



## AC/DC 电源模块

### JWAS 塑壳封装系列电源模块--25W 单路输出

JWAS Molded case packaging series power module--25W Single Output

#### 典型性能 Typical Performance

- ◆ 外形尺寸: 70\*48\*24 (mm)  
Dimension: 70\*48\*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<br>Input voltage range     | W:85~265VAC 120~370VDC<br>N:165~265VAC 230~370VDC | 110VAC<br>220VAC |
| 输入电压频率<br>Input voltage frequency |   | 47~63Hz          |
| 输入冲击电流<br>Inrush current          | 230VAC 冷启动<br>230VAC Cold start,                  | ≅ 20A            |

#### 输出特性 Output Features

|                                       |  |  |
|---------------------------------------|--|--|
| 输出电压精度<br>Voltage tolerance           | 标称电压<br>Nominal voltage  | $V_{O1} \cong \pm 1\%$ (3.3V、5V $\cong \pm 2\%$ )              |
| 电压调整率<br>Line regulation (full load)  | 输入电压从低端到高端变化<br>Change of input voltage from lowend to highend | $V_{O1} \cong \pm 0.5\%$                                       |
| 负载调整率<br>Load regul                   | 20%~100%负载变化<br>20%~100% Load change                           | $V_{O1} \cong \pm 0.5\%$                                       |
| 纹波噪声<br>Ripple&Noise                  | 20M 带宽<br>20M Bandwidth  | $\cong 1\%$  |
| 温度系数<br>Temperature coefficient       |  | $\pm 0.02\%/^{\circ}\text{C}$                                  |
| 容性负载<br>Capacitive load               | 输入标称电压、满载<br>Input rated voltage、Full load                     | 见附表<br>As per list enclosed                                    |
| 过流保护<br>Output overcircuit Protection |  | 115~150%额定电流,自恢复<br>115~150%rated output circuit,auto recovery |
| 短路保护<br>Short Circuit Protection      |  | 长期,自恢复<br>Long-term,auto recovery                              |
| 效率<br>Efficiency                      | 输入标称电压、满载<br>Input rated voltage、 Full load                    | 75% (典型值)<br>75%(typical)                                      |
| 启动时间<br>Rise time                     | 220VAC 满载<br>220VAC Full load                                  | 50mS (典型值)<br>50ms (typical)                                   |
| 保持时间<br>Hold up time                  | 220VAC 满载<br>220VAC Full load                                  | 20mS (典型值)<br>50ms (typical)                                   |

#### 一般特性 General Features

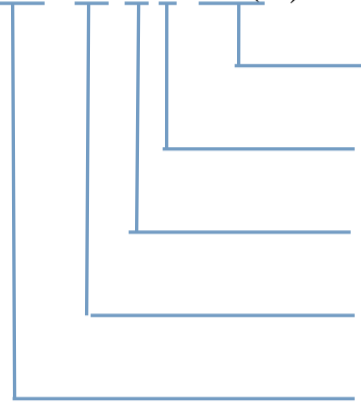
|                               |  |   |
|-------------------------------|--|---|
| 隔离耐压<br>Withstand voltage     | 输入对输出、输入对地<br>I/P-O/P、I/P-F/G<br>输出对地<br>O/P -F/G<br>(1分钟,漏电流 $\cong 5\text{mA}$ )<br>(1Mintute ,leakage current) $\cong 5\text{mA}$ ) | 2500VAC<br><br>500VAC                          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

## 容性负载 Capacitive Load

| Vout:5V                |                | Vout:12V、15V           |                | Vout:24V               |                |
|------------------------|----------------|------------------------|----------------|------------------------|----------------|
| 推荐值<br>Recommendations | 最大值<br>Maximum | 推荐值<br>Recommendations | 最大值<br>Maximum | 推荐值<br>Recommendations | 最大值<br>Maximum |
| 1000 $\mu$ F           | 4700 $\mu$ F   | 1000 $\mu$ F           | 3300 $\mu$ F   | 470 $\mu$ F            | 1000 $\mu$ F   |

## 命名方式 Naming Rules

### JWAS- 25 S 5 W(N)



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  
 Output voltage  
 单路输出  
 Single Output  
 输出功率  
 Output power  
 AC/DC 金属封装电源模块  
 AC/DC Metal packaging power module

