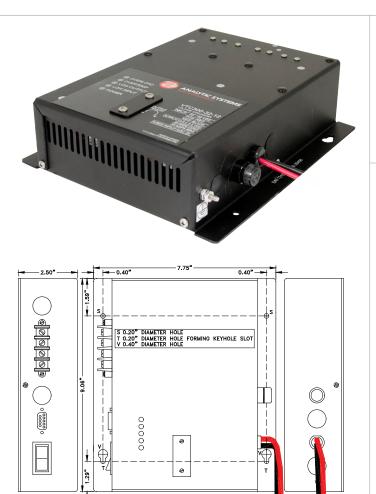


## **ANALYTIC SYSTEMS**

**Power Conversion Solutions** 

### DC/DC PRODUCT MODEL

**VTC300** 



#### Description

This all new single board design incorporates state of the art switchmode technology for unmatched efficiency and ultra-quiet operation.

Multiple stages of filtering reduce radiated or conducted noise to very low levels. Extra features include adjustable output voltage, audible and visual indicators for low input voltage, low output voltage, over temperature and overload.

Safety features include reverse input protection, over-temperature shutdown, current limiting, short circuit shutdown, a dry contact alarm relay output and output overvoltage crowbar. Optional features include a remote panel monitoring with On-Off control.

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**

- Adjustable output voltage
- Audible & visual indicators for constant current, low input voltage, low output voltage & over-temperature
- Extremely rugged and well suited for marine and other demanding environments
- High tolerance for shock and vibration
- Ultra-quiet low EMI operation
- Current limiting protection
- Reverse input protection
- Output over-voltage crowbar
- Dry contact output fail relay
- Remote control option
- Wide Temperature operation Available
- Parallel output diodes available
- Conformal Coating and/or Harsh Environment Ruggedization available
- 3 year parts and labour warranty

#### **Applications**

- Marine & other rugged environments
- Mobile Offices (TV and Radio Vans)
- Automotive / RV
- Electric Utilities and Substations
- Base Station Power (Radio & Telecommunications)
- Industrial Controls (OEM Applications)
- Field Work / Construction Sites
- Solar / Alternative Power Systems
- Emergency Backup Power (UPS)

