

Specification for approval

Description (产品类型) : Power Module

Customer p/n (客户) : _____

ZETTLER p/n (赛特勒) : HP01S1200WI-X

Revision (版本号) : A9

Drafted (编制) : Xiao Di

Checked (审核) : Xie Xianzhi

Approved (批准) : Aaron.Chen



A9	2020/5/9	Simplify typical application schematic	XD
A8	2019/12/23	Add reference PCB layout, No Load Loss from 0.3W Max to 0.3W Max @ 230VAC, Output Voltage Accuracy from $\pm 5\%$ (Typ.) to 0-10%: $\pm 7\%$ / 10%-100% : $\pm 5\%$, Line Regulation from $\pm 1\%$ to $\pm 2\%$, Load Regulation from $\pm 1\%$ to $\pm 3\%$, Input Capacitor from 3.3uF @ 105°C (Lifespan 3Khrs) to 3.9uF @ 125°C (Lifespan 3Khrs), MOV added tube	XD
A7	2018/3/6	Modify Schematic	XD
A6	2017/7/13	Modify outline drawing	WZX
A5	2017/6/12	Modify label and pin voltage	WZX
A4	2017/4/13	Modify outline drawing	WZX
A3	2016/12/20	Modify outline drawing	WZX
A2	2016/12/12	Modify the schematic and ZETTLER p/n	XXZ
A1	2016/11/16	Modify the phase shift test label	XXZ
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

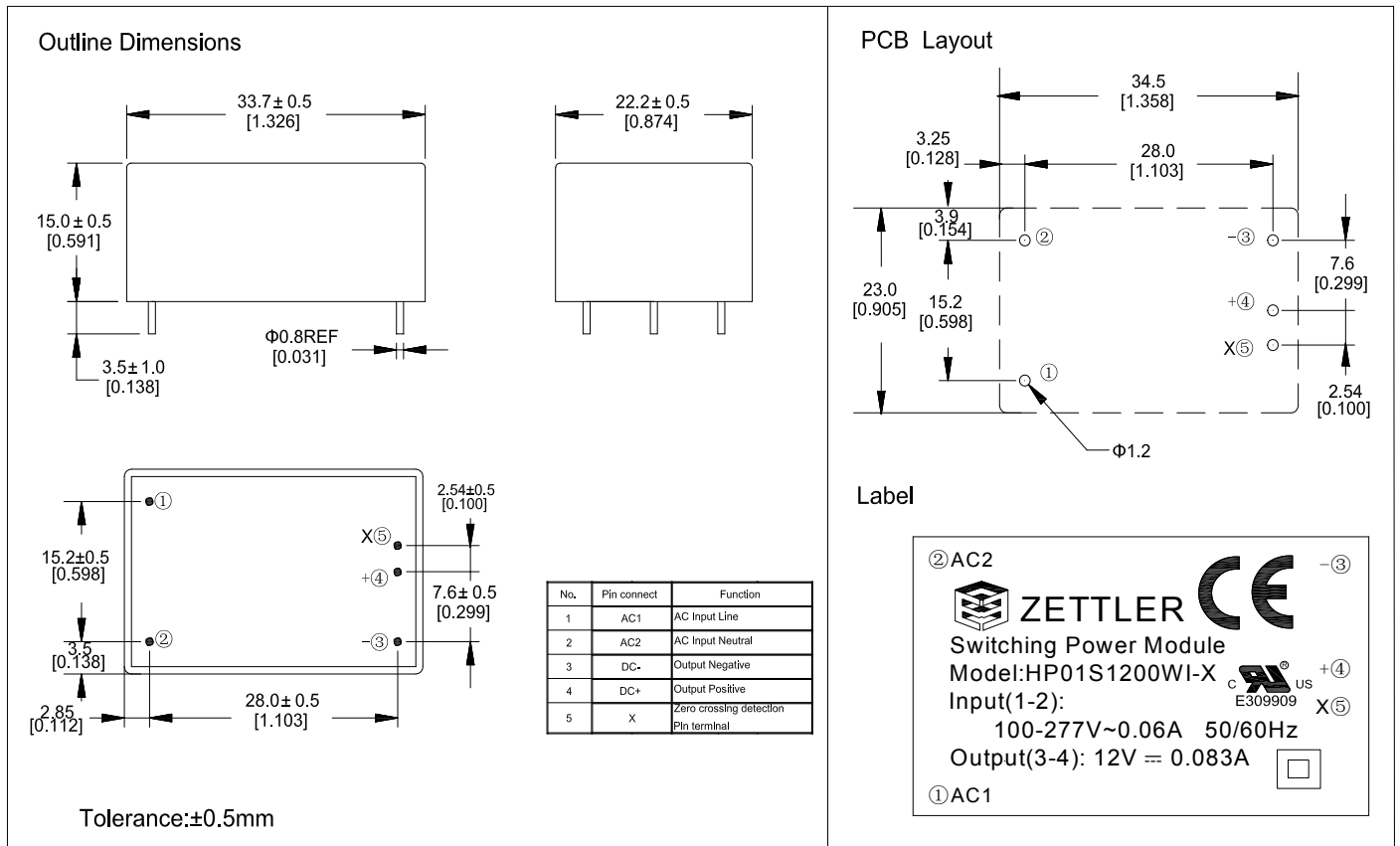
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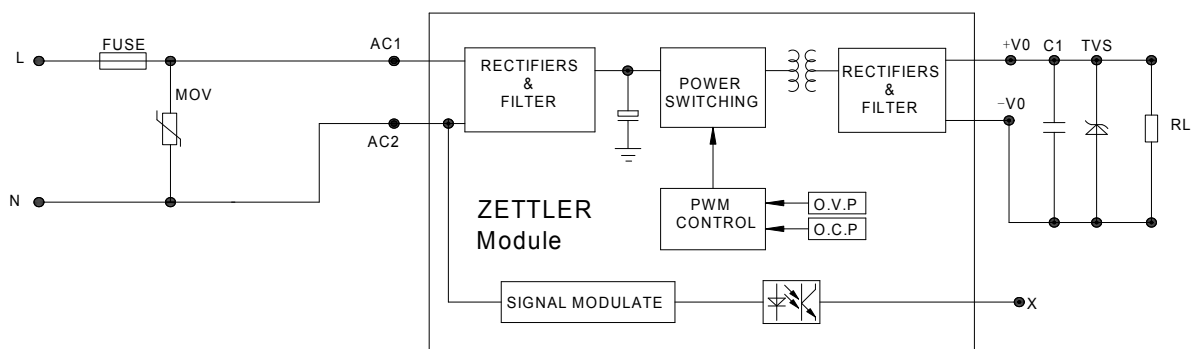
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1.OUTLINE DRAWING (外形图)



