

Specification for approval

Description (产品类型) : Power Module

Customer p/n (客户) : _____

ZETTLER p/n (赛特勒) : ZP20S1200WL

Revision (版本号) : A7

Drafted (编制) : Wei Lili

Checked (审核) : Xie XianZhi

Approved (批准) : Aaron.Chen



A7	2020/12/07	Modify Outline Drawing、Modify Power Derating and ELECTRICAL SPECIFICATION	WLL
A6	2020/5/14	Simplify typical application schematic.Weight from 65g(ref.) to 62.5g(ref.)	XD
A5	2019/10/30	Modify PIN distance from 3.4mm to 3.7mm and add PCB layout	XD
A4	2019/8/2	Add UL logo	XD
A3	2019/7/25	Standardize format and electrical parameters	XD
A2	2019/1/25	Modify schematic external filter, Max Output Wattage, label, Efficiency, and EMI	XD
A1	2018/9/21	Modify schematic	XD
A0	2017/12/29	Initial Release	XD
Rev.	Date	Description	Approved

Approved by Customer (客户确认) : _____

Friendly Reminder: Please help to sign this Spec when approve , and fax to our company . Or else, we will consider you have accepted it and make future order based on this Spec.

友情提示:请在签字确认后,按封面的传真号码回传给赛特勒磁电有限公司.如无回传,则视为默认,后续的相关订单将以按本承认书的规定为技术要求

1.OUTLINE DRAWING (外形图)

Outline Dimensions

A: 52.4 ± 0.5 [2.063]
 B: 27.2 ± 0.5 [1.071]
 C: 24.0 ± 0.5 [0.945]
 D: 20.8 ± 0.5 [0.819]
 E: 45.0 ± 0.5 [1.772]
 F: 8.0 ± 0.5 [0.315]
 G: 3.5 ± 0.5

PIN size $\phi 1.0$ (ref.)

Tolerance: ± 0.5 mm

NO.	Pin connect	Function
1	AC/L	AC Input
2	AC/N	AC Input
3	-	Output Negative
4	+	Output Positive

PCB Layout

PCB hole $\phi 1.6$ [0.063]

Dimensions: 20.8 [0.819], 3.6 [0.134], 4.1 [0.161], 45.0 [1.772], 53.2 [2.094], 28.0 [1.102], 8.0 [0.315]

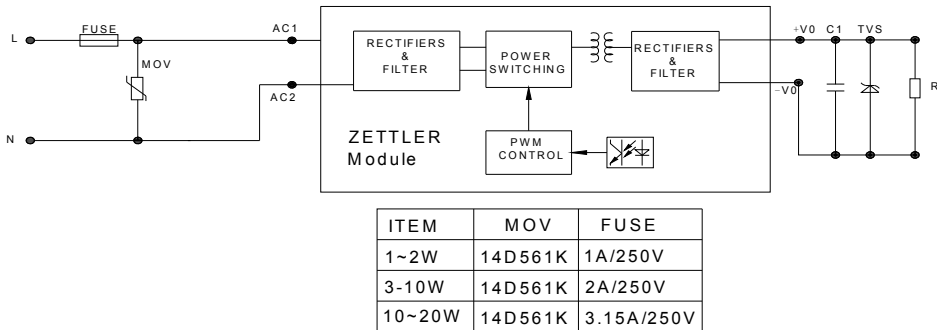
Label

① AC1 **ZETTLER**
 Switching power Module
 Model: ZP20S1200WL
 Input(1-2): 100-240V ~ 0.5A 50/60Hz
 Output(4-3): 12V = 1.67A

