

# Cyclic Duty Gel Batteries

SPECIALIST VEHICLE APPLICATIONS 40Ah – 260Ah



Antares have been designing auxiliary electrical power systems for over two decades. During that period we have found that the Cyclic duty GEL battery offers the best characteristics for specialised vehicles.

The GEL battery provides a very cost effective solution for a professional auxiliary battery which has to provide cyclic performance over many years.

The GEL battery is manufactured in the USA to the very highest quality and technical standards by East Penn Manufacturing Inc a global leader in specialised Sealed Valve Regulated Lead Acid technology

## Benefits

- Thick consistency of gelled electrolyte and tight pack construction prevents the damaging effects of vibration
- Ultra premium sealing valves prevents capacity loss and controls pressure
- Fortified posts, straps and welds that resist vibration damage and maximise current transfer
- Recombinant construction with gelled electrolyte eliminates spills, gassing and terminal corrosion under normal operating conditions
- Individual Plate Formation (IPF) Technology optimizes power capacity, cell consistency and long term reliability
- 250 quality control checks to assure superior performance and long life

## Cyclic GEL batteries

The Antares range of GEL batteries are designed to be used where the battery is expected to be repeatedly charged and discharged, as part of its normal day to day operation.

GELs are particularly suited to operating voltage sensitive loads. The battery "holds up" the voltage for longer and can be discharged deeper giving greater usable capacity.

Not all GEL batteries are designed for cyclic applications! However our batteries are designed from outset for this duty.

## Maximum life and cycling

- A phosphoric acid additive is put in which dramatically extends cycle life.

The acid does not stratify as with flooded cells (because the electrolyte is immobilised in gel) and this "acid limited" design does not allow self

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**ANTARES**  
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destruction caused by ultra-deep discharging.

## Ease of use

The batteries can be operated in virtually any position. Installation upside down is not recommended.

Any normally ventilated enclosure is suitable.

The larger batteries are fitted with a carrying handle to ease carrying, installation and removal.

## Temperature range

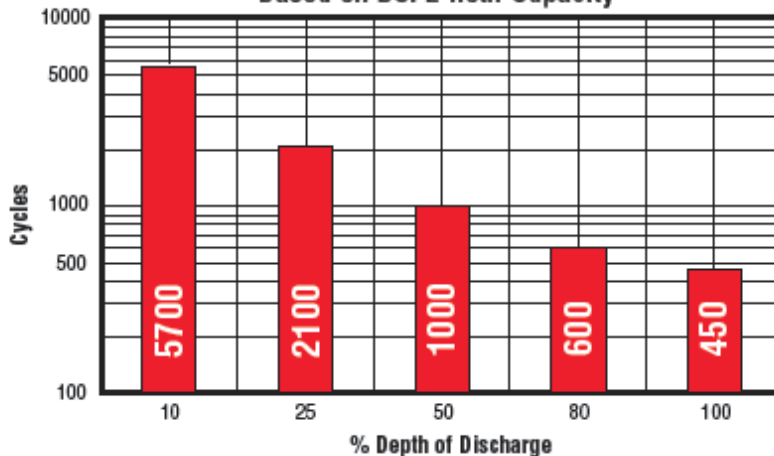
GEL batteries are very well suited to low temperature applications down to  $-60^{\circ}\text{C}$ . A fully charged GEL will not freeze at  $0^{\circ}\text{C}$  and will not be harmed even if at very low arctic temperatures! Capacity is











impaired but recovers when the battery is warmed up.

The batteries operate best at  $+20^{\circ}\text{C}$  to  $25^{\circ}\text{C}$  however they can

be successfully operated up to  $+60^{\circ}\text{C}$  ambient. If kept at consistently elevated temperatures the life of the battery is reduced.

