



# LP12-60 (12V 55Ah)

| Specifications                |   |
|-------------------------------|---|
| Cells Per Unit                | 6   |
| Voltage Per Unit              | 12  |
| Nominal Capacity              | 55Ah@10hour-rate to 1.80V per cell @25°C  |
| Weight                        | Approx. 16.5 Kg (Tolerance±3.0%)  |
| Dimensions                    | Length 229 mm   |
|                               | Width 138 mm  |
|                               | Container Height 211 mm   |
|                               | Total Height 216 mm   |
| Internal Resistance           | Approx. 6.0 mΩ  |
| Terminal                      | T6  |
| Layout                        | 1   |
| Max. Discharge Current        | 550A (5 sec)  |
| Short Circuit Current         | 1160A   |
| Max. Charging Current         | 16.5 A  |
| Reference Capacity            | C3 42.6AH   |
|                               | C5 48.0AH   |
|                               | C10 55.0AH  |
|                               | C20 58.2AH  |
|                               |   |
| 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  | 176.2 | 134.2  | 102.0  | 60.2   | 33.6 | 20.0 | 15.5 | 12.2 | 10.4 | 6.97 | 5.80  | 3.04  |  |
| 1.65V  | 169.8 | 126.8  | 97.5   | 57.8   | 32.5 | 19.4 | 15.0 | 11.9 | 10.1 | 6.90 | 5.73  | 2.99  |  |
| 1.70V  | 161.5 | 116.8  | 91.3   | 55.3   | 31.4 | 18.7 | 14.6 | 11.5 | 9.84 | 6.79 | 5.65  | 2.95  |  |
| 1.75V  | 150.9 | 106.9  | 85.0   | 52.8   | 30.2 | 18.1 | 14.2 | 11.2 | 9.60 | 6.69 | 5.57  | 2.91  |  |
| 1.80V  | 137.5 | 96.8   | 78.5   | 50.5   | 29.1 | 17.4 | 13.8 | 10.9 | 9.35 | 6.58 | 5.50  | 2.89  |  |
| 1.85V  | 121.0 | 79.1   | 65.1   | 43.5   | 26.1 | 16.0 | 12.7 | 10.2 | 8.72 | 6.18 | 5.18  | 2.74  |  |

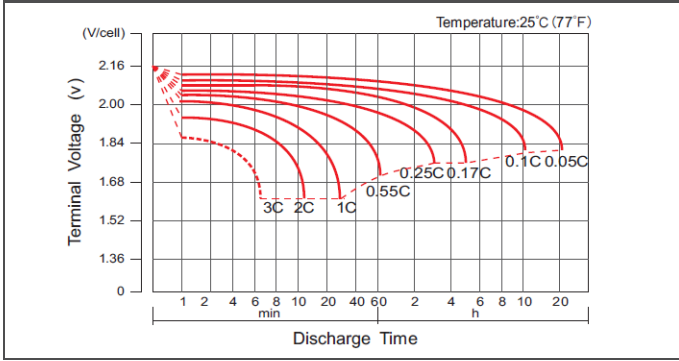
| Constant Power Discharge Characteristics: Wpc (25°C) |       |        |        |        |      |      |      |      |      |      |       |       |  |
|--|-------|--------|--------|--------|------|------|------|------|------|------|-------|-------|--|
| F.V/Time   | 5Min  | 10 Min | 15 Min | 30 Min | 1 Hr | 2 Hr | 3 Hr | 4 Hr | 5 Hr | 8 Hr | 10 Hr | 20 Hr |  |
| 1.60V  | 303.3 | 228.2  | 178.3  | 109.4  | 63.1 | 37.9 | 29.6 | 23.4 | 20.0 | 13.6 | 11.4  | 5.98  |  |
| 1.65V  | 300.1 | 219.8  | 173.0  | 106.1  | 61.3 | 36.9 | 28.8 | 22.9 | 19.6 | 13.5 | 11.3  | 5.89  |  |
| 1.70V  | 288.6 | 206.0  | 164.4  | 102.5  | 59.7 | 35.9 | 28.2 | 22.3 | 19.1 | 13.3 | 11.1  | 5.83  |  |
| 1.75V  | 274.5 | 192.0  | 155.2  | 98.9   | 57.9 | 34.8 | 27.5 | 21.8 | 18.7 | 13.2 | 11.0  | 5.76  |  |
| 1.80V  | 254.4 | 176.8  | 145.4  | 95.5   | 56.0 | 33.7 | 26.7 | 21.3 | 18.3 | 13.0 | 10.9  | 5.71  |  |
| 1.85V  | 277.9 | 147.1  | 122.3  | 83.1   | 50.5 | 31.1 | 24.8 | 19.9 | 17.1 | 12.2 | 10.2  | 5.43  |  |

(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.

