PROTEK

130 WATT POWER FACTOR CORRECTED SUPPLIES

DESCRIPTION

The PFC130 series incorporates creative high efficiency circuitry, high power density (6.94 Watts/in^3) and active Power Factor Correction (PFC) to meet the requirements of data networking, computing and telecommunication systems.

PFC130 SERIES
(SINGLE OUTPUT)

CE (LVD)
RoHS

FEATURES

- **EN61000-3-2 class A and D compliant**
- **Power factor 0.98 typical**
- **Very compact size, 3″×5″×1.2″**
- **Overvoltage protection**
- **Short circuit protection**
- **Remote sense**
- **Compliant with RoHS requirements**

New!!

INPUT SPECIFICATIONS

Input voltage :	90 to 264VAC
Input frequency :	47 to 63Hz
Input current :	2.1A（rms）max. for 115VAC 1.1A（rms）max. for 230VAC
Earth leakage current: (Touch current)	0.3mA max. @ 115VAC, 60Hz 0.6mA max. @ 230VAC, 50Hz

Safety Standard Approvals :

c UL us — **UL 60950-1, CSA C22.2 NO. 60950-1**
File NO. E137410

TÜV Rheinland — **TÜV EN60950-1**

OUTPUT SPECIFICATIONS

Output voltage/current :	See Rating Chart
Ripple and noise :	2% peak to peak on 5.1V model 1% peak to peak on other models.
Overvoltage protection :	Provided on output set at 112–132% of its nominal output voltage
Overcurrent protection :	Protected to short circuit conditions
Temperature coefficient :	All outputs ± 0.04% /℃ 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

GENERAL SPECIFICATIONS

Switching frequency :	110KHz ±15KHz
Power factor :	0.98 typical
Efficiency :	72% typical on 5.1V output, 76% typical on other outputs
Hold-up time :	15 msec minimum at 115VAC
Line regulation :	±0.5% maximum at full load
Inrush current :	35 amps @ 115VAC or 70 amps @ 230VAC at 25℃ cold start
Withstand voltage :	3000VAC from input to output 1500VAC from input to ground 500VAC from output to ground
MTBF :	200,000 hours minimum
EMC Performance (EN55024)	
EN55022:	Class B conducted, Class A radiated
FCC Part 15	Class B conducted, Class A radiated
VCCI:	Class B conducted, Class A radiated
EN61000-3-2:	Harmonic distortion, Class A and D
EN61000-3-3:	Line flicker
EN61000-4-2:	ESD, ± 8KV air and ± 4KV contact
EN61000-4-3:	Radiated immunity, 3V/m
EN61000-4-4:	Fast transient/burst, ± 1KV
EN61000-4-5:	Surge, ± 1KV diff., ± 2KV com.
EN61000-4-6:	Conducted immunity, 3Vrms
EN61000-4-8:	Magnetic field immunity, 1A/m
EN61000-4-11:	Voltage dips, 30% reduction for 500ms and >95% reduction for 10ms

ENVIRONMENTAL SPECIFICATIONS

Operating temperature :	-10℃ to +60℃
Storage temperature :	-40℃ to +85℃
Relative humidity :	5% to 95% non-condensing
Derating :	Derate from 100% at +40℃ linearly to 50% at +60℃
Cooling :	10 CFM total forced air from two 40mm diameter fans or the like is required and provided by user

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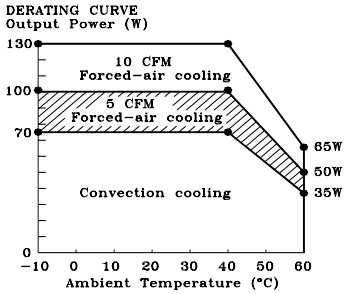
UNIVERSAL INPUT- SINGLE OUTPUT PFC130 SERIES

OUTPUT VOLTAGE/CURRENT RATING CHART

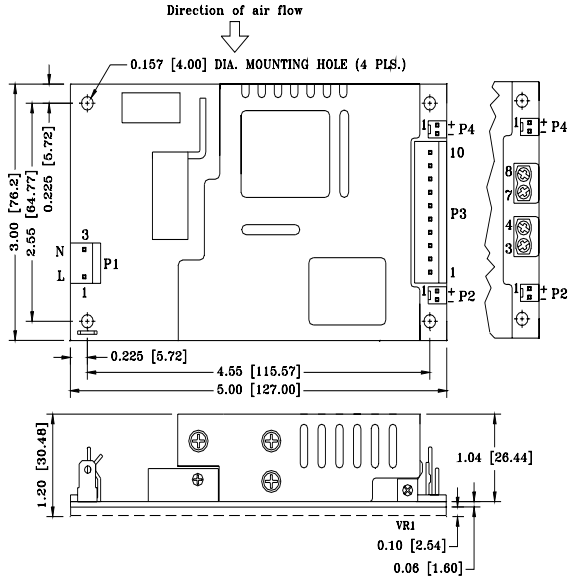
MODEL	Output Vnom.	Imin.	Imax.	Tol.	Maximum Output Power (1)
PFC130-10A	5.1V	0.7A	25.5A	2%	130W
PFC130-12A	12V	0.5A	10.8A	2%	130W
PFC130-13A	15V	0.5A	8.7A	2%	130W
PFC130-13-1A	18V	0.5A	7.2A	2%	130W
PFC130-14A	24V	0.4A	5.4A	2%	130W
PFC130-16A	30V	0.4A	4.3A	2%	130W
PFC130-17A	36V	0.3A	3.7A	2%	130W
PFC130-18A	48V	0.3A	2.7A	2%	130W

NOTES:

1. 130 watts maximum at 10 CFM forced air cooling.
2. Ripple and noise is measured peak to peak across a 20MHz bandwidth by using a 12 inch twisted pair terminated with a 10uF tantalum capacitor in parallel with a 0.1uF ceramic capacitor.
3. Suffix codes for over-temperature protection function and output connector are as follows. PFC130-X1 X2 X3, "X1" is the model code from the above table, "X2" is the over-temperature protection function (Blank=without over-temperature protection, W=with over-temperature protection), "X3" is output connector (Blank=Molex KK type, T=miniature terminal blocks), e.g. PFC130-13-1AW (18V output voltage, with over-temperature protection, Molex KK type).



MECHANICAL SPECIFICATIONS



NOTES:

1. Dimensions shown in inch [mm]
2. Tolerance 0.02 [0.5] maximum
3. Connector P1 mates with Molex housing 09-50-3031 and Molex 2878 series crimp terminal.
4. Molex KK type connectors:
   Connector P3 mates with Molex housing 09-50-3101 and Molex 2878 series crimp terminal.
5. Miniature terminal blocks:Connector P3 are suitable for AWG#18~AWG#12 electric wires.
6. Connector P2, P4 mates with Molex housing 22- 01-1023 and Molex 40445 series crimp terminal.
7. Weight: 0.38 kgs (0.84 lbs.) approx.
8. Potentiometer (VR1) is for output voltage adjustment.

PIN CHART

CONN / MINI TERMINAL / MOLEX CONNECTOR / MODEL	P1			P2		P3										P4	
						Void	Void	3	4	Void	Void	7	8	Void	Void		
	1	2	3	1	2	1	2	3	4	5	6	7	8	9	10	1	2
PFC130-10A PFC130-12A PFC130-13A PFC130-13-1A PFC130-14A PFC130-16A PFC130-17A PFC130-18A	AC LIVE	Void	AC NEUTRAL	+SENSE	-SENSE	OUTPUT					RETURN					FAN (12V)	RET.

MEMO:

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