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

# DC/DC MODEL PRODUCT VTC300

Index MonisorVIC 200-27-7VIC 200-20-24Input Arons (no.)20 - 4530 - 45Input Arons (no.)25 A	Electrical (Input)			
Inout Amps (max)     20     22       Inout See IAGC)     25A	Model Number	VTC300-32-12	VTC300-32-24	
Input Fuse (ABC)     25A       Noise on Input     <25 mV	Input Volts (DC)	20 - 45	30 - 45	
Noise on Input   <25 mV	Input Amps (max)	20	22	
Radia Compute     Control       Electrical (Output)     12     24       Duput Writs (DC)     13.8 ± 0.05     27.2 ± 0.05       Duput Vrits (DC)     13.8 ± 0.05     27.2 ± 0.05       Duput Vrits (DC)     25 cont / 35 peak     20 cont / 25 peak       Current Linit     77 Anps     27 Anps       Duput Downert (A)     25 cont / 35 peak     20 cont / 25 peak       Current Linit     77 Anps     27 Anps       Duput Downar     16.0 ± 0.5V     32.0 ± 1.0V       Duput Ringle & Noise     <25 mV	Input Fuse (AGC)	25A		
Butput Nohis (DD)     12     24       Output Nohis (DD)     13.6 ± 0.05     27.2 ± 0.05       Output Current (A)     25 cont / 25 peak     20 cont / 25 peak       Output Current (A)     25 cont / 35 peak     20 cont / 25 peak       Output Crowdar     16.0 ± 0.5V     32.0 ± 1.0V       Output Crowdar     <4/td>     -10.5%     State       Duty Cycle     Peak 20% for 10 min maximum Continuous 100% for 24 hours per day     Efficiency     >90% @ Maximum Output       Environment Specification     -     -     -     -       Operating Tamp, Range     -25° to +50°C @ maximum output     -     -       Inanidity     0.98% Relation Humidity (mon condensing) with optional conting     -     -     -       Audible Noise     NDNE Gold 0.3 ft     -     -     -     -	Noise on Input	< 25 mV		
Chiquit Nominat Qui     12     24       Output Valus (DC)     136 ± 0.05     27.2 ± 0.05       Output Valus (DC)     136 ± 0.05     27.2 ± 0.05       Output Valus (DC)     25 cont / 25 peak     20 cont / 25 peak       Output Valus (DC)     32 Amps     27 Amps       Output Current ILinit     37 Amps     27 Amps       Output Convotar     18.0 ± 0.5V     32.0 ± 1.0V       Output Rights Aloise     < 25 mV	Electrical (Output)			
Output Adjustment   ± 0.5     Output Current (A)   25 cont / 25 peak     Current Linit   37 Amps   27 Amps     Output Covobar   16.0 ± 0.5V   32.0 ± 1.0V     Output Ripple & Noise   < 25 mV	Output Nominal (op)	12	24	
Dutput Current (A) 25 cont / 35 peak 20 cont / 25 peak   Current Limit 37 Amps 27 Amps   Dutput Crowbar 16.0 ± 0.5V 32.0 ± 1.0V   Output Kinghe & Noise <25 mV	Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05	
Current Limit   37 Amps   27 Amps     Output Crowbar   16.0 ± 0.5V   32.0 ± 1.0V     Output Ripple & Noise   <25 mV	Output Adjustment	± 0.5		
Output Crowber 16.0 ± 0.5V 32.0 ± 1.0V   Output Ripple & Noise <25 mV	Output Current (A)	25 cont / 35 peak	20 cont / 25 peak	
Output Ripple & Noise   <25 mV	Current Limit	37 Amps	27 Amps	
Transient Response   < 1V for 50% Surge	Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	
Regulation (Line & Load)   <+/- 0.5%	Output Ripple & Noise	< 25 mV	< 25 mV	
Duty Cycle   Peak 20% for 10 min maximum Continuous 100% for 24 hours per day     Efficiency   > 90% @ Maximum Output     Environment Specification   -25° to +50°C @ maximum output     Operating Temp. Range   -25° to +50°C @ maximum output Derate Linearly. 25% per °C form 50°C (Optional -40°C extra wide temp. operation avail.)     Humidity   0 - 95% Relative Humidity (non-condensing) with optional conformal coating     Audible Noise   NONE @db @ 3 ft     Typical Service Life   > 10 yrs. (87.600 hrs)     Isolation   Any Input or Output to Case 500 VDC Input to Output to Case	Transient Response	< 1V for 50% Surge	< 1V for 50% Surge	
Duty Cycle   Continuous 100% for 24 hours per day     Efficiency   > 90% @ Maximum Output     Environment Specification   -25° to +50°C @ maximum output     Operating Temp. Range   -25° to +50°C @ maximum output     Deprate Lineardy 25% per °C from 50°C (Dytonal -40°C tom 50°C (Dyto	Regulation (Line & Load)	< +/- 0.5%	< +/- 0.5%	
Environment Specification     Operating Temp. Range   -25° to +50°C @ maximum output Derate Linearly 2.5% per °C from 50°C (Optional -40°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   Any Input or Output to Case 500 VDC Input to Output - Common Negative     Mechanical Specification   4.01 yr. (87,600 hrs)     Length   9.1 in / 23.1 cm     Width   7.8 in / 19.8 cm     Height   2.5 in / 6.4 cm     Material   Marine Grade Aluminium     Finish   Black Anodize     Fastenings   All 18-8 Stainless Steel     Weight   4.0 lb / 1.8 kg     Connections   #12 AWG Input Wirrs (Positive & Negative) Four contact output terminal	Duty Cycle			
