

Cyclic Duty Gel Batteries

SPECIALIST VEHICLE APPLICATIONS 40Ah – 260Ah



A battery is the electrical equivalent of a fuel tank, it stores the energy from the alternator, fuel cell or a battery charger for later use.

**The first rule of batteries:
What comes out must go back in!**

The amount of energy a battery can store is measured in Amp-Hours (current x time).

For many vehicle based applications GEL batteries offer the most cost effective and reliable solution long-term. GEL batteries are less prone to sulphation (which results in loss of capacity) than AGM batteries, and we would expect a GEL battery to have a service life up to twice as long as an equivalent AGM for a given usage pattern.

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 such as inverters. The battery "holds up" the voltage for longer and can go down further 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

The Antares cyclic GEL batteries are specially designed to be better, and last longer:

- 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 destruction caused by ultra-deep discharging. This condition, if unchecked, causes plate shedding and positive grid corrosion in other batteries, and reduces service life considerably.
- the plates in an Antares battery are sleeved with polyester to avoid "mossing" which can "short" the cells on other batteries. Once again these conditions will render the battery unserviceable if severe enough.
- lowest "bottom limit" of 10.5V gives more cycles

Ease of use

Our batteries contain a thixotropic GEL which is specially formulated to "set". It is non-spillable, and therefore can be operated in virtually any position. Installation upside down is not recommended.

The batteries are sealed at a slight pressure, and are completely maintenance free (other than re-charging).

Any normally ventilated enclosure is suitable.

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



FM 37786
ISO 9001:2008

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Cyclic Ability @ 20hr rate, 20°C	
Depth of Discharge	Cycles
10%	6000
25%	2500
50%	1100
75%	750
100%	500

Temperature range

GEL batteries are very well suited to low temperature applications down to -60°C. A fully charged GEL will not freeze at 0°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°C to 25°C however they can be successfully used up to +60°C ambients. At consistently elevated temperatures the life of the battery may be reduced.

charger. The Antares mains chargers and DC charger range have this built in.

Unlike AGM batteries there is no limit on the power output of the charger as the battery current is self limiting. Batteries can be charged from 10.5V to 90% in 3.5 hours making them very suitable for opportunity charging applications.

(Note that a “flat” battery WILL take 12-14hours to be fully recovered to 100%)

Sealed for life

A GEL cell is pressurised and sealed using special valves and therefore should never be opened. It is completely maintenance free!

Special valves ensure a positive internal pressure which excludes external contaminated air and aids the recombination process. This process recovers oxygen and hydrogen normally lost in a wet cell during deep cycling applications.

Best Investment

Antares Cyclic Gel batteries are simply the best, longest lasting batteries available, but MUST be correctly looked after. This means charging fully once a week, and always by a correctly set voltage regulated temperature compensated











Additional Safety

Batteries are explosion proof — Classified by IATA and FAA as non -hazardous.

Thermal runaway does not occur with these GEL batteries due to the good conductivity from the element to the case.

Support

Please call one our applications engineers if you need any assistance. We have had a lot of experience applying these products and can often suggest alternative ways to achieve an optimal solution.

Part Number	66040	66050	66060	66070	66080	66100	66110	66145	66210	66260 ¹
Voltage	12VDC									
C5 capacity	24Ah	34Ah	38Ah	47Ah	66Ah	75Ah	85Ah	110Ah	152Ah	188Ah
C20 capacity	31Ah	40Ah	50Ah	60Ah	74Ah	86Ah	98Ah	125Ah	183Ah	225Ah
C100 capacity	36.Ah	48Ah	57Ah	70Ah	84Ah	99Ah	108Ah	145Ah	210Ah	265Ah
CCA (-18°C)	175A	225A	210A	300A	410A	505A	550A	760A	970A	1150A
CCA (-0°C)	250A	325A	300A	420A	575A	700A	780A	990A	1245A	1470A
Length mm	211	197	238	259	276	324	329	345	527	527
Width mm	130	168	140	169	171	171	171	168	216	279
Height mm	184	175	235	178	238	235	238	280	254	254
Weight	11KG	14.4KG	17KG	19.3KG	24.3KG	29KG	33KG	38.6	59KG	73KG
Terminations	8mm LUG	1/4" female	8mm LUG	1/4" female	1/4" Female ²	T881 SAE/BOLT	SAE + STUD	SAE POST ³	SAE POST ³	SAE POST ³
										
Notes: 1:Special Order – possible extended deliveries. 2: Available with T881 terminal and Part Number 66081 3:SAE post to 8mm stud conversion – Positive post clamp part no 64570 , Negative post clamp part no 64571										
Carrying handle	YES	NO	NO	NO	YES	YES	YES	YES	YES	YES
Charge V	13.8-14.1VDC @20°C									
Float V	13.5-13.8VDC @20°C									
Container	Polypropylene									
Electrolyte	Sulphuric Acid Thixotropic GEL									
Plate Alloy	Lead Calcium/Copper grid alloy									
Vent	Self sealing 2psi operation									