



POWERSTAX F211 Series DC-DC Converter

210W Single Output Full Brick

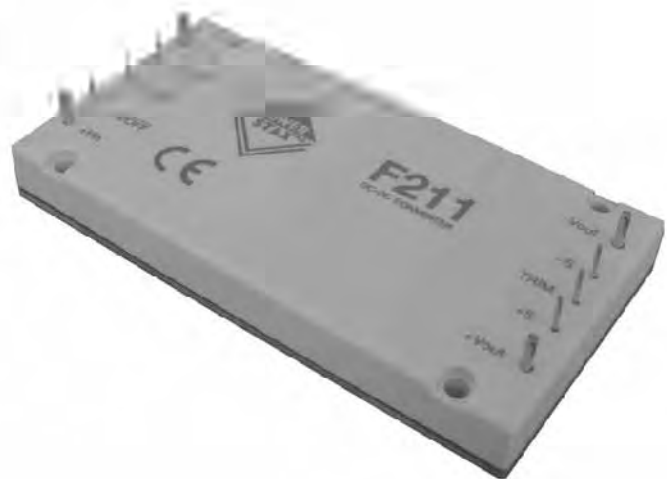
FEATURES

- Exceptional efficiency of >86%
- Outstanding power density – 2.32W/cm³
- Standard “full brick” package
116.8 x 61 x 12.7mm (4.6 x 2.4 x 0.50“)
- Low input & output ripple currents
- Input transient voltage protection
- Thermal monitoring voltage to provide early warning of system fault
- Single connection for parallel operation to provide true N+1 redundancy capability
- No need for master/slave operation
- External synchronisation facility
- Hot plug in capability
- Remote sensing provided
- Remote shutdown
- Wide input voltage range
- Output current monitor voltage
- Thermal protection & Current limit protection

The new Powerstax F211 range represents a further advancement of high power, high-density DC-DC converter modules. Developed from the popular and proven F501 range, the F211 provides higher efficiency, an increase in power and reduced lead-times from the previous F201 series.

Supplying 210 Watts the F211 has a comprehensive list of in-built protection functions such as over voltage protection, undervoltage protection and short circuit protection that are complimented by unique features such as the thermal monitoring voltage to provide early warning of system fault.

Maintaining the industry standard “full brick” size package aids system design and allows for the unit to fit existing applications. This very high efficiency converter continues to give the Power system designer added versatility and space saving capability in a cost effective package.



