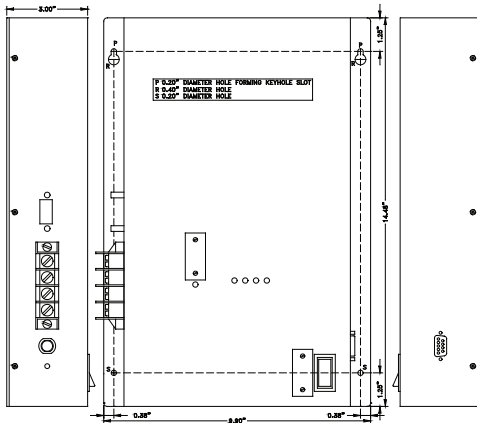


# ANALYTIC SYSTEMS

Power Conversion Solutions

## FULLY ISOLATED DC/DC CONVERTER

### MODEL VTC610 Series



## Description

The model VTC610 Voltage Converter supplies 12V, 24V or 48 VDC from a 110V or 250VDC power source. Other input/output voltages are also available by special order.

The all-new Current Mode switching design offers increased power and reliability in a compact package. Extra input and output filtering reduce EMI to extremely low levels. Reliability features include an input fuse, thermal shutdown, current limiting and short circuit shutdown with automatic recovery.

The output voltage is easily adjusted 1.0 volts above or below the standard output voltage to accommodate special requirements. Optional features include a Remote Control, a Digital Volt Ammeter, Battery Charging and/or a 19" Rack Mount version.

## Benefits

- Ultra-quiet
- Power sensitive electronics without interference
- Rugged and reliable to ensure years of safe and trouble free operation

## Design Features

- Adjustable output voltage
- Audible and visual indicators for constant current, low input voltage, low output voltage and over-temperature
- Over-temperature shutdown
- Short circuit protection
- Output overvoltage crowbar
- Cycle by cycle current limiting
- Reverse input protection
- Transient Voltage Suppression
- Ultra-quiet low EMI operation
- Dry contact output fail relay
- Custom input voltages from 105 to 360 VDC
- Custom output voltages from 12 to 55 VDC
- Remote control option
- Digital Volt/Ammeter option
- 19" Rackmount Option
- Wide-Temperature operation available
- Conformal Coating and/or Harsh Environment Ruggedization available

## Applications

- VHF Radios
- CB Radios
- Sound Equipment
- GPS Receivers
- Plotters
- 12 Volt Lighting Systems
- Automotive Electronics Displays
- Marine Electronics Displays
- Security Systems

An ISO9001 and AS9100 Registered Company Battery Chargers • Inverters • Power Supplies • Voltage Converters

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[www.analysystems.com](http://www.analysystems.com)

# FULLY ISOLATED DC/DC CONVERTER

## MODEL VTC610 Series

Electrical (Input)		
Nominal (ip)	110	250
Actual (Vdc)	100-140	230-280
Input Amps (max)	8.0	3.5
Input Fuse (MDA)	10	4
Noise on Input	< 50 mV	

Electrical (Output)			
Output Nominal (op)	12	24	48
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05	54.4 ± 0.05
Output Amps	40 cont. / 45 peak	20 cont. / 25 peak	10 cont. / 12.5 peak
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	63.9 ± 2.0V
Output Adjustment	± 1.0 V		
Output Ripple & Noise	< 50 mV		
Transient Response	< 2V for 50% Surge		
Regulation (Line & Load)	< +/- 0.5%		
Duty Cycle	Peak 20% for 10 min max Continuous 100% for 24 hours per day		
Efficiency	> 85% @ Maximum Output		

Environment Specification	
Operating Temp. Range	-25° to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C - +55°C extra wide temp. operation avail.)
Humidity	0 - 95% Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE Ødb @ 3 ft
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Input-Case & Input-Output 1500VDC Output-Case 500VDC (1500VDC @ 48V O/P)

Mechanical Specification	
Length	14.5 in / 36.8 cm
Width	10.2 in / 25.9 cm
Height	3.0 in / 7.6 cm
Clearance	1 inch (2.5 cm) all around
Material	Marine Grade Aluminium
Finish	Black Powder Epoxy
Fastenings	All 18-8 Stainless Steel
Weight	7.5 lb / 3.4 kg
Connections	Four contact output terminals
Warranty	Three years parts and labour
Safety	Designed to meet CSA 22.2.107.1 & UL458

Note: Specifications are subject to change without notice.



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