



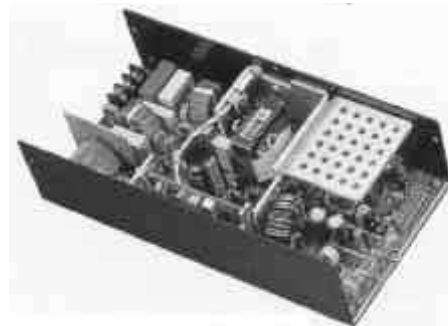
**TRUMPower**

# 350 WATT POWER FACTOR CORRECTED SUPPLIES

## DESCRIPTION

The PFC350 series comprises single and multiple output models for 350 watts of continuous output power. All models meet EN 61000-3-2. All auxiliary outputs are with magnetic amplifier to keep regulation. The units are constructed on a printed circuit board with a U-bracket for mechanical support and heat sinking. Both "B" and "C" versions are with UL, CSA and TÜV approvals.

PFC350 SERIES



## FEATURES

- Power Factor 0.98 typical
- 90 VAC to 264 VAC universal input
- In compliance with EN 55024, EN 61000-3-2 and EN 61000-3-3
- Overvoltage and thermal protection
- Short-circuit protection
- Power Fail Detect (PFD) signal
- 100% burn-in at full rated load
- Remote sense on master output

## INPUT SPECIFICATIONS

**Input voltage:** 90 to 264 VAC  
**Input frequency:** 47 to 63 Hz  
**Input current:** 5.6A (rms) for 115VAC  
 2.8A (rms) for 230VAC  
**Leakage current:** 0.4mA max. @115VAC, 60Hz  
 0.8mA max. @230VAC, 50Hz

## OUTPUT SPECIFICATIONS

**Output voltage/current :** See rating chart  
**Total output power:** 350 watts maximum  
**Ripple and noise :** 2% peak to peak maximum  
**Overvoltage protection :** Provided on output #1 only; set at 112 - 132 % of its nominal output voltage  
**Overcurrent protection:** All outputs protected to short circuit conditions  
**Temperature coefficient:** All outputs +/-0.04%/ °C maximum  
**Transient response :** Maximum excursion of 4% or better on all models; recovering to 1% of final value within 500us after a 25% step load change  
**PFD signal :** TTL logic high for normal operation and TTL logic low upon loss of input power. This signal appears at least 1 ms prior to +5.1V output dropping 5% below its nominal value. This signal also provides a minimum delay of 100 ms after +5.1V is within regulation.

## Safety Standard Approvals:



**UL 1950**  
File No. E137410



**C22.2 No. 950**  
Certificate No. LR93632(157810)



**EN 60950**  
Certificate No. 9955628

## ENVIRONMENTAL SPECIFICATIONS

**Operating temperature:** 0°C to +70°C  
**Storage temperature:** -40°C to +85°C  
**Relative humidity:** 5% to 95% non-condensing  
**Derating:** Derate from 100% at 50 °C linearly to 50% at 70 °C  
**Cooling:** 38 CFM forced air, provided on "C" version, to be provided for "B" version by user

## GENERAL SPECIFICATIONS

**Switching frequency:** 76KHz +/-8KHz  
**Power factor:** 0.98 typical  
**Efficiency :** 70% typical  
**Hold-up time :** 12 msec minimum at 115VAC  
**Line regulation :** +/-0.5% maximum at full load  
**Inrush current :** 40 A @ 115VAC, or 80 A @ 230 VAC, at 25 °C cold start  
**Withstand voltage :** 3000VAC from input to output  
 1500VAC from input to ground  
 500VAC from output to ground  
**MTBF :** 350,000 hours minimum at full load at 25°C ambient, calculated per MIL-HDBK-217F, excluding DC fan.  
**EMI requirements :** In compliance with EN 55022 and FCC, conducted emissions meeting Class B and radiated emissions meeting Class A  
**Safety requirements :** Meets or exceeds:  
 (a) UL 1950  
 (b) CSA C22.2 No. 950  
 (c) IEC 950 (EN 60950)

