

# AC/DC 电源模块

## JWAS 塑壳封装系列电源模块--20W 双路共地输出

JWAS Molded case packaging series power module--20W Dual output common ground

### 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 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,	≤20A

### 输出特性

#### Output Features

输出电压精度 Voltage tolerance	标称电压 Nominal voltage	$V_{O1} \cong \pm 1\%$ (3.3V、5V $\cong \pm 2\%$ ) $V_{O2} \cong \pm 3.0\%$
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	$V_{O1} \cong \pm 0.5\%$ $V_{O2} \cong \pm 1.5\%$
负载调整率 Load regul	20%~100%负载变化 20%~100% Load change	$V_{O1} \cong \pm 0.5\%$ $V_{O2} \cong \pm 3.0\%$
温度系数 Temperature coefficient		$\pm 0.02\%/^{\circ}\text{C}$
容性负载 Capacitive load	输入标称电压、满载 Input rated voltage、Fullload	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
启动时间 Rise time	220VAC 满载 220VAC Fullload	500mS (典型值) 500ms (typical)
保持时间 Hold up time	220VAC 满载 220VAC Fullload	50mS (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 输出对地 O/P -F/G (1分钟, 漏电流 $\leq 5\text{mA}$ ) (1Mintute ,leakage current) $\leq 5\text{mA}$ )	2500VAC  500VAC
绝缘电阻 Isolation resistance	500V	$\geq 100\text{M}\Omega$
MTBF	环境 25°C Environment 25°C	$2.0 \times 10^5 \text{Hrs}$
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



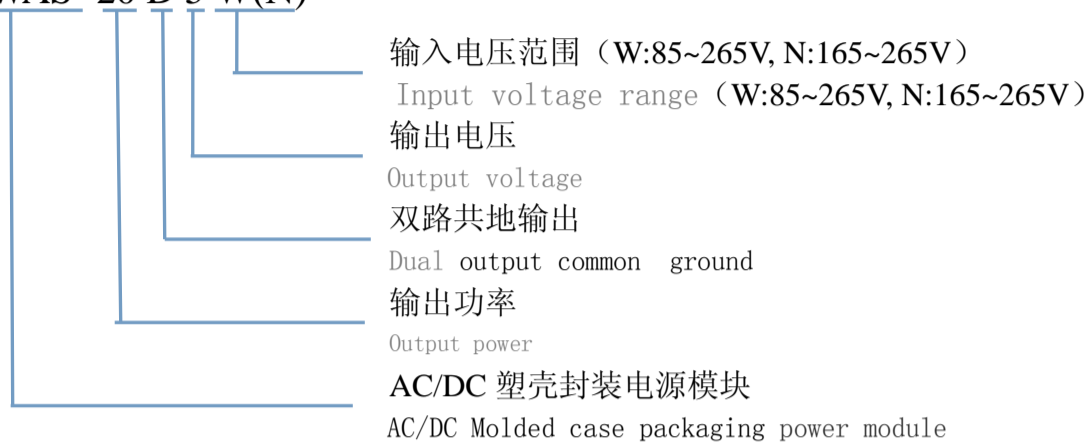
容性负载  
Capacitive Load

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
1000μF	4700μF	1000μF	3300μF	470μF	1000μF

