High Voltage DC-DC Converter

Input 600 - 930VDC: Output 28VDC: Power 4kW

Multi-Market. Multi-Platform. Multi-Use

- Wide input voltage range supports more electric, hybrid-electric, and all-electric platforms
- Up to 95% efficient, high power density conversion enables a light, sustainable, quieter aircraft
- Versatile 4kW power converter serves as power system's building block

Crane Aerospace & Electronics is an industry leader in power technology that accelerates the electrification of air, land and sea vehicles and systems. We've leveraged our more than 60 years of power expertise to deliver technology advancements that provide higher power in smaller and more efficient products.

By understanding the need of our performance-driven customers, Crane A&E engineers have designed and developed a uniquely versatile, modular High Voltage DC-DC Converter. Our one-of-a-kind converter delivers a wide input range that supports more-electric, hybrid-electric, and all-electric platforms. It supports multiple cooling options and converters can be paralleled to match a customer's power need.

Crane A&E's High Voltage DC-DC Converter converts high voltage source power into a power system's 28VDC bus. The converter is greater than 95% efficient and packs 4kW of power into a small package. As the commercial aviation and defense industries move toward alternative fuel sources, Crane A&E is positioned to meet demand with its multi-market, multi-platform, multi-use High Voltage DC-DC Converter.

Multi-Market

- Commercial Aviation
- Defense

Multi-Platform

- Turbine
- Electric
- Hybrid–Electric
- Hydrogen

Multi-Use

- Distributed Bus Power
- Actuation, Motors and Fans
- Avionics

CRANE
AEROSPACE &
ELECTRONICS

Electrical Design Description

The power train of Crane's High Voltage DC-DC converter uses a highly efficient topology to minimize size, weight and dissipation.

Performance Summary

KEY CHARACTERISTICS	
Electrical	4-987-01
Input Voltage	600-930VDC
Output Voltage Regulation	28 ± 0.5Vdc (nominal, can be configurable)
Output Ripple Voltage	<1.0V peak mean and mean valley
Maximum Current	143 A
Output Power	4kW (parallel capable to increase power output)
Operating Temperature	-45 ˚C to +70 ˚C
Over Voltage Limit	Customizable
Over Current Limit	Customizable
EMI Filter	D0-160, Section 21, Cat. M
Cooling Method	Conduction, Self, or Liquid
Mechanical	
Weight	7.5 lbs (depends on cooling method selected)
Environment	D0-160G
Dimensions (LxWxD)	12.3" x 7.0" x 2.3" (depends on cooling method selected)
Mounting Face Temperature	≤ +90 ˚C
Converter Efficiency	Up to 95%

ELDEC • Hydro-Aire • Interpoint • Lear Romec • Merrimac • P.L. Porter • Polyflon • Signal Technology • Vian Enterprises
16700 13th Avenue West • Lynnwood, WA 98037 • phone +1. 425.743.1313 • email: info@craneae.com