# UNIVERSAL INPUT

# PFC350 SERIES

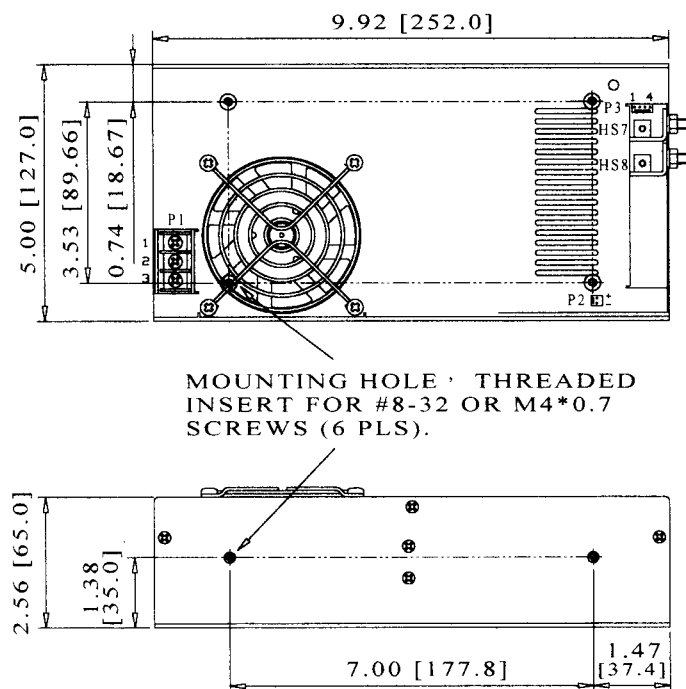
## OUTPUT VOLTAGE/CURRENT RATING CHART

(1)(5) Model	Output #1				Output #2 (2)				Output #3				Output #4 (3)				Maximum Output Power (4)
	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	Vnom.	Imin.	Imax.	Tol.	
PFC350-10	5.1V	1A	53.9A	2%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	275W
PFC350-12	12V	0.5A	29.2A	2%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	350W
PFC350-13	15V	0.4A	23.4A	2%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	350W
PFC350-14	24V	0.2A	14.6A	2%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	350W
PFC350-16	30V	0.2A	11.7A	2%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	350W
PFC350-18	48V	0.1A	7.3A	2%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	350W
PFC350-23	+5.1V	5A	40A	2%	+12V	0A	9A	4%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	300W
PFC350-24	+5.1V	5A	40A	2%	+15V	0A	8A	4%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	300W
PFC350-25	+5.1V	5A	40A	2%	+24V	0A	4.5A	4%	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	300W
PFC350-30	+5.1V	5A	40A	2%	+12V	0A	9A	4%	-5V	0A	6A	4%	(N/A)	(N/A)	(N/A)	(N/A)	300W
PFC350-31	+5.1V	5A	40A	2%	+12V	0A	9A	4%	-12V	0A	4A	4%	(N/A)	(N/A)	(N/A)	(N/A)	350W
PFC350-32	+5.1V	5A	40A	2%	+15V	0A	8A	4%	-15V	0A	4A	4%	(N/A)	(N/A)	(N/A)	(N/A)	350W
PFC350-33	+5.1V	5A	40A	2%	+15V	0A	8A	4%	-12V	0A	4A	4%	(N/A)	(N/A)	(N/A)	(N/A)	350W
PFC350-40	+5.1V	5A	40A	2%	+12V	0A	9A	4%	-12V	0A	4A	4%	5V	0A	6A	4%	350W
PFC350-41	+5.1V	5A	40A	2%	+15V	0A	8A	4%	-15V	0A	4A	4%	24V	0A	4A	4%	350W
PFC350-42	+5.1V	5A	40A	2%	+12V	0A	9A	4%	-12V	0A	4A	4%	12V	0A	4A	4%	350W
PFC350-44	+5.1V	5A	40A	2%	+12V	0A	9A	4%	-15V	0A	4A	4%	15V	0A	4A	4%	350W
PFC350-45	+5.1V	5A	40A	2%	+12V	0A	9A	4%	-12V	0A	4A	4%	24V	0A	4A	4%	350W

- Notes: (1) Add suffix "B" for U-bracket format or "C" for enclosed format, e.g. PFC350-45C.  
 (2) The peak current of output #2 is limited to 12A on +12V, 9.6A on +15V or 6.0A on +24V.  
 (3) Output #4 is floating. It can be connected externally for a positive or negative output.  
 (4) Peak output current with 10% maximum duty cycle for less than 60 seconds. Total peak power must not exceed 350 watts.  
 (5) All models may be operated at no-load. At no-load, output voltage tolerance increases to 10%.  
 The output #1 of multiple output models requires 5A to support other outputs at their maximum rated loads.