## 产品选型 Product selection

| 产品型号<br>Model No. | 输出电压<br>Output voltage<br>$V_o$ | 输出电流<br>Output current<br>$I_o$ | 输出电压精度<br>Output voltage<br>tolerance | 纹波噪声<br>R&N<br>$V_{(P-P)mV}$ | 效率<br>Efficiency |
|-------------------|---------------------------------|---------------------------------|---------------------------------------|------------------------------|------------------|
| JWAS-25S3.3W(N)   | 3.3V                            | 7.58A                           | $\pm 2\%$                             | 100mV                        | 73%              |
| JWAS-25S5W(N)     | 5V                              | 5.00A                           | $\pm 2\%$                             | 100mV                        | 74%              |
| JWAS-25S9W(N)     | 9V                              | 2.77A                           | $\pm 1\%$                             | 100mV                        | 78%              |
| JWAS-25S12W(N)    | 12V                             | 2.08A                           | $\pm 1\%$                             | 120mV                        | 80%              |
| JWAS-25S15W(N)    | 15V                             | 1.67A                           | $\pm 1\%$                             | 150mV                        | 82%              |
| JWAS-25S24W(N)    | 24V                             | 1.05A                           | $\pm 1\%$                             | 180mV                        | 84%              |

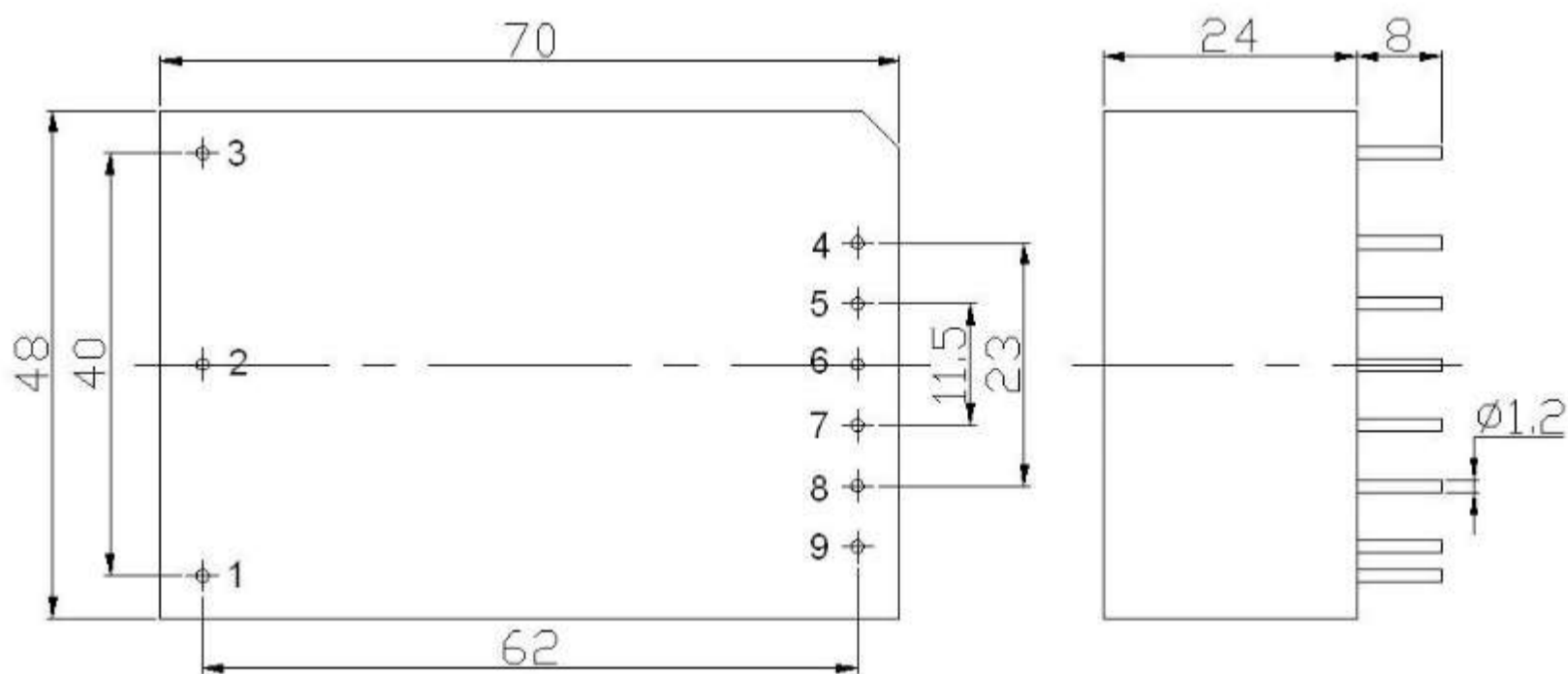
注：因篇幅有限，以上只是部分产品列表，若需列表以外产品，请与本公司销售部联系。

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

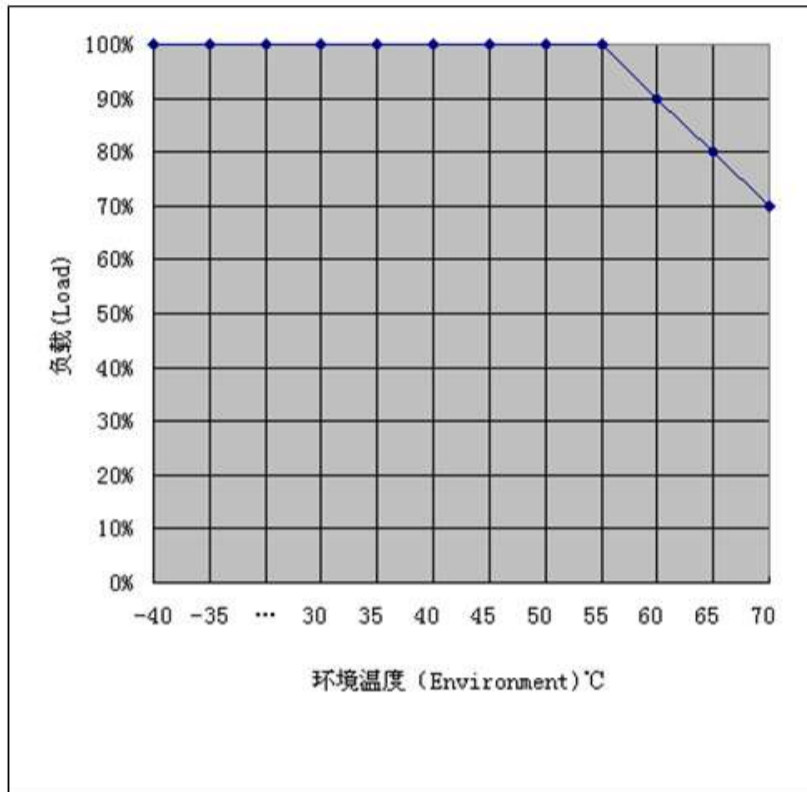
| 管脚说明   | P1 | P2    | P3    | P4       | P5 | P6  | P7 | P8  |
|--------|----|-------|-------|----------|----|-----|----|-----|
| 单路 (S) | FG | AC(L) | AC(N) | $V_{O+}$ | NP | GND | NP | GND |

注：电源模块的各管脚定义如与选型手册不符，应以实物标签上的标注为准。

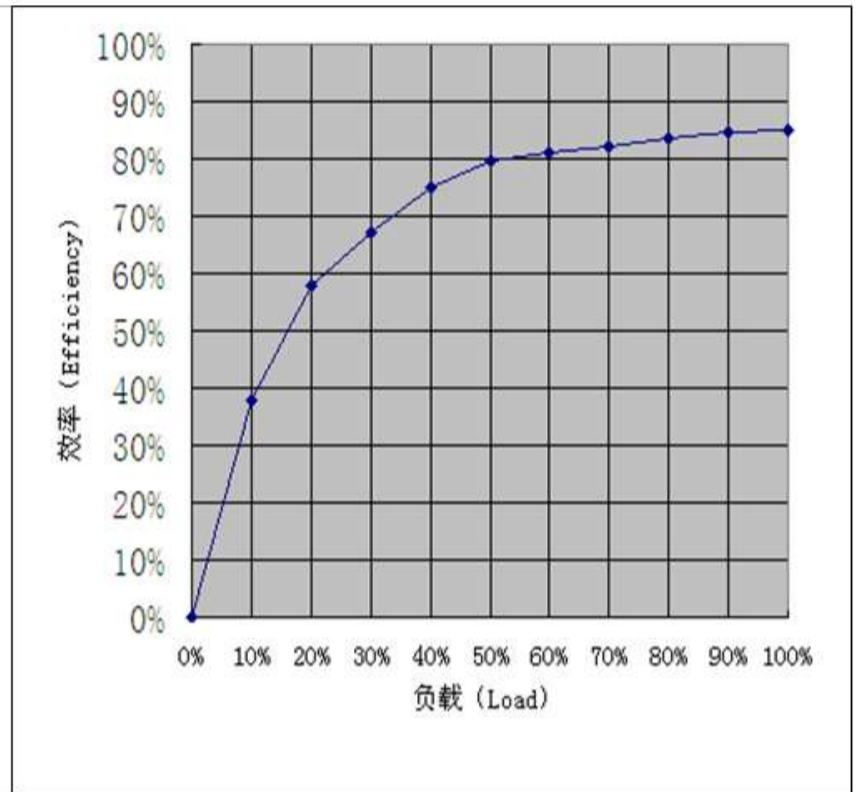
Note: The power modules such as the definition of the pin does not match with the hand book, please refer to the actual item.

## 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

