



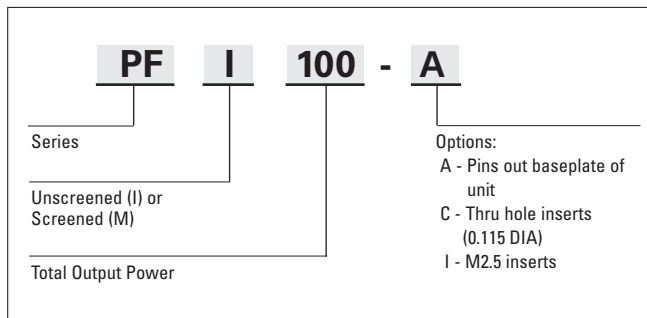
PF100

100 Watts Output Power

ACTIVE POWER FACTOR CORRECTION & HARMONIC ATTENUATION MODULE



HOW TO ORDER



FEATURES

- Meets all Requirements of MIL - STD - 1399, section 300A
- Meets CE01 and CE101 of MIL - STD - 461 without external filter
- Meets all requirements of MIL - STD - 704E
- Meets all requirements of ABD0100.1.8.1
- Non-latching Over Temperature Protection
- Non-latching Output Overvoltage Protection
- Output short circuit protection, automatic recovery after short circuit removal
- Isolated Output DC Good TTL Signal (Open collector)
- Full 100 Watts of output power from 85 VAC to 265 VAC and up to 100°C baseplate temperature
- Utilizes non isolated boost topology
- Dual Nominal Voltage setting:
275V for 85 - 170 Vrms Input
380V from 180 - 264 Vrms Input
- Environmental Screening available

INPUT CHARACTERISTICS

	Min.	Typ.	Max.	Units
Input Voltage (Single Phase)	85		265	VAC
Input Frequency Range	45		800	Hz
Inrush Current				
@115 Vrms			3	A
@240 Vrms			5	A
Power factor at Full Load				
115V _{in} / 60 - 400Hz	0.98	0.99		
115V _{in} / 800Hz	0.94	0.96		
230V _{in} / 50Hz	0.97	0.99		
230V _{in} / 400Hz	0.92	0.93		
230V _{in} / 800Hz	0.79	0.80		
Efficiency at Full Load				
115V _{in} / 60Hz	92	93		%
115V _{in} / 400Hz	91	92		%
230V _{in} / 50Hz	92	93		%
230V _{in} / 400Hz	92	93		%
230V _{in} / 800Hz	92	93		%

OUTPUT CHARACTERISTICS

	Min.	Typ.	Max.	Units
Nominal No Load Voltage Setting	273 or 380		278 or 385	V
Output Power (Full Load)			100	W
Load Regulation (No Load - Full Load)			2.2	% V _{out}
Line Regulation (Low Line - High Line)			1	% V _{out}
Ripple P - P (60 Hz/115 VAC input)			3.5	% V _{out}
Overvoltage Protection (% of Output)	103	105	110	% V _{ou}
Transient Response: 25 - 75 - 25% or 50 -100 - 50% step load				
Overshoot / Undershoot		±6.3		% V _{out}
Recovery time (to 2% of V _{out})			200	mS
Temperature Drift	0.01	0.02		% / ° C
Output (Holdup) Capacitance		Not Included		

(specs are based on 100µF)

