

HGPOWER®

SPECIFICATION

规格书

ADPV26AL AND ADPV26BL AC/DC Adapter

ADPV26AL 和 ADPV26BL AC/DC 适配器

HGPOWER

ADDRESS: Guiyang Road and Qingyang Road Lijia Changzhou Jiangsu China. Post code : 213165

TEL: 86-519-86732495, 86735139

FAX: 86-519-86731270

WWW.hgpower.com

E-mail: lgldh@public.cz.js.cn

ADPV26AL AND ADPV26BL SPECIFICATION

1. SCOPE 适用范围:

This is the engineering specification of ADPV26AL AND ADPV26BL , 15Watt power AC/DC wall plug-in adapter , with wide voltage 100V--240V AC input, single DC output, packaged into a fully enclosed plastic case with integrated output cable and connector.

Models covered: ADPV26AL ADPV26BL

这是一款 15W 插墙式 AC/DC 的塑料外壳的适配器。输入电压范围： 100VAC~240VAC，单路直流输出，输出线带连接插头。

型号：ADPV26AL ADPV26BL。

2. CONNECTIONS 连接

The following specifies the input and output connection requirement of the power supply:

下面是电源输入和输出的连接要求:

2.1	INPUT CONNECTOR: Wall mount USA/Europe/CCC socket . 输入连接：墙上安装美规/欧规/中国的插座。	
2.2	OUTPUT CABLE/CONNECTOR 输出连接 A two wire cable with standard barrel connector, The length of the output cable is about 1.50m . 输出线为 1.50 米长的两根线，输出头为直头。	
2.3	PIN ASSIGNMENTS 连接形式	
	Input 输入(J1)	Output 输出(CSI)
	Pin1 插脚 1:line 相线	Outside 插头外部: GND 地线
	Pin2 插脚 2:neutral 零线	Inside 插头内部 : +Vout(I)输出电压

3. ELECTRICAL REQUIREMENTS 电气规格:

(Unless specified otherwise, all specifications are at nominal input voltage, full load, 25deg C, PSU at warmed up condition.)

(除非特别注明，所有规格都是在输入额定电压、满载、环境 25℃温度、电源热机条件下工作。)

3.1	INPUT 输入 The operating conditions with respect to the AC input voltage are described in this section. 输入的工作条件按这部分的描述。	
3.1.1	INPUT VOLTAGE: 输入电压: The operating voltage range is: 100V to 240 VAC. 工作电压: 100VAC~240VAC	
3.1.2	INPUT CURRENT: 0.20-0.40A 输入电流: 0.20-0.40A	
3.1.3	INPUT FREQUENCY: Input frequency range shall be 47-63Hz. 输入频率: 输入频率范围 47-63Hz.	
3.1.4	INRUSH CURRENT: Maximum inrush shall be less than 40A at 240VAC. 浪涌电流: 输入电压为 240VAC 时，最大浪涌电流 ≤ 40A (冷态启动)。	
3.2	OUTPUT POWER 输出功率 The operating conditions for the regulated DC output are described in this section. 工作条件为调节输出电压描述的部分。	
3.2.1	OUTPUT POWER 输出功率 Depends on models, possible Max. Output power is 15W. 最大的输出功率为 15W。	

ADPV26AL AND ADPV26BL SPECIFICATION

3.2.2	OUTPUT VOLTAGE 输出电压			
	Initial point voltage is measured at Min. Load/ Half Load/Max. load, at nominal input AC Voltage. 在额定的输入电压下, 在最小负载/半载/最大负载时测试			
	Model 型号	OUTPUT 输出	NOMINAL VOLTAGE 额定电压	SETPOINT OLERANCE 负载稳定度
	ADPV26AL	+V out(I)	9.0V	$\cong \pm 5\%$
	ADPV26BL	+V out(I)	12V	$\cong \pm 5\%$
				User Adjust 用户调节
				NA 无
				NA 无

3.2.3	OUTPUT CURRENT 输出电流				
	Model 型号	OUTPUT 输出	MIN. Load Current 最小电流	MAX. Load Current 最大电流	
		ADPV26AL	+V out(I)=12V	0	1.25A
		ADPV26BL	+V out(I)=24V	0	1.25A
				Peak Current limit min(P-P)峰值限制电流	

