

**JWAS 塑壳封装系列电源模块-5W 三路输出**

JWAS Molded case packaging series power module--5W triple output

**典型性能 Typical Performance**

- ◆ 外形尺寸: 55\*45\*24 (mm)  
Dimension: 55\*45\*24 (mm)
- ◆ 宽电压输入范围  
Wide range input voltage
- ◆ 交直流输入方式  
AC/DC input mode
- ◆ 高效率、高功率密度、低纹波  
High efficiency、High power density、Low ripple & noise
- ◆ 塑料绝缘外壳, 通孔安装  
Plastic insulation shell, Hole is installed



**输入特性 Input Features**

输入电压范围 Input voltage range	W:85~265VAC 120~370VDC N:165~265VAC 230~370VDC	110VAC 220VAC
输入电压频率 Input voltage frequency		47~63Hz
输入冲击电流 Inrush current	230VAC 冷启动 230VAC Cold start,	≤ 15A

**输出特性 Output Features**

输出电压精度 Voltage tolerance	标称电压 Nominal voltage	±1% (3.3V、5V ±2%)
电压调整率 Line regulation (full load)	输入电压从低端到高端变化 Change of input voltage from lowend to highend	$V_{O1} \leq \pm 0.5\%$ $V_{O2}$ 、 $V_{O3} \leq \pm 1.5\%$
负载调整率 Load regul	20%~100%负载变化 20%~100% Load change	$V_{O1} \leq \pm 0.5\%$ 、 $V_{O2} \leq \pm 3\%$ 、 $V_{O3} \leq \pm 5\%$
纹波噪声 Ripple&Noise	20M 带宽 20M Bandwidth	≤ 1%
温度系数 Temperature coefficient		±0.02%/°C
容性负载 Capacitive load	输入标称电压、满载 Input rated voltage、 Full load	见附表 As per list enclosed
过功率保护 Output overpower Protection		115~150%额定电流,自恢复 115~150%rated outputpower, auto recovery
短路保护 Short Circuit Protection		长期, 自恢复 Long-term, auto recovery
效率 Efficiency	输入标称电压、满载 Input rated voltage、 Full load	76% (典型值) 76%(typical)
启动时间 Rise time	220VAC 满载 220VAC Full load	50mS (典型值) 50ms (typical)
保持时间 Hold up time	220VAC 满载 220VAC Full load	20mS (典型值) 50ms (typical)

**一般特性 General Features**

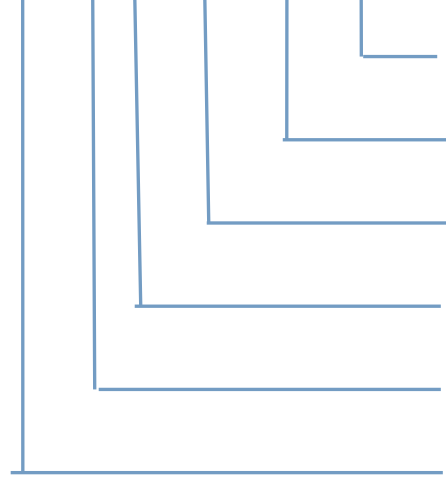
隔离耐压 Withstand voltage	输入对输出、输入对地 I/P-O/P、I/P-F/G 输入对地 I/P-F/G 输出对输出(隔离) O/P-O/P (1分钟,漏电流 ≤ 5mA) (1Mintute ,leakage current) ≤ 5mA)	2500VAC  500VAC  500VDC
绝缘电阻 Isolation resistance	500V	≥ 100MΩ
MTBF	环境 25°C Environment 25°C	2.0*10 <sup>5</sup> Hrs
工作温度 Operating temperature	55°C以上降额使用 Above 55°C derating make	-25°C~70°C或-40°C~70°C -25°C~70°C or -40°C~70°C
储存温度 Storage temperature		-40°C~85°C
工作相对湿度 Operating humidity	无凝露及结冰现象 (non condensing)	10%~90%RH
储存相对湿度 Storage humidity	无凝露及结冰现象 (non condensing)	5%~95%RH
冷却方式 Cooling method		自然冷却 Convection

## 容性负载 Capacitive Load

Vout:5V		Vout:12V、15V		Vout:24V	
推荐值 Recommendations	最大值 Maximum	推荐值 Recommendations	最大值 Maximum	推荐值 Recommendations	最大值 Maximum
470μF	1200μF	220μF	630μF	100μF	330μF

