



- ULTRA LOW PROFILE PACKAGE
- PARALLEL N+1 OPERATION
- UP TO 86% EFFICIENCY
- REMOTE OUTPUT TRIM
- TEMPERATURE ALARM
- THERMALLY PROTECTED
- OPERATES WITH MINIMAL COOLING AIRFLOW



FAC SERIES - AC/DC

POWER SUPPLY DESIGN EXCELLENCE

The FAC series combines an FP series front-end with an F series DC/DC converter to produce an ultra low profile AC/DC power supply that incorporates all of the attributes of the high density technology for which Powerstax is well known.

The FAC Series is available as a cold face mounted, conduction cooled version which is only 22.2mm in height or a flange mounted, fan cooled version that still fits well within a 1U profile at only 42mm high.

Wide temperature operation from -20°C to +100°C for the cold face version makes these units suitable for Telecom, Datacom and Industrial applications; in particular where there is little or no forced cooling available.

Multiple units can be connected together in parallel using external ORing circuits to provide multi-kilowatt power systems with or without full N+1 redundant operation.

STANDARD MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT	POWER	CASE FORMAT
FAC501-085-120-C FAC501-085-120-F	12V	41.7A	500W	Cold Face Mount, Conduction Cooled Flange Mount, Fan Cooled
FAC501-085-150-C FAC501-085-150-F	15V	33.3A	500W	Cold Face Mount, Conduction Cooled Flange Mount, Fan Cooled
FAC501-085-240-C FAC501-085-240-F	24V	20.8A	500W	Cold Face Mount, Conduction Cooled Flange Mount, Fan Cooled
FAC501-085-280-C FAC501-085-280-F	28V	17.8A	500W	Cold Face Mount, Conduction Cooled Flange Mount, Fan Cooled
FAC501-085-480-C FAC501-085-480-F	48V	10.4A	500W	Cold Face Mount, Conduction Cooled Flange Mount, Fan Cooled

OTHER HIGH DENSITY PRODUCTS
 F Series DC/DC - 200 to 500W
 F501-385 - High Voltage DC Input
 FP Series - PFC Front-Ends
 FC Series - Fuel Cell DC/DC



FAC SERIES - AC/DC

INPUT SPECIFICATIONS	
Input Voltage	85-264VAC
Input Frequency Range	47-63Hz
Input Current	6.2A @ 110VAC / 2.9A @ 230VAC
Surge Limiting	20A
Input Protection	Internal fuse
Power Factor	See chart on page 5
Harmonic Distortion	EN61000-3-2
Unvoltage Turn-on/off	85VAC rising / 78VAC falling

OUTPUT SPECIFICATIONS	
Voltage Setpoint	±0.7% Vout nom. (at full load)
Voltage Tolerance Band	±1.1% Vout nom. (all line, load & temperature conditions)
Line Regulation	>0.5% Vout nom. (Vin minimum to Vin maximum)
Load Regulation	>0.05% Vout nom. (no load to full load)
Current Share Error	<±10% Io max.
Temperature Coefficient	>3mV/°C (20°C to 100°C)
Transient Response	>1.5% Vout nom. (50% load step at 0.1A/μs)
Over Temperature Shutdown	100-110°C, 105°C typ.
Settling Time	>500μs (to 10% of peak deviation)
Current Limit	100-130% Iout max., 115% Io typ.
Ripple & Noise (rms)	>0.3% Vout nom. (10-100% Iout, 20MHz bandwidth)
Short Circuit Current Limit	3.3% maximum output current
Trim Range	60 to 100% Vout nom. (subject to Pout max. and Iout max.)
Hold-up Time	>16mS @ full load @ 200VAC input

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature Range	Cold Face Version: -20° to +100°C baseplate Fan Cooled Version: -20° to +58°C air inlet, see charts on page 5
Storage Temperature Range	-40°C to +125°C
Humidity	10-90%RH, non-condensing
Cooling	Conduction (case C) / Internal fans (case F), see mechanical drawings for airflow direction

SAFETY & EMC SPECIFICATIONS	
Safety Standards	UL/EN/IEC60950-1 2nd. Ed.
Isolation	1500VAC input - ground 2000VAC input - output 500VAC output - ground
Emissions ¹ (Conducted & Radiated)	EN55011, level A
Immunity ¹	ESD, EN61000-4-2 Radiated RF, EN61000-4-3 Conducted RF, EN61000-4-6 Fast Transients, EN61000-4-4 Input Surges, EN61000-4-11