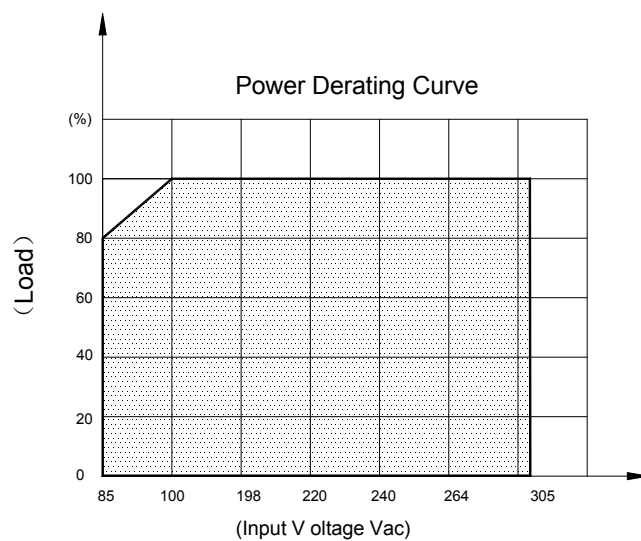
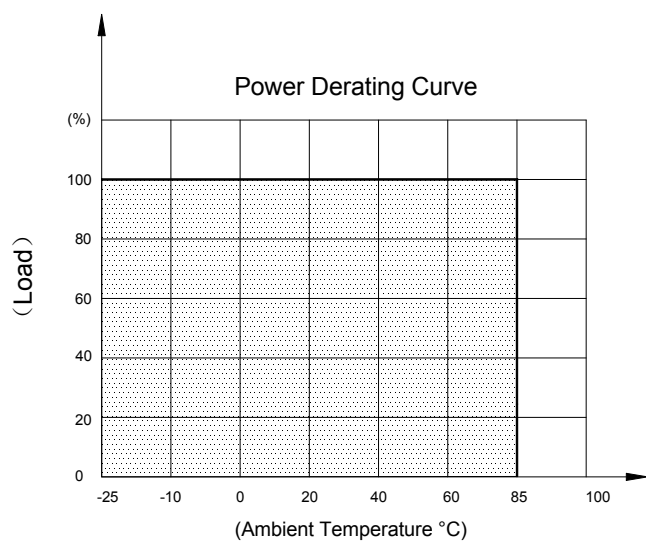
2.SCHEMATIC (原理图)



