

DESCRIPTION

The PFC130 series incorporates creative high efficiency circuitry, high power density (6.94 Watts/in³) and active Power Factor Correction (PFC) to meet the requirements of data networking, computing and telecommunication systems.

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!!

PFC130 SERIES (SINGLE OUTPUT)



INPUT SPECIFICATIONS

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


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% /°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

ENVIRONMENTAL SPECIFICATIONS

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

Safety Standard Approvals :

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

 **TÜV EN60950-1**

GENERAL SPECIFICATIONS

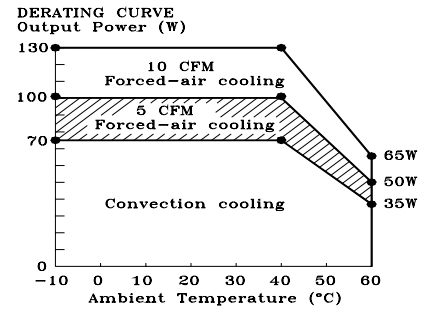
Switching frequency : 110 KHz ±15 KHz
 Power factor : 0.98 typical
 Efficiency : 72% typical on 5.1V output,
 76% typical on other outputs
 Hold-up time : 15 msec minimum at 115VAC
 Line regulation : ±0.5% maximum at full load
 Inrush current : 35 A @ 115 VAC or 70 A @ 230 VAC at 25°C cold start
 Withstand voltage : 3000 VAC from input to output
 1500 VAC from input to ground
 500 VAC 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

OUTPUT VOLTAGE/CURRENT RATING CHART

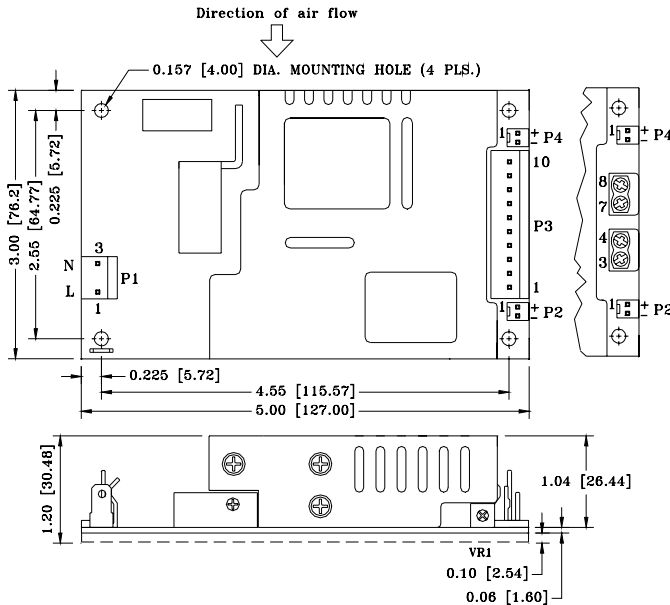
MODEL	Vnom.	Output			ToI.	Maximum Output Power (1)
		Imin.	Imax.			
PFC130-10A	5.1V	0.7A	25.5A		2%	130W
PFC130-12A	12V	0.5A	10.8A		2%	130W
PFC130-13A	15V	0.5A	8.7A		2%	130W
PFC130-13-1A	18V	0.5A	7.2A		2%	130W
PFC130-14A	24V	0.4A	5.4A		2%	130W
PFC130-16A	30V	0.4A	4.3A		2%	130W
PFC130-17A	36V	0.3A	3.7A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

NOTES:

- 130 watts maximum at 10 CFM forced air cooling.
- 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.
- 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:

- Dimensions shown in inches [mm]
- Tolerance 0.02 [0.5] maximum
- Connector P1: Molex header 09-65-2038 or equivalent, mating with Molex housing 09-50-1031 or equivalent.
- Connector P3: Molex header 09-65-2108 or equivalent, mating with Molex housing 09-50-1101 or equivalent.
- Miniature terminal blocks: Connector P3 are suitable for AWG#18~AWG#12 electric wires.
- Connector P2, P4: Molex header 22-04-1021 or equivalent, mating with Molex housing 22-01-1023 or equivalent.
- Weight: 380 grams (0.84 lbs.) approx.
- Potentiometer (VR1) is for output voltage adjustment.

PIN CHART

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