



# Ablemail Electronics

A Division of Merlyn Electronics

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**PART NUMBER : AMS12-24-15**

## DESCRIPTION :

This AMS charger automatically chooses the Solar/Wind input or the vehicles 12V 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 AMS charger monitors the solar input to determine whether the vehicle alternator or solar panel input should be used to charge the secondary battery . When using the solar input the charger uses a maximum power point tracking algorithm (MPPT) to ensure maximum use of the solar/wind energy source and disconnects the solar input if the solar voltage exceeds acceptable limits (<36V)

The AMS charger charges at up to 30A charging currents, and has a protection circuit to prevent damage from current overload or overheating . The software controlled switching converter provides a low noise output (<50mV)closely regulated against variations in input voltage & changes in output load current.


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.

A Interface Card can be added to fine tune the parameters which optimise speed of charge and battery life The Interface Card adds Remote Output Voltage monitoring for when the secondary battery is a long way from the charger and Battery Temperature monitoring for operating in extremely hot or cold conditions.

There is a charging status led & 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 requirements or you have any questions please contact our technical department .

<b>ISOLATION</b>	Non-Isolated			
<b>INPUT VOLTAGE</b>	12Volt nominal vehicle supply (8-32V)			
<b>OUTPUT VOLTAGE</b>	24V nominal Varied as required for battery charging programme			
<b>OUTPUT LOAD CURRENT</b>	30A Continuous			
<b>NO LOAD INPUT CURRENT</b>	<2mA @ 12V input			
<b>PROTECTION</b>	Output overload & over temperature protection with fully automatic reset			
<b>OPERATING TEMPERATURE</b>	Maximum 70°C. Minimum -30°C			
<b>STANDARDS</b>	E11 Approval-Immunity requirements UNECE regulation 10 issue 4 Which covers all aspects of EN50489:2010 & CE Approval-Immunity to requirements of EN61204-3			
<b>SIZE AND WEIGHT</b>	Length: 250mm, Height: 46mm, Width: 124mm, 975g			
<b>CONNECTIONS</b>	200mm flying leads of thin wall auto cable.			
	Wiring Connections:	12V INPUT	ALTERNATO	RED
		12V INPUT	SOLAR	BROWN
		COMMON	NEGATIVE	BLACK
		24V OUTPUT	BATTERY+VE	WHITE
		CONTROL	POSITIVE	YELLOW

For Guidance on component size Installation & troubleshooting:  
**See Installation Instruction**

The product images shown are for illustration purposes only.  
Ablemail Electronics reserves the right to change product images & specifications at any time without notice.



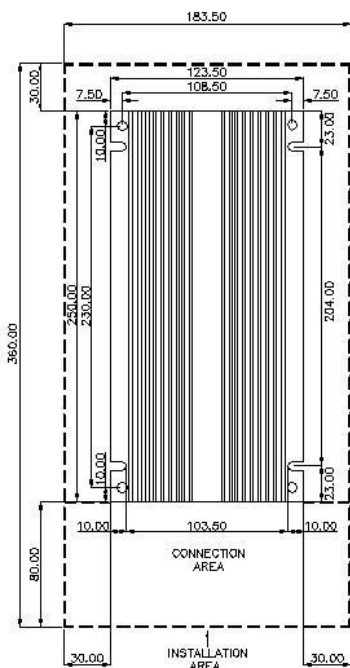
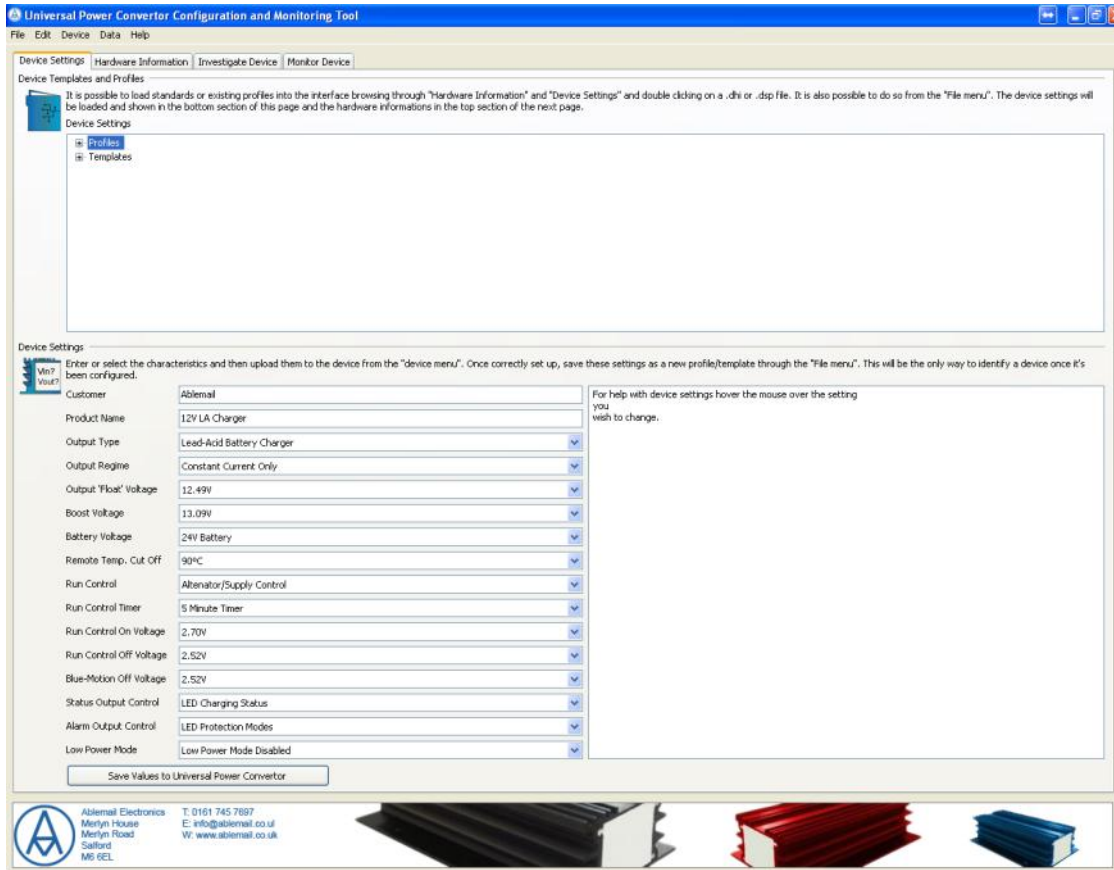
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## ABLEMAIL SOFTWARE INTERFACE (ASI) :



### NOTES:

1. 4 off fixing holes 6.50mm  $\varnothing$ .
2. 4 off slots 6mm x 10mm.
3. Recommended air space around heatsink:- top, sides and non connector end 30mm (as dashed lines).
4. Connector end space 80mm absolute min (as dashed lines).
5. Recommended mounting:- metal base.
6. Orientate Led for visibility.
7. Do not fit near heat sensitive material or components as case may reach temperatures up to 75 deg C.
8. Do not fit near heat sources such as exhaust or heater pipes.

