20Watts Dual Output Model No.: NAD-01



Feature:

- 90 to 264Vac universal input range.
- UL, CSA, TUV safety approval.
- EMI/RFI meet VDE & FCC limit B.
- Low cost & compact size.
- 20Watts in $110\times60\times29.1$ mm Size.
- 2 Year Warranty.

Specifications: typical at nominal line, full load at 25°C.

Input Specifications:	General Specifications:		
Input voltage: 90 to 264Vac	Efficiency: 70% typical at full load		
Input Frequency: 47 Hz to 63Hz	Hold-up time: 15ms @ 115Vac full load		
Input inrush current: 20A at 115Vac	EMI/RFI: VDE & FCC Class B limits		
40A at 230Vac	Dielectric Withstand:		
Earth leakage: 0.2mA max @ 115Vac 0.4mA max @ 230Vac	Input/output: 3000Vac Input/Ground: 1500Vac		
Output Specifications:	★Safety Approval:		
Output Rating: Vo1: +5V/1A Vo2: +12V/1A	UL UL60950 CSA C22.2 NO.60950 TUV EN60950		
Output Voltage Accuracy: ± 5% max.			
Line Regulation: ± 1% max.	Switching frequency: 50Khz(reference)		
Load Regulation: ± 3% max.	Weight: 130g(4.6Oz)		
(Full to half load)	MTBF: 100,000hours(MIL-HDBK-217F)		
Transient Response: \pm 1% max dev.	Environmental Specifications:		
(Full to half load) 500uS recovery	Operating temperature: 0 to +50°C		
Temperature Coefficient: ± 0.04% /°C	Storage temperature: -20 to +85°C		
Ripple & Noise: 1% P-P max	Humidity: 5 to 95 % RH non-condensing		
Protections: a. Over voltage protection	Vibration: 2.4G , 5 to 500Hz		
b. Over power protection c. Short circuit protection	Cooling: Free air convection		

- 1. Vibration test: Three orthogonal axes, random vibration, 10 minutes for each axis.
- 2. Maximum output power is 50W.
- 3. At least 20% of load is required to obtain stable regulation.
- 4. Ripple & noise test method is measured at output terminal across a 0.1uF ceramic cap & a 10uF tantalum or electrolytic cap in parallel with a 20MHz bandwidth oscilloscope directly.

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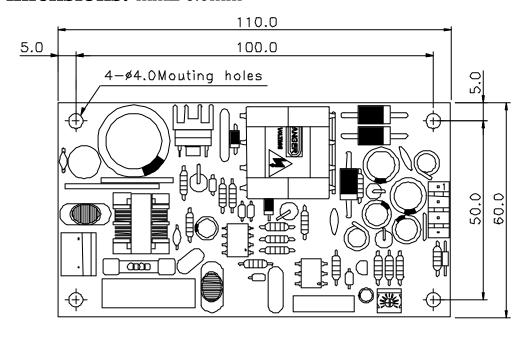
★ Please refer the safety approval status on appendix 1, For latest safety approval status Please consult YCL or visit" www.vcl.com.tw

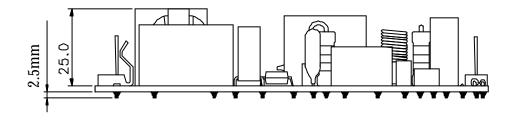


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Dimensions: mm± 0.5mm





Pin	FUNCTION	;n Pi	FUNCTION
1	+5V	3	COM
2	COM	4	+12V

- AC mating connector is: Molex 5096-02C or Ever 8673-03N2 or equivalent.
- DC mating connector is: Molex 09-67-4041 or Ever 8675-04 or equivalent.