

JWA 金属封装系列电源模块--20W 单路输出

JWAK Metal packaging series power module-20W Single Output

典型性能 Typical Performance

◆ 外形尺寸: 72*50*28 (mm)
Dimension: 72*50*28 (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

◆ 黑金属外壳, 八面屏蔽, 通孔安装

Black metal shell, Eight face shield, 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	$V_{O1} \leq \pm 1\%$ (3.3V、5V $\leq \pm 2\%$) $V_{O2} \leq \pm 3.0\%$
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	$V_{O1} \leq \pm 0.5\%$ $V_{O2} \leq \pm 1.5\%$
负载调整率 Load regul	20%~100%负载变化 20%~100% Load change	$V_{O1} \leq \pm 0.5\%$ $V_{O2} \leq \pm 3.0\%$
纹波噪声 Ripple&Noise	20M 带宽 20M Bandwidth	≅ 1%
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
过流保护 Output overcircuit Protection		115~150%额定电流,自恢复 115~150%rated output circuit,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	75% (典型值) 75%(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

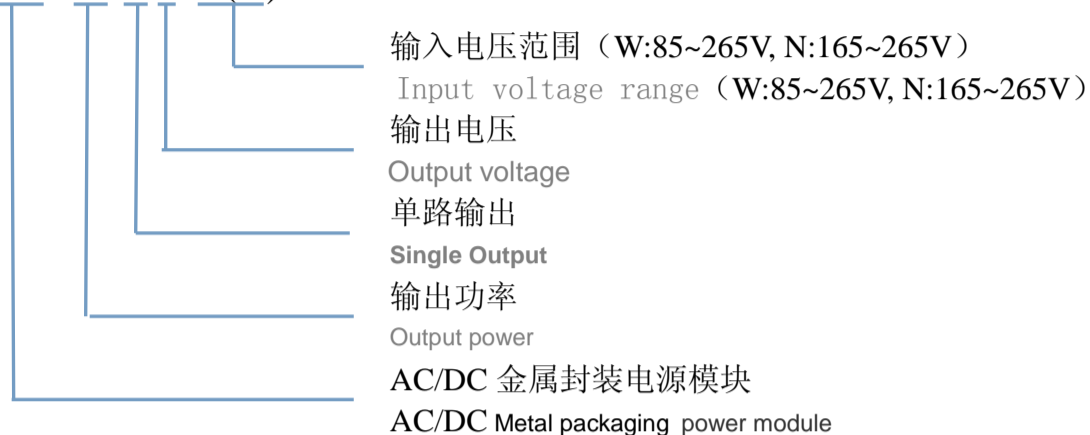
隔离耐压 Withstand voltage	输入对输出、输入对地 I/P-O/P、I/P-F/G 输出对地 O/P -F/G (1分钟,漏电流 $\leq 5\text{mA}$) (1Mintute ,leakage current) $\leq 5\text{mA}$)	2500VAC 500VAC
绝缘电阻 Isolation resistance	500V	$\geq 100\text{M}\Omega$
MTBF	环境 25°C Environment 25°C	$2.0 \times 10^5 \text{Hrs}$
工作温度 Operating temperature	55°C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 Naming Rules

JWA- 20 S 5 W(N)



产品选型 Product selection

产品型号 Model No.	输出电压 Output voltage V _O	输出电流 Output current I _O	输出电压精度 Output voltage tolerance	纹波噪声 R&N V _(P-P) mV	效率 Efficiency
JWA-20S3.3W(N)	3.3V	5.56A	±2%	100mV	73%
JWA-20S5W(N)	5V	4.00A	±2%	100mV	76%
JWA-2.5S9W(N)	9V	0.27A	±1%	100mV	78%
JWA-20S12W(N)	12V	1.67A	±1%	120mV	80%
JWA-20S15W(N)	15V	1.34A	±1%	120mV	81%
JWA-20S24W(N)	24V	0.84A	±1%	150mV	83%