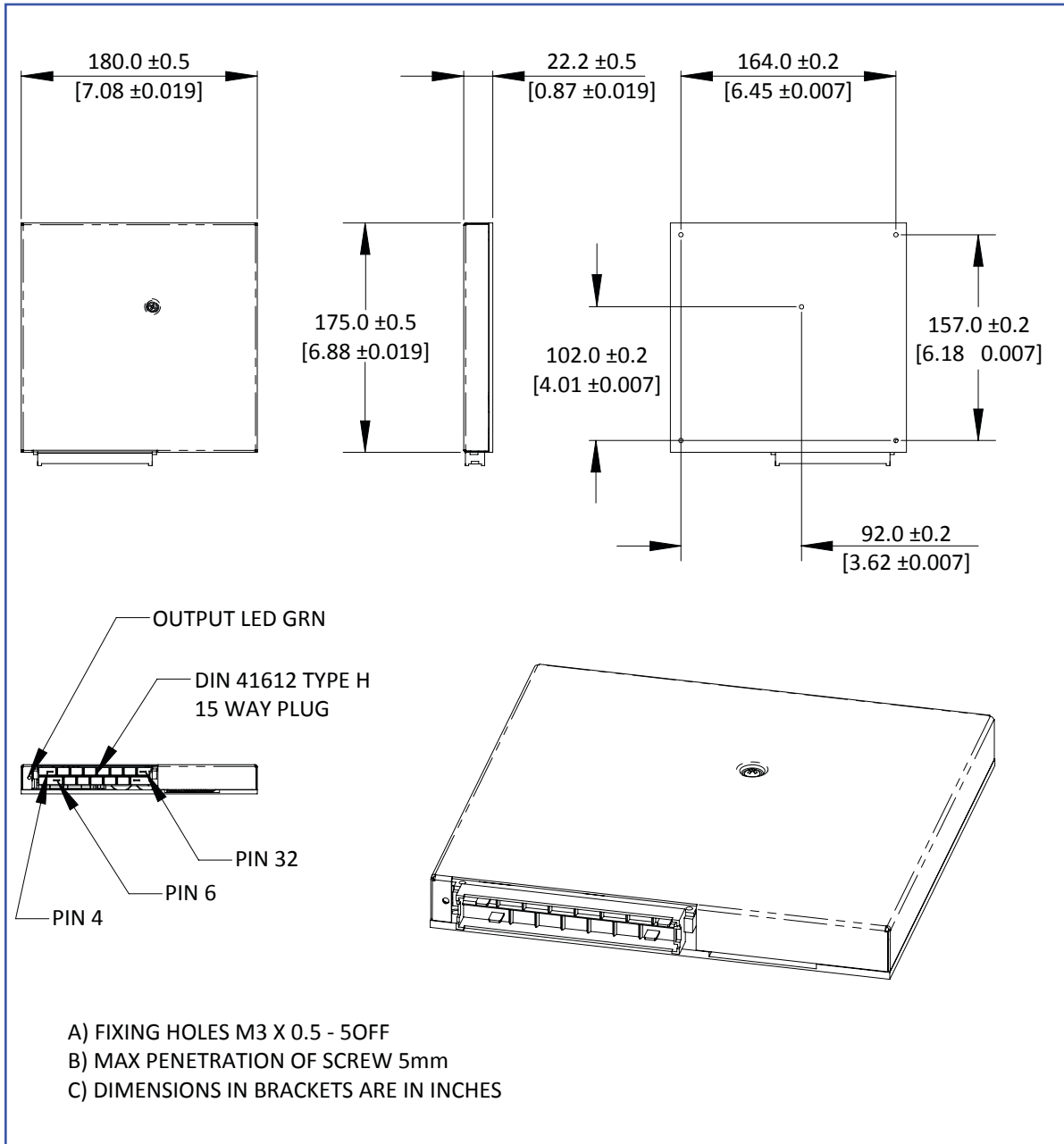
STATUS INDICATORS & ALARMS	
Output On	Green LED
Temperature	TBD

OUTLINE DIMENSIONS				WEIGHT
Case Option	Width	Height	Depth	
Cold Face	180mm	22mm	175mm	1.05Kg
Flange	233mm	42mm	260mm	2.10Kg

