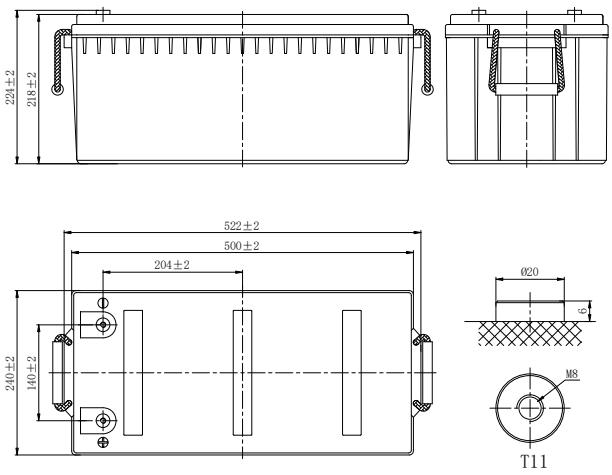
# LPGS SERIES-HYBRID GEL BATTERY

LPGS12-210 (12V210Ah)

LEOCH BATTERY




## CHARACTERISTICS

| Item | | Specifications |
|---|---|---|
| Rated Voltage | | 12V |
| Nominal Capacity (25˚C) | $C_{20}$,1.75V/cell | 210Ah |
| Dimension | Length | 522mm (20.6inches) |
| | Width | 240mm (9.45inches) |
| | Container Height | 218mm (8.58inches) |
| | Total Height | 224mm (8.82inches) |
| Approx Weight | | 62.5kg (137.8lbs) |
| Terminal | | T11(M8) |
| Container Material | | ABS (UL94 HB or V-0 optional) |
| Short-circuit current | | 3820A |
| Internal Resistance (25˚C) | | Approx 3.2 mΩ (Fully charged) |
| Operating Temp. Range | Discharge | -20~55˚C (-4~131°F) |
| | Charge | 0~40˚C (32~104°F) |
| | Storage | -20~50˚C (-4~122°F) |
| Nominal Operating Temp. Range | | 25±3˚C (77±5°F) |
| Max.Charging Current (25˚C) | | 0.25C |
| Charge voltage (25˚C) | Standby Use | Cycle Use |
| | 2.25-2.30V/cell | 2.35-2.40V/cell |
| Temp. Coeffcient | -3mV/cell/˚C | -5mV/cell/˚C |
| Effect of temp. to Capacity | 40˚C (104°F) | 103% |
| | 25˚C (77°F) | 100% |
| | 0˚C (32°F) | 86% |
| Self Discharge | ≤3% per month at 25°C (77°F). LPGS series batteries can be stored 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. | |

## DISCHARGE TABLE

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

| F.V/Time | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h | 48h | 72h | 100h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.90V/cell | 92.7 | 58.4 | 44.6 | 36.6 | 30.8 | 26.5 | 20.6 | 17.0 | 9.10 | 4.05 | 2.75 | 1.99 |
| 1.85V/cell | 110.8 | 65.5 | 49.0 | 39.8 | 33.5 | 28.9 | 22.6 | 18.6 | 10.0 | 4.38 | 2.98 | 2.18 |
| 1.80V/cell | 119.9 | 69.0 | 51.3 | 41.3 | 34.6 | 29.8 | 23.2 | 19.1 | 10.2 | 4.51 | 3.09 | 2.26 |
| 1.75V/cell | 125.9 | 72.0 | 53.1 | 42.6 | 35.5 | 30.4 | 23.7 | 19.4 | 10.5 | 4.60 | 3.13 | 2.29 |

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

| F.V/Time | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h | 48h | 72h | 100h |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.90V/cell | 181.4 | 115.2 | 88.7 | 72.8 | 61.8 | 53.3 | 41.3 | 34.0 | 18.1 | 8.11 | 5.49 | 3.99 |
| 1.85V/cell | 214.9 | 128.0 | 96.4 | 78.6 | 66.8 | 57.3 | 44.9 | 37.0 | 20.0 | 8.78 | 5.98 | 4.38 |
| 1.80V/cell | 230.1 | 133.8 | 100.6 | 79.2 | 68.5 | 59.0 | 46.2 | 37.9 | 20.4 | 9.00 | 6.17 | 4.51 |
| 1.75V/cell | 240.9 | 139.1 | 103.6 | 83.4 | 69.9 | 60.1 | 46.9 | 38.5 | 20.9 | 9.20 | 6.26 | 4.59 |

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LEOCH BATTERY

## APPLICATIONS

- Solar energy (wind energy) household system/ communication/ communication base station
- Movable energy storage system
- Solar traffic lights
- Solar, wind and solar power generation
- Emergency lighting system

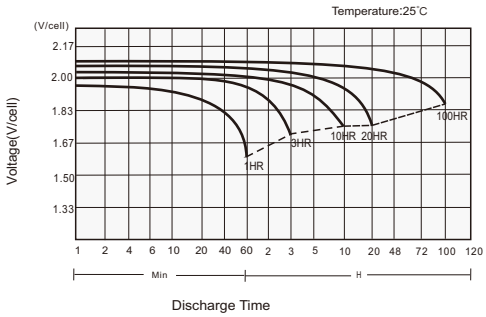
## GENERAL FEATURES

- Proven AGM-GEL technology
- Excellent deep discharge recovery and cyclability
- Very low maintenance: no water addition
- Low self-discharge rate

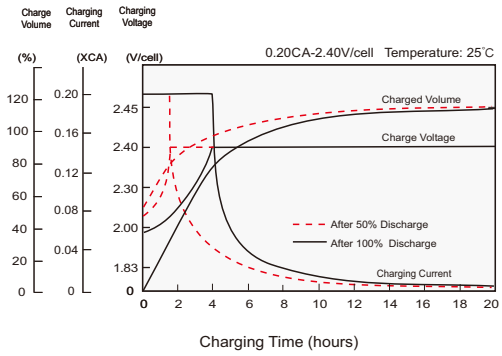
## STANDARDS

- IEC60896 Certified
- Classified as"Long Life" according to Eurobat
- UL,CE Approved
- Manufactured in Leoch®IATF 16949, ISO 45001,ISO 9001 and ISO 14001 certified production facilities

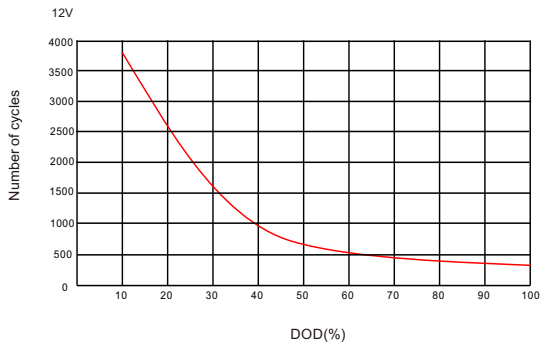
## Discharge Characteristics



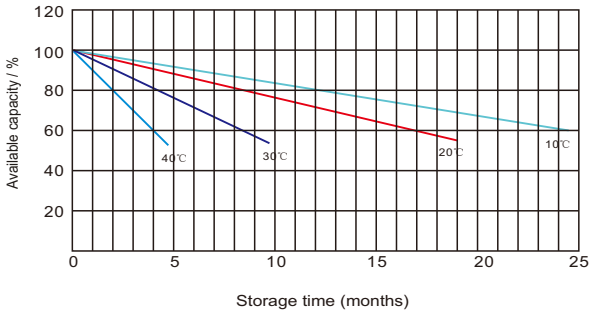

## Charging Characteristics




## Cycle Life in Relation to DoD




## Self Discharge Characteristics





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