DD SERIES & DDI SERIES
VOLTAGE CONVERTERS

alfatronix POWER. NO COMPROMISE.

12 V–12 V, 24 V–24 V, & 48 V–12 V CONVERTERS FOR A WIDE RANGE OF APPLICATIONS

The sensitivities of modern electronic equipment to variable input voltages, susceptibility to EMC interference and in some cases, the need to isolate the supply has made voltage stabilisation an important section of our product range. Start/Stop technology on motor vehicles has added to this problem. The DDi Series offers a wide range of 12 V-12 V and 24 V-24 V isolated products that ensure a stable and reliable voltage can be delivered to important equipment. Units are available from 36-240 w. The range now also offers 48 V-12 V units, suitable for the telecoms and forklift truck markets. For 12 V-24 V converters, see DD Series 'Up' Voltage Converters.

A COMPREHENSIVE PRODUCT RANGE

There are four products in the 12 V-12 V isolator range from 36 w to 168 w and a further five products in the 24 V-24 V range from 36 w to 240 w. There are also three 48 V-12 V products from 36 w to 108 w. All products use modern switchmode designs and are built using the same concepts and technologies as the successful PowerVerter range, which will of course meet your 24 V–12 V requirements.

FAST INSTALLATION

All the units consume an off-load current of less than 15 mA, which is probably less than the self discharge current of the vehicle's battery.

All the products fit onto a "Click 'n' Fit" mounting clip which is fixed in three points allowing it to be mounted onto uneven surfaces. It is easy to fit the clip into awkward places, then simply click the unit into position.

The green LED indicates when there is output from the converter. This gives reassurance to the installation engineer and speeds fault-finding.

PRODUCT CODING

The product code is derived as follows, taking the AD 115/230-12 108 as an example:

AD	AC input and DC output
115/230	Denotes auto select US or European AC input voltage
-12	Nominal 12 VDC output
108	108 w capacity unit

12 V–12 V and 24 V–24 V units can provide a stable output voltage as well as providing galvanic isolation for a variety of applications.

CHOOSE YOUR DD SERIES PRODUCT

TAE Part No.	OE No.	Cont./Int. Current	Nominal Voltage	Power Rating	Dimensions	Weight
T286512814	DDi12-12 036	3 A/4 A Isolated	12 VDC input, 12 VDC output	36 w	89 x 87 x 50 mm	280 g
TBA	DDi12-12 072	6 A/8 A Isolated	12 VDC input , 12 VDC output	72 w	127 x 87 x 50 mm	440 g
TBA	DDi12-12 108	9 A/11 A Isolated	12 VDC input, 12 VDC output	108 w	167 x 87 x 50 mm	540 g
TBA	DDi12-12 168	14 A/18 A Isolated	12 VDC input, 12 VDC output	168 w	217 x 87 x 50 mm	820 g
TBA	DDi24-24 036	1.5 A/2.5 A Isolated	24 VDC input, 24 VDC output	36 w	89 x 87 x 50 mm	280 g
T286515601	DDi24-24 072	3 A/4 A Isolated	24 VDC input, 24 VDC output	72 w	127 x 87 x 50 mm	440 g
TBA	DDi24-24 108	4.5 A/6 A Isolated	24 VDC input, 24 VDC output	108 w	167 x 87 x 50 mm	540 g
T286512812	DDi24-24 168	7 A/9 A Isolated	24 VDC input, 24 VDC output	168 w	217 x 87 x 50 mm	820 g
T286512819	DDi24-24 240	10 A/12 A Isolated	24 VDC input, 24 VDC output	240 w	217 x 87 x 50 mm	820 g
T286512811	DD48-12 072	6 A/8 A Non-Isolated	48 VDC input, 12 VDC output	72 w	89 x 87 x 50 mm	270 g
TBA	DD48-12 108	9 A/11 A Non-Isolated	48 VDC input, 12 VDC output	108 w	127 x 87 x 50 mm	360 g
TBA	DD48-12 240	20 A/24 A Non-Isolated	48 VDC input, 12 VDC output	240 w	217 x 87 x 50 mm	760 g
TBA	DDi48-12 036	3 A/6 A Isolated	48 VDC input, 12 VDC output	36 w	89 x 87 x 50 mm	280 g
TBA	DDi48-12 072	6 A/8 A Isolated	48 VDC input, 12 VDC output	72 w	127 x 87 x 50 mm	500 g
TBA	DDi48-12 108	9 A/11 A Isolated	48 VDC input, 12 VDC output	108 w	167 x 87 x 50 mm	560 g

Other input and output voltage configurations are available as special orders. Please consult our sales team.

DIN Rail Mounting available.

TECHNICAL DATA

Input Voltage Range	12 VDC, 24 VDC ± 30%, 48 VDC -30% to +25%
Output Voltage	13.6 VDC or 27.2 VDC +15% to -20% at extremes of temperature, load, input tolerance, etc
Intermittent Output Power	Continuous rating +25% taken for a maximum of 2 minutes followed by 8 minutes rest
Transient Voltage Protection	Meets ISO7637-2 International standard for 24 VDC commercial vehicles
Electrostatic Voltage Protection	Meets ISO10605, ISO14982, >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)	<15 mA (<25 mA, 168 w + 240 w versions)
Power Conversion Efficiency	Typically: 90% for non-isolated units, 85% for isolated units
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	Four 6.3 mm push-on, flat-blade connectors
Output Indicator	Green LED adjacent to output terminals
Mounting Method	Click 'n' Fit mounting clip, fitted separately using three hole fixture
Safe Area Protection:	
Over Current	Limited by current-sensing circuit
Over Heat	Limited by temperature-sensing circuit
Transients	Protected by filters and rugged component selection
Catastrophic Failure	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
Markings	CE, UKCA, and E (automotive) marked

POWER SUPPLY

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Call us today!

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AUTO-ELECTRICAL ENGINEERING

Delivering Optimal **Uptime!**

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These products may not be stock items. Please speak to our sales representative about lead times. Lead times, price, and availability can only be determined on receipt of an official quote from our supplier. This can sometimes take up to 3 days.