Note 1: Designed to meet



MECHANICALS - COLD FACE MOUNT, CONDUCTION COOLED

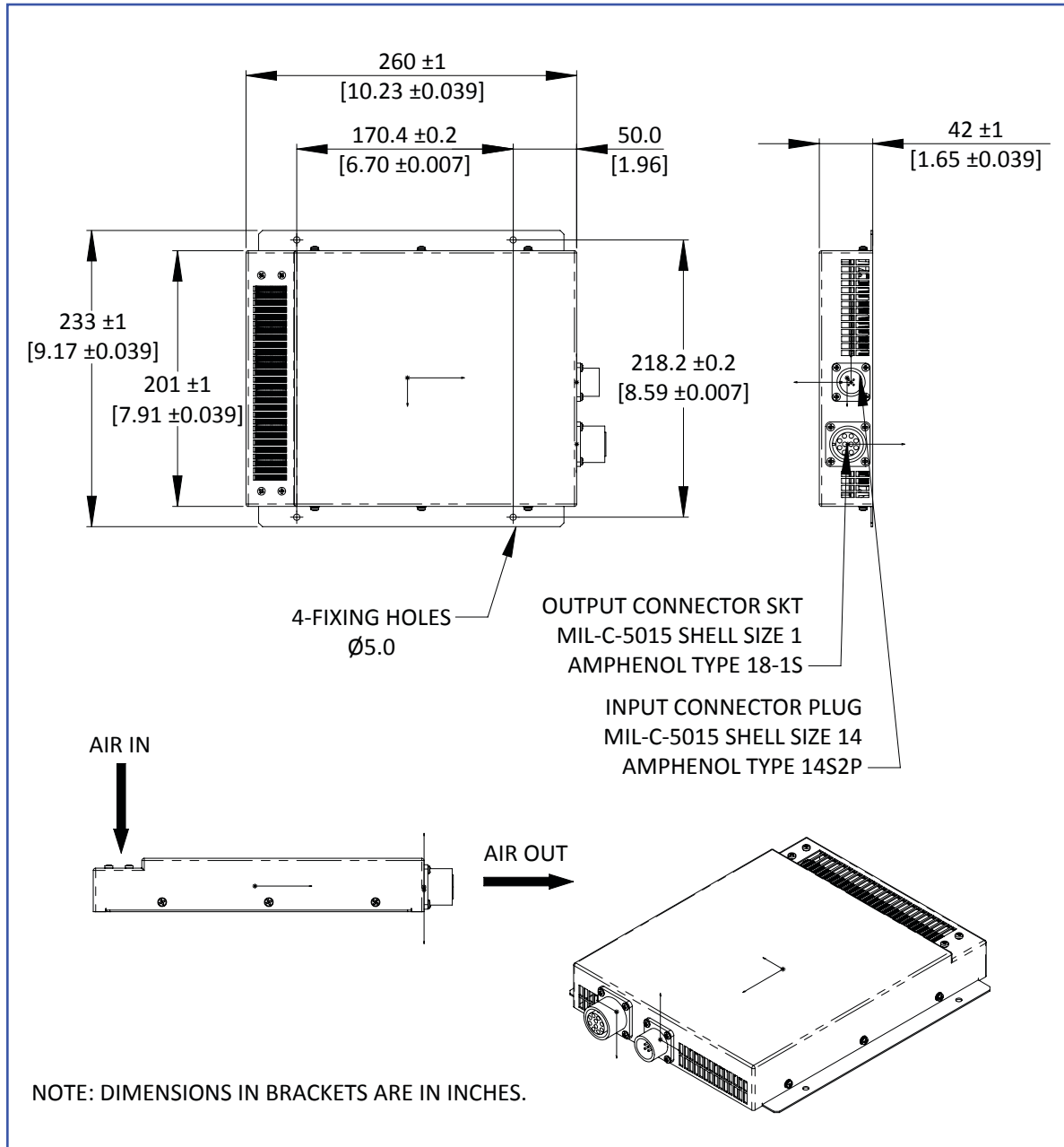


FAC SERIES - AC/DC

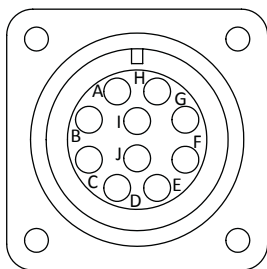
Connections (DIN 41612 Type H15)			
Pin	Function	Pin	Function
4	Output Return	20	+ Output
6	Output Return	22	No Connection
8	- Sense	24	No Connection
10	TEMP	26	No Connection
12	SHARE	28	LIVE
14	TRIM	30	NEUTRAL
16	+ Sense	32	EARTH
18	+ Output		