TEMPERATURE CHARACTERISTICS

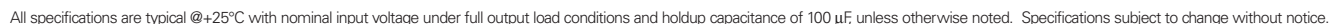
ISOLATION CHARACTERISTICS

M- GRADE - ENVIRONMENTAL SCREENING

MECHANICAL CHARACTERISTICS

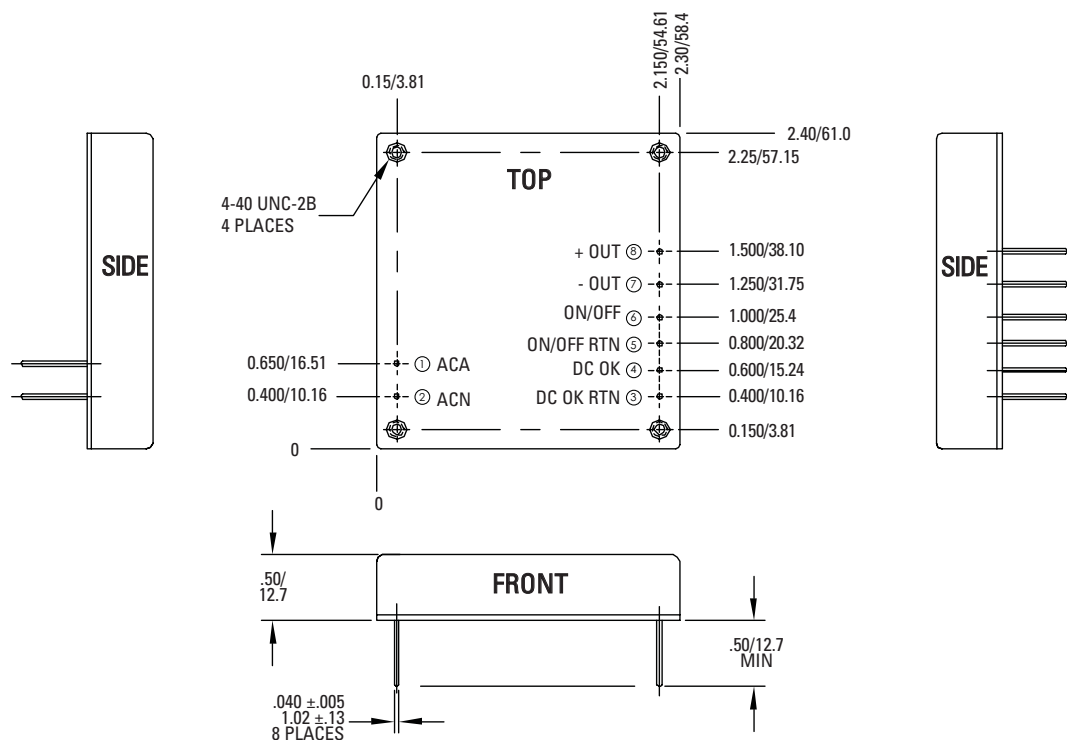
I- GRADE - ENVIRONMENTAL SCREENING

CASE DRAWINGS - PF100 STANDARD

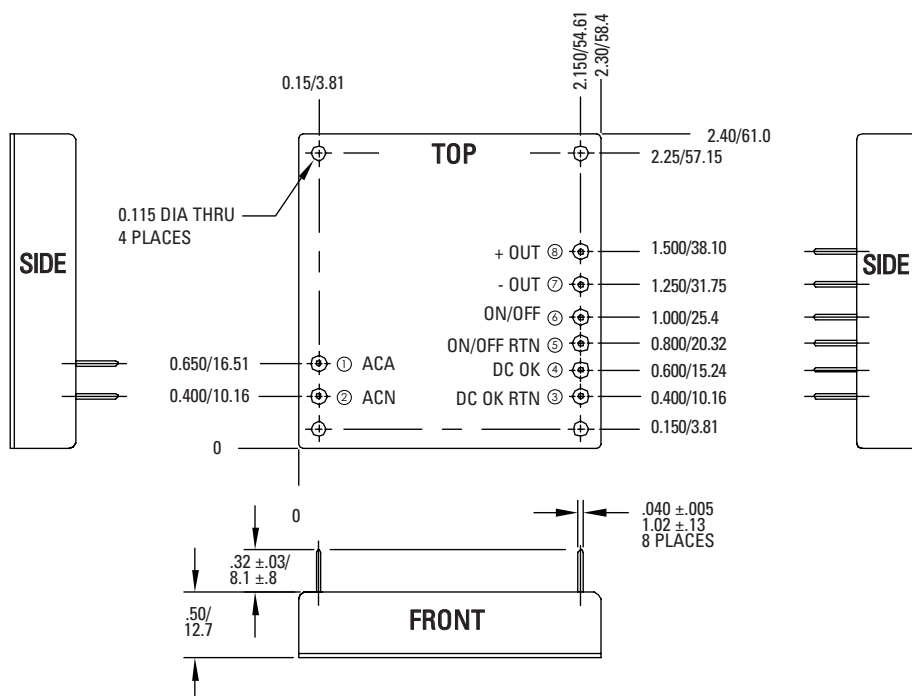




CASE DRAWINGS - PF100 OPTION -A; PINS OUT BASEPLATE OF UNIT



CASE DRAWINGS - PF100 OPTION -C; THRU HOLE INSERTS

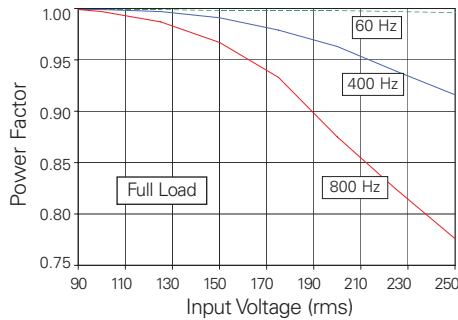




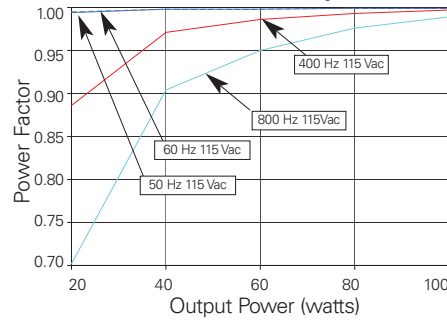
