

ANALYTIC SYSTEMS

Power Conversion Solutions

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Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation

Applications

- Programmable Logic Controllers (PLC's)
- Rugged Mobile Environments
- Automotive / RV / Marine
- Electric Utilities and Substations
- Oil Patch
- Telecommunications Power
- Industrial Controls (OEM Applications)
- Field Work / Construction Sites
- Solar / Alternative Power Systems
- Security Systems Power
- Any 12, 24, 32, 48V Equipment

DC/DC Converters

VTC120i Isolated DC/DC Converters

Description

The VTC120i Series of Isolated Voltage Converters are variable duty cycle switching power supplies with precision linear regulator outputs. They can be configured to run from a 12V, 24V or 48VDC battery system to provide input/output voltages as shown below.

Applications include running 24V PLC controls from a 12 Volt battery system, or any other application requiring 24 VDC when only 12 VDC is available or to provide ground isolation between two 12 VDC or 24 VDC power systems, or between a 12 VDC and 24 VDC power system.

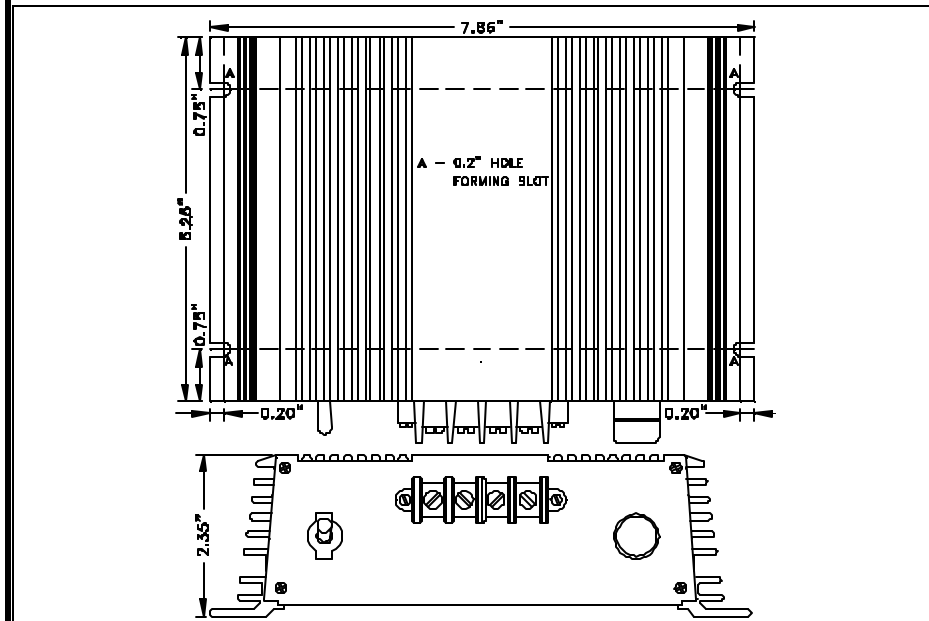
We are confident that you will get many years of reliable service from this Voltage Converter.

Features

- Versatile design with wide variation of input and output combinations
- Precision linear regulator final stage for ultra clean output for all units
- Extremely rugged and well suited for marine and other demanding environments
- High tolerance for shock and vibration
- Ultra-quiet low EMI operation
- Ideal for running 24V PLC controls from 12 VDC
- Many isolated versions including two high output for converting positive ground to negative ground or resolving other ground related problems
- Reverse input protection
- Short circuit protection
- Parallel output included
- Can be built to Class 1, Division 2 Standards for Hazardous Duty
- 3 year parts and labour warranty

VTC120i Series DC/DC Voltage Converter

Mechanical Diagram



Specifications

Electrical (Input/Output)

Model (VTC120i)	-12-12	-12-24	-24-24	-48-12	-48-24	-12-48	-24-48
Input Volts (DC)	11 – 15	11 – 15	22 - 30	40 – 60	40 – 60	11 – 15	22 – 30
Input Amps (max)	8.5	15	7.5	2.1	4.2	30	15
Output Volts (DC)	12.0	24.0	24.0	12.0	24.0	48.0	48.0
Output Amps	5 Continuous / 5.5 Peak						
Isolation Input-Output	> 500 VDC						

Model (VTC120ih)	-12-15.6	-36-15.6
Input Volts (DC)	11 – 15	33 – 45
Input Amps (max)	13.5	4.8
Output Volts (DC)	15.6	15.6
Isolation Input-Output	> 500 VDC	
Output Amps	7.5 Cont. / 8.0 Peak	

Environmental Specifications

Operating Temp. Range	-25° to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C extra wide temp. operation avail.)
Humidity	0 - 95°C Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE Ødb @ 3 ft
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Any Input or Output to Case 500 VDC

Electrical (General)

Noise on Input	< 5 mV
Output Ripple & Noise	< 5 mV
Transient Response	< 1V for 50% Surge
Regulation (Line & Load)	< +/- 0.5%
Duty Cycle	Peak 20% for 10 min maximum Continuous 100% for 24 hours per day
Efficiency	> 80% @ Maximum Output

Mechanical Specifications

Length	7.9 in / 20.1 cm
Width	6.0 in / 15.2 cm
Height	2.4 in / 6.1 cm
Material	Marine Grade Aluminium
Finish	Black Anodize / Black Powder Epoxy
Fastenings	All 18-8 Stainless Steel
Weight	2.4 lb / 1.1 kg
Connections	Four contact output terminal
Warranty	3 years



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