MECHANICALS - FLANGE MOUNT, FAN COOLED

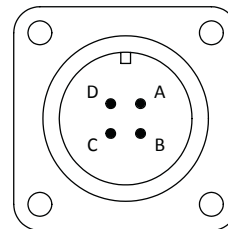


FAC SERIES - AC/DC



View from Front

Output Connector Socket	
Pin	Function
A, B	Output Return
C	- Sense
D	TEMP
E	TRIM
F	+ Sense
G, H	+ Output
I	No Connection
J	SHARE

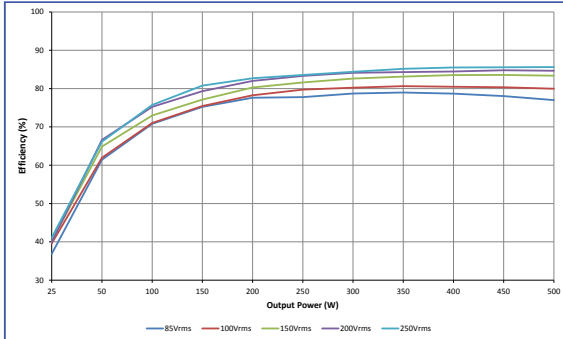


View from Front

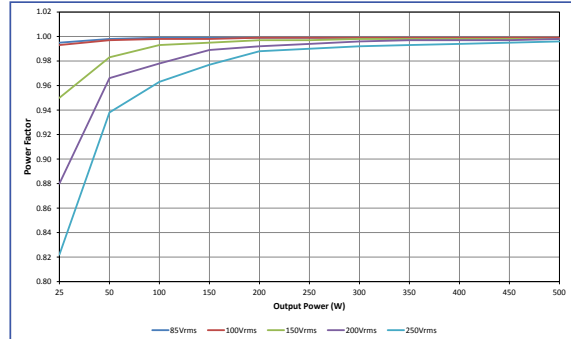
Input Connector Plug	
Pin	Function
A	No Connection
B	LIVE
C	NEUTRAL
D	EARTH



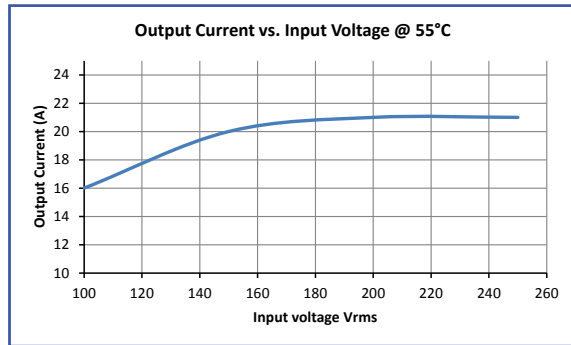
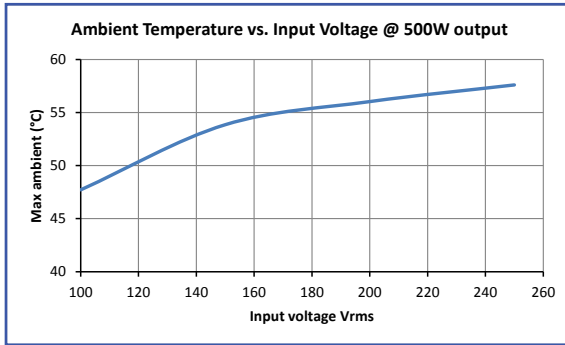
TYPICAL EFFICIENCY



TYPICAL POWER FACTOR

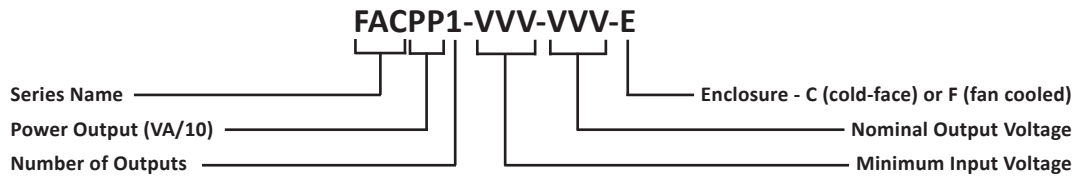


FLANGE MOUNT, FAN COOLED DERATING



FAC SERIES - AC/DC

MODEL NUMBER CONFIGURATION GUIDE



All specifications are typical at nominal line input, full load and 25°C unless otherwise stated.

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