

AC-DC Converter

**POWER
SOLVE**

PAK75/PAK100/PAK150/PAK200 Series 75-200W Active PFC Single Output

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Features

- Universal AC Input with active PFC
- Green Design, no-load power consumption <0.7W
- Short Circuit / Overvoltage / Overload Protections
- High Efficiency, Long Life and High Reliability
- Operating Temperature range -20°C to +70°C
- Power On LED Indicator
- 100% full load burn-in test



PAK75 & PAK100: 157(L) x 98(W) x 42(H) mm
PAK150 & PAK200: 197(L) x 98(W) x 42(H) mm

Electrical Specification

Input Voltage	90-264VAC full range, 50-60Hz / 127-370VDC
Power Factor	>0.9 @ 230VAC / >0.98 @115VAC
AC Input Current (typ.)	1A @ 115VAC / 0.5A @ 230VAC (PAK75) 1.2A @ 115VAC / 0.6A @ 230VAC (PAK100) 1.8A @ 115VAC / 0.9A @ 230VAC (PAK150) 2.3A @ 115VAC / 1.2A @ 230VAC (PAK200)
Inrush Current	20A @ 115VAC / 45A @ 230VAC (PAK75 & PAK100) 30A @ 115VAC / 55A @ 230VAC (PAK150 & PAK200)
Leakage Current	<2mA @ 230VAC
Output Voltage	See Table
Output Current	See Table
Overload Protection	>105% of rated output power. Hiccup mode, recovers automatically when fault is removed
Overvoltage Protection	115-150% rated output voltage. Output latches off
Over Temperature Protection	90°C ±5°C. Shuts down output, re-power on to recover after temperature goes down
Operating Temperature Range	-20°C to +70°C. Above 50°C, derate linearly to 50% load at 70°C
Operating Humidity	20-90% RH non-condensing
Storage Temperature Range	-40°C to +85°C
Storage Humidity	10-95% RH non-condensing
Temperature Coefficient	±0.03%/°C (0-50°C)
Vibration	10-500Hz, 5G 0.5 Oct/min., for 60 mins, along X,Y & Z axis
Safety Standards	UL60950-1, TUV EN60950-1 approved
Green Energy	Energy Star Single Voltage External AC-DC & AC-AC power supplies eligibility criteria (version 1.1)
Withstand Voltage	I/P-O/P: 3KVAC (4242VDC), I/P-FG: 1.5KVAC (2121VDC), O/P-FG: 0.5KVAC (707VDC) all for 1 min.
Isolation Resistance	I/P-O/P, I/P-FG, O/P-FG: 100MΩ / 500VDC
EMI Conduction & Radiation	EN55022: 1998+A1 : 2000+A2 : 2003 Class B
Harmonic Current	EN61000-3-2: 2000+A2 : 2005 Class A, EN61000-3-3 : 1995+A1 : 2001
EMS Immunity	EN61204-3 : 2000, EN50204 : 1998+A1 : 2001+A2 : 2003 light industry level, criteria A
Cooling	Free Air Convection (PAK75, PAK100 & PAK150) Internal Fan (PAK200)
Dimensions	157(L) x 98(W) x 42(H) mm (PAK75 & PAK100) 197(L) x 98(W) x 42(H) mm (PAK150 & PAK200)
Weight	0.65Kg (PAK75 & PAK100) 0.70Kg (PAK150) 0.80Kg (PAK200)

Notes:

1. All parameters NOT specifically mentioned are measured at 230Vac input, rated load and 25°C ambient temperature
2. Ripple and noise are measured at 20MHz bandwidth by using a 12" twisted pair wire terminated with a 0.1µF ceramic & 47µF electrolytic capacitors across the output
3. Derating is required at low input voltages. Derate linearly to 90% load at 90Vac under 100Vac input
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC Directives

