



## **DESCRIPTION**

The PUP40/42/45/48N3 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 µA 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 ±0.04% /<sup>∞</sup>C maximum

Transient response: Maximum excursion of 4% or better on

all models, recovering to 1% of final value within 500 us after a 25% step

load change

# **ENVIRONMENTAL SPECIFICATIONS**

Operating temperature:  $0^{\circ}$ C to +40°C Storage temperature: -20°C to +80°C

Operating humidity: 20% to 80% non-condensing Storage humidity: 10% to 90% non-condensing

### PUP40/42/45/48N3 SERIES



**RoHS** 





### SAFETY STANDARD APPROVALS



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





TÜV EN 62368-1

## **GENERAL SPECIFICATIONS**

 $\begin{array}{lll} \mbox{Hold-up time:} & \geq 5 \mbox{ ms minimum at 115 VAC} \\ \mbox{Turn on delay time:} & \leq 3 \mbox{ s maximum at 115 VAC} \\ \mbox{Efficiency:} & 80\% \mbox{ min. on 5V models} \\ \end{array}$ 

87% min. on 24V model
Line regulation: ±0.5% maximum at full load

Inrush current: 100 A @ 115 VAC or 200 A @ 230 VAC at

25°C cold start

Withstand voltage: 4242 VDC from input to ground and output MTBF: 100,000 hours at full load at 25℃ ambient,

calculated per MIL-HDBK- 217F

EMC Performance

EN55032(CISPR 22): Class B conducted, Class B radiated FCC: Class B conducted, Class B radiated VCCI: Class B conducted, Class B radiated EN61000-3-2: Harmonic distortion, Class A and D

EN61000-3-3: Line flicker

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

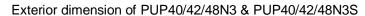
## **OUTPUT VOLTAGE/CURRENT RATING CHART**

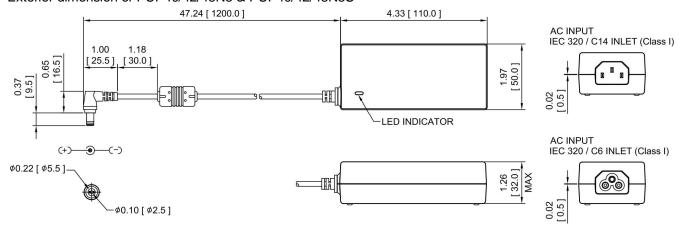
Model <sup>(1)</sup>		Output						Average efficiency
Class I	Class II	V1	Min. Current	Max. Current	Tol.	Ripple & Noise <sup>(2)</sup>	Max. Power	(typical) @ 115 / 230 Vac
PUP40N3-12		12 V	0 A	3.33 A	±5%	120 mV	40 W	88.60%
PUP40N3S-12		12 V	0 A	3.33 A	±5%	120 mV	40 W	88.60%
PUP42N3-12		12 V	0 A	3.50 A	±5%	120 mV	42 W	88.71%
PUP42N3S-12		12 V	0 A	3.50 A	±5%	120 mV	42 W	88.71%
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%

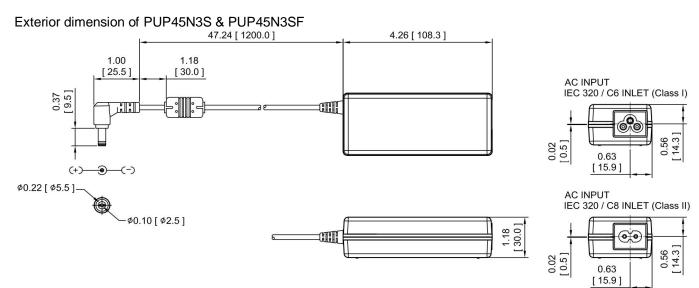
#### NOTES:

- PUP40/42/48N3 models are equipped with IEC320/C14 inlet, PUP40/42/45/48N3S models with IEC320/C6 inlet, and PUP45N3SF models with IEC320/C8 inlet.
- 2. 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**







## NOTES:

- Dimensions shown in inches [mm].
- 2. Tolerance 0.02 [0.5] maximum.
- 3. 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].
- 4. Weight: 200 grams (0.44 lbs.) approx.
- 5. Output return (-) is electrically connected to incoming Earth Ground through a 0 ohm resistor as standard.