PERFORMANCE CHARACTERISTICS

PF100

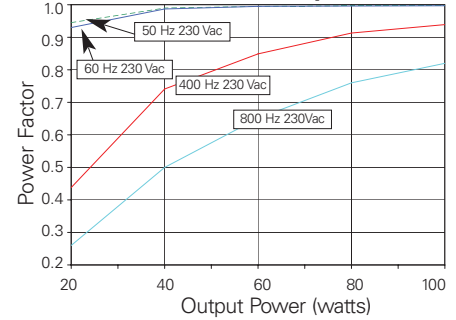
I. Power Factor vs. Input Voltage



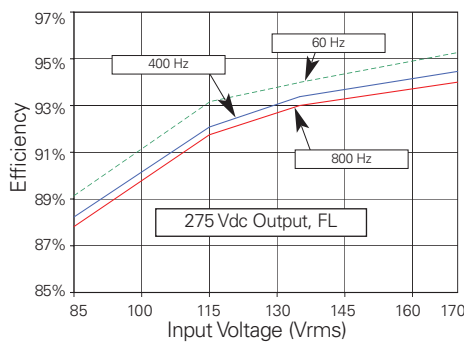
II-a. Power Factor vs. Output Power



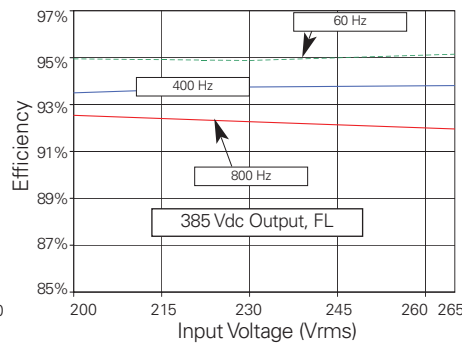
II-b. Power Factor vs. Output Power



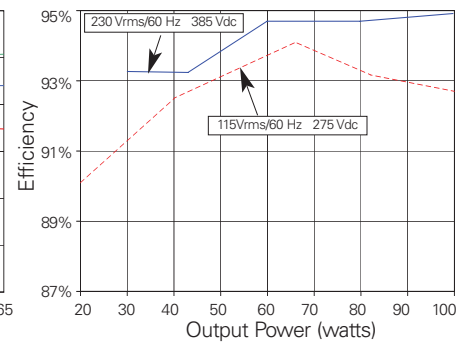
III-a. Efficiency vs. Input Voltage



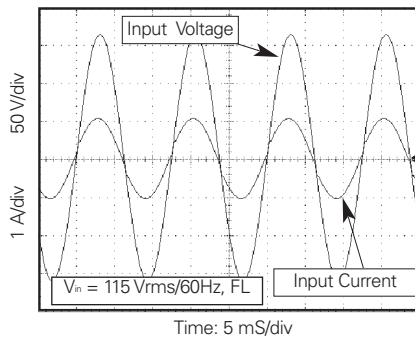
III-b. Efficiency vs. Input Voltage



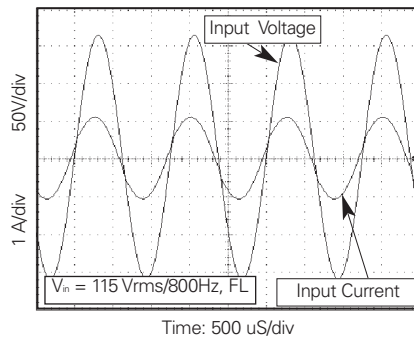