3.2.4	LINE REGULATION 电压调整率	
	Regulation is measured by varying the line voltage from 100-240VAC, at full load. 输入电压在允许范围(100-240VAC)内变化, 输出满载时, 输出电压的变化情况。其调整率要求:	
	Model 型号	OUTPUT 输出
	ALL	+Vout(I)
		TOLERANEE 输出稳定度
		<4%

3.2.5	LOAD REGULATION 负载调整率	
	Measured by varying the load current from MIN Load to FULL load at nominal AC input voltage. Measured at o/p power cord end. This measures output voltage variation of a unit due to load change and is indicative of design capability. The tolerance is measured with reference to the respective nominal Voltage and expressed as percentage of nominal output voltage. 要求在额定交流输入电压范围内, 负载电流从最小到满载变化, 用标准电压的百分比表示如下:	
	Model 型号	OUTPUT 输出
	ALL	+Vout(I)
		TOLERANEE 输出稳定度
		$\cong \pm 5\%$

3.2.6	OUTPUT RIPPLE AND NOISE VOLTAGE (PAPD) 输出纹波和噪声:	
	Measured at full load, 20MHz bandwidth, with a 0.1uF Ceramic Cap and a 47uF Tant. Cap/E-Cap. connected at the measurement point. The maximum PARD PK-PK ripple and noise is indicated below. 要求示波器带宽为 20MHz, 在满载时, 输出端并联 0.1uF 陶瓷圆片电容和 47uF 钽电容或电解电容, 其输出电压交流峰峰值(纹波和干扰), 满足以下要求:	
	Model 型号	OUTPUT 输出
	ADPV26AL	+V out(I)=9.0V
	ADPV26BL	+V out(I)=12V
		Max pk-pk 峰峰值
		$\cong 150\text{mV}$
		$\cong 150\text{mV}$

3.2.7	OUTPUT TRANSLIENT RESPONSE 输出瞬态响应		
	The load current of measured output is changed between 10% to 100% max load for all models, at 0.1A/sec slew rate, at 100/120Hz, 50% duty cycle. The recovery time and excursion is measured when the output voltage has recovered to within 1% of the load regulation band. Expressed as percentage of the nominal voltage. 输出电流设定在负载的 10% - 100% 之间变化, 斜率 0.1A/秒, 频率 100/120HZ, 占空比 50%。恢复时间和偏差设定是当输出负载 1% 变化测量输出电压情况, 用标准电压的百分比表示如下:		
	Type 型号	Output voltage 输出电压	Recover Time to regulation 恢复时间
	ALL 所有	+Vout (I)	< 1ms
			MAX. Excursion from Regulation 偏差度
			< 3%

ADPV26AL AND ADPV26BL SPECIFICATION

3.2.8	<p>OUTPUT VOLTAGE EXCURSION 输出电压漂移</p> <p>Long-term output voltage drift over 1000 hours of operation, at Vout (I) is typically less than 0.5%.</p> <p>电源在长时间，工作超过 1000 小时，与开机时的初始值相比，典型的输出电压漂移变化率小于 0.5%。</p>
-------	---

3.2.9	<p>OUTPUT PROTECTION 输出保护</p> <p>The power supply load shall be protected against a fault condition described below.</p> <p>电源工作在下列异常时，电源保护。</p>
-------	---

3.2.9.1	<p>OUTPUT SHORT CIRCUIT /OVERLOAD PROTECTION 输出短路、过载保护</p> <p>Short circuit current shall be less than 0A rms. Under all conditions. Output voltage of less than 50%Vout(I) constitutes a short. The PSU will self recover within a max. of 30 sec. after removal of the fault.</p> <p>当电源输出短路时，短路输出电压低于额定电压的 50%，当故障消除后，电源恢复正常。</p>
---------	---

3.2.10	<p>OUTPUT RISE TIME 输出上升时间</p> <p>The time taken by the output to rise from 10% to 90% of the final steady state value, should be as below.</p> <p>输出的上升时间是指输出电压从额定值的 10%到 90%所经历的时间,符合下列要求</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Model 型号</th> <th style="width: 30%;">OUTPUT 输出</th> <th style="width: 40%;">MAX RISE TIME 最大的上升时间</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">ALL</td> <td style="text-align: center;">+Vout(I)</td> <td style="text-align: center;"><20ms</td> </tr> </tbody> </table>	Model 型号	OUTPUT 输出	MAX RISE TIME 最大的上升时间	ALL	+Vout(I)	<20ms
Model 型号	OUTPUT 输出	MAX RISE TIME 最大的上升时间					
ALL	+Vout(I)	<20ms					