US
 E309909 +④
 -③

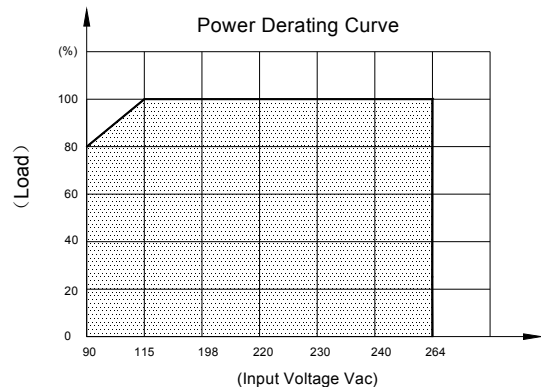
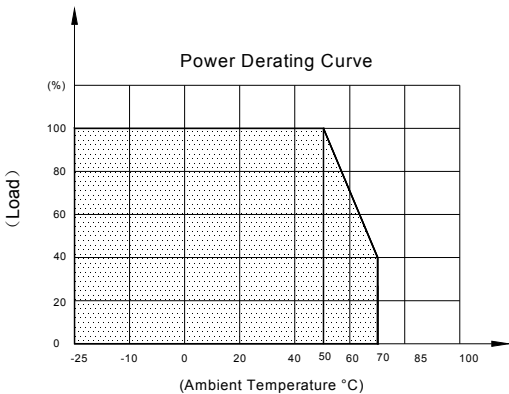
② AC2

2.SCHEMATIC (原理图)



Note: External circuit components are only recommendations, customers should choose their own components and values according to their specific system application requirements.

3.POWER DERATING(降额功率曲线图)



4.ELECTRICAL SPECIFICATION (电性能参数)

Model No. / 型号		ZP20S1200WL		
Input 输入参数	Rated Voltage / 额定电压	100-240VAC		
	Input Voltage Range / 输入电压范围	90~264VAC or 100~370VDC		
	Frequency (Hz) / 输入频率范围	47-63 Hz		
	Current (Full load) / 输入电流	115VAC	230VAC	
		500mA	300mA	
	Inrush Current (<500us) / 冲击电流	20A	40A	
	No Load Loss / 待机功耗	0.3W Max@230V.		
HOT PLUG / 热拔插	Unavailable			
Output 输出参数	Voltage (V) / 输出电压	12		
	Current (mA) max. / 输出额定电流	1670		
	Voltage Accuracy / 输出电压精度	±3%		
	Line Regulation / 线性调节率	±1%		
	Load Regulation / 负载调节率	±1%		
	Minimum Load (mA) / 最小负载	0		
	Ripple & Noise / 输出纹波	≤200mV / 20MHz bandwidth (peak-to-peak value)		
	Efficiency (typ.) / 工作效率	85%		
	Start-up Time / 开机延迟时间	3s		
	Hold up Time / 掉电保持时间(典型值)	40ms/230VAC, ≥10ms /115VAC at Full load		
Protection 保护特性	Over Current Protection / 过流保护	Hiccup mode		
	Short Circuit Protection / 短路保护	Hiccup mode		
Environment 环境	Operating Temperature / 工作温度	-25°C...+50°C @Free air convection		
	Operating Humidity / 工作湿度	20-90% RH		
	Storage Temperature / 存储温度	-25°C...+85°C		
	Storage Humidity / 存储湿度	5-95% RH		
	Temperature Coefficient/温度漂移系数	±0.04%/°C (0~50°C)		
Physical 外观结构	Case Material / 外壳材质	Plastic (UL 94V-0 rated)		
	Weight / 产品净重	62.5g (REF.)		
Safety & EMC 安全认证及 电磁兼容	Dielectric Strength / 绝缘强度	4200VDC 5mA 1min (I/P-O/P)		
	Safety Standards / 安全标准	Compliance With UL60950-1 UL-62368-2		
	EMI / 电磁兼容	Compliance With EN55032, CLASS B		
	EMS (Noise Immunity)/ 电磁抗干扰	Compliance With EN 55024 EN61000-3-2 Class A Heavy industry level (surge L-N:1KV)	Need to add external EMC component (See the Schematic)	
Reliability Requirement 可靠性要求	MTBF/平均故障间隔时间	300Khrs Min @230VAC . MIL-HDBK-217F (25°C)		
	Burn-In Test/ 老化测试	The unit shall be burned in for 2~4 Hours under 264Vac input and DC with full load at 25°C		