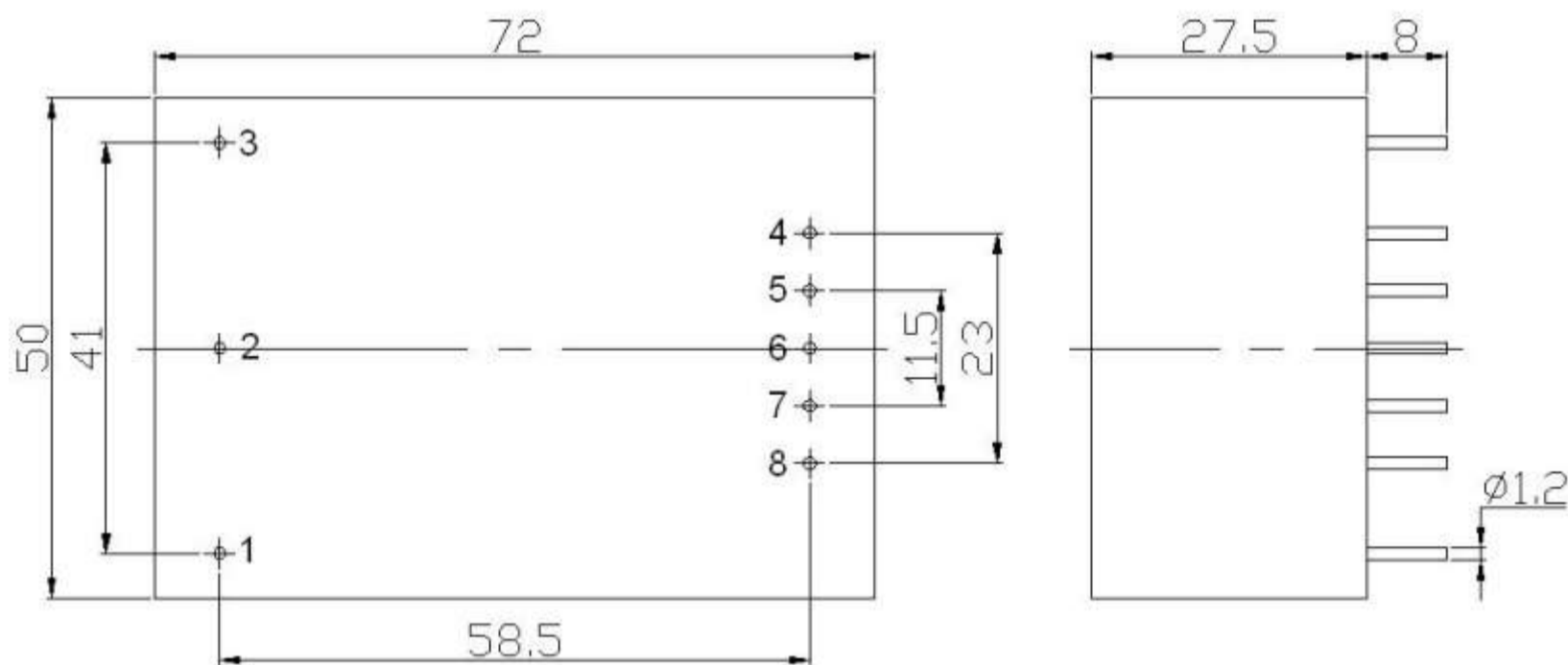
注：因篇幅有限，以上只是部分产品列表，若需列表以外产品，请与本公司销售部联系。

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

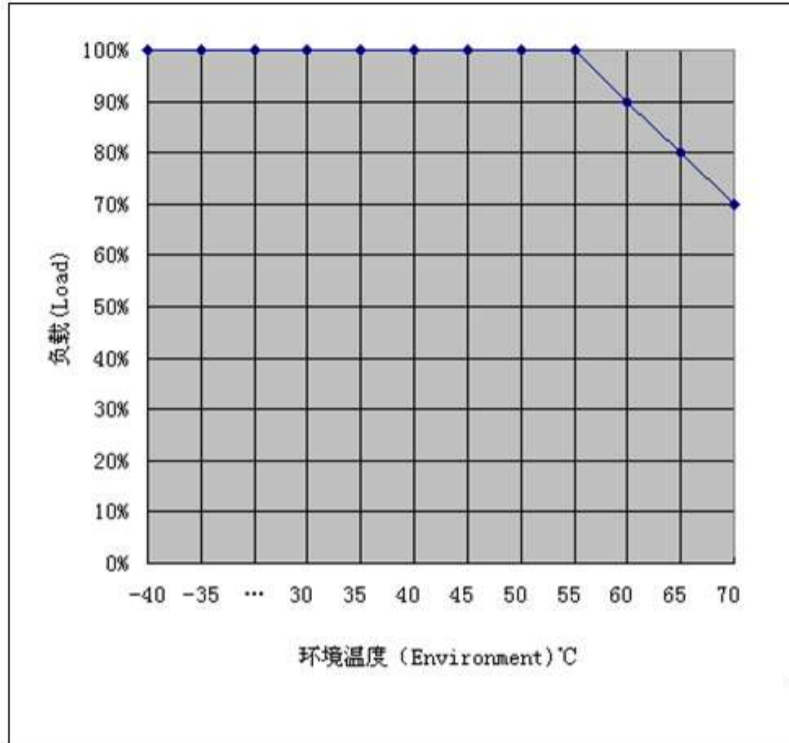
注：电源模块的各管脚定义如与选型手册不符，应以实物标签上的标注为准。

