



FEATURES

- 3.54" x 7.48" x 1.40" Open Frame
- Isolated 54.5V & 12V DC Outputs for PoE Networking
- 1.5K VAC Isolation Between Protective Earth and Return
- High Altitude Operation Up to 5,000 Meters
- Up to +70°C Operation Temperature
- PFC Function Built-In



INPUT SPECIFICATIONS

Input Voltage Range 90~264 VAC
 Input Frequency 47~63 Hz
 Input Current 2.6A rms max. @ 115 VAC,
 1.3A rms max. @ 230 VAC
 Inrush Current 60A max. @ 230 VAC, at 25°C cold start
 Earth Leakage Current 1.5mA max. @ 264 VAC, 63 Hz

OUTPUT SPECIFICATIONS

Output Power Ratings See chart
 Line Regulation ±1% max. @ full load
 Load Regulation ±3% max.
 Ripple and Noise* 1% Vp-p max. of output @ full load
 Over Voltage Protection Shut down, Latch off
 Over Current Protection Shut down, Auto-recovery
 Short Circuit Protection Shut down, Auto-recovery
 Over Temp. Protection Shut down
 Temperature Coefficient ±0.04%/°C max.
 Transient Response Maximum excursion of 5% or better on all models, recovering to 1% of final value within 500us after a 25% step load change

* Measured with 20MHz bandwidth at nominal line voltage and full load, with a 10µF low ESR electrolytic capacitor in parallel with a 0.1µF multilayer capacitor in parallel across the output.

GENERAL SPECIFICATIONS

Power Factor 0.98 min. @ full load, 115 VAC,
 0.9 min. @ full load, 230 VAC
 Efficiency 90% min.
 Power On Time 3 sec. max.
 Hold-Up Time 10 ms min. @ 115 VAC
 Operating Altitude 5,000 meters max.
 Operating Temperature 0°C to +70°C
 Derating Derate from 100% at +50°C linearly to 80% at +70°C
 Cooling 28CFM provided by user required
 Storage Temperature -40°C to +85°C
 Relative Humidity 10% to 95%, non-condensing
 Withstand Voltage 3,000 VAC, input to output
 1,500 VAC, input to ground
 1,500 VAC, output to ground
 MTBF 500,000 hours minimum at full load, 25°C ambient, calculated per Telcordia SR-332

MODELS LIST

Product No.	Output Voltage	Minimum Load	Maximum Load	Ripple & Noise	Maximum Output Power
TNP950-5412	12V	0.5A	12.5A	240mV	950W
	54.5V	0.02A	14.7A	500mV	

Note:

1) Output voltage tolerance is measured at connector terminal.

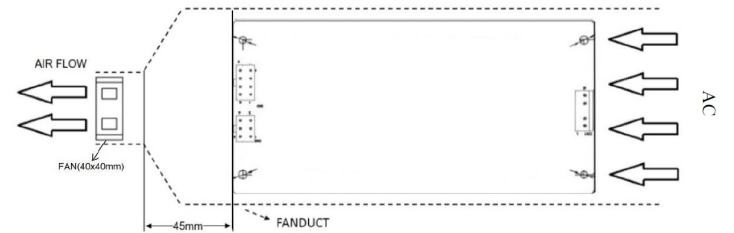
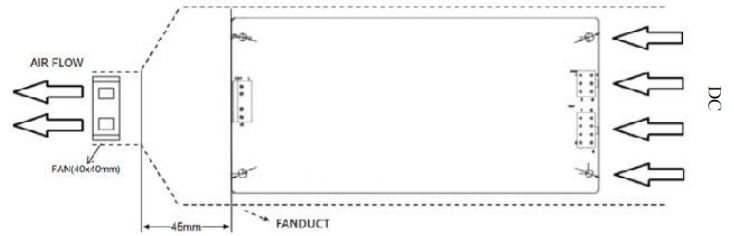
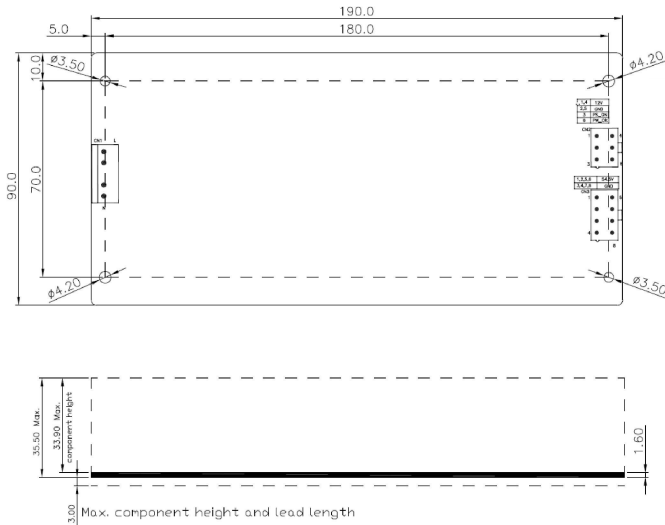
STANDARDS & COMPLIANCE

EN 55032 Class A, conducted & radiated
 FCC, VCCI Class A, conducted & radiated
 EN 61000-3-2 Harmonic distortion, Class D
 EN 61000-3-3 Line flicker
 EN 61000-4-2 ESD, ±15 KV air and ±8 KV contact
 EN 61000-4-3 Radiated immunity, 3 V/m
 EN 61000-4-4 Fast transient/burst, ±1 KV
 EN 61000-4-5 Surge, ±2 KV diff., ±4 KV com.
 EN 61000-4-6 Conducted immunity, 3 Vrms
 EN 61000-4-8 Magnetic field immunity, 1 A/m
 EN 61000-4-11 Voltage dip immunity,
 30% reduction for 500ms (criteria A),
 >95% reduction for 10ms (criteria A),
 >95% reduction for 5s (criteria B)

Safety Standards IEC/UL/EN 62368-1

Agency Approvals UL, cUL, CB

MECHANICAL SPECIFICATIONS



INPUT CONNECTOR (CN1)	
PIN	FUNCTION
1, 2	NEUTRAL
3	N.C.
4, 5	LINE

OUTPUT CONNECTOR (CN2)	
PIN	FUNCTION
1	+12V
2	GROUND
3	PS_ON
4	+12V
5	GROUND
6	PW_OK

OUTPUT CONNECTOR (CN3)	
PIN	FUNCTION
1, 2	+54.5V
3, 4	GROUND
5, 6	+54.5V
7, 8	GROUND

Notes:

- Unit: mm
- Weight: 538 grams (1.186 lbs.) approx.
- Dimensions (L*W*H): 19 * 9 * 3.55 cm (7.5 * 3.54 * 1.4 in.)
- Input Connector (CN1): JWT A3963WV2-5P-F or equivalent.
- Output Connector (CN2): C4201WV0-2*3P or equivalent.
- Output Connector (CN3): C4201WV0-2*4P or equivalent.
- To ensure compliance with Level B emissions, connect the three PCB mounting holes with metallic standoffs to the chassis.