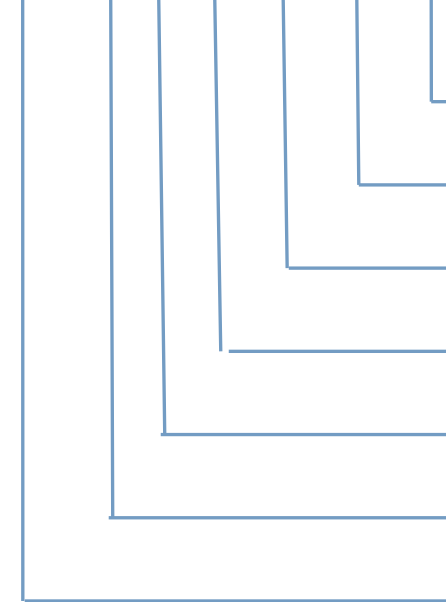
## 命名方式 Naming Rules

### JWAS- 5 S5 D12 W(N) I



隔离输出  
Isolate output  
输入电压范围 (W:85~265V, N:165~265V)  
Input voltage range (W:85~265V, N:165~265V)  
输出电压 V<sub>02</sub>、V<sub>03</sub> 共地输出  
Output voltage V<sub>02</sub>、V<sub>03</sub>  
输出电压 V<sub>01</sub>  
Output voltage V<sub>01</sub>  
输出功率  
Output power  
AC/DC 塑壳封装电源模块  
AC/DC Molded case packaging power module

### JWAS - 5 S5 S12 S-5 W(N) I



隔离输出  
Isolate output  
输入电压范围 (W:85~265V, N:165~265V)  
Input voltage range (W:85~265V, N:165~265V)  
输出电压 V<sub>03</sub>  
Output voltage V<sub>03</sub>  
输出电压 V<sub>02</sub>  
Output voltage V<sub>02</sub>  
输出电压 V<sub>01</sub>  
Output voltage V<sub>01</sub>  
输出功率  
Output power  
AC/DC 塑壳封装电源模块  
AC/DC Molded case packaging power module

## 产品选型 Product selection

产品型号 Model No.	输出电压 Output voltage V <sub>o</sub>	输出电流 Output current I <sub>o</sub>	输出电压精度 Output voltage tolerance	纹波噪声 R&N V <sub>(P-P)</sub> mV	效率 Efficiency
JWAS-5S5D5W(N)I	+5V	0.08~0.80A	±2%	100mV	70%
	+5V	0.01~0.10A	±5%	100mV	
	-5V	0.01~0.10A	±5%	100mV	
JWAS-5S5D12W(N)I	+5V	0.06~0.60A	±2%	100mV	72%
	+12V	0.01~0.10A	±3%	120mV	
	-12V	0.01~0.10A	±3%	120mV	
JWAS-5S5D15W(N)I	+5V	0.06~0.60A	±2%	100mV	73%
	+15V	0.01~0.08A	±3%	120mV	
	-15V	0.01~0.08A	±3%	120mV	
JWAS-5S5D24W(N)I	+5V	0.06~0.60A	±2%	100mV	74%
	+24V	0.01~0.05A	±3%	150mV	
	-24V	0.01~0.05A	±3%	150mV	
JWAS-5S12D5W(N)I	+12V	0.03~0.33A	±1%	120mV	73%
	+5V	0.01~0.1A	±5%	100mV	
	-5V	0.01~0.1A	±5%	100mV	
JWAS-5S24D5W(N)I	+24V	0.02~0.16A	±1%	150mV	74%
	+5V	0.01~0.1A	±5%	100mV	
	-5V	0.01~0.1A	±5%	100mV	
JWAS-5S24D12W(N)I	+24V	0.01~0.10A	±1%	1520mV	74%
	+12V	0.01~0.1A	±3%	120mV	
	-12V	0.01~0.1A	±3%	120mV	
JWAS-5S5S12S-5W(N)I	+5V	0.05~0.50A	±2%	100mV	73%
	+12V	0.02~0.16A	±3%	120mV	
	-5V	0.01~0.10A	±5%	100mV	