**Gel Cycle Life vs Depth of Discharge at  $+25^{\circ}\text{C}$  ( $77^{\circ}\text{F}$ )  
Based on BCI 2-hour Capacity**



| Part Number  | 66040  | 66050  | 66060   | 66070  | 66080  | 66100   | 66110   | 66145  | 66210  | 66260 <sup>1</sup>   |
|--|--|--|---|--|--|---|---|--|--|--|
| Voltage  | 12VDC  |  |   |  |  |   |   |  |  |  |
| Nominal 5hr capacity   | 26.8Ah   | 34.0Ah   | 50.6Ah  | 47.5Ah   | 63.0Ah   | 72.0Ah  | 80.5Ah  | 96.8Ah   | 153.0Ah  | 188Ah  |
| Nominal 20hr capacity  | 31.6Ah   | 40.0Ah   | 50Ah  | 60.0Ah   | 73.6Ah   | 88.0Ah  | 97.6Ah  | 115Ah  | 183.0Ah  | 225Ah  |
| Peak 5hr capacity  | 28.4Ah   | 36.0Ah   | 57Ah  | 70Ah   | 84Ah   | 76.0Ah  | 85.0Ah  | 110Ah  | 153Ah  | 188Ah  |
| Peak 20hr capacity   | 33.3Ah   | 42.1Ah   | 57Ah  | 70Ah   | 84Ah   | 91.0Ah  | 102Ah   | 125Ah  | 193Ah  | 237Ah  |
| CA ( $0^{\circ}\text{C}$ )   | 290A   | 325A   | 300A  | 420A   | 575A   | 550A  | 640A  | -  | 1245A  | 1470A  |
| Length mm  | 211  | 197  | 238   | 259  | 276  | 324   | 329   | 345  | 527  | 527  |
| Width mm   | 132  | 168  | 140   | 169  | 171  | 171   | 171   | 168  | 216  | 279  |
| Height mm  | 183  | 175  | 235   | 178  | 238  | 235   | 238   | 280  | 254  | 254  |
| Weight   | 10.5KG   | 14.5KG   | 16.8KG  | 19.3KG   | 24.3KG   | 28.6KG  | 31.8KG  | 38.5KG   | 62KG   | 75KG   |
| Terminations   | Small L<br>8mm Hole<br>   | 1/4" female<br> | T881<br>SAE/BOLT<br> | 1/4" female<br> | 1/4" female<br> | T881<br>SAE/BOLT<br> | SAE +STUD<br> | SAE POST <sup>2</sup><br> | SAE POST <sup>2</sup><br> | SAE POST <sup>2</sup><br> |
| SAE post to 8mm stud conversion – Positive post clamp part no <b>64570</b> , Negative post clamp part no <b>64571</b>                                      |  |  |   |  |  |   |   |  |  |  |
| Footnotes  | 1,2,3,4  | 2,3,4  | 2,3,4   | 2,3,4  | 1,5  | 2,3,4   | 1,5   | 1,4  | 1,4  | 1,4  |
| 1=Includes Handle, 2="Non spillable" defined by IOT, 3 = "Non spillable as defined by IATA/ICAO<br>4 = Standard Life Cycle, 5 = Standard Life Cycle x 0.67 |  |  |   |  |  |   |   |  |  |  |
| Charging Instructions  | WARRANTY VOID IF OPENED OR IMPROPERLY CHARGED. Constant under or overcharging will damage any battery and shorten its life!<br>Use a good constant potential charger, voltage regulated charger. For 12 Volts charge to at least 13.8 but no more than 14,6V at $20^{\circ}\text{C}$ |  |   |  |  |   |   |  |  |  |
| Charge Voltage   | 13.8-14.1VDC @ $20^{\circ}\text{C}$  |  |   |  |  |   |   |  |  |  |
| Float Voltage  | 13.5-13.8VDC @ $20^{\circ}\text{C}$  |  |   |  |  |   |   |  |  |  |
| Container  | Polypropylene  |  |   |  |  |   |   |  |  |  |
| Electrolyte  | Sulphuric Acid Thixotropic GEL   |  |   |  |  |   |   |  |  |  |
| Plate Alloy  | Lead Calcium/Copper grid alloy   |  |   |  |  |   |   |  |  |  |
| Vent   | Self sealing 2psi operation  |  |   |  |  |   |   |  |  |  |