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

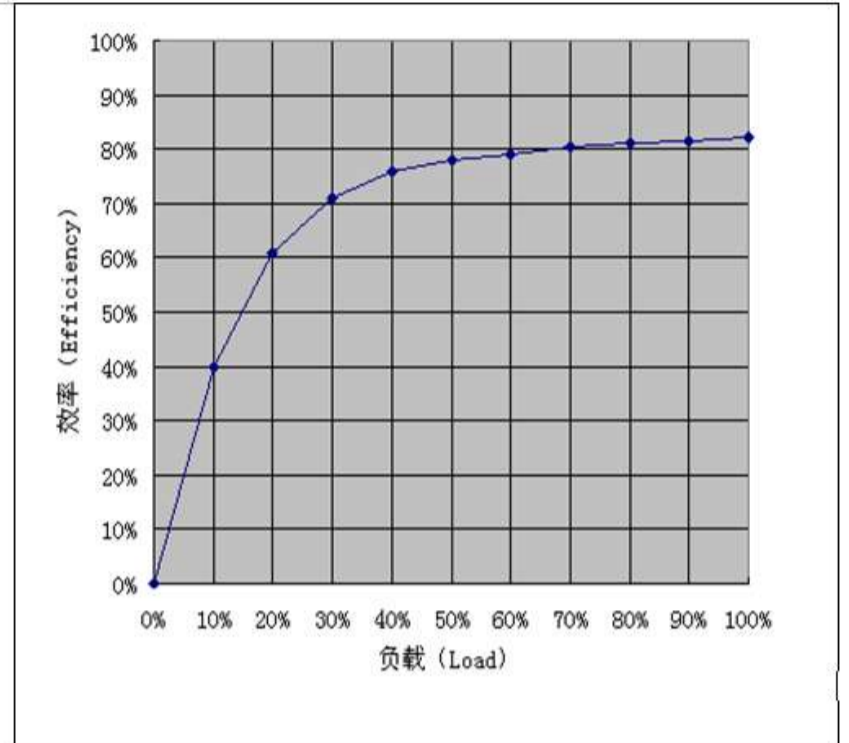
降额曲线

Derating curve



效率曲线

Efficiency curve



纹波噪声测试: (靠测法 20MHz) 纹波&噪声测试

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