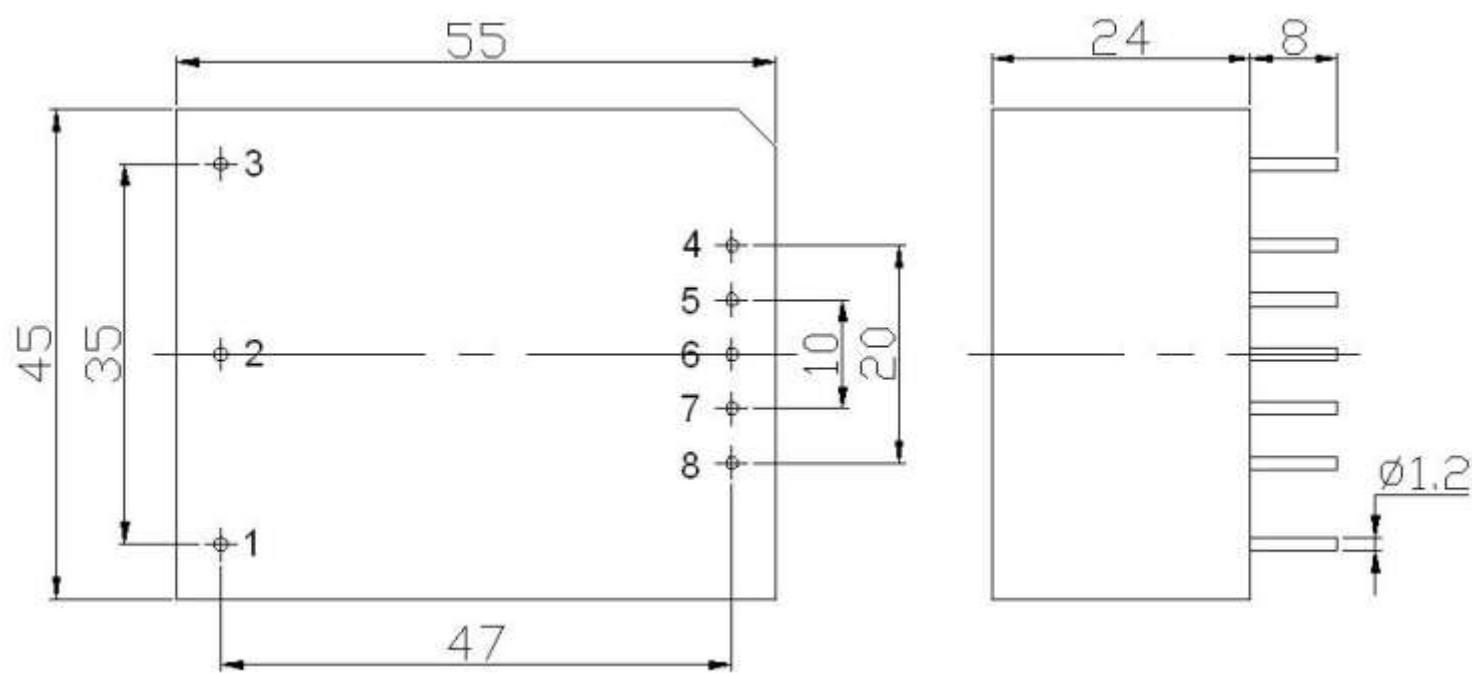
注：因篇幅有限，以上只是部分产品列表，若需列表以外产品，请与本公司销售部联系。

Note: Due to space limitations, the above list is only for some products, If other than a list of products, please contact the Company's sales department.

输出纹波噪声（峰-峰值）的测量，请参照模块测试说明中介绍的方法进行。

Output ripple noise measurement (peak - peak), please refer to the module test notes method is introduced.

## 封装尺寸图 Mechanical Data



## 管脚定义 Pin Assignments

P1	P2	P3	P4	P5	P6	P7	P8
FG	AC(L)	AC(N)	V <sub>O2+</sub>	COM	V <sub>O3-</sub>	V <sub>O1+</sub>	GND1