3.2.11	<p>TURN-ON DELAY 开机延迟</p> <p>The rum-on delay time, from the time AC power is applied to the PSU till the o/p voltage is within the regulation band. Shall be less than 8seconds at 100 VAC. cold start.</p> <p>上升延迟时间是指，从电源开启，电源输入、输出电压达到标称电压允许范围内所用时间。输入电压 AC100V，冷开机，上升时间 Ton≤3 秒。</p>
--------	--

3.2.12	<p>OUTPUT HOLD-UP-TIME 输出维持时间</p> <p>The power supply shall maintain the output within it's voltage/current specifications for more than 10ms. after any loss of AC input voltage. Measured at nominal input voltage of 100-240VAC and at point when output is crossing regulation band.</p> <p>测试条件：输入电压：100VAC-240VAC、额定负载， 断开 AC 输入电压后，电源输出维持时间:T >10ms。</p>
--------	---

ADPV26AL AND ADPV26BL SPECIFICATION

3.2.13	TEMPERATURE COEFFICIENT 工作温度系数		
	Temperature coefficient over the entire operating temperature range of 0°C to 40°C after one hour warm-up will be as follows: 工作温度系数指在工作温度范围 0°C~40°C 内, 加载, 热机一小时后测试, 输出电压如下所示:		
	Type 型号	Output voltage 输出电压	TEMP. COEFF. 温度系数
	ALL	+Vout (I)	<2.4mV/°C

4. ENVIRONMENTAL REQUIREMENTS 环境要求

4.1	TEMPERATURE 温度 Operating temperature range is -10°C to 40°C at the respective rated output power, with free air convection. Surface temperature shall be less than 60°C at 20°C operating temperature. Non-operating temperature range: -40°C to 85°C. 在自然冷却的条件下, 工作的温度范围为-10°C到 40°C。在环境温度为 20°C, 外壳表面的温度小于等于 60°C。储存温度范围: -40°C~+85°C					
4.2	ALTITUDE 海拔 Maximum operating altitude: 10,000 feet, Maximum Non-operating altitude: 40,000 feet. 最大工作海拔高度: 10,000 英尺, 贮存海拔高度: 40,000 英尺。					
4.3	HUMIDITY 湿度 Non-condensing relative humidity range: 5% to 95%. 没有凝结时湿度范围为 5%到 95%					
4.4.1	VIBRATION 振动 The power supply shall meet operating, non operating and package vibration, 电源振动测试做工作状态、非工作状态和包装振动形式					
	vibration 振动	frequency 频率	acceleration 加速度	time 振动时间	cycles 循环	
	Operating 工作状态	5-500Hz	0.5G	15min,XYZ all 15 min	2	
	Non operating 非工作状态	5-500Hz	1G	15min,XYZ all 15 min	2	
	package 包装	5-500Hz	1.5G	15min,XYZ all 30 min	2	
4.4.2	SHOCK 跌落 The power supply shall meet operating and non operating shock, On floorboards thick for 10mm wood block. 电源进行跌落测试分工作状态、非工作状态 (条件: 10mm 厚木板)					
	Shock 跌落	Height 高度	direction 方向	cycles 循环		
	Operating 工作状态	0.3m	XYZ all 3 times	6		
	Non operating 非工作状态	1.0m	XYZ all 3 times	6		
4.5	INPUT TRANSIENT SUSCEPTIBILITY 输入瞬时抗扰度 The unit shall comply with requirements of IEC, 1000-4-2, IEC 1000-4-4 and IEC 1000-4-5, will withstand ESD of 8K Contact Discharge, will withstand ESD of 20K Air Discharge, 10 strikes, both +ve and -ve, as per IEC 1000-4-2. 产品符合 IEC1000-4-2, IEC1000-4-4 及 IEC1000-4-5 的要求。静电测试: 接触放电 8KV, 空气放电 15KV。测试按照 IEC 1000-4-2 测试标准, 分正、负极性各放电 10 次。					
4.6	AC-LINE INPUT INRUSH NOISE 输入电压浪涌 Minimum dielectric AC-line inrush voltage noise: Between AC input L to N: . 输入 L 相和 N 相的浪涌电压噪声					
	Inrush Noise 输入电压浪涌	Tr / Td	Voltage 电压	Phase 相位	Time 时间	Cycle 周期
	Operating 工作状态	1.2 μs /50 μs	1.0kV	0° 90° 270° 360°	1 min	10 10 10 10

