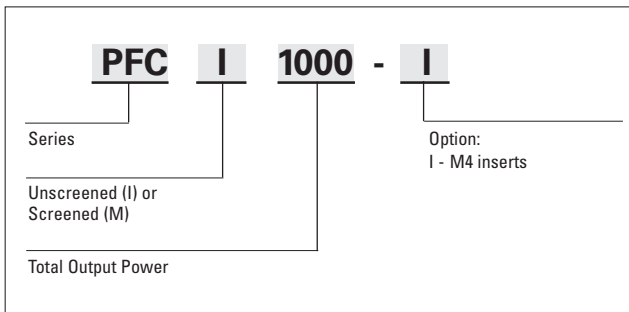


# PFC1000 Active power factor correction and harmonic attenuation module

## 85 – 265 Vin, 1000 watts



### HOW TO ORDER



### FEATURES

- Meets Harmonic Requirements of MIL - STD - 1399
- Meets CE01 and CE101 of MIL - STD - 461 without Companion Filter
- Meets EMI Requirements of MIL - STD - 461 with PFF1000 Companion Filter
- Meets all requirements of MIL - STD - 704E
- Non-latching Over Temperature Protection
- Non-latching Output Overvoltage Protection
- Isolated Input AC Good TTL Signal (Open collector)
- Isolated Output DC Good TTL Signal (Open collector)
- Full 1000 Watts of output power from 85 VAC to 265 VAC and up to 100°C baseplate temperature
- Utilizes non isolated boost topology
- Environmental Screening available

### INPUT CHARACTERISTICS

	Min.	Typ.	Max	Units
Input Voltage (Single Phase)	85		265	VAC
Input Frequency Range	47		440	Hz
Inrush Current (Input cap of 1.1µF cap is not included)			40	A
Power factor at Full Load [fig. I]	0.98	0.99		
115V <sub>in</sub> / 60Hz	0.98	0.99		
115V <sub>in</sub> / 400Hz	0.97	0.98		
230V <sub>in</sub> / 50Hz				
Efficiency at Full Load [fig. III]				
115V <sub>in</sub> / 60Hz	93	95		%
115V <sub>in</sub> / 400Hz	93	95		%
230V <sub>in</sub> / 50Hz	95	97		%

### OUTPUT CHARACTERISTICS

	Min.	Typ.	Max.	Units
Nominal No Load Voltage Setting	375		385	V
Output Power (Full Load)			1000	W
Load Regulation (No Load - Full Load)			2	% V <sub>out</sub>
Line Regulation (Low Line - High Line)			1	% V <sub>out</sub>
Ripple P - P (60 Hz/115 VAC input) [fig. VII]			2.7	% V <sub>out</sub>
Overvoltage Protection	405	410	425	V
Transient Response: 25 - 75 - 25% or 50 - 100 - 50% step load				
Overshoot / Undershoot		±5		% V <sub>out</sub>
Recovery time (to 1% of V <sub>out</sub> )			50	mS
Temperature Drift		0.01	0.02	% / °C
Output (Holdup) Capacitance			1000	µF
Holdup Time - Application Specific (@P <sub>out</sub> =1000W, V <sub>out</sub> 380 to 200V)		52		mS

All specifications are typical @+25°C with nominal input voltage under full output load conditions and holdup capacitance of 495µF, unless otherwise noted. Specifications subject to change without notice.

# PFC1000 Power factor corrected AC-DC module

## TEMPERATURE CHARACTERISTICS

	Min.	Typ.	Max.	Units
Operating	-40		+100	° C
Storage - Ambient	-55		+105	° C
Over Temperature Shutdown		+105		° C
Thermal Resistance Case- Ambient		1.2		°C/W

## M- GRADE - ENVIRONMENTAL SCREENING

Stabilization Bake	+105°C for 24 hours similar to MIL-STD-883, M1008.2, Condition B
Temperature Cycling	10 cycles at -55°C to +105°C (transition period 5°C / minute) similar to MIL-STD-883, M1010, Condition B
Burn in	160 hours @ 85°C minimum
Final Testing	Full ATP