2 Year Warranty



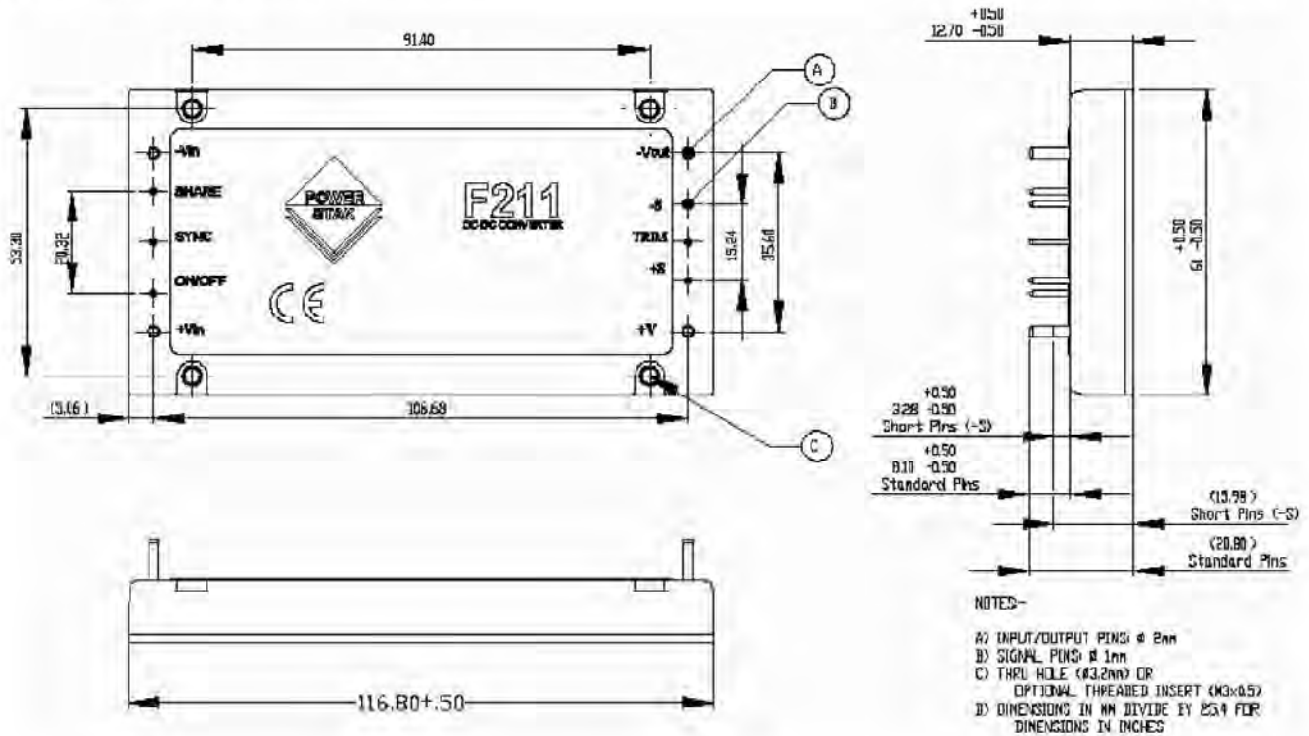
General Specifications

General Characteristics	Conditions	Min	Typ	Max	Unit
Efficiency	Vin = Vin nom, Ta25°C, 75% load		86		%
Switching Frequency			150		KHz
Isolation resistance Input to Output			10		Mohms
Calculated MTFB	Tc = 25°C		1.1		Mhr.
Weight			170		g
Tc	Operating Case Temperature	-20		100	°C
Tstg	Storage Temperature	-40		125	°C
Vin trans	Transient input voltage (48V)			120	V
Viso	Input to Output Isolation Voltage	2000			VAC
Input Characteristics	Conditions	Min	Typ	Max	Unit
Vin	Operating Input Voltage (48V)	36	48	75	V
	Operating Input Voltage (24V)	18	24	36	V
Iin	Typical Input Current (48V)		5		A
Vi(on)	Input rising (48V)		34.6		V
Vi (off)	Input Falling (48V)		29		V
Ir	Input Ripple Rejection (120Hz)		60		dB
Output Characteristics	Conditions	Min	Typ	Max	Unit
Vo Output Setpoint	Vin = Vin nom, Ta = 25°C Io = Io max	-0.70%	0	0.70%	% Vo(nom)
Vo Output voltage Tolerance band	Over all line, load & Temp Conditions	-1.10%		1.10%	% Vo(nom)
Vo Line Regulation	Vin = Vin min to Vin max		0.05		% Vo
Vo Load Regulation	Io = Io min to Io max		0.05	0.2	% Vo
Vo Temperature Regulation	Tc = 20°C, to +100°C		0.003		%/°C
Vtr Vo Load voltage deviation	Vin = Vin nom Ta = 25°C, Io/50% step t=0.1A/us		1.5		%
Vtr Vo Load recovery time	Io change from 50% to 100% of Io, max or 100% to 50% of Io, max		500		us
Io Output Current (5V)	The module may exceed output ripple specification at I = Io min	0.1		42	A
Po, output power	48V and 24V	0		210	W
Io Output Current Limit		100	115	130	%Io(nom)
Vo Output Ripple & Noise RMS	Test Frequency band width <20MHz		0.3		%Vo (nom)
Short Circuit Current Limit			3.3		%Io(nom)
Trim Range	Limited by Po max & Io max	60		110	%Vo (nom)

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Mechanical Outline



Range

Model Reference	Input Voltage (V)	Output Voltage (V)	Output Current (A)
24V input			
F211-024-050	24	5	42
F211-024-120	24	12	17.5
48V input			
F211-048-050	48	5	42
F211-048-120	48	12	17.5

Exceeding absolute maximum ratings may cause permanent damage and may reduce reliability. 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.