ADPV26AL AND ADPV26BL SPECIFICATION

5. SAFETY REQUIREMENTS 安全要求

5.1	DIELECTRIC WITHSTAND VOLTAGE 抗电强度 Minimum dielectric withstand voltage: Between input to output: 3000VAC rms/1 minute. Leakage current shall be 5mA maximum. 输入端短路对输出端短路, 耐电强度: AC3KV 维持时间 1 分钟, 漏电流小于 5mA。
5.2	LEAKAGE CURRENT 泄漏电流 Maximum leakage current from primary to secondary shall be 0.25mA , At voltage 240VAC rms. 输入电压为 240VAC 时, 从初级到次级最大的漏电流小于 0.25mA。
5.3	INSULATION RESISTANCE 绝缘电阻 Minimum insulation resistor from primary to secondary shall be 2MΩ , The voltage DC 500V. 直流电压 500V, 初级对次级最小绝缘电阻为 2MΩ。
5.4	SAFETY SPACINGS 安全间距 6.4mm minimum between primary and secondary. 初、次级间的安全距离不小于 6.4mm。
5.5	RELIABILITY 可靠性 MTBF@ 25 ⁰ C shall be 50,000 hours min. 平均无故障时间: 室温 25℃, 输出额定功率不小于 50,000 小时。

6. EMI REQUIREMENTS, EMI 要求

EMI STANDARD: EN55022 CLASS B, EN6100-3-2,3, FCC Class B.

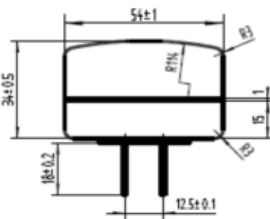
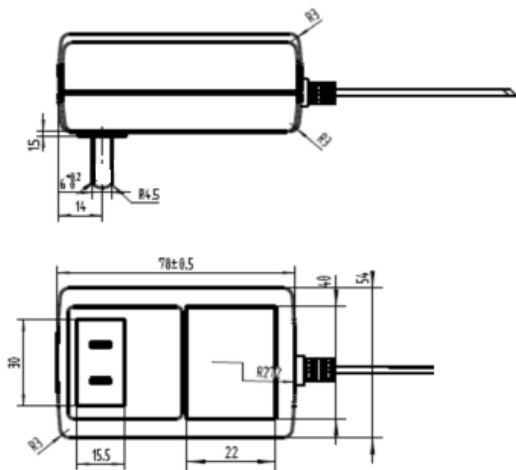
EMI 标准 : EN55022 CLASS B, EN6100-3-2,3, FCC Class B.

6.1	CONDUCTION 传导 The adapter will conform to FCC PART15 Class B, VCCI Class B, and CISPR Pub.13 Class B. 适配器符合 FCC PART15 Class B, VCCI Class B, and CISPR Pub.13 Class B.
6.2	RADIATION 辐射 The adapter will conform to FCC PART15 Class B, VCCI Class B, and CISPR Pub.13 Class B. 适配器符合 FCC PART15 Class B, VCCI Class B, and CISPR Pub.13 Class B.

