

# **Ablemail Electronics**

A Division of Merlyn Electronics

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PART NUMBER: AMC12-24-60E

#### **DESCRIPTION:**

This AMC charger works on vehicles with a 24V electrical system to charge nominal 24V battery packs. It works with Ignition control, Constant Voltage Alternators, Euro 5 & 6 engines, STOP/START, Smart Alternator charging systems & Vehicles with Regenerative Braking, (Mercedes Benz Blue Efficiency Vehicles, VW Blue Motion Vehicles, Ford ECOnetic vehicles, Vauxhall ecoFlex vehicles to name a few).

The unit can also charge Lithium batteries, The unit delivers 60A charging currents, The unit has output overload & over temperature protection with a fully automatic reset, The 12V input and 24V outputs share a common negative. The software controlled switching converter provides a low noise output (<100mV)closely regulated against variations in input voltage & changes in output load current. The software optimises the battery charging cycle, If a greater charging current is required units can be run in parallel or a bigger unit selected from the range.

The charging cycle is configured to suit most types of lead acid including Gel, AGM and can easily be reprogrammed to fit a particular type of battery or customer specification using the **Ablemail Software Interface (ASI)**. The serial interface can be used to interface to other ABLEMAIL products or the Vehicle Power Management System. The serial interface and powerful in built microcontroller and software allow the converter to work as the system power management controller.

A Interface Card can be added to allow further optimisation of the charging cycle. The Interface Card adds the option for Remote Input Voltage monitoring, Remote Output Voltage monitoring & Battery Temperature monitoring. Each of these inputs can be used to fine tune the parameters which determine speed of charge and battery life, The unit can switch the charger output on when supply voltage reaches 13.1V (engine running detection /Ignition feed on).

There is a charging status led and the Interface card allows remote indication (cab display) to be added.

The unit is assembled in an aluminium extruded case which allows reliable operation in harsh vehicle environments, It can be supplied with a variety of connection options see the **Ablemail Hardware Options**. This product is part of a large range & if this product specification does not meet your requirement please contact our technical department.

ISOLATION	Non-Isolated
INPUT VOLTAGE	12 Volt nominal vehicle supply (9-32V).
OUTPUT VOLTAGE	24V Varied as required for battery charging programme
OUTPUT LOAD CURRENT	60A max. See AMNperformance for more detail
NO LOAD INPUT CURRENT	Max 2mA @ 12V input.
PROTECTION	Output overload & over temperature protection with fully automatic reset.
OPERATING TEMPERATURE	Maximum 70°C. Minimum -30°C
STANDARDS	E11 Approval-Immunity requirements UNECE regulation 10 issue 4 Which covers all aspects of EN50489:2010 & CE Approval-Immunity to requirements of EN61204-3
SIZE AND WEIGHT	Length: 250mm, Height: 92mm, Width: 124mm,1840g
CONNECTIONS	



INPUT OV OUTPUT

SENSE

SERIAL INTERFACE

LED

For Guidance on component size Installation & troubleshooting: See Installation Instructions 60A



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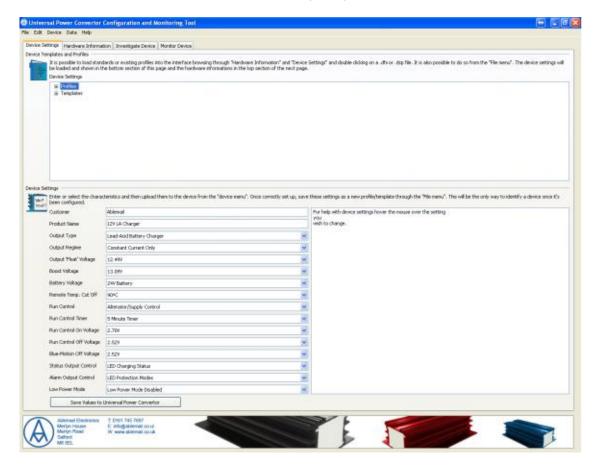
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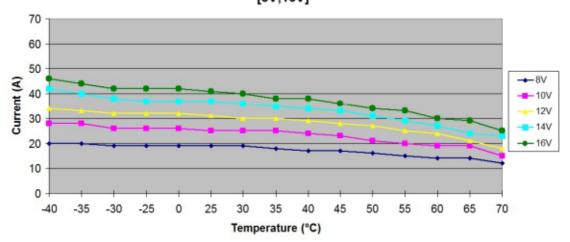
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#### **ABLEMAIL SOFTWARE INTERFACE (ASI):**



### Maximum continuous current at 27.6V output [8V,16V]



For More Info see Ablemail Universal Power Convertor Performance Charts This unit delivers significantly more current than the graphs show for short periods