

# GEL-Power always energy to spare

Marine • Mobile • Land based • Solar • Industrial • Back-up



Datasheet



## 12 V

**100 Ah • 145 Ah • 180 Ah • 225 Ah**

- Deep cycle "long life" battery
- For heavy duty service
- Maintenance free, recombination (VRLA) type
- Shock resistant, heavy duty casing
- Limited ventilation needed
- Transportation by air approved
- For extended cycle life



smart energy solutions

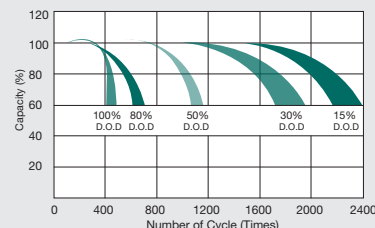


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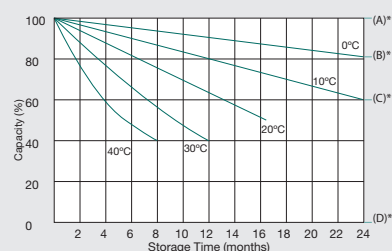


| GEL Power  | Part # | 40290070   | 40290071                | 40290072                | 40290073                |
|--|--------|--|-------------------------|-------------------------|-------------------------|
| <b>Specifications</b>                                |        |  |                         |                         |                         |
| Nominal capacity (C20)                               |        | 100 Ah   | 145 Ah                  | 180 Ah                  | 225 Ah                  |
| Nominal voltage                                      |        | 12.0 V-DC  | 12.0 V-DC               | 12.0 V-DC               | 12.0 V-DC               |
| Type   |        | Deep cycle GEL battery with 12 years floating design life. Superior design for frequent cyclic discharge applications under extreme temperatures. Strong grid construction to ensure reliability under frequent deep discharge use. Over 400 cycles possible at 100% DOD. Extra durable cyclic performance, high efficiency of recovery, therefore most suitable for solar, mobility, marine and deep discharge UPS installations. |                         |                         |                         |
| Weight +/- 10%                                       |        | 30.0 Kg  | 44.0 Kg                 | 53.0 Kg                 | 65.0 Kg                 |
| Dimensions l*w*h [mm] (excl. terminals)              |        | 328*172*222  | 340*173*280             | 530*209*214             | 522*240*219             |
| Terminal type  |        | M8 stainless steel   |                         |                         |                         |
| Number of cells                                      |        | 6  | 6                       | 6                       | 6                       |
| <b>Charge/discharge parameters</b>                   |        |  |                         |                         |                         |
| Constant voltage Charging (IU, float)                |        | 13.60 to 13.80 V-DC @ 25C  |                         |                         |                         |
| Cyclic Charging (IUU, absorption)                    |        | 14.25 to 14.60 V-DC @ 25 C   |                         |                         |                         |
| Recommended charging current limit (higher possible) |        | 20.0 A   | 29.0 A                  | 36.0 A                  | 45.0 A                  |
| Temperature cut-off ratio                            |        | 4mv/cell/°C  |                         |                         |                         |
| Discharge cut off voltage                            |        | 1.75 V @ (A) <= 0.2 C  |                         |                         |                         |
| 100% depth of discharge d.o.d.                       |        | 1.70 V @ 0.2 C (A) <= 1.0 C  |                         |                         |                         |
|  |        | 1.65 V @ (A) >= 1.0 C  |                         |                         |                         |
| <b>Rated Capacity @ 25°C</b>                         |        |  |                         |                         |                         |
|  |        | rate to 1.75 V per cell  | rate to 1.75 V per cell | rate to 1.80 V per cell | rate to 1.80 V per cell |
| 20 hrs discharge                                     |        | 100.0 Ah   | 145.0 Ah                | 180.0 Ah                | 225.0 Ah                |
| 10 hrs discharge                                     |        | 95.0 Ah  | 136.0 Ah                | 169.0 Ah                | 209.0 Ah                |
| 5 hrs discharge                                      |        | 84.0 Ah  | 117.0 Ah                | 146.0 Ah                | 181.0 Ah                |
| Peukert Coefficient                                  |        | 1.21 <P < 1.24   | 1.21 <P < 1.24          | 1.21 <P < 1.24          | 1.21 <P < 1.24          |
| Time reserve minutes                                 |        | 165 minutes  | 261 minutes             | 341 minutes             | 450 minutes             |
| 25 amps discharge                                    |        | 165 minutes  | 261 minutes             | 341 minutes             | 450 minutes             |
| Self discharge                                       |        | less than 3% per month @ 25°C  |                         |                         |                         |
| Storage time   |        | GEL-power batteries can be stored for maximum 6 months at 25°C, Charging recommended before using.   |                         |                         |                         |
| <b>Battery parameters</b>                            |        |  |                         |                         |                         |
| Cranking amps @ 25°C (5 sec)                         |        | 1000 A   | 1450 A                  | 1800 A                  | 2250 A                  |
| Cycle life at 80% of D.O.D                           |        | 600  | 600                     | 600                     | 600                     |
| Internal resistance Approx.                          |        | 7.5 MΩ   | 5.0 MΩ                  | 6.0 MΩ                  | 4.0 MΩ                  |

**Life characteristics of cyclic use**



**Storage characteristics**



- \*(A) Supplementary charge required (Carry out supplementary charge before use if 100% capacity is required)
- \*(B) Supplementary charge required before use. This supplementary charge will help to recover the capacity and should be made as early as possible
- \*(C) Supplementary charge may often fail to recover the capacity. The battery should never be left standing till this state is reached

**Discharge characteristics curve**