Operating Temp. Range-25° to +50°C @ maximum output Derate Linearly 2.5% per °C from 50°C (Optional -40°C extra wide temp. operation avail.)Humidity0 - 95% Relative Humidity (non-condensing) with optional conformal coatingAudible NoiseNONE Ødb @ 3 ftTypical Service Life> 10 yrs. (87,600 hrs)IsolationAny Input or Output to Case 500 VDC Input or Output to Output - Common NegativeMechanical Specification9.1 in / 23.1 cmWidth7.8 in / 19.8 cmHeight2.5 in / 6.4 cmMaterialMarine Grade AluminiumFinishBlack AnodizeFasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Efficiency	> 90% @ Maximum Output	> 90% @ Maximum Output	
Operate Inearly 2.5% per °C from 50°C (Optional -40°C extra wide temp. operation avail.)Humidity0-95% Relative Humidity (non-condensing) with optional conformal coatingAudible NoiseNONE Ødb @ 3 ftTypical Service Life> 10 yrs. (87.600 hrs)IsolationAny Input or Output to Case 500 VDC Input OUtput - Common Negative Marine Grade AluminiumHeight2.5 in / 6.4 cmMaterialMarine Grade AluminiumFinishBlack Anodize FasteningsFasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Environment Specification			
Huminity(non-condensing) with optional conformal coatingAudible NoiseNONE Ødb @ 3 ftTypical Service Life> 10 yrs. (87,600 hrs)IsolationAny Input or Output to Case 500 VDC Input to Output to Case 500 VDC Input to Output to Case 500 VDC Herein NegativeMechanical Specification9.1 in / 23.1 cmWidth7.8 in / 19.8 cmHeight2.5 in / 6.4 cmMaterialMarine Grade AluminiumFinishBlack AnodizeFasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Operating Temp. Range	Derate Linearly 2.5% per °C from 5	Derate Linearly 2.5% per °C from 50°C	
Typical Service Life> 10 yrs. (87,600 hrs)IsolationAny Input or Output to Case 500 VDC Input to Output – Common NegativeMechanical SpecificationLength9.1 in / 23.1 cmWidth7.8 in / 19.8 cmHeight2.5 in / 6.4 cmMaterialMarine Grade AluminiumFinishBlack AnodizeFasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Humidity			
IsolationAny Input or Output to Case 500 VDC Input to Output – Common NegativeMechanical SpecificationLength9.1 in / 23.1 cmWidth7.8 in / 19.8 cmHeight2.5 in / 6.4 cmMaterialMarine Grade AluminiumFinishBlack AnodizeFasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Audible Noise	NONE Ødb @ 3 ft	NONE Ødb @ 3 ft	
InstitutionInput to Output – Common NegativeMechanical SpecificationLength9.1 in / 23.1 cmWidth7.8 in / 19.8 cmHeight2.5 in / 6.4 cmMaterialMarine Grade AluminiumFinishBlack AnodizeFasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Typical Service Life	> 10 yrs. (87,600 hrs)	> 10 yrs. (87,600 hrs)	
Length9.1 in / 23.1 cmWidth7.8 in / 19.8 cmHeight2.5 in / 6.4 cmMaterialMarine Grade AluminiumFinishBlack AnodizeFasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Isolation	Any Input or Output to Case 500 VI Input to Output – Common Negativ	Any Input or Output to Case 500 VDC Input to Output – Common Negative	
Width7.8 in / 19.8 cmHeight2.5 in / 6.4 cmMaterialMarine Grade AluminiumFinishBlack AnodizeFasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Mechanical Specification			
Height2.5 in / 6.4 cmMaterialMarine Grade AluminiumFinishBlack AnodizeFasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Length	9.1 in / 23.1 cm	9.1 in / 23.1 cm	
Material   Marine Grade Aluminium     Finish   Black Anodize     Fastenings   All 18-8 Stainless Steel     Weight   4.0 lb / 1.8 kg     Connections   #12 AWG Input Wires (Positive & Negative) Four contact output terminal	Width	7.8 in / 19.8 cm	7.8 in / 19.8 cm	
Finish Black Anodize   Fastenings All 18-8 Stainless Steel   Weight 4.0 lb / 1.8 kg   Connections #12 AWG Input Wires (Positive & Negative) Four contact output terminal	Height	2.5 in / 6.4 cm	2.5 in / 6.4 cm	
FasteningsAll 18-8 Stainless SteelWeight4.0 lb / 1.8 kgConnections#12 AWG Input Wires (Positive & Negative) Four contact output terminal	Material	Marine Grade Aluminium	Marine Grade Aluminium	
Weight 4.0 lb / 1.8 kg   Connections #12 AWG Input Wires (Positive & Negative) Four contact output terminal	Finish	Black Anodize	Black Anodize	
Connections #12 AWG Input Wires (Positive & Negative) Four contact output terminal	Fastenings	All 18-8 Stainless Steel	All 18-8 Stainless Steel	
Four contact output terminal	Weight	4.0 lb / 1.8 kg	4.0 lb / 1.8 kg	
Warranty 3 years	Connections			
	Warranty	3 years	3 years	



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