ICi SERIES
DC-DC INTELLIGENT BATTERY CHARGERS

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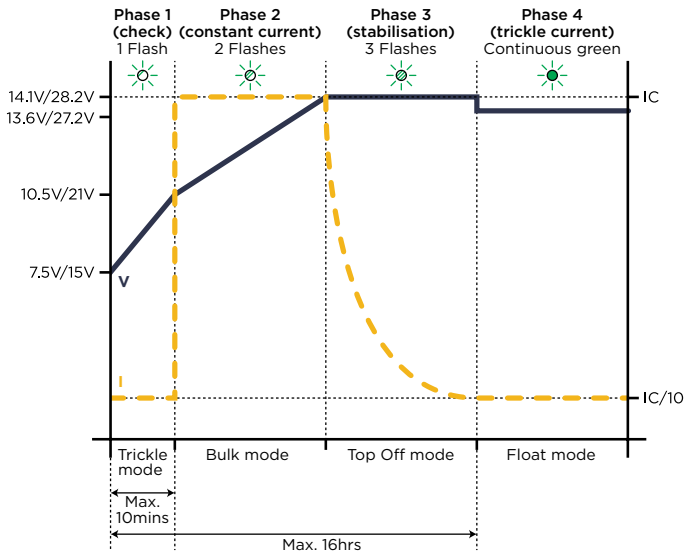
While many applications can be supplied using a standard voltage converter or stabiliser, sometimes there can be a requirement to charge one DC battery from another in order to provide independent power. The Alfatronix range of DC-DC chargers are based on the very successful PowerVerter range but configured to offer a four stage charging program 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 additionally 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.

MANY 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.



- These intelligent DC-DC battery chargers offer a comprehensive 4 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 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 leisure marine.

CHOOSE YOUR BATTERY CHARGER

Part Number	Cont/Int Power	Input Voltage	Dimensions	Weight
ICi24-12 144	12A Isolated	24Vdc input, 12Vdc output (variable charge voltage)	167 x 87 x 50mm	600g
ICi24-24 144	6A Isolated	24Vdc input, 24Vdc output (variable charge voltage)	167 x 87 x 50mm	600g
ICi12-12 072	6A Isolated	12Vdc input, 12Vdc output (variable charge voltage)	167 x 87 x 50mm	600g
ICi12-24 072	3A Isolated	12Vdc input, 24Vdc output (variable charge voltage)	167 x 87 x 50mm	600g
For AC-DC Battery Chargers, please see our IC Series AC-DC Intelligent Battery Chargers				

TECHNICAL DATA

Input voltage range	24-32Vdc, 12-16Vdc. Configured to prevent depletion of source battery.
Output voltage	12V or 24V nominal through the intelligent battery charging curve. Please see charge graph for further information.
Transient voltage protection	Meets ISO7637-2 International standard for 24Vdc commercial vehicles
Electrostatic voltage protection	Meets ISO10605, ISO14982, >8kV contact, 15kV discharge
Output noise	<50mV pk-pk (100mV on 24V units) at continuous load. Meets CISPR25.
Off load current (quiescent current)	Typically <5mA. Unit will shut down when source battery is not being charged.
Power conversion efficiency	Typically 85%
Isolation	>400Vrms 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 0A
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 6.3mm 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	2004/108/EC The general EMC directive 2006/96/EC Regulation 10 The automotive directive 93/68/EEC The CE marking directive
Designed to	EN50498, EN55022, ISO 7637-2, EN61204-3
Markings	CE and E marked