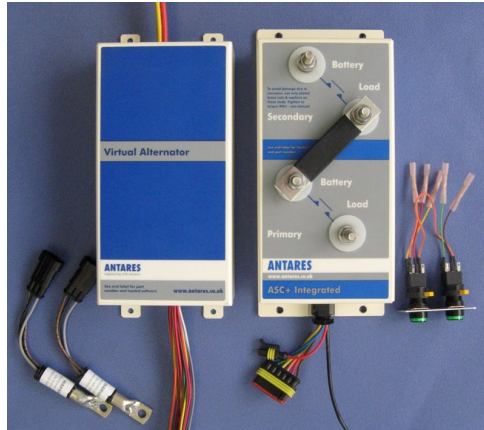


“Virtual” Alternator System

OPTIMAL BATTERY CHARGING, CONDITIONING AND PROTECTION SYSTEM



Charge any battery bank, anywhere on your vehicle, from any source, better!

The Virtual Alternator system overcomes the problem of charging auxiliary batteries correctly, wherever they are situated on the vehicle, tractor or trailer.

Cable volt drop, temperature variation, location and battery technology all demand a unique charging regime *at the (aux) battery*. This is invariably different from the what the OEM alternator gives which will be optimised for the cranking battery.

Early methods involved modifying the regulators. However the Antares Virtual alternator requires no intervention in the OEM alternator, avoiding potential warranty problems, but can still utilise the full power of the alternator.

In addition it can also be a 24V “virtual” alternator and provide for 24V loads mounted on a 12V chassis!

It can be used either on its own, for smaller loads and batteries, or in conjunction with the ASC+ to provide battery protection.

Key Features

- 12 or 24V volt input
- 12V, 24V or mixed outputs
- Supports up to two auxiliary battery banks
- High efficiency ~ 95%
- 190A alternator pass through
- Alternator “overloading” protection
- Battery monitoring
- Serial data link
- Aluminium epoxy coated enclosure
- Conformal coating
- Short circuit protection
- Over-temperature protection
- Remote temp and voltage sense option
- Optimised for Antares batteries

Overview

The “Virtual Alternator” should be used in any or all of the following circumstances:

1. The application has additional auxiliary batteries to power equipment at chassis voltage, or at a higher, or lower voltage than the chassis.
2. Cable volt drop is excessive - even millivolts can substantially impair recharging of auxiliary batteries.
3. Battery temperatures are very high or low. High temperatures means that the auxiliary battery may be damaged by gassing by the OE alternator. Low temperatures may mean the battery is not being charged at all!
4. Chosen battery technology may require a different charging regime to the OEM engine-start battery. The default Virtual Alternator is optimised for VRLA (valve regulated lead acid) however other specialist charging regimes can be programmed in.



FM 37786
ISO 9001:2008

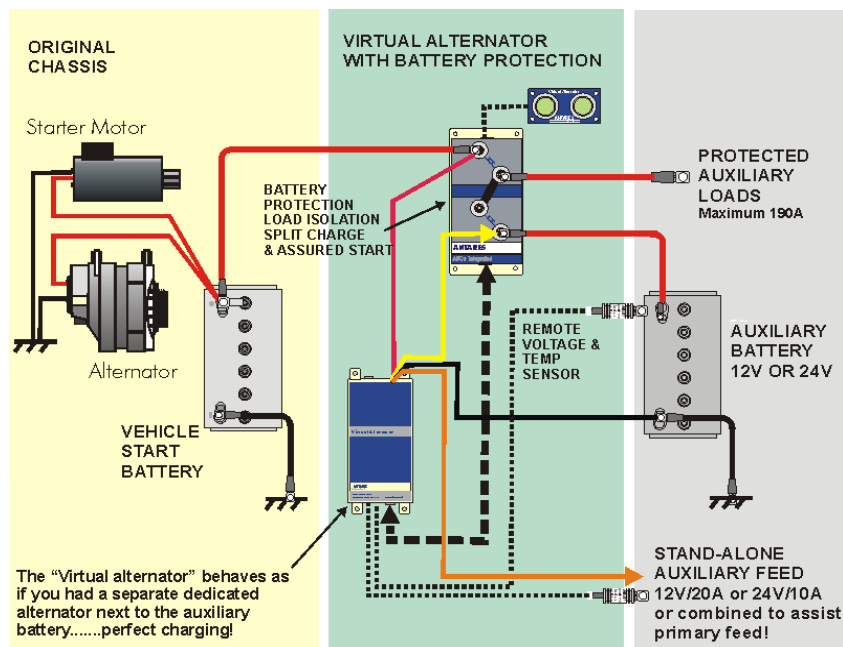
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ANTARES
engineering with answers

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Applications:

1) Stand-alone:

In stand alone mode, all the current is channelled through the unit into two discrete outputs - primary and secondary. The outputs can be combined, or each output can be set to separately charge either a 12V, or 24V battery bank, or a combination of both.

Where only one auxiliary battery is fitted, the secondary output can be combined with the primary - thereby doubling its performance.

2) With battery protection module, the system is enhanced with the following features:

Extra power from the chassis alternator by-passes the virtual alternator, allowing up to 190A to power the loads whilst simultaneously charging the auxiliary battery. The battery protection module is also used to avoid sulphation through deep discharge by **manual or automatical isolation** of the loads. It will also provide automatic **assured starting** using the auxiliary battery as a reserve "tank" switched in during the cranking sequence. The system has been exclusively designed for vehicle use. It is both **environmentally and electrically robust** and has extremely low quiescent current draws.

We are happy to discuss the best solution for your application – please contact our office by telephone or by e-mail.

More detail on the application & installation of these units is available to registered users on our website www.antes-help.co.uk as well as wealth of public information.

*alternator dependant

SPECIFICATIONS		STAND-ALONE VIRTUAL ALTERNATOR		INTEGRATED VIRTUAL ALTERNATOR
CHASSIS VOLTAGE	OUTPUT VOLTAGE	SPLIT OUTPUTS	COMBINED OUTPUTS	INC BATTERY PROTECTION
CHARGING POWER	Peak Average	2 x380W 2 x 250W	1 x 760W 1 x 500W	Max 190A* Max 190A*
Input	Outputs	Part Numbers		
12V IN	1: 12V/20A 2: 12V/20A	9661 111 111		92981
12V IN	1: 24V/10A 2: 24V/10A	9661 211 211		92982
12V IN	1: 12V/20A 2: 24V/10A	9661 111 211	Not Available	Please Enquire
24V IN	1:12V/20A 2:12V/20A	9662 111 111		92983
24V IN	1: 24V/10A 2: 24V/10A	9662 211 211		92984
24V IN	1: 12V/20A 2: 24V/10A	9662 111 211	Not Available	Please enquire
Options		Remote Auto-detect Volt/Temp sensor		
Dimensions (L) x (W) x (H) mm		Virtual Alternator 206 x 91 x 40 Battery Protection/Pass through 206 x 91 x 40 (plus stud protrusion: 25mm)		
Weight (Kg)		Virtual Alternator unit 1.1kg Battery protector/pass through unit 1.4kg		
Charging Regime		3 stage charging - boost, time, taper, float		