



DC-DC INTELLIGENT BATTERY CHARGERS

While many applications can be supplied using a standard voltage converter or stabiliser, sometimes there can be a requirement to charge one DC battery from another to provide independent power. The Alfatronix range of DC-DC chargers are based on the very successful PowerVerter range but configured to offer a four-stage charging programme that will ensure that batteries are charged to a maximum capacity providing long-term reliable power.

These products come with many of the same safety and protection features as the PowerVerters but are also designed to detect faulty batteries and dead cells. They will also ensure that they will not operate unless the source battery is attached to a charging source such as a vehicle alternator or mains unit. In this way, you can ensure that the charger will not allow unintentional draining of the source battery.



- These intelligent DC-DC battery chargers offer a comprehensive four-stage charging programme as well as protection against battery source drainage. A fifth terminal is also available to allow the unit to be installed as a float-mode charger if required as an alternative.
- All the battery chargers are galvanically isolated so they can be used on any application including automotive, marine, petrochemical, or off-road applications.
- DC-DC chargers are suitable for providing auxiliary power on a wide variety of vehicles including fire, police and ambulance, as well as farming, forestry, commercial, and marine.

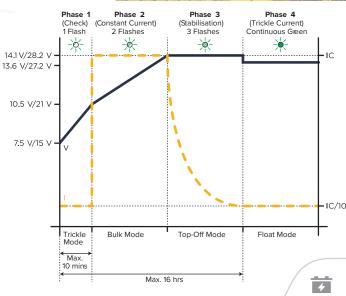


KEY FEATURES

These intelligent battery chargers operate a four-stage charging cycle. The first stage monitors the battery to establish that the battery is in good condition before starting the three stage process. This feature is of key importance in ensuring that faulty batteries are not inadvertently charged causing overheating and potential system failure. The units are also reverse polarity protected and when re-connected correctly will operate normally without reset. The Alfatronix three-point mounting cradle is also supplied for fast and easy installation.



POWER



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CHOOSE YOUR BATTERY CHARGER

TAE Part No.	OE No.	Current	Input Voltage	Power Rating	Dimensions	Weight
TBA	ICi24-12 144	12 A Isolated	24 VDC input, 12 VDC output (variable charge voltage)	144 w	167 x 87 x 50 mm	600 g
T286512832	ICi24-24 144	6 A Isolated	24 VDC input, 24 VDC output (variable charge voltage)	144 w	167 x 87 x 50 mm	600 g
T286512831	ICi12-12 072	6 A Isolated	12 VDC input, 12 VDC output (variable charge voltage)	72 w	167 x 87 x 50 mm	600 g
T126516901	ICi12-24 072	3 A Isolated	12 VDC input, 24 VDC output (variable charge voltage)	72 w	167 x 87 x 50 mm	600 g

TECHNICAL DATA

Input Voltage Range	24-32 VDC, 12-16 VDC. Configured to prevent depletion of source battery.		
Output Voltage	12 V or 24 V nominal through the intelligent battery charging curve. Please see charge graph for further information.		
Transient Voltage Protection	Meets ISO7637-2 international standard for 24 VDC commercial vehicles		
Electrostatic Voltage Protection	Meets ISO10605, >8 kV contact, 15 kV discharge		
Output Noise	<50 mV pk-pk (100 mV on 24 V units) at continuous load. Meets CISPR25.		
Off-Load Current (Quiescent Current)	Typically <5 mA. Unit will shut down when source battery is not being charged.		
Power Conversion Efficiency	Typically 85%		
Isolation	>400 Vrms between input, output, and case, on isolated products only		
Operating Temperature	-25 °C to +30 °C to meet this specification table +30 °C to +80 °C de-rate linearly to 0 A		
Storage Temperature	-25 °C to +100 °C		
Operating Humidity	95% max., non-condensing		
Casework	Anodised aluminium, glass-filled polycarbonate, dust, water, and impact resistance to IP533		
Connections	Five 6.3 mm push-on flat-blade connectors		
Output Indicator	Multicolour LED adjacent to output terminals indicating power and charging mode		
Mounting Method	"Click 'n' fit" mounting clip, fitted separately using three-hole fixing		
Safe Area Protection: Over Current Over Heat Transients Catastrophic Failure	Limited by current-sensing circuit Limited by temperature-sensing circuit Protected by filters and rugged component selection Protected by internal input and output fuses		
Approvals	2014/30/EU The general EMC directive Regulation 10 The automotive directive 93/68/EEC The CE marking directive		
Designed To	EN50498, ISO 7637-2, EN61204-3		
Markings	CE, UKCA and E (automotive) marked		



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