## I- GRADE - ENVIRONMENTAL SCREENING

Burn in	16 hours @ 50°C minimum
Final Testing	Full ATP

See "Guide to Operation" for full details

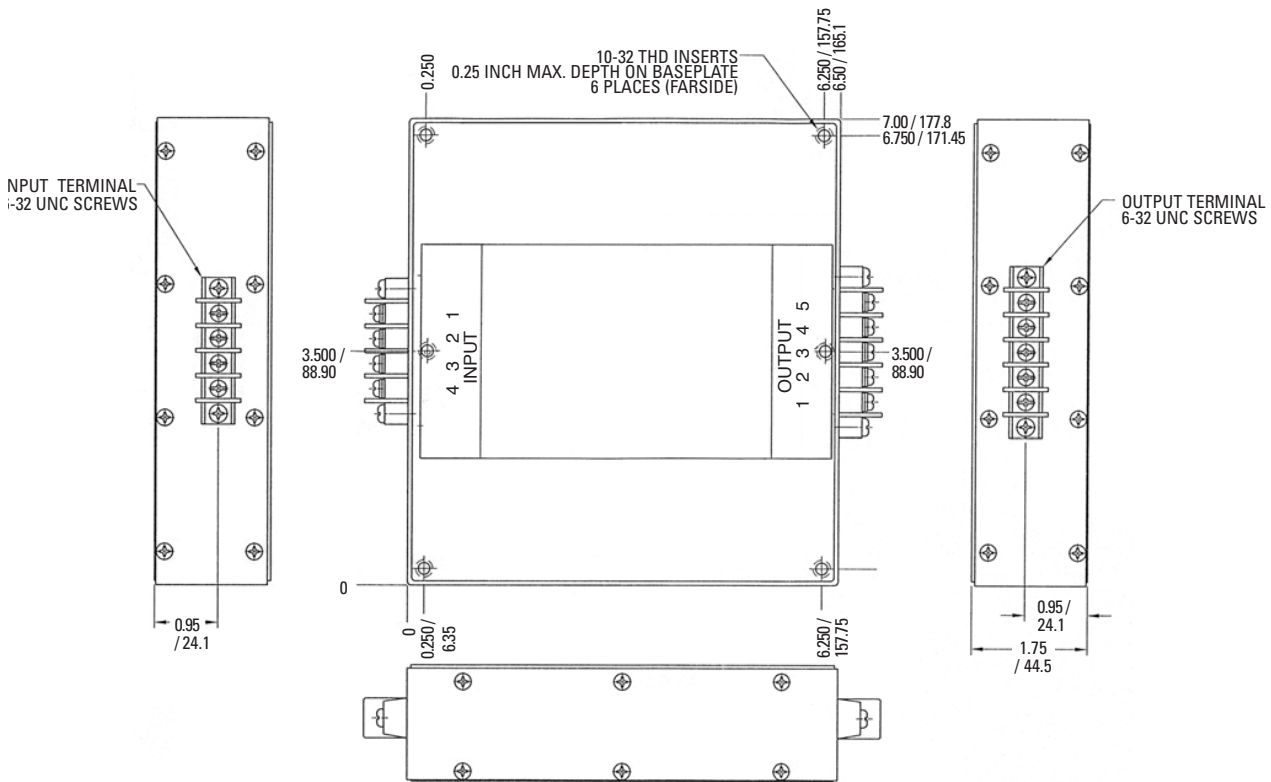
## ISOLATION CHARACTERISTICS

	Min.	Units
Isolation:		
Input/Output to Base	1000	VAC
Insulation resistance @ 500 VDC	100	MOhm

## MECHANICAL CHARACTERISTICS

Weight (Max.)	70 1990	oz. grams
Size	7.00 x 6.50 x 1.75 177.8 x 165.1 x 44.5	inch mm
Volume	79.6 1306.3	inch <sup>3</sup> cm <sup>3</sup>
Material:		
Lid and Case	Aluminum Alloy 5052-H32	
Baseplate	Aluminum Alloy 6061-T6	
Finish:		
Lid and Case	Black Anodized	
Baseplate	None	
Mounting:		
Standard	10-32 Inserts	
Option - I	Metric M4 - .7 Inserts	

## CASE DRAWINGS



**Tolerances:** inches - x.xx = ±0.03 mm - x.x = ±0.8  
 inches - x.xxx = ±0.015 mm - x.xx = ±0.40

Specifications are typical @+25°C with nominal input voltage under full output load conditions and holdup capacitance of 495µF, unless otherwise noted. Specifications subject to change without notice.

For additional information, call 310.542.8561  
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May 2017

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