1.75V/cell	431.1	334.0	285.4	213.6	160.5	134.7	77.8	54.7	42.7	37.2	24.6	20.2	11.0
1.70V/cell	448.5	345.0	293.3	218.5	163.6	138.1	79.1	55.4	43.2	37.7	24.9	20.4	11.1
1.67V/cell	467.8	357.5	302.4	224.4	167.3	139.6	79.7	55.7	43.5	37.9	25.0	20.5	11.2
1.60V/cell	481.6	365.9	308.0	227.7	169.2	141.4	80.4	56.2	43.8	38.2	25.2	21.1	11.2

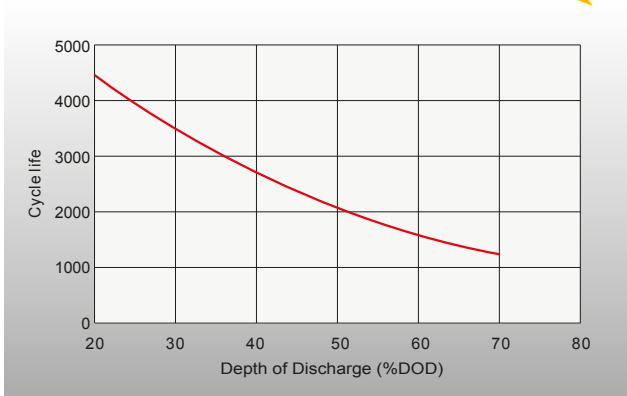
Discharge Characteristics



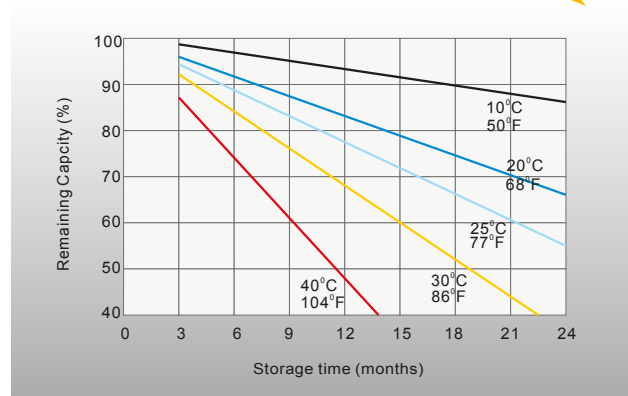
Temperature in Relation to Capacity



Cycle Life vs. Depth of Discharge



Self-discharge Characteristics



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