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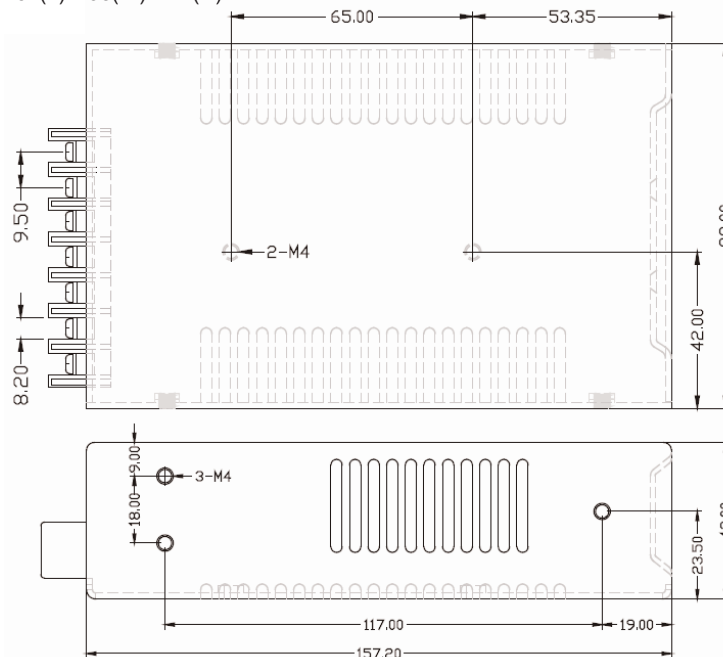
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Output Voltage and Current Ratings

MODEL	OUTPUT VOLTAGE		MAX OUTPUT CURRENT	VOLTAGE TOLERANCE	RIPPLE & NOISE	LINE REG.	LOAD REG.	POWER Max.	EFF.
	Preset	Range							
PAK75-05	5V	4.5 - 5.5V	15A	±2%	100mV p-p	±1%	±1%	75W	83%
PAK75-7V5	7.5V	6.75 - 8.25V	10A	±1.5%	100mV p-p	±1%	±1%	75W	85%
PAK75-12	12V	10.8 - 13.2V	6.3A	±1%	100mV p-p	±0.5%	±0.5%	75.6W	85%
PAK75-13V5	13.5V	12.15 - 14.85V	5.6A	±1%	100mV p-p	±0.5%	±0.5%	75.6W	86%
PAK75-15	15V	13.5 - 16.5V	5A	±1%	100mV p-p	±0.5%	±0.5%	75W	88%
PAK75-24	24V	21.6 - 26.4V	3.2A	±1%	120mV p-p	±0.5%	±0.5%	76.8W	89%
PAK75-27	27V	24.3 - 29.7V	2.8A	±1%	120mV p-p	±0.5%	±0.5%	75.6W	89%
PAK75-48	48V	43.2 - 52.8V	1.6A	±1%	200mV p-p	±0.5%	±0.5%	76.8W	89%
PAK100-05	5V	4.5 - 5.5V	20A	±2%	100mV p-p	±1%	±1%	100W	83%
PAK100-7V5	7.5V	6.75 - 8.25V	13.5A	±1.5%	100mV p-p	±1%	±1%	101.2W	85%
PAK100-12	12V	10.8 - 13.2V	8.5A	±1%	100mV p-p	±0.5%	±0.5%	102W	85%
PAK100-13V5	13.5V	12.15 - 14.9V	7.5A	±1%	100mV p-p	±0.5%	±0.5%	101.2W	86%
PAK100-15	15V	13.5 - 16.5V	6.7A	±1%	100mV p-p	±0.5%	±0.5%	100.5W	88%
PAK100-24	24V	21.6 - 26.4V	4.2A	±1%	120mV p-p	±0.5%	±0.5%	100.8W	89%
PAK100-27	27V	24.3 - 29.7V	3.8A	±1%	120mV p-p	±0.5%	±0.5%	102.6W	89%
PAK100-48	48V	43.2 - 52.8V	1.95A	±1%	200mV p-p	±0.5%	±0.5%	93.6W	89%
PAK150-05	5V	4.5 - 5.5V	20A	±2%	100mV p-p	±1%	±1%	100W	79%
PAK150-7V5	7.5V	6.75 - 8.25V	20A	±1.5%	100mV p-p	±1%	±1%	150W	82%
PAK150-12	12V	10.8 - 13.2V	12.5A	±1%	100mV p-p	±0.5%	±0.5%	150W	86%
PAK150-13V5	13.5V	12.15 - 14.9V	11.2A	±1%	100mV p-p	±0.5%	±0.5%	151.2W	87%
PAK150-15	15V	13.5 - 16.5V	10A	±1%	100mV p-p	±0.5%	±0.5%	150W	87%
PAK150-24	24V	21.6 - 26.4V	6.3A	±1%	120mV p-p	±0.5%	±0.5%	151.2W	87%
PAK150-27	27V	24.3 - 29.7V	5.6A	±1%	120mV p-p	±0.5%	±0.5%	151.2W	89%
PAK150-48	48V	43.2 - 52.8V	3.2A	±1%	200mV p-p	±0.5%	±0.5%	153.6W	89%
PAK200-05	5V	4.5 - 5.5V	40A	±2%	100mV p-p	±1%	±1%	200W	78%
PAK200-7V5	7.5V	6.75 - 8.25V	26.7A	±1.5%	100mV p-p	±1%	±1%	200W	81%
PAK200-12	12V	10.8 - 13.2V	16.7A	±1%	100mV p-p	±0.5%	±0.5%	200W	85%
PAK200-13V5	13.5V	12.15 - 14.85V	14.9A	±1%	100mV p-p	±0.5%	±0.5%	201W	86%
PAK200-15	15V	13.5 - 16.5V	13.4A	±1%	100mV p-p	±0.5%	±0.5%	201W	86%
PAK200-24	24V	21.6 - 26.4V	8.4A	±1%	120mV p-p	±0.5%	±0.5%	201W	87%
PAK200-27	27V	24.3 - 29.7V	7.5A	±1%	120mV p-p	±0.5%	±0.5%	202W	88%
PAK200-48	48V	43.2 - 52.8V	4.2A	±1%	200mV p-p	±0.5%	±0.5%	201W	88%