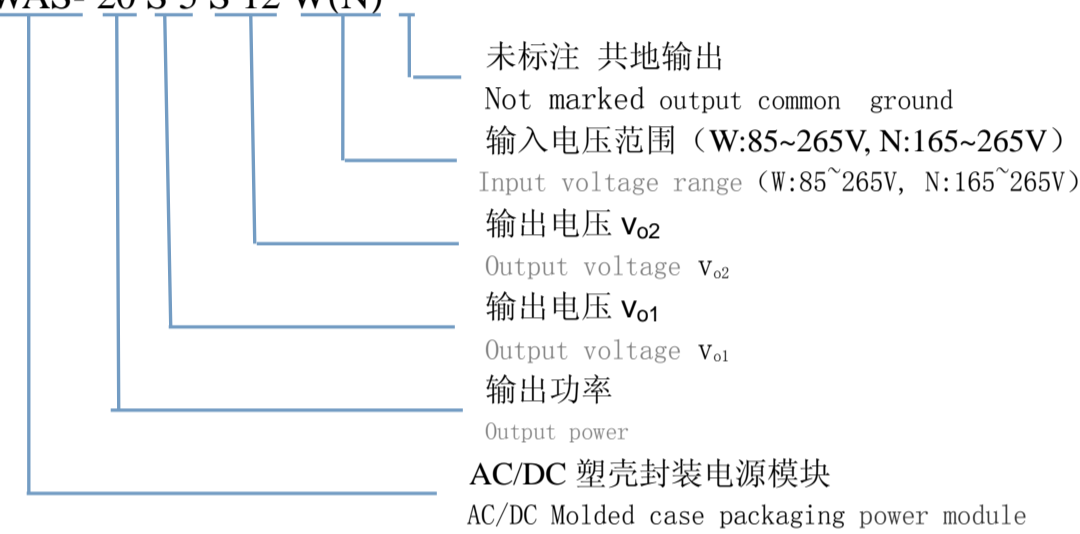
命名方式

Maming Rules

**JWAS- 20 D 5 W(N)**



**JWAS- 20 S 5 S 12 W(N)**



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-20D5W(N)	+5V	0.20~2.00A	±2%	80mV	76%
	-5V	0.20~2.00A	±5%	80mV	
JWAS-20D12W(N)	+12V	0.08~0.83A	±1%	120mV	79%
	-12V	0.08~0.83A	±3%	120mV	
JWAS-20D15W(N)	+15V	0.06~0.67A	±1%	120mV	81%
	-15V	0.06~0.67A	±3%	120mV	
JWAS-20D24W(N)	+24V	0.04~0.42A	±1%	120mV	83%
	-24V	0.04~0.42A	±3%	120mV	
JWAS-20S5S5W(N)	+5V	0.30~3.00A	±2%	80mV	76%
	+5V	0.10~1.00A	±5%	80mV	
JWAS-20S5S12W(N)	+5V	0.30~3.00A	±2%	150mV	78%
	+12V	0.04~0.42A	±3%	80mV	
JWAS-20S5S15W(N)	+5V	0.30~3.00A	±2%	80mV	78%
	+15V	0.03~0.34A	±3%	120mV	
JWAS-20S5S24W(N)	+5V	0.30~3.00A	±2%	80mV	79%
	+24V	0.02~0.21A	±3%	120mV	
JWAS-20S12S5W(N)	+12V	0.10~1.25A	±1%	100mV	78%
	+5V	0.10~1.00A	±5%	80mV	
JWAS-20S12S12W(N)	+12V	0.10~1.25A	±1%	100mV	81%
	+12V	0.04~0.42A	±3%	100mV	
JWAS-20S12S15W(N)	+12V	0.10~1.25A	±1%	100mV	81%
	+15V	0.03~0.34A	±3%	100mV	
JWAS-20S12S24W(N)	+12V	0.08~0.83A	±1%	100mV	82%
	+24V	0.04~0.42A	±3%	120mV	

