

Range: **POWERBLOCK**

Type name: **DB12-50**



| PERFORMANCES* | | CONFIGURATION | |
|--|--------------|---------------|------------------------|
| Voltage: | 12 V | Size: | 197x165x170 mm |
| Capacity: | 50 Ah (20h) | Polarity: | 0 |
| Cap. 5/10/100h: | 42/48/55 Ah | Terminal: | M (M6 thread) |
| Energy at 100h: | 0,66 kWh | Holddown: | - |
| Cycles at 50%: | 1000 | Ventilation: | Valve regulated (VRLA) |
| Max. current: | 456 A (5seg) | Maintenance: | Not required (MF) |
| Int. Resistance: | 9 mΩ | | |
| Self-Discharge: | 15 months | | |
| (from the date of production, at 25°C) | | | |

*According to standards IEC 60254/60896

| INTERNAL CONSTRUCTION | | COMPONENTS | |
|-----------------------|-------------------------|------------|-------------------------------|
| Technology: | Manufacturer-sealed AGM | Container: | ABS/light grey |
| Alloy: | Calcium | Lid: | ABS/dark grey |
| Separator: | AGM (glass mat) | Plugs: | Termal sealing, ABS/dark grey |
| Total Weight: | 14 kg | Handles: | - |
| Origin: | Asia | | |

| RECOMMENDATIONS | |
|-----------------|---|
| Storage: | Check voltage every 8 months. |
| Recharge: | Use automatic chargers with constant voltage and AGM setup. |
| Installation: | Use the appropriate cable section and length. Keep connections tight. |

CEMA Baterías is the exclusive importer for Europe of DECK Battery products

TABLES & CHARTS

POWERBLOCK

DB12-50

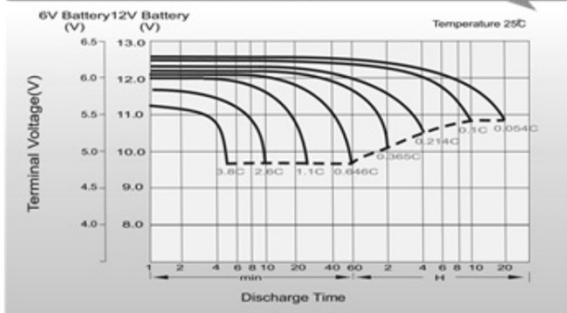
DB12-50 Constant Current Discharge (Amperes) at 25 °C

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|
| 1.85V/cell | 55.6 | 46.8 | 40.9 | 29.4 | 23.4 | 19.0 | 11.8 | 9.19 | 7.44 | 6.05 | 5.28 | 4.31 | 3.59 | 2.02 |
| 1.80V/cell | 71.1 | 56.6 | 48.4 | 34.7 | 27.2 | 21.3 | 12.9 | 9.89 | 7.95 | 6.49 | 5.66 | 4.57 | 3.80 | 2.04 |
| 1.75V/cell | 78.1 | 61.8 | 52.0 | 36.1 | 28.2 | 22.2 | 13.3 | 10.1 | 8.12 | 6.67 | 5.81 | 4.65 | 3.84 | 2.06 |
| 1.70V/cell | 85.1 | 66.0 | 54.7 | 37.5 | 29.3 | 22.9 | 13.9 | 10.4 | 8.34 | 6.83 | 5.94 | 4.71 | 3.88 | 2.09 |
| 1.65V/cell | 91.9 | 70.1 | 58.1 | 39.6 | 30.1 | 23.7 | 14.3 | 10.8 | 8.63 | 7.02 | 6.06 | 4.79 | 3.96 | 2.12 |
| 1.60V/cell | 99.8 | 75.0 | 61.9 | 41.8 | 31.4 | 24.5 | 14.7 | 11.1 | 8.90 | 7.25 | 6.20 | 4.83 | 4.00 | 2.13 |

