



FEATURES

- PART OF THE PROVEN FLEXISTAX RANGE
- UP TO 1000W OF OUTPUT POWER
- WIDE INPUT RANGE 10 – 36VDC*
- 18.2ADC CURRENT CONTROLLED OUTPUT
- 55VDC MAXIMUM OUTPUT VOLTAGE
- HIGH SYSTEM EFFICIENCY – TYPICALLY 86%
- COMPREHENSIVE PROTECTION FEATURES, INCLUDING REVERSE INPUT PROTECTION
- LOW PROFILE 30.9MM
- OUTPUT CURRENT AND VOLTAGE MONITOR
- MODULE TEMPERATURE MONITOR
- OUTPUT ENABLE SIGNAL
- TWO YEAR WARRANTY

The Flexistax® FC1001 fuel cell power converter series uses the patented F501 series of brick converters driven from a 4 channel boost converter to allow the fuel cell voltage to be stepped up or down to that required by electronic equipment. Temperature, voltage and current control and monitoring, essential to the effective use of fuel cells, is provided via signals present on the interconnect PCB. The F501 brick converters provide the isolation, regulation and stability needed by modern, sophisticated electronics.

The Flexistax® FC1001 has a field proven pedigree of reliability with many thousands of derivative units having been supplied for mission critical applications.

The Flexistax® FC1001 is supplied as a baseplate cooled board set with heavy gauge wire input leads and an industry standard output connector for the system builder to incorporate within their system. However, if a full turnkey solution is required, Powerstax offers solutions that include filter boards, industry standard MIL style connectors and integral cooling.



APPLICATIONS INCLUDE

- FUEL CELLS
- MOBILE POWER
- MILITARY AND COMMERCIAL VEHICLES
- REMOTE AND UP-MAST SITES
- BATTERY AND GENERATOR POWERED SYSTEMS

The patented high efficiency topology and signal and monitoring features of the F501 DC-DC converter modules means that the full range of standard output voltages can be supplied. A typical system efficiency of 86% is achieved with the 55VDC being the highest efficiency of the range.

The open construction unit measures 238mm x 145mm with a maximum height of 30.85mm (9.4in x 5.7in x 1.2in) and can be cold wall mounted allowing the baseplate temperature to be kept at 100°C or lower.

The Flexistax® FC1001 is ideal for use in vehicle mounted applications, remote battery, generator or fuel cell powered sites and up-mast applications.

To discuss your requirements further please call or email us.



MODEL DETAILS

MODEL NUMBER	OUTPUT VOLTAGE	OUTPUT CURRENT	OUTPUT POWER
FC1001-012-550	55.0V	18.2A	960W

INPUT CHARACTERISTICS	12V Input
Input Voltage (range)	10 - 36VDC *
Input Current (max.)	108A (recommended breaker rating 120ADC)
Protection	automatic reverse polarity

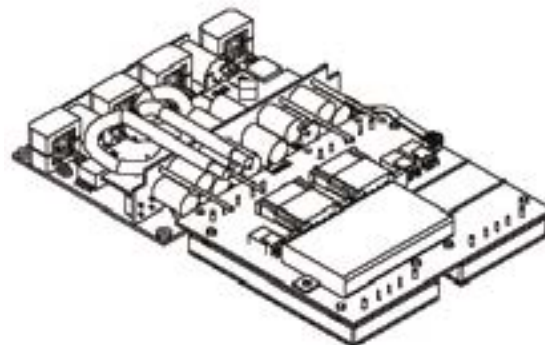
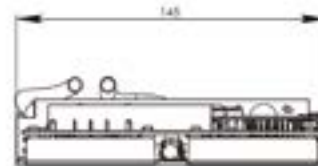
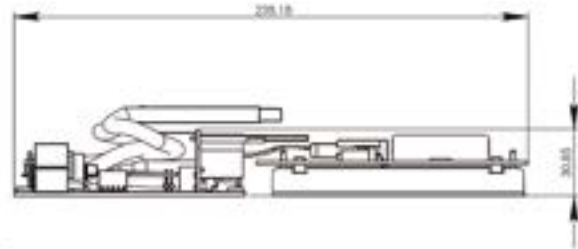
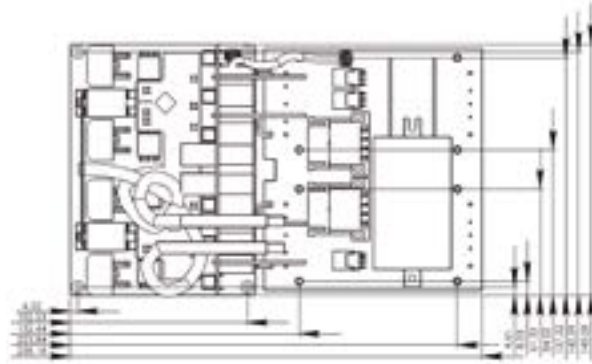
* 20% power de-rating between 10 and 11VDC input

OUTPUT CHARACTERISTICS	
Current Adjustment	0-5V = 0-15A
Setting Tolerance	±2%
Maximum Voltage	55V
Overcurrent Protection	electronic limiting
Maximum Power	1000W continuous
Efficiency	overall typically 86%
Ripple	<2% pk-pk

MONITORS & CONTROLS	
Output Voltage	0-5V = 0-55V
Output Current (max.)	0-5V = 0-15A
Maximum Voltage	55V
Baseplate Temperature (F501's)	Linear signal above 70 deg C
Output Enable	Short circuit = run Open circuit = stop

GENERAL & ENVIRONMENTAL	
Safety	CE marked to LVD2006/93/EC, complies with EN60950-1
Earthing	Baseplate to be grounded
Isolation Voltage	2200VDC input/ground 2200VDC input/output 500VDC output/ground
Construction	Conduction cooled via baseplate with operating temperature range of -25°C to +85°C. Baseplate limited to 100°C.

MECHANICAL OUTLINE



FC1001-012-550 - DC/DC

fc1001-012-550-ds-rev2-12.17.indd

Powerstax Europe

Units 5-6 Heron Avenue
Wickford
Essex SS11 8DL
UK

Powerstax North America

12804 W. Santa Ynez Drive
Sun City West
Arizona 85375
USA

Information and specifications contained in this data sheet are believed to be correct at the time of publication. However, Powerstax accept no responsibility for consequences arising from printing errors or inaccuracies. Specifications are subject to change without notice.