



# LP12-33 (12V 33Ah)

Specifications	
Cells Per Unit	6
Voltage Per Unit	12
Nominal Capacity	33Ah@10hour-rate to 1.80V per cell @25°C
Weight	Approx. 9.8 Kg (Tolerance±3.0%)
Dimensions	Length 195 mm
	Width 130 mm
	Container Height 155 mm
	Total Height 168 mm
Internal Resistance	Approx. 10 mΩ
Terminal	T6
Layout	1
Max. Discharge Current	330A (5 sec)
Short Circuit Current	825A
Design Life	12 years (Float charging)
Max. Charging Current	9.9 A
Reference Capacity	C3 25.5AH
	C5 28.8AH
	C10 33.0AH
	C20 35.0AH
Standby Use Voltage	13.6 V~13.8 V @ 25°C Temperature Compensation: -3mV/°C /Cell
Cycle Use Voltage	14.6 V~14.8 V @ 25°C Temperature Compensation: -4mV/°C /Cell
Operating Temp. Range	Discharge: -20°C ~60°C
	Charge: 0°C ~50°C Storage: -20°C ~60°C
Nominal Operating Temp. Range	25°C ±5°C
Self Discharge	Valve Regulated Lead Acid (VRLA) batteries can be stored for up to 6 months at 25°C and then recharging is recommended. Monthly Self-discharge ratio is less than 3% at 25°C. Please charge batteries before using.
Container Material	A.B.S. UL94-HB, UL94-V0 Optional.



### Description and Features

The LP Series AGM batteries have been specially developed to be widely applicable. These lead acid batteries with AGM technology are completely sealed and therefore 100% maintenance free and leak-proof. These batteries have a low self-discharge. The reliable and safe multipurpose batteries from the LP Series offer a long service life and can be used in various industries.

### Features

- Absorbent Glass Mat technology
- Reliable and safe performance
- Long service life - 3-5 years in standby application (at 25°C)
- Suitable for multipurpose applications

Layout	Terminal	UL certification

Constant Current Discharge Characteristics: A (25°C)												
F.V/Time	5Min	10 Min	15 Min	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.60V	105.7	80.5	61.2	36.1	20.2	12.0	9.31	7.32	6.23	4.18	3.48	1.82
1.65V	101.9	76.1	58.5	34.7	19.5	11.6	9.02	7.12	6.06	4.14	3.44	1.79
1.70V	96.9	70.1	54.8	33.2	18.8	11.2	8.78	6.92	5.91	4.07	3.39	1.77
1.75V	90.5	64.1	51.0	31.7	18.1	10.9	8.51	6.75	5.76	4.02	3.34	1.75
1.80V	82.5	58.1	47.1	30.3	17.5	10.5	8.25	6.55	5.61	3.95	3.30	1.73
1.85V	72.6	47.4	39.1	26.1	15.7	9.59	7.63	6.09	5.23	3.71	3.11	1.64

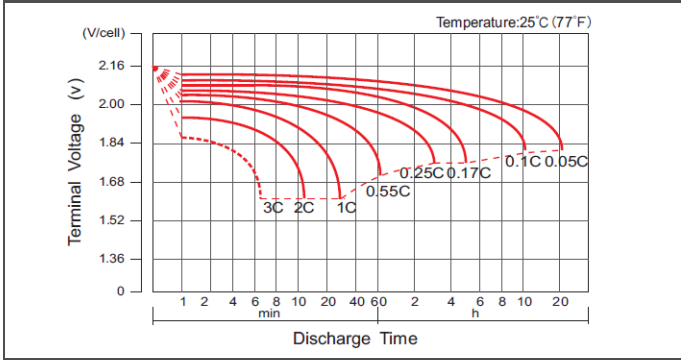
Constant Power Discharge Characteristics: Wpc (25°C)												
F.V/Time	5Min	10 Min	15 Min	30 Min	1 Hr	2 Hr	3 Hr	4 Hr	5 Hr	8 Hr	10 Hr	20 Hr
1.60V	182.0	136.9	107.0	65.6	37.9	22.8	17.8	14.0	12.0	8.17	6.84	3.59
1.65V	180.0	131.9	103.8	63.7	36.8	22.1	17.3	13.7	11.7	8.10	6.77	3.53
1.70V	173.2	123.6	98.6	61.5	35.8	21.5	16.9	13.4	11.5	7.99	6.68	3.50
1.75V	164.7	115.2	93.1	59.4	34.7	20.9	16.5	13.1	11.2	7.89	6.60	3.46
1.80V	152.7	106.1	87.2	57.3	33.6	20.2	16.0	12.8	11.0	7.78	6.52	3.43
1.85V	136.7	88.3	73.4	49.8	30.3	18.6	14.9	11.9	10.3	7.32	6.15	3.26

(Note) The above characteristics data are average values obtained within three charge/discharge cycle not the minimum values. The battery must be fully charged before the capacity test. The C10 should reach 95% after the first cycle and 100% after the third cycle.