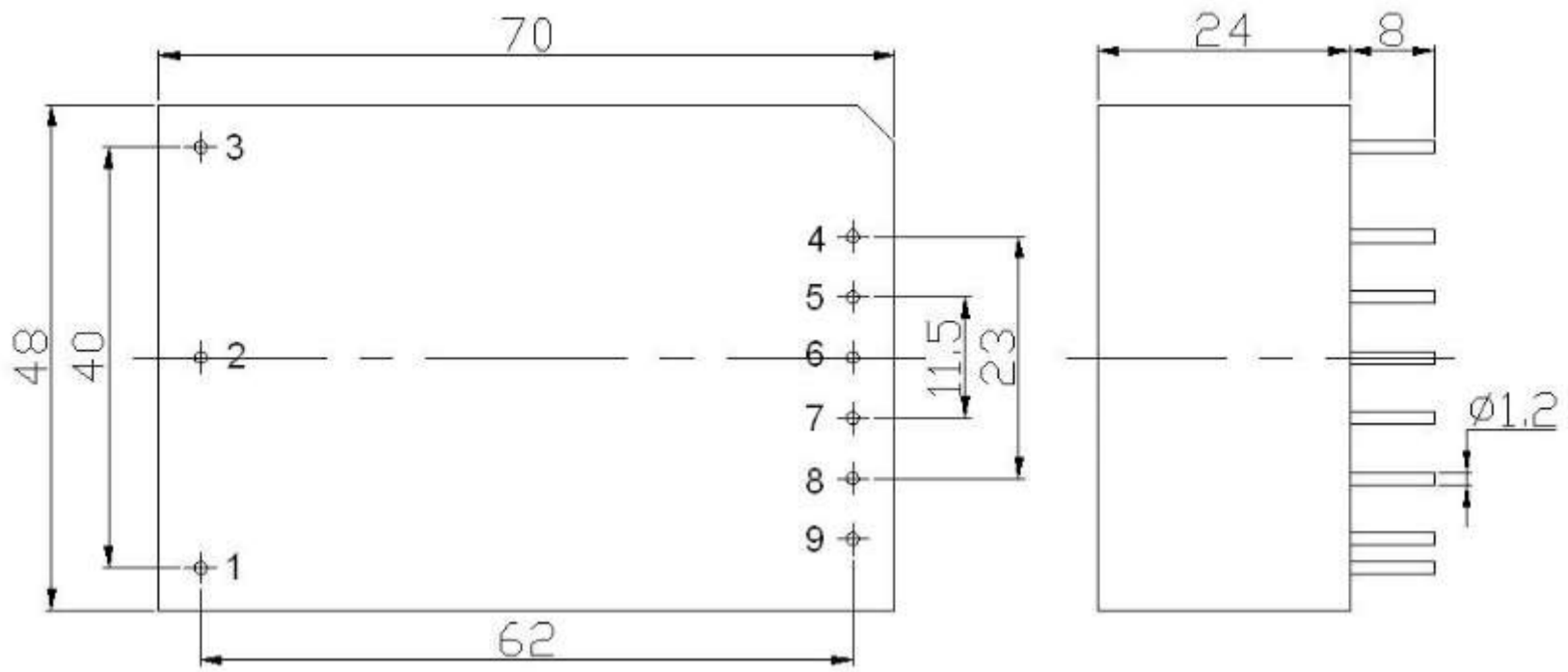
注：因篇幅有限，以上只是部分产品列表，若需列表以外产品，请与本公司销售部联系。

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  
MechanicalData



管脚定义  
Pin Assignments

管脚说明	P1	P2	P3	P4	P5	P6	P7	P8	P9
单路 (S)	FG	AC(L)	AC(N)	V <sub>O1+</sub>	NP	COM	NP	V <sub>O2-</sub>	NP

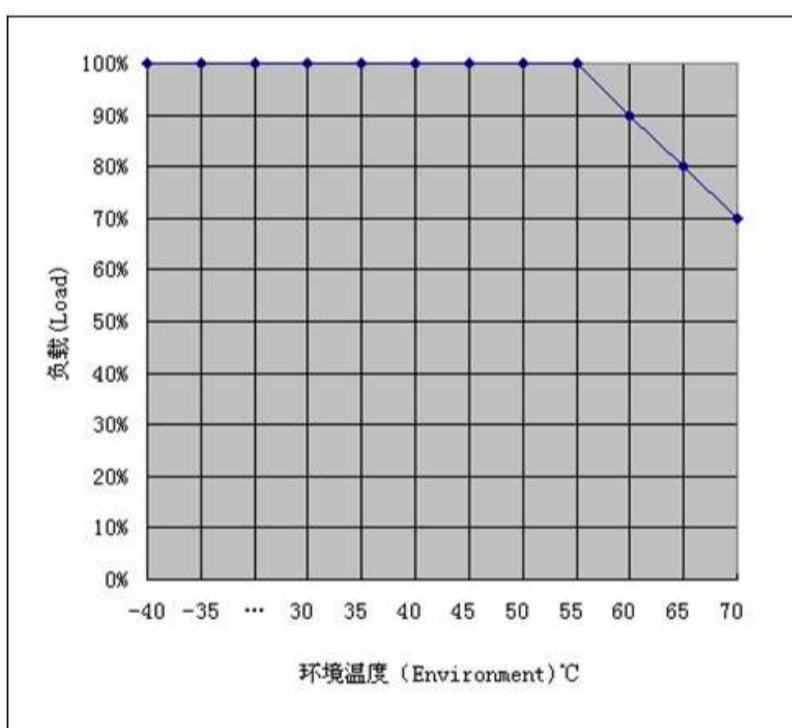
注：电源模块的外形尺寸和管脚定义如与选型手册不符，请以实物实际尺寸为准。

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

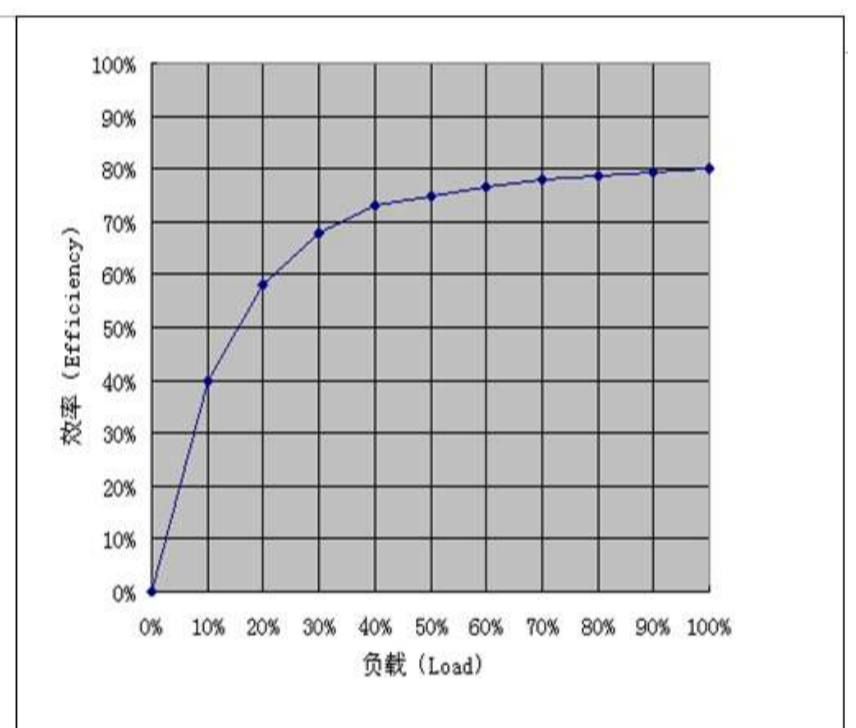
典型曲线

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