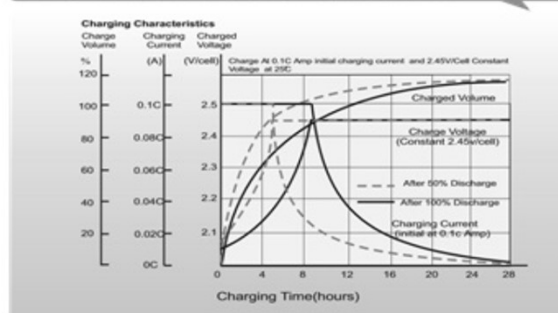
DB12-50 Constant Power Discharge (Watts/cell) at 25 °C

| F.V/Time | 10min | 15min | 20min | 30min | 45min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|-------|-------|-------|-------|------|------|------|------|------|-------|------|------|------|
| 1.85V/cell | 103.8 | 88.3 | 78.0 | 56.6 | 45.2 | 36.8 | 23.0 | 18.0 | 14.6 | 11.9 | 10.42 | 8.52 | 7.11 | 4.04 |
| 1.80V/cell | 130.9 | 105.1 | 90.8 | 65.9 | 52.2 | 41.0 | 24.9 | 19.2 | 15.5 | 12.7 | 11.14 | 9.02 | 7.52 | 4.07 |
| 1.75V/cell | 142.0 | 113.6 | 96.8 | 68.1 | 53.9 | 42.7 | 25.8 | 19.5 | 15.8 | 13.0 | 11.43 | 9.17 | 7.59 | 4.10 |
| 1.70V/cell | 152.6 | 120.4 | 101.2 | 70.6 | 55.9 | 44.0 | 26.7 | 20.0 | 16.2 | 13.3 | 11.65 | 9.29 | 7.66 | 4.18 |
| 1.65V/cell | 163.6 | 127.2 | 107.0 | 74.2 | 57.1 | 45.3 | 27.4 | 20.8 | 16.7 | 13.7 | 11.89 | 9.43 | 7.81 | 4.22 |
| 1.60V/cell | 174.6 | 134.4 | 112.8 | 77.5 | 58.9 | 46.5 | 28.1 | 21.4 | 17.2 | 14.1 | 12.12 | 9.51 | 7.89 | 4.24 |

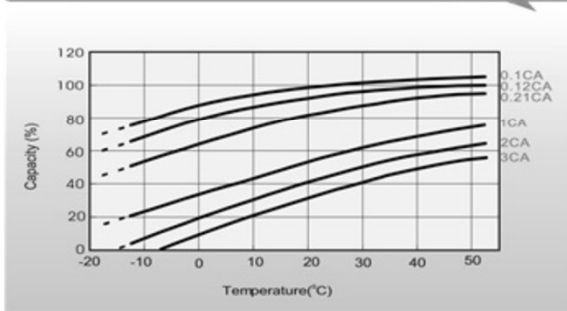
Discharge Characteristics



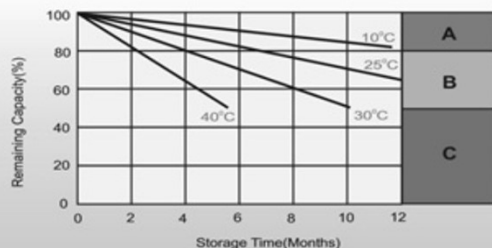
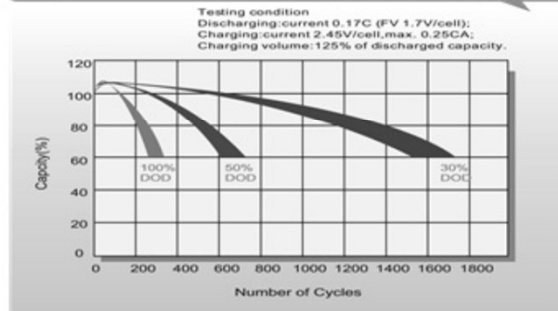
Charging Characteristics (cycle use)



Temperature Effects in Relation to Battery Capacity



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

- A** No supplementary charge required
(Carry out supplementary charge before use if 100% capacity is required.)
- B** Supplementary charge required before use. Optional charging way as below:
 1. Charged for above 3 days at limited current 0.25CA and constant volatge 2.25V/cell.
 2. Charged for above 20hours at limited current 0.25CA and constant volatge 2.45V/cell.
 3. Charged for 8-10hours at limited current 0.05CA .
- C** Supplementary charge may often fail to recover the capacity.
The battery should never be left standing till this is reached.