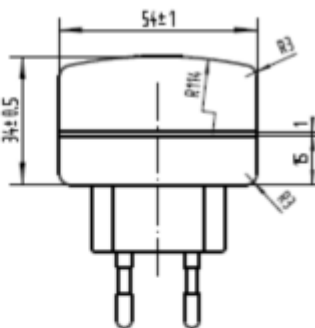
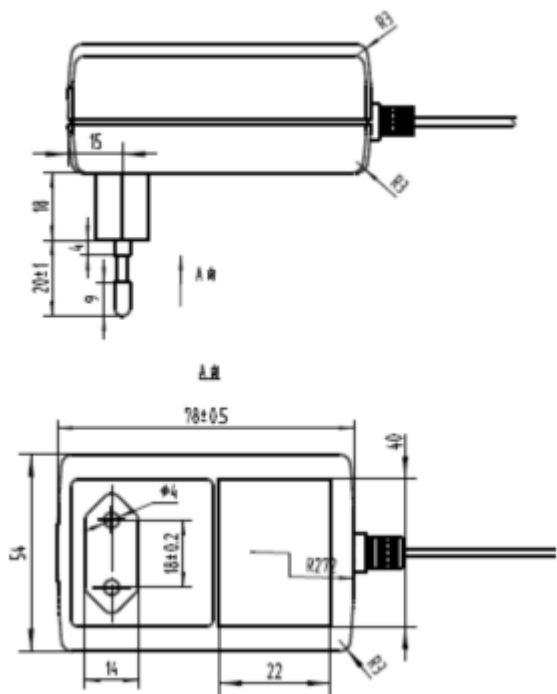
7. RoHS compliant 符合 RoHS

8. Size 78x54x34mm , as following drawing . 外形尺寸 78x54x34mm , 如下图

ADPV26AL AND ADPV26BL SPECIFICATION

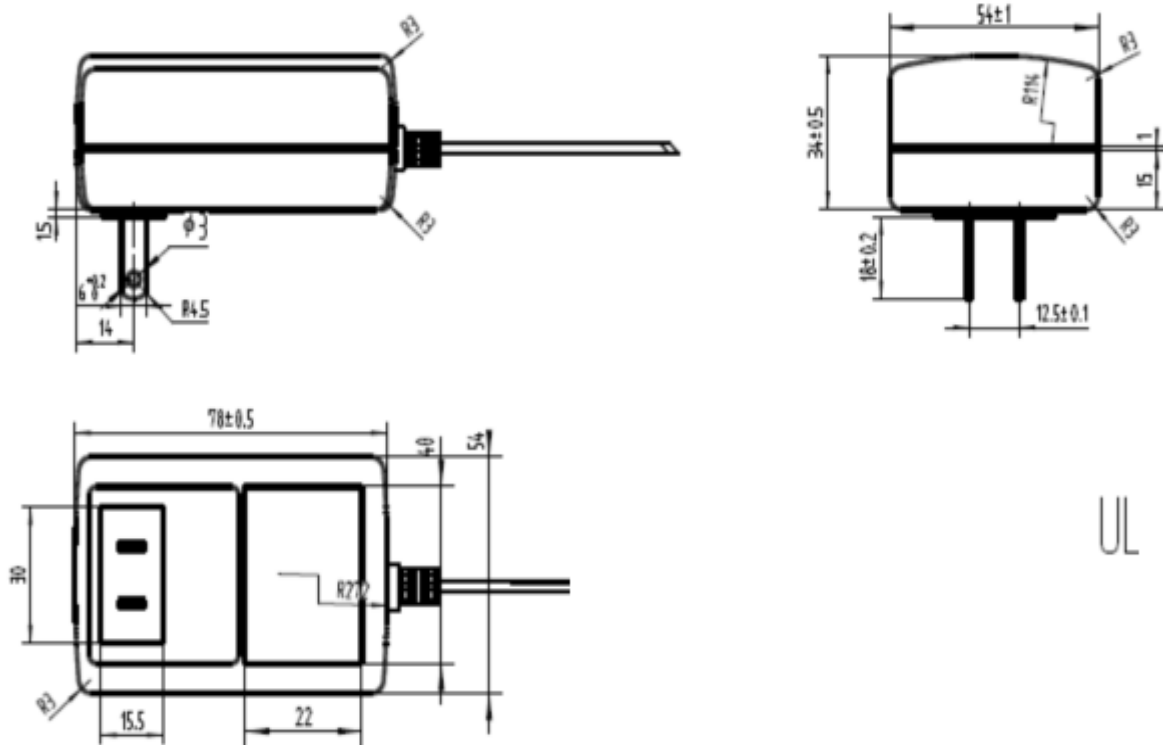


CCC



CE

ADPV26AL AND ADPV26BL SPECIFICATION



9. .OUTPUT CABLE 输出线如下图:

ADPV26AL AND ADPV26BL SPECIFICATION