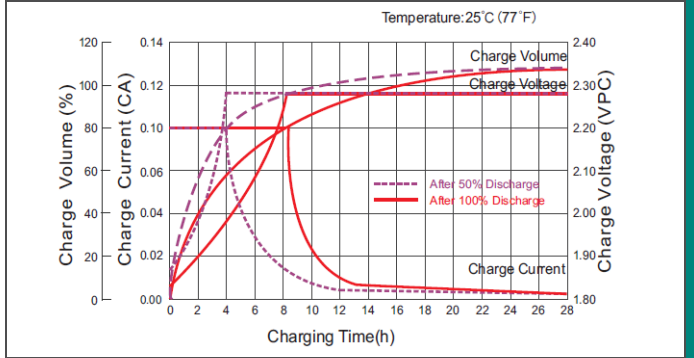


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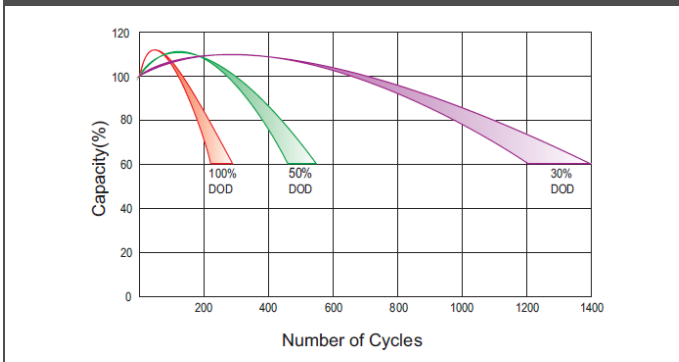
### Charge Characteristic Curve



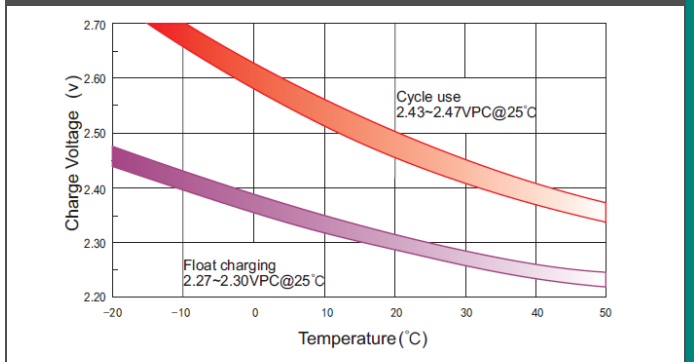
### Charge Characteristic Curve For Standby Use



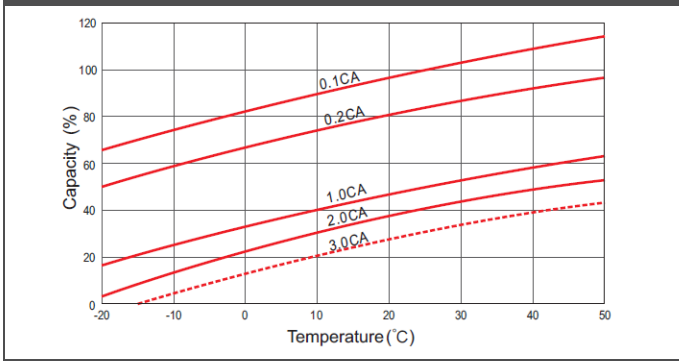
### Cycle Life In Relation To Depth Of Discharge



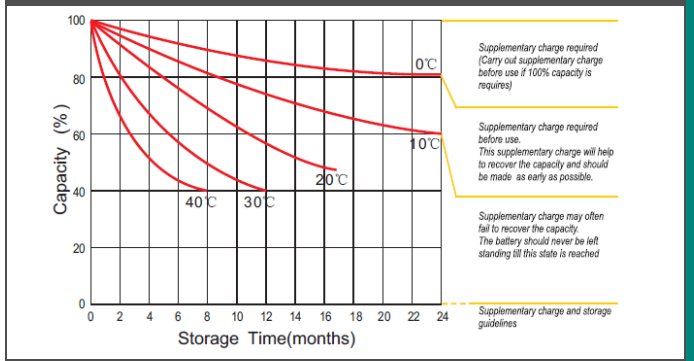
### Relationship Between Charging Voltage And Temperature



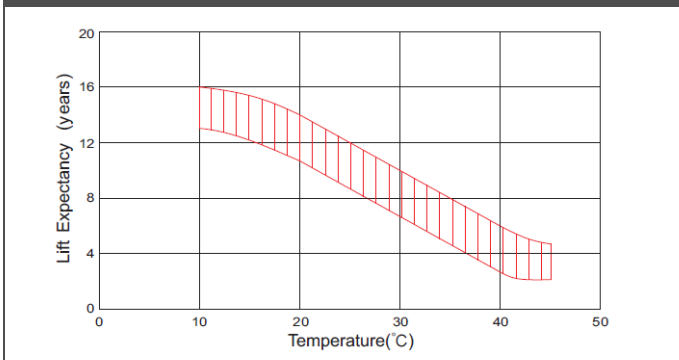
### Temperature Effects On Capacity



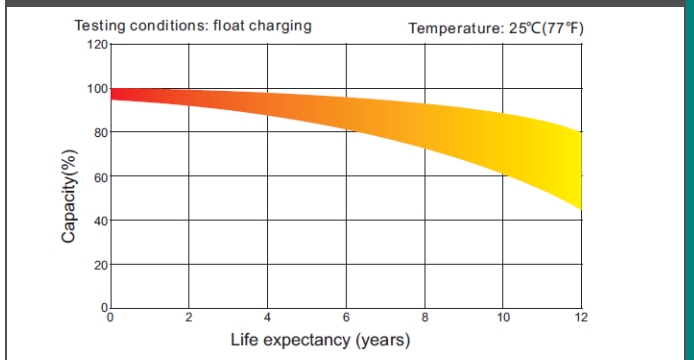
### Storage Characteristics



### 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.