

DESCRIPTION

The PUP40/45/48N3 series of AC-DC switching power supplies are for 40-48 watts of continuous output power. They are enclosed in a 94V-0 rated polycarbonate case with an IEC320/C14, IEC320/C6 or IEC320/C8 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

- No load power consumption less than 0.075W
- Operation altitude up to 5000 meters
- High Efficiency
- Meet energy star EPS2.0 /ErP EC No 278/2009 (lot 7)
- Meet EU CoC EPS V5 Tier2
- Overvoltage protection
- Short-circuit protection
- Overcurrent protection
- 100% burn-in at full rated load
- Compliant with RoHS requirements
- Meet LPS requirements

INPUT SPECIFICATIONS

Input voltage:	90-264 VAC
Input frequency:	47-63 Hz
Input current:	1.0 A (rms) for 115 VAC 0.6 A (rms) for 230 VAC
Earth leakage current:	250 μ A max. @ 264 VAC, 60 Hz

OUTPUT SPECIFICATIONS

Output voltage /current:	See rating chart.
Maximum output power:	See rating chart.
Ripple and noise:	See rating chart
Overvoltage protection:	Set at 130-180% of its nominal output voltage
Overcurrent protection:	Set at 125-160% of its nominal output current
Temperature coefficient:	All outputs $\pm 0.04\%$ / $^{\circ}$ C maximum
Transient response:	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 μ s after a 25% step load change

ENVIRONMENTAL SPECIFICATIONS

Operating temperature:	0 $^{\circ}$ C to +40 $^{\circ}$ C
Storage temperature:	-20 $^{\circ}$ C to +80 $^{\circ}$ C
Operating humidity:	20% to 80% non-condensing
Storage humidity:	10% to 90% non-condensing
Temperature derating:	Derate from 100% at +40 $^{\circ}$ C linearly to 50% at +60 $^{\circ}$ C

PUP40/45/48N3 SERIES



CE
RoHS
VI

SAFETY STANDARD APPROVALS



UL 62368-1, CSA C22.2 No. 62368-1
File No. E190414



TÜV EN 62368-1

GENERAL SPECIFICATIONS

Hold-up time:	≥ 5 ms minimum at 115 VAC
Turn on delay time:	≤ 3 s maximum at 115 VAC
Efficiency:	80% min. on 5V models 87% min. on 24V model
Line regulation:	$\pm 0.5\%$ maximum at full load
Inrush current:	100 A @ 115 VAC or 200 A @ 230 VAC at 25 $^{\circ}$ C cold start
Withstand voltage:	4242 VDC from input to ground and output
MTBF:	100,000 hours at full load at 25 $^{\circ}$ C ambient, calculated per MIL-HDBK- 217F
EMC Performance	
EN55032(CISPR 22):	Class B conducted, Class B radiated
EN61000-3-2:	Harmonic distortion, Class A and D
EN61000-3-3:	Line flicker
EN55035	
EN61000-4-2:	ESD, ± 15 KV air and ± 8 KV contact
EN61000-4-3:	Radiated immunity, 3 V/m
EN61000-4-4:	Fast transient/burst, ± 1 KV
EN61000-4-5:	Surge, ± 1 KV diff., ± 2 KV com.
EN61000-4-6:	Conducted immunity, 3 Vrms
EN61000-4-8:	Magnetic field immunity, 1 A/m
EN61000-4-11:	Voltage dip immunity, 30% reduction for 500 ms, and $>95\%$ reduction for 10 ms