IV. Efficiency vs. Output Power



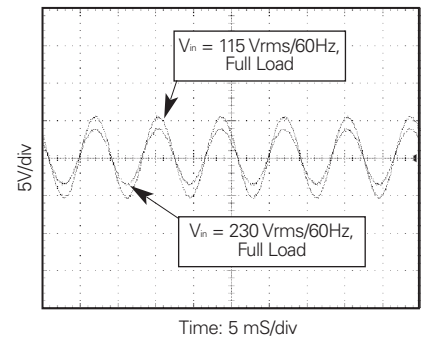
V-a. AC Input Voltage & Current



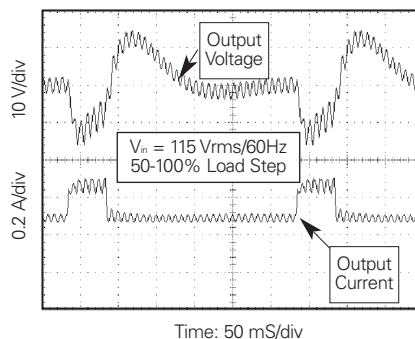
V-b. AC Input Voltage & Current



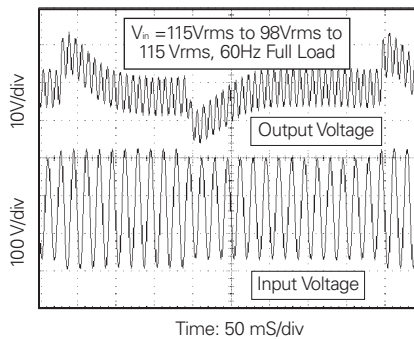
VI. Output Ripple



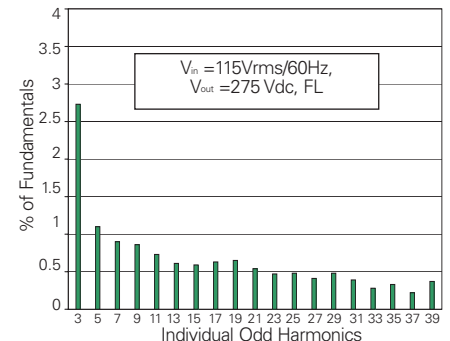
VII. Load Transient Response



VIII. Line Transient

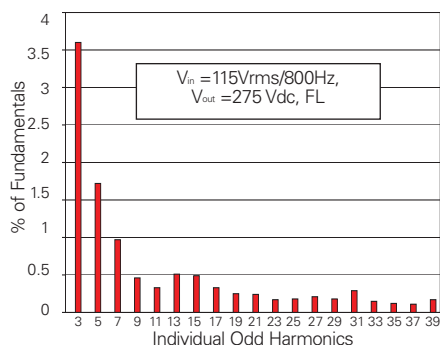


IX-a. Harmonic Distortion

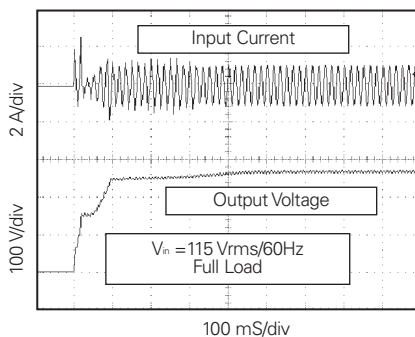




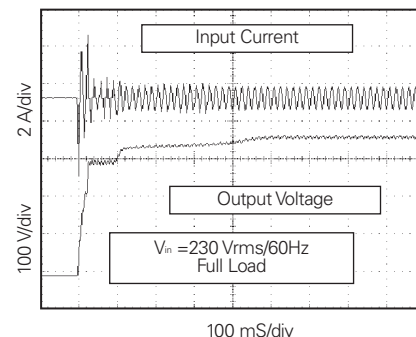
