

PFC 1600

1000-1600 WATT, 380 VOLT OUTPUT
DISTRIBUTED POWER FRONT END



Power

PFC



The PFC 1600 is a high-performance AC-DC converter providing all the necessary functions for a distributed power system front end. Built-in power factor correction virtually eliminates unwanted AC harmonic currents, delivering over 50% more power from standard outlets while also meeting the international harmonic current limits. Universal AC input allows worldwide operation without jumper selection or auto-ranging. A simple control interface provides required system functions: front panel on/off switching, AC fail warning, a low-voltage auxiliary supply and enabling the distributed DC-DC converters. Its many features, small size, and low cost make the PFC 1600 the right choice for OEM applications.

SAFETY

UL 1950, CSA C22.2 No. 950, EN60950

EMC

FCC, CISPR 22, EN55022, class A conducted/radiated
IEC 801 immunity
IEC 1000-3-2, EN61000-3-2 harmonic distortion

QUALITY

ISO 9001

FEATURES

- Power factor correction
- IEC input connector
- Replaceable fuse
- EMI filter
- Self-contained dc fan
- AC fail warning
- Overload protection
- Isolated auxiliary supply
- Worldwide operation
- Simplifies system design
- Small size, low cost
- 2 year warranty

Tracewell Power Inc.

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ELECTRICAL

Output Voltage:	350 Vdc at 85-230 Vac increasing linearly to 380 Vdc from 230-264 Vac.
Output Power:	1600 W max. at 170-264 Vac 1200 W max. at 95-264 Vac 1000 W max. at 85-264 Vac
Input Voltage/Current:	85-264 Vac, 47-63 Hz, 15 A max., single phase
Auxiliary Output:	+12 Vdc at 50 mA max., can tolerate short circuit for up to 5 sec.
Power Factor:	0.99 typical
Inrush Current:	40 A max.
Efficiency:	94% typical
Holdup Time:	20 msec min. from input power failure until AC OK signal goes low, full load and 85-264 Vac
AC Fail Warning:	5 msec continued operation after AC OK signal drops
Output Ripple:	18 V pk-pk max.
Turn-on Time:	800 msec max. until Load Enable signal goes high
Line Regulation:	2% max. output variation over full input range
Load Regulation:	2% max. output variation from no load to full load
Overvoltage Protection:	Output limited to 400 Vdc
Overload Protection:	Input current limited to 15 A rms
Thermal Protection:	Internal shutdown cycles automatically
Input Fuse:	Internal one-pole 16A NTD fuse
Output Short Protection:	External fuses required at dc-dc converters
Leakage Current:	1.0 mA max. at 240 Vac
Hipot:	2200 Vdc

CONTROL SIGNALS (ALL SIGNALS REFERENCED TO RETURN)

On/Standby Switch:	Connect to return with front panel switch to turn on
Return:	Signal return (can be connected to system ground)
AC OK:	TTL high indicates input and output voltages OK
+12 Vdc Aux:	+12 Vdc at 50 mA max. (overload will shut off PFC)
Load Enable:	+12 Vdc active high for controlling dc-dc converters (Load enable signal must be used to activate load for proper AC inrush limit operation)

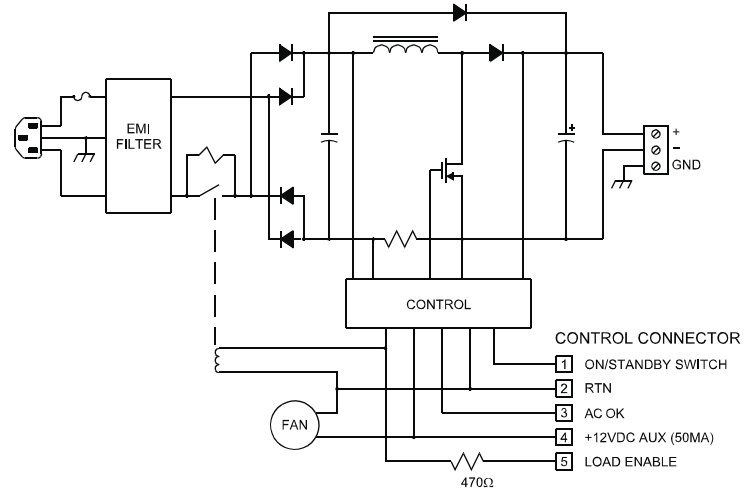
MECHANICAL

Operating Temperature:	-20°C to 70°C. Full power to 50°C, derate to 50% at 70°C
Storage Temperature:	-40°C to 85°C
Size/Weight:	2.6"H x 4.4"W x 7.7"L, 3.0 lbs.
Shock and Vibration:	Mil-Hdbk 810E
Humidity:	95% non-condensing
Mating Connector:	5 pin control connector AMP part no. 102241-3

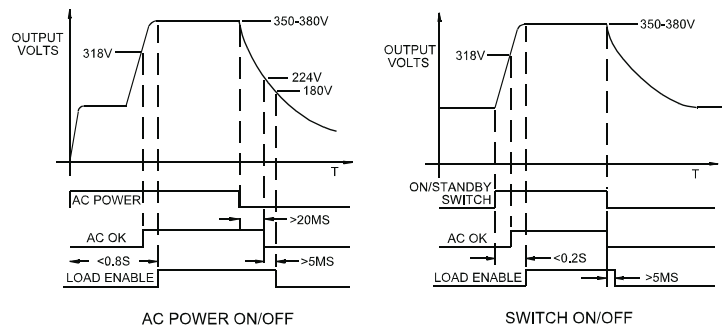
OPTIONS

PFC1600 — v — V for standard variable output voltage, F for fixed 380V

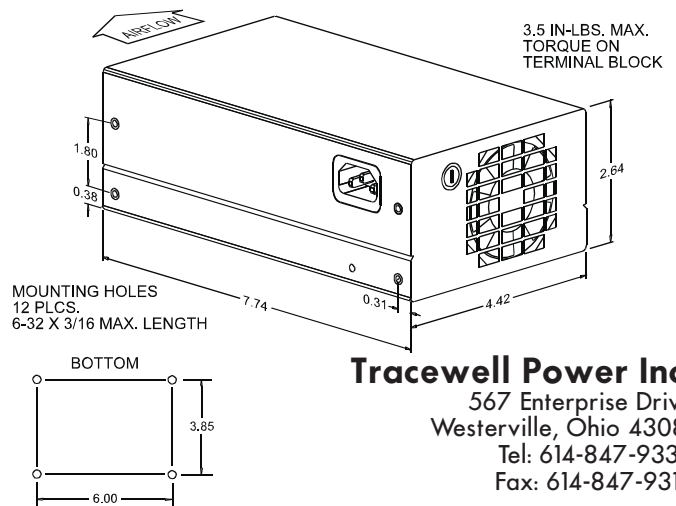
FUNCTIONAL BLOCK DIAGRAM



POWER ON/OFF SEQUENCE



DIMENSIONS



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