## MECHANICAL SPECIFICATIONS

### Single Output Models



### NOTES:

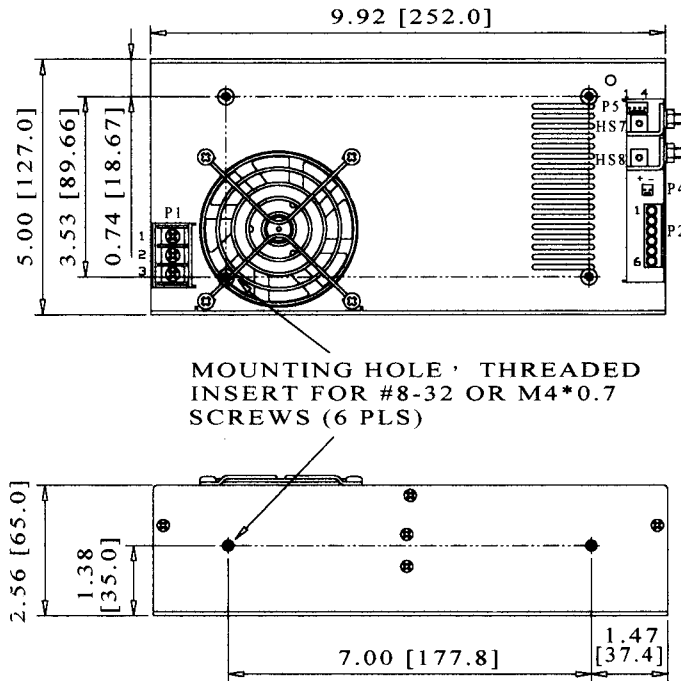
- Dimensions shown in inch [mm].
- Tolerance 0.02 [0.5] maximum.
- P1 input connector is Beau Inc. P/N 72-5-03C.  
Screws are #6-32 on 0.375 inch (9.53mm) centers.
- P2 is for DC fan rated 24V/0.12A (models PFC350-14,16) or 12V/0.22A (the other models).
- P3 Connector mates with Molex housing 22-01-1043 and Molex 40445 series crimp terminal.
- Main output studs HS7/HS8 are with M5\*0.8 screws.
- Weight:  
1.40 Kgs (3.08 Lbs.) approx. for "B" version.  
1.70 Kgs (3.74 Lbs.) approx. for "C" version.

# UNIVERSAL INPUT

# PFC350 SERIES

## MECHANICAL SPECIFICATIONS

### Multiple Output Models



#### NOTES:

1. Dimensions shown in inch [mm].
2. Tolerance 0.02 [0.5] maximum.
3. P1 input connector is Beau Inc. P/N 72-5-03C.  
Screws are #6-32 on 0.375 inch (9.53mm) centers.
4. P2 Output connector is Dinkle P/N 166-06P.
5. P4 is for DC fan rated 24V/0.12A (model PFC350-25) or 12V/0.22A (the other models).
6. P5 Connector mates with Molex housing 22-01-1043 and Molex 40445 series crimp terminal.
7. Main output studs HS7/HS8 are with M5\*0.8 screws.
8. Weight:  
1.40 Kgs (3.08 Lbs.) approx. for "B" version.  
1.70 Kgs (3.74 Lbs.) approx. for "C" version.

## PIN CHART

### Single Output Models

MODEL	CONN PIN	P1 (AC)			P3				HS7	HS8
		1	2	3	1	2	3	4		
PFC350-10		LIVE	NEUTRAL	GROUND	+S (VO1)	-S (VO1)	PFD	COM. RET.	OUTPUT # 1 RETURN	OUTPUT # 1
PFC350-12 PFC350-13 PFC350-14 PFC350-16 PFC350-18		LIVE	NEUTRAL		+S (VO1)	-S (VO1)	N.C.	COM. RET.	OUTPUT # 1 RETURN	OUTPUT # 1

### Multiple Output Models

MODEL	CONN PIN	P1 (AC)			P2 (DC Output)					P5				HS7	HS8
		1	2	3	1	2,3	4	5	6	1	2	3	4		
PFC350-23 PFC350-24 PFC350-25		LIVE	NEUTRAL	GROUND	OUTPUT # 2	COM. RET.	N.C.	N.C.	N.C.	+S (VO1)	-S (VO1)	PFD	COM. RET.	OUTPUT # 1	OUTPUT # 1 RETURN
PFC350-30 PFC350-31 PFC350-32 PFC350-33		LIVE	NEUTRAL	GROUND	OUTPUT # 2	COM. RET.	OUTPUT # 3	N.C.	N.C.	+S (VO1)	-S (VO1)	PFD	COM. RET.		
PFC350-40 PFC350-41 PFC350-42 PFC350-44 PFC350-45		LIVE	NEUTRAL	GROUND	OUTPUT # 2	COM. RET.	OUTPUT # 3	OUTPUT # 4	OUTPUT # 4 RETURN	+S (VO1)	-S (VO1)	PFD	COM. RET.		

Note: "OUTPUT #1 RETURN" is connected to "COM. RET" (common return), but "OUTPUT #4 RETURN" is isolated.