Mechanical Details

PAK75 & PAK100 series: 157(L) x 98(W) x 42(H) mm



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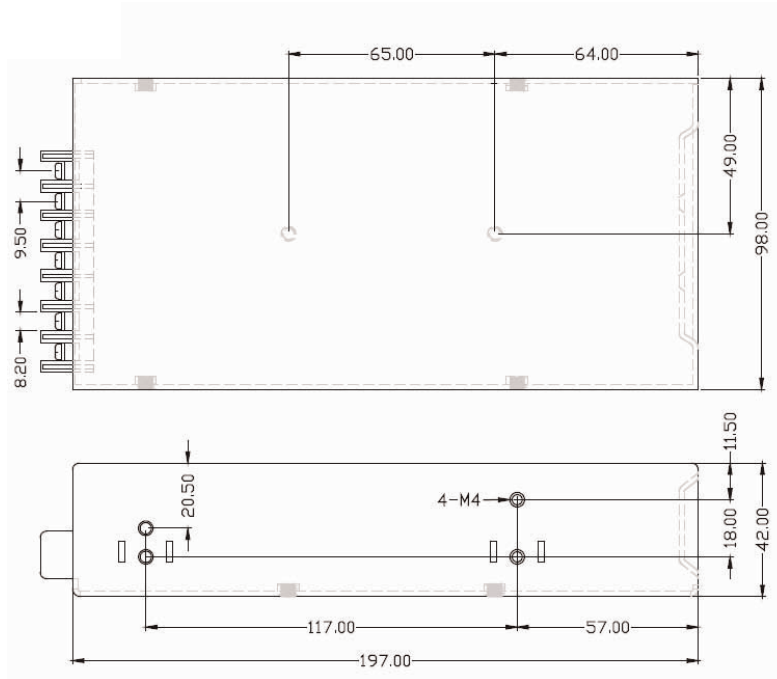
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Mechanical Details (cont.)

PAK150 series: 197(L) x 98(W) x 42(H) mm



PAK200 series: 197(L) x 98(W) x 42(H) mm