OUTPUT VOLTAGE/CURRENT RATING CHART

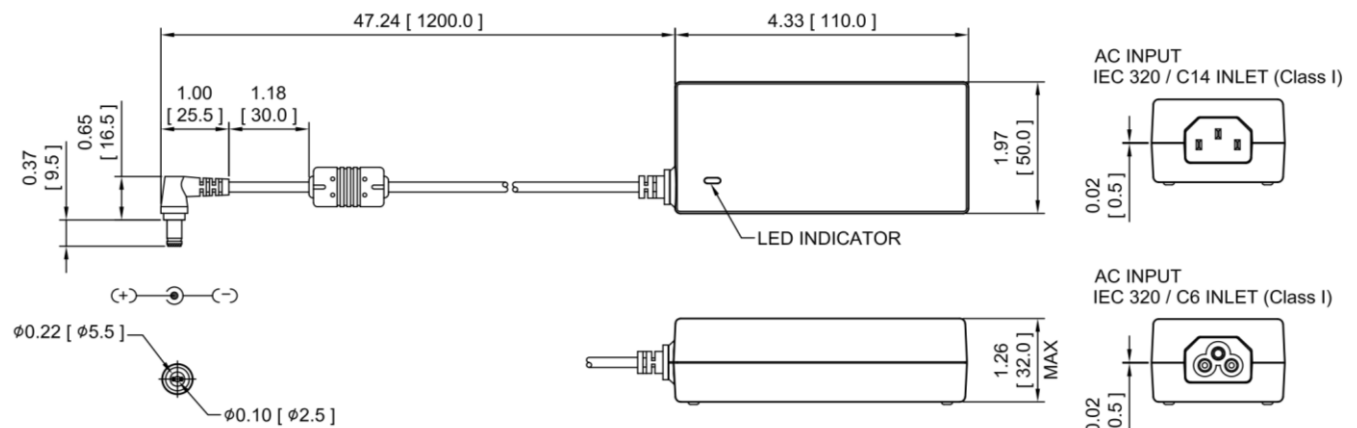
Model ⁽¹⁾		Output						Average efficiency (typical) @ 115 / 230 Vac
Class I	Class II	V1	Min. Current	Max. Current	Tol.	Ripple & Noise ⁽²⁾	Max. Power	
PUP40N3-12	--	12 V	0 A	3.33 A	±5%	120 mV	40 W	88.60%
PUP40N3S-12	--	12 V	0 A	3.33 A	±5%	120 mV	40 W	88.60%
PUP45N3S-13-2	PUP45N3SF-13-2	19 V	0 A	2.37 A	±5%	380 mV	45 W	88.86%
PUP45N3S-14	PUP45N3SF-14	24 V	0 A	1.87 A	±5%	380 mV	45 W	88.86%
PUP48N3-12	--	12 V	0 A	4.00 A	±5%	120 mV	48 W	88.97%
PUP48N3S-12	--	12 V	0 A	4.00 A	±5%	120 mV	48 W	88.97%

NOTES:

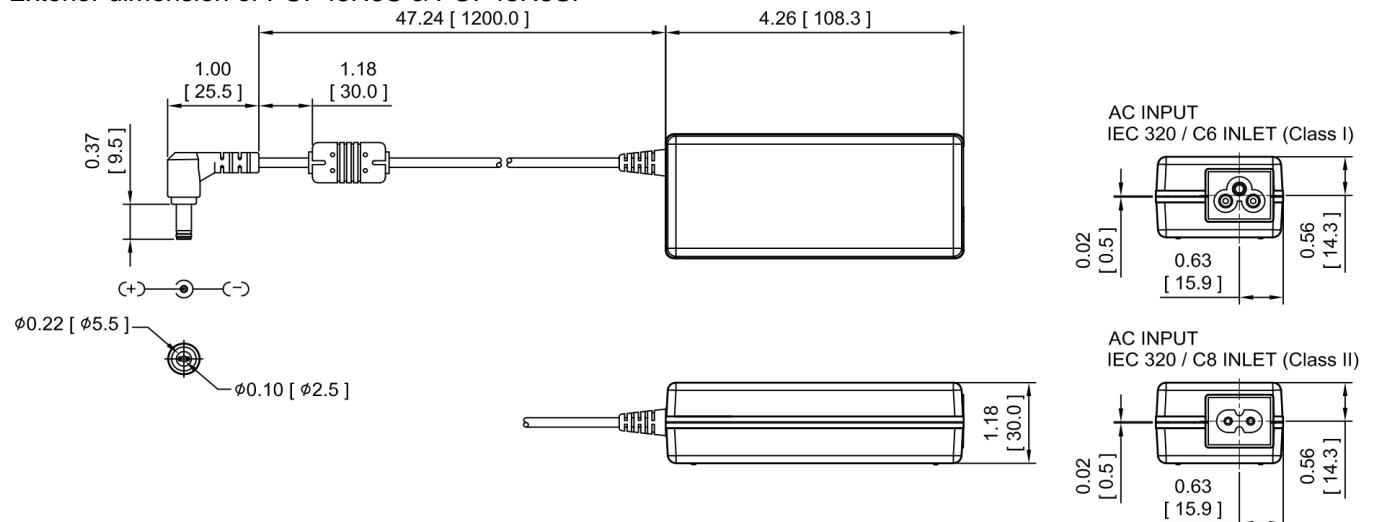
- PUP40/48N3 models are equipped with IEC320/C14 inlet, PUP40/45/48N3S models with IEC320/C6 inlet, and PUP45N3SF models with IEC320/C8 inlet.
- Ripple and noise is maximum peak-to-peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 47 µF electrolytic capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS

Exterior dimension of PUP40/48N3 & PUP40/48N3S



Exterior dimension of PUP45N3S & PUP45N3SF



NOTES:

- Dimensions shown in inches [mm].
- Tolerance 0.02 [0.5] maximum.
- The length of output cable for output voltage 24V is 59.06 [1500.0]; length of output cable for the rest models is 47.24 [1200.0].
- Weight: 200 grams (0.44 lbs.) approx.
- Output return (-) is electrically connected to incoming Earth Ground through a 0 ohm resistor as standard.