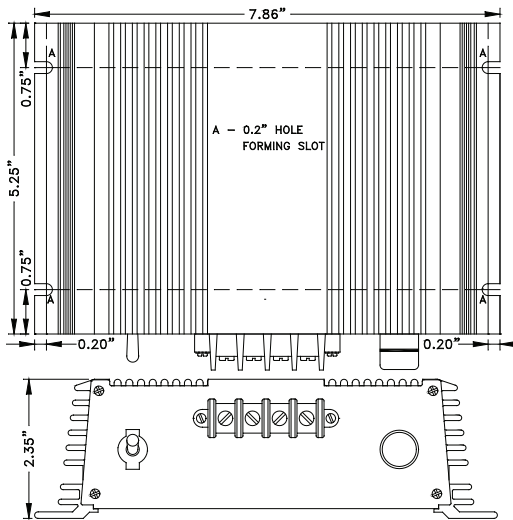


# ANALYTIC SYSTEMS

Power Conversion Solutions

## DC/DC CONVERTERS

### MODEL VTC120



## Description

The VTC120 Series Voltage Converter is a variable duty cycle switching power supply with a precision linear regulator output (except for the VTC120nr-12-24). This model is common negative. This means that the input negative (ground) connection and the output negative (ground) connection are common or tied together.

Applications include running 24V PLC controls or electronic equipment from a 12 Volt battery system, or any other application requiring 24 VDC when only 12 VDC is available.

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

## Benefits

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

## Design Features

- Versatile design with wide variation of input and output combinations
- Precision linear regulator final stage for ultra clean output for all units (except VTC120nr-12-24)
- 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
- Reverse input protection
- Short circuit protection
- 3 year parts and labour warranty

## 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 or 24 Equipment

# DC/DC CONVERTER

# MODEL VTC120

## Electrical (Input/Output)

|                  |        |         |          |
|------------------|--------|---------|----------|
| Model - VTC120   | -12-24 | h-12-12 | nr-12-24 |
| Input Volts (DC) | 11-15  | 11-15   | 11-14    |
| Input Amps (max) | 15     | 11      | 15       |
| Input Fuse (AGC) | 20     | 15      | 25       |
| Noise on Input   | < 25mV |         |          |

## Electrical (General)

|                          |  |                      |  |
|--------------------------|--|----------------------|--|
| Output Volts (DC)        | 24.0   | 24.0                 |  |
| Output Amps              | 5 cont. / 5.5 peak   | 7.5 cont. / 8.0 peak |  |
| Output Ripple & Noise    | < 5 mV   |                      |  |
| Transient Response       | < 1V for 50% Surge   |                      |  |
| Regulation (Line & Load) | < +/- 0.5%   |                      |  |
| Duty Cycle               | Peak 20% for 5 min maximum<br>Continuous 100% for 24 hours per day |                      |  |
| Efficiency               | > 80% @ Maximum Output   |                      |  |

## Environment Specification

|                       |   |
|-----------------------|---|
| Operating Temp. Range | -20° to +40°C @ maximum output<br>Derate Linearly 2.5% per °C from 40°C<br>(Optional -40°C extra wide temp. operation avail.) |
| Humidity              | 0 - 95% Relative Humidity<br>(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<br>Common Negative  |

## Mechanical Specification

|             |                                    |
|-------------|------------------------------------|
| Length      | 7.9 in / 20.1 cm                   |
| Width       | 6.0 in / 15.2 cm                   |
| Width       | 2.4 in / 6.1 cm                    |
| Material    | Marine Grade Aluminium             |
| Finish      | Black Anodize / Black Powder Epoxy |
| Fastenings  | All 18-8 Stainless Steel           |
| Weight      | 2.5 lb / 1.1 kg                    |
| Connections | Four contact output terminal       |
| Warranty    | 3 years                            |

Note: Specifications are subject to change without notice.