IX-b. Harmonic Distortion



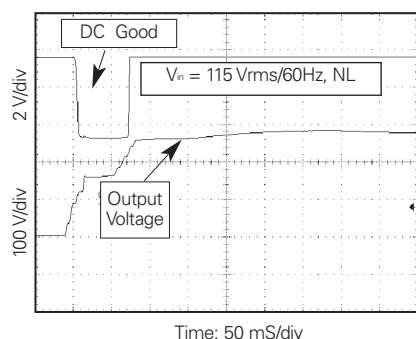
X-a. Inrush Current vs Output Voltage



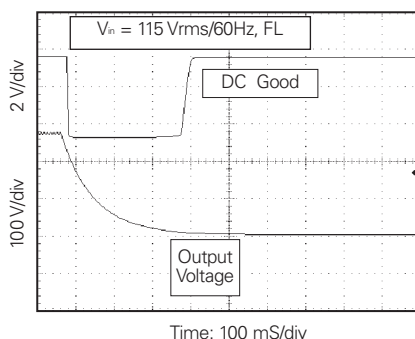
X-b. Inrush Current vs Output Voltage



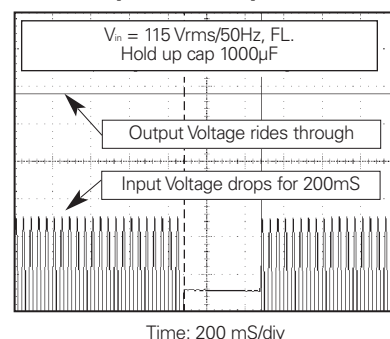
XI. DC Good, Turn-On



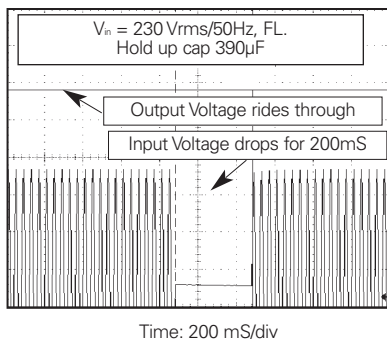
XII. DC Good, Turn-Off



XIII-a. Input Line Dropout

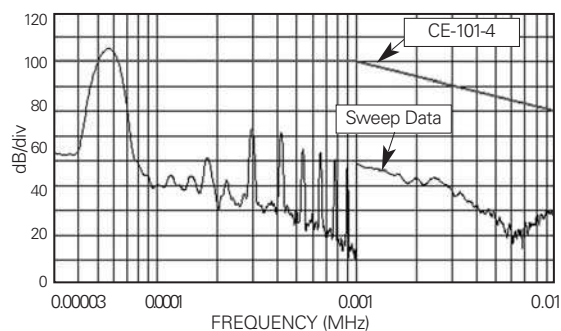


XIII-b. Input Line Dropout



EMI Plots

**MIL-STD-461D
CE101-4
Full Load**



**MIL-STD-461D
CE102-1
Full Load**

