

Auto Split-Charge System

EASY TO FIT PRIORITY SPLIT-CHARGE SYSTEM (140A-200A)



Approved condition for use (e mark: e11022161)
On-board road going vehicles

Split charge systems are commonly specified on vehicles to ensure that the engine start battery is protected from drain by auxiliary loads.

The Antares system uses an electronically controlled high power switch which responds directly to the on-board voltage. It recognises the presence of the alternator or external power supply when fitted. It is also compatible with the new breed of electronic regulators and the new generation of 200A alternators.

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ANTARES
engineering with answers

Auto Split Charge

Charging additional batteries can never have been more simple! Some people are concerned about flattening their engine starter battery (vehicle battery) as well as their auxiliary battery. Here at Antares we know its nothing to be concerned about.

It is simple to safely keep batteries isolated from one another when the engine is not running, thus preventing accidental draining of the vehicle battery. This is done by using a relay that is activated from the alternator. This simple circuit is commonly known as a Split charge.

Our Split Charge is virtually 100% efficient and with **no voltage drop**, this allows the full charging voltage available from standard alternators to **quickly** recharge the batteries.

In the early days blocking diodes were used to "split" power between the start battery and the auxiliary battery. In this way the start battery is protected from being discharged by loads connected to the auxiliary battery and vice versa.

This apparently simple approach does have several inherent disadvantages – unlike relays, diodes lose precious charging voltage, particularly important in cold weather.

The Antares priority split charge approach uses a battery sensed "switch" to overcome these common problems.

Several unique features are included, time-delayed switching to reduce wear, battery sensing to avoid switching into a short circuit or dead battery, dual sensing allowing alternators and battery chargers to be located on either banks, and charge all the batteries.

Installation

The Antares units can be easily sited close to the primary battery in engine bays and on the chassis. They are fully protected to IP66. The high efficiency means that it does not heat up, so ventilation is therefore not a required. The installation involves mounting the unit in any orientation using two screws through the flanges. Power connections are made via two large studs mounted conveniently on the top surface. Installation is completed by connecting the ground reference wire.

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Third battery

Adding a further battery set couldn't be easier; all that is required is a further auto-split charge module either in "cascade" or "parity" mode, alternatively upgrading to the ASC+ range may be more cost effective and provide a better solution.

Cyclic batteries & DC accessories

Antares supply a large range of auxiliary GEL batteries compatible with engine start batteries which can withstand repeated charging and discharges. Fuses, high current power cables, insulation covers and connectors are available to complete the system

Variations

See table opposite for details on remote voltage sensing and use without a secondary battery.

Warranty

The Antares auto split charge modules are specified for the needs of the professional installer. The units come with a comprehensive two year parts and labour warranty....backed by the leading UK company in this sector just specify, fit and forget!

Specifications	ASC200A	ASC140A
Standard version	Not available Not available	90311 ASC - 12V/140A/STD 90313 ASC - 24V/140A/STD
Remote sensing version (use when located away from start battery)	Not available Not available	90323 ASC -12V/140A /REM 90324 ASC -24V/140A /REM
Dual sense version (charging source on both sides of ASC)	90314 ASC2 – 12V/200A 90315 ASC2 – 24V/200A	70096 ASC -12V/140A /DUAL 70097 ASC -24V/140A /DUAL
Battery sense disabled version (use where there is no auxiliary battery)	Not available Not available	70196 ASC -12V/60A/BS 70085 ASC -24V/30A/BS
Close voltage point (standard only)	13.4VDC or 26.7VDC +/- 2%	13.1VDC or 26.2VDC +/- 3%
Opening voltage point (standard only)	12.65VDC or 25.3VDC +/- 2%	12.8VDC or 25.3VDC +/- 3%
Current rating (standard only)	200A continuous @ 20°C 160A continuous @ 85°C	140A continuous @ 20°C 100A continuous @ 85°C
Power draw (closed/open)	10W/90mW	5W/24mW
Operating/survival temp range	-10°C, to +85°C / -25°C, to +90°C	
Environmental protection	IP66, aluminium enclosure, epoxy encapsulation	
Connections	Input from battery via M8 stud, M10 on 200A version Output to auxiliary via M8 stud, M10 on 200A version Ground reference wire blue 1mm ² Remote sense wire red 1mm ² (where applicable)	
Dimensions/Weight	134mm x 140mm (inc flanges) x 60mm (incl studs), 1.1kg	68mm x 140mm (inc flanges) x 60mm (incl studs), 0.5kg
Indicators	Open/closed LED (green)	Open/closed LED (green)

DC Power watts	DC Current @ 12volts	Backup 100Ah battery
250W	21A	3 HRS
500W	42A	80 mins
750W	63A	50 mins
1000W	83A	40 mins
2000W	166A	10 mins

