



PROTEK

55 WATT SWITCHING POWER SUPPLIES

DESCRIPTION

The PUP55 series of AC/DC switching power supplies are for 40 to 55 watts of continuous output power. They are enclosed in a 94V-1 rated polyphenylene-oxide case with an IEC 320 inlet to mate with interchangeable cord for world-wide use. All models meet CISPR 22 and FCC class B emission limits, and comply with UL, CSA, IEC and CE requirements.

FEATURES

- 15 standard desktop models
- Single, dual or triple outputs
- Optional output connectors
- Optional on/off switch
- 100% burn-in
- Wide input range 85 to 264 VAC
- Input surge current protection
- Overvoltage protection
- Overcurrent protection

INPUT SPECIFICATIONS

Input voltage : 85 to 264 VAC
Input frequency : 47 to 63 Hz
Input current : 1.50A (rms) for 115VAC
 0.90A (rms) for 230VAC
Leakage current : 0.35mA max. @ 115VAC, 60Hz
 0.63mA max. @ 230VAC, 50Hz

OUTPUT SPECIFICATIONS

Output voltage/current : See rating chart
Total output power : 55 watts maximum
Ripple and noise : 1% 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

PUP55 SERIES



Safety Standard Approvals:



UL 1950
File No. E137410



C22.2 No. 950
File No. LR93632



EN 60950
Certificate No. S9352421

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

GENERAL SPECIFICATIONS

Switching frequency : 40KHz +/-5KHz
Efficiency : 70% minimum on single output models with $V_o \geq 10V$, 65% minimum on the others
Hold-up time : 10 msec minimum at 110VAC
Line regulation : +/-0.5% maximum at full load
Inrush current : 15 amps. @ 115VAC, or 30 amps @ 230VAC, at 25 °C cold start
Withstand voltage : 3000VAC from input to output
 1500VAC from input to ground
 500VAC from output to ground
MTBF : 450,000 hours minimum at full load at 25 °C ambient, calculated per MIL-HDBK-217F
EMI requirements : In compliance with CISPR 22 (EN 55022) Class B and FCC Class B
Safety requirements : Meets or exceeds:
 (a) UL 1950
 (b) CSA C22.2 No. 950
 (c) IEC 950 (EN 60950)

UNIVERSAL INPUT

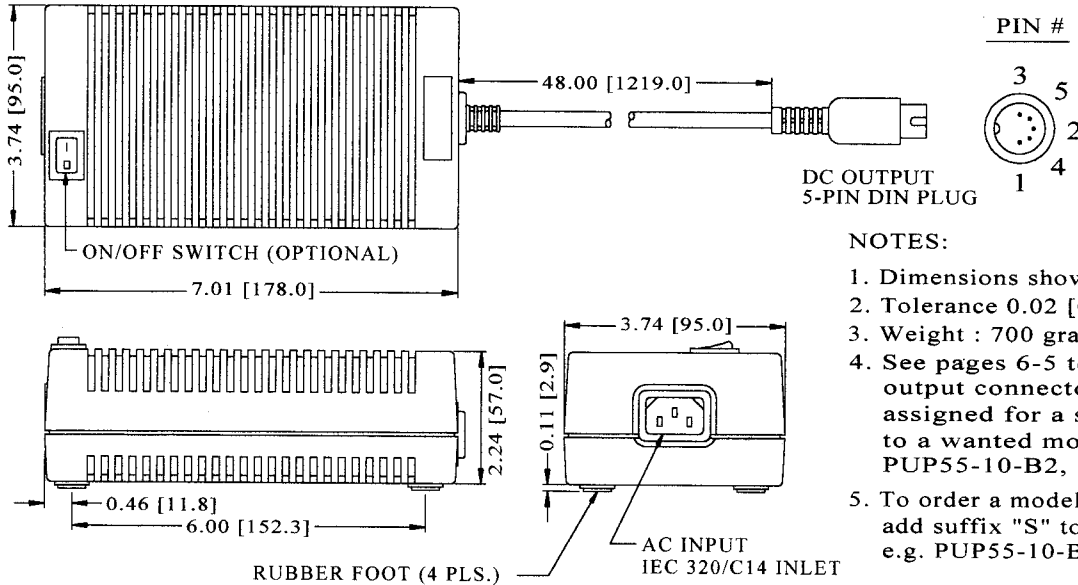
PUP55 SERIES

OUTPUT VOLTAGE/CURRENT RATING CHART

Model	Output #1				Output #2				Output #3				Maximum Output Power
	Vnom.	Imin.	I _{max} .	Tol.	Vnom.	Imin.	I _{max} .	Tol.	Vnom.	Imin.	I _{max} .	Tol.	
PUP55-10	5-6V	0A	8.0A	5%	(N/A)				(N/A)				40W
PUP55-10-1	6-8V	0A	7.5A	5%	(N/A)				(N/A)				45W
PUP55-11	9-11V	0A	5.0A	5%	(N/A)				(N/A)				50W
PUP55-12	11-13V	0A	4.6A	5%	(N/A)				(N/A)				55W
PUP55-13	13-17V	0A	3.7A	3%	(N/A)				(N/A)				55W
PUP55-13-1	17-21V	0A	3.1A	3%	(N/A)				(N/A)				55W
PUP55-14	21-27V	0A	2.3A	3%	(N/A)				(N/A)				55W
PUP55-16	27-33V	0A	1.9A	3%	(N/A)				(N/A)				55W
PUP55-17	33-39V	0A	1.6A	3%	(N/A)				(N/A)				55W
PUP55-18	48V	0A	1.2A	3%	(N/A)				(N/A)				55W
PUP55-23	+5V	1A	5.0A	5%	+12V	0.5A	3.0A	5%	(N/A)				45W
PUP55-24	+5V	1A	5.0A	5%	+15V	0.4A	2.5A	5%	(N/A)				45W
PUP55-25	+5V	1A	5.0A	5%	+24V	0.3A	2.0A	5%	(N/A)				45W
PUP55-31	+5V	1A	5.0A	5%	+12V	0.5A	3.0A	5%	-12V	0.1A	0.5A	10%	45W
PUP55-32	+5V	1A	5.0A	5%	+15V	0.4A	2.5A	5%	-15V	0.1A	0.5A	10%	45W

- Notes: (1) The output voltage of a single output model, except PUP55-18, can be adjusted by user in the stated range, or set by factory to a wanted value in the range at the request of a user when ordering.
 (2) The output voltages of a multiple output model may go outside of the stated tolerance when an output load current is out of stated limits. All models may be operated at no-load without damage.

MECHANICAL SPECIFICATIONS



PIN CHART

MODEL	PIN				1	2	3	4	5
PUP55-10 PUP55-10-1 PUP55-11 PUP55-12	PUP55-13 PUP55-13-1 PUP55-14 PUP55-16	PUP55-17 PUP55-18			RETURN	RETURN	OUTPUT #1	RETURN	OUTPUT #1
PUP55-23 PUP55-24 PUP55-25					COMMON RETURN	COMMON RETURN	OUTPUT #1	COMMON RETURN	OUTPUT #2
PUP55-31 PUP55-32					COMMON RETURN	COMMON RETURN	OUTPUT #1	OUTPUT #3	OUTPUT #2