



Military-grade, custom-machined aluminum chassis

Over-temperature, overload, and short-circuit protection

Power factor corrected input stage

**Product may not be exactly as shown.**



Bright LED operational indicators

Ultra quiet low EMI operation

Input fuse and over-voltage protection

**VTC1050/1550**  
**DC SOURCE VOLTAGE CONVERTERS**

The VTC1050/1550 family of COTS DC-source voltage converters are designed to power a DC load at 12, 24 or 48 VDC. The 1050 and 1550 models are identical to the previous 1005 and 1505 models respectively in form, fit, and function and are intended as a direct drop in replacement for their predecessors.

Internally, the updated design incorporates a brand new Power Factor Corrected (PFC) Input Stage. The PFC input stage offers increased efficiency over the previous auto-switching technology, eliminating input voltage dead spots and allowing the voltage converter to run continuously from 130 – 390 VDC In at 45 – 65 Hz. Additionally, heavy input and output filtering reduce EMI to extremely low levels to prevent radio interference.

These units are constructed from heavy-duty extruded and billet machined anodized aluminum and all stainless steel fasteners for rugged duty. These units feature a variety of optional environmental and military spec ruggedization upgrades including IP66-rated construction, IP67-rated certification, MIL-spec connectors, expanded operating temperature range and shock and vibration protection.

Reliability features of this product line include LED status indicator panel, input circuit breaker, thermal shutdown, current limiting, reverse polarity connection protection and output short circuit shutdown with automatic recovery.

**3 YEAR WARRANTY**



**Available models**

Input

130-390 VDC

Output

12 VDC

24 VDC

48 VDC

**Applications**



# VTC1050 AND 1550 VOLTAGE CONVERTERS

## INPUT

Nominal Voltage	130-390 VDC
Input Amps	15 A (Maximum)
Input Fuse (Circuit Breaker)	16-Amp, 400 VDC
Input Ripple and Noise	TBD
Inrush Current	10 Amps @ 120 VDC from fully discharged

## OUTPUT

Nominal Voltage	12 VDC	24 VDC	48 VDC
1050 Continuous Amps	80 A	40 A	20 A
1050 Peak Amps	88 A	44 A	22 A
1550 Continuous Amps	110 A	60 A	28 A
1550 Peak Amps	132 A	66A	33A
Output Overvoltage Trip	17.0 ±0.5 VDC	34.0 ±1.0 VDC	68.0 ±2.0 VDC
Output Fuses	3x ATM30 Internal	2x ATM25 Internal	1x Bel 0697H9150 20A Internal
Output Overvoltage Type	Crowbar (intentional secondary short circuit to force a reset of charger)		
Output Voltage Adjustment	±1.0 V		
Duty Cycle	Continuous: 100% for 24 hours per day		
Regulation (Line and Load)	+/- 0.1 volts		
Efficiency	>90% @ Maximum Output		

## MECHANICAL

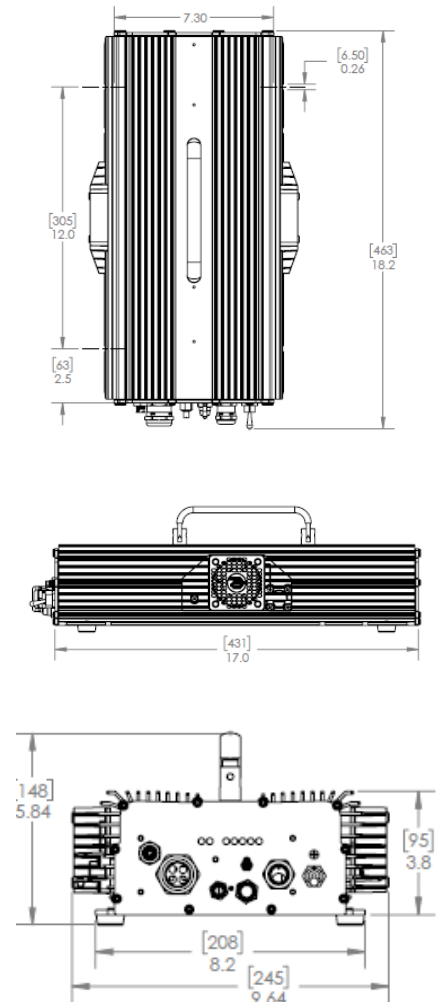
Length	16.8 in / 42.7 cm
Width	8.2 in / 20.8 cm
Height	3.8 in/ 9.7 cm
Clearance	1.0 in / 2.5 cm all around
Weight	20.0 lb / 9.9 kg (approximately)
Material	Extruded aluminum chassis and bottom cover Billet machined aluminum end plates
Finish	Black anodize
Fasteners	18-8 stainless steel
Input Connections	2x Color-coded type-D stranded input leads (Red: positive, Black: negative)
Output Connections	2x Color-coded Phoenix VDFK6 terminal blocks (Red: positive, Black: negative)

## ENVIRONMENTAL

Operating Temperature Range	-25°C to +40°C @ maximum output. Derate Linearly 2.5% per °C from 40°C
Storage Temperature Range	-40°C to +100°C
Humidity	0 - 95% Relative Humidity (non-condensing) with standard conformal coating
Isolation	Input-Case, Input-Output and Output-Case: 1500 VDC
Cooling	Two internal thermostatically controlled fans
Audible Noise	20 dB @ 1 meter when fan operating
Typical Service Life	> 10 years (87,600 hrs)
Warranty	Three years parts and labor
Approvals	Designed to meet UL458 & CSA 22.2.107.1

**Note:** Specifications are subject to change without notice.




## DIMENSIONS




\*Specifications drawings are shown with optional product features. Unit may not be exactly as shown.



**ANALYTIC SYSTEMS**  
Power Conversion Solutions

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