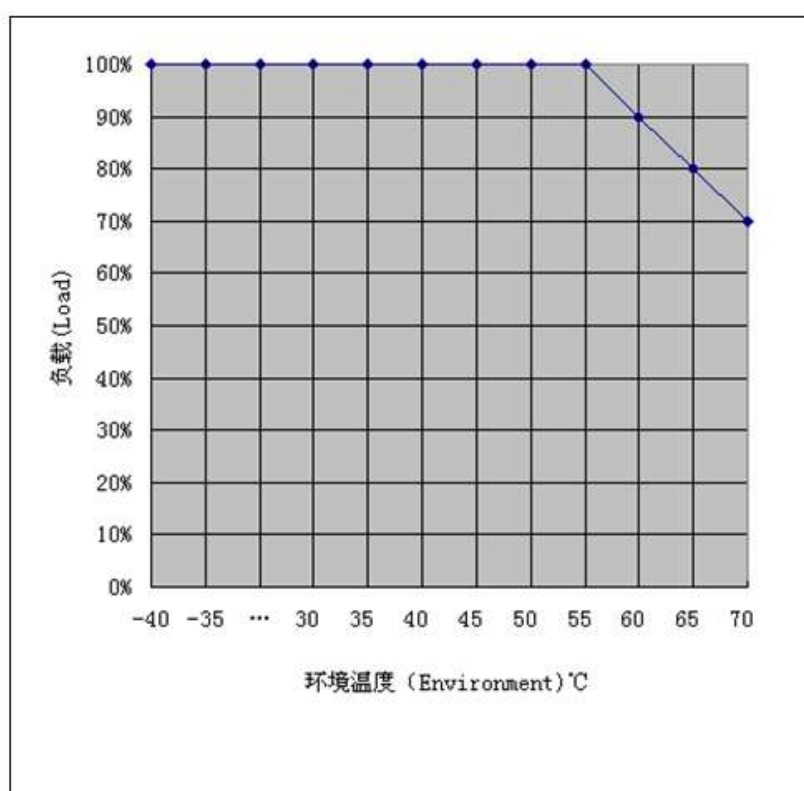
注：电源模块的外形尺寸和管脚定义如与选型手册不符，请以实物实际尺寸为准。

Note: Dimensions and pin definitions of power module such as inconsistent with the hand book, please in kind prevail actual size

## 典型曲线 Typical curve

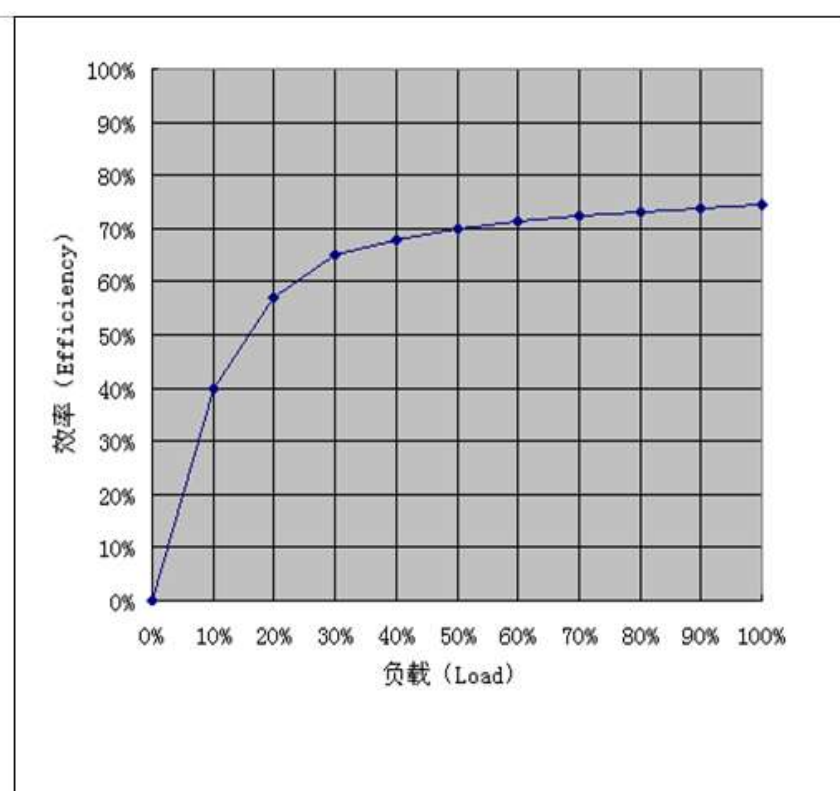
降额曲线

Derating curve



效率曲线

Efficiency curve



## 纹波噪声测试: (靠测法 20MHz)

测试方法：纹波&噪声用示波器来测试。测试模块噪声时为了避免引入额外噪声，须用示波器探头直接接触模块输出引脚