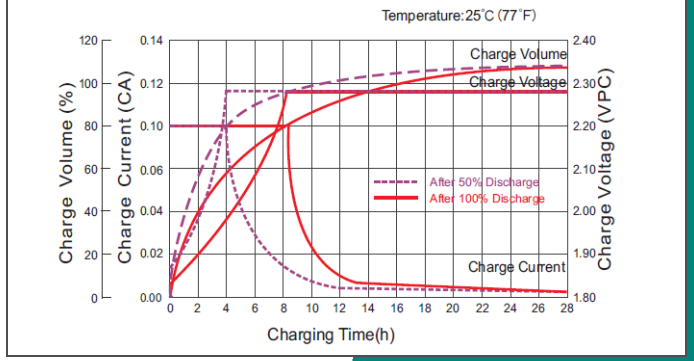


# LP12-33 (12V 33Ah)

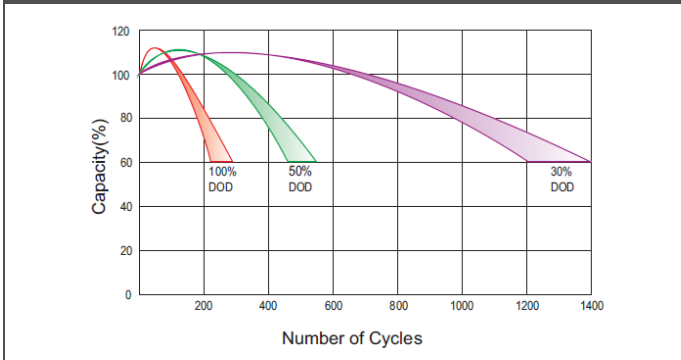
## Charge Characteristic Curve



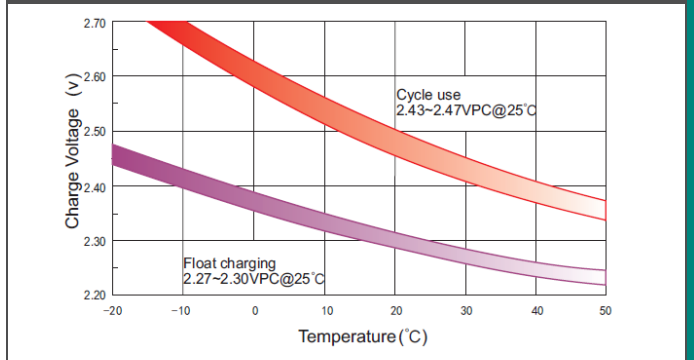
## Charge Characteristic Curve For Standby Use



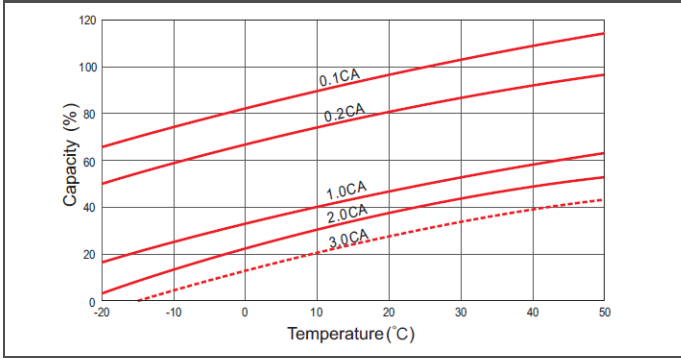
## Cycle Life In Relation To Depth Of Discharge



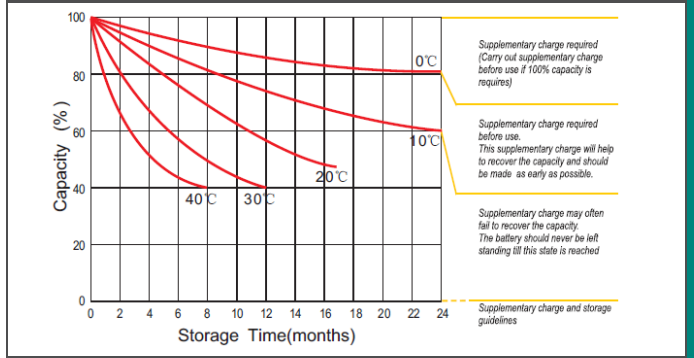
## Relationship Between Charging Voltage And Temperature



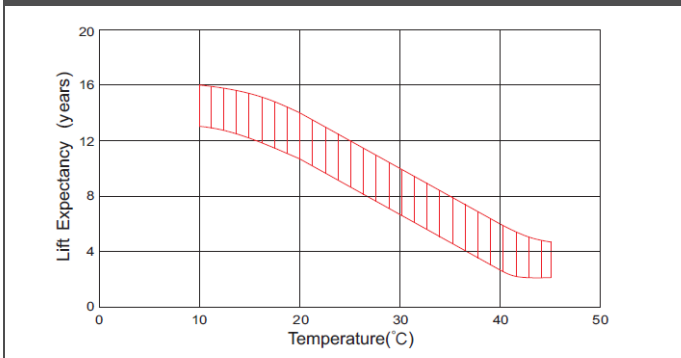
## Temperature Effects On Capacity



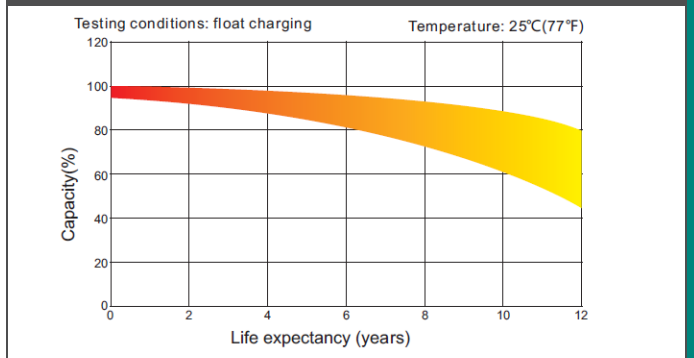
## Storage Characteristics



## Effect Of Temperature On Long Term Life



## Life Characteristics Of Standby Use



(Note) All above information shall be changed without prior notice, Landport Batteries reserves the right to explain and update the latest information.