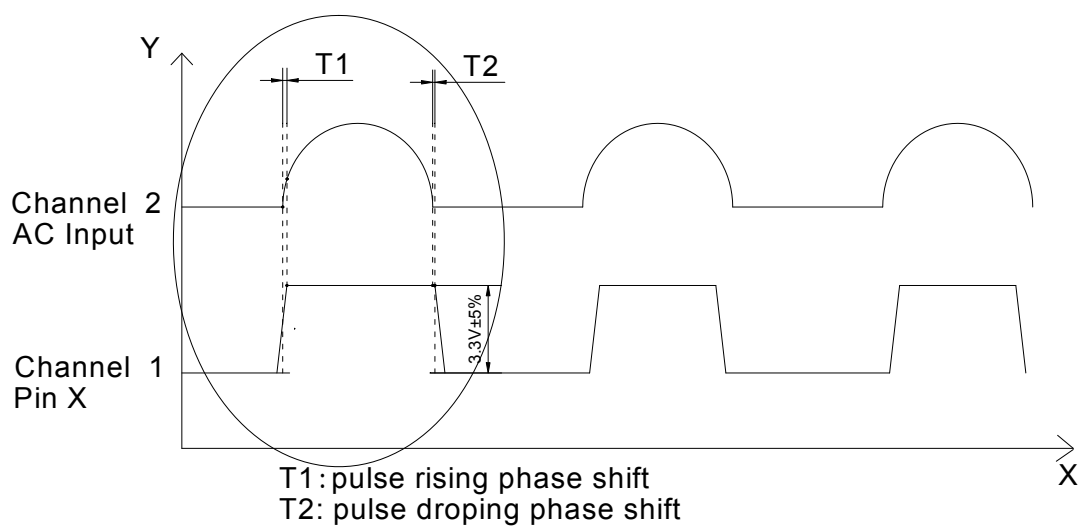
ITEM	MOV	FUSE
1~2W	14D561K	1A/300V
3~10W	14D561K	2A/300V
10~20W	14D561K	3.15A/300V

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)



PHASE SHIFT (过零检测)



4.ELECTRICAL SPECIFICATION (电性能参数)

Model No. / 型号		HP01S1200WI-X		
Input 输入参数	Rate Voltage / 额定电压	100~277VAC		
	Input Voltage Range / 输入电压范围	85~305VAC or 100~430VDC		
	Frequency (Hz) / 输入频率范围	47-63 Hz		
	Current (Full load) / 输入电流	115VAC	230VAC	277VAC
		25mA	18mA	15mA
	Inrush Current (<500us) / 冲击电流	15A	25A	
	No Load Loss / 待机功耗	0.3W Max@230VAC		
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	83		
	Voltage Accuracy / 输出电压精度	0-10%: ±7% / 10%-100% : ±5%		
	Line Regulation / 线性调节率	±2%		
	Load Regulation / 负载调节率	±3%		
	Minimum Load (mA) / 最小负载	0		
	Ripple & Noise / 输出纹波	240		
	Efficiency (typ.) / 工作效率	63%		
	Set-up Time / 开机时间	≤50ms/230Vac,≤30ms/115Vac		
	Hold up Time / 掉电保持时间(典型值)	>40ms/230VAC,12ms/115VAC		
	X Pin / 过零	3.3V P-P Pulse phase shift compare to input rise T1: 500us, Drop T2: 500us		
		Phase shift @ Whare	AC=0,Pulse rising edge shift (T1)	
AC=0,Pulse dropping edge shift (T2)				
Protection 保护特性	Over Current Protection / 过流保护	≥120%Io Self-recovery		
	Short Circuit Protection / 短路保护	Hiccup ,continuous ,short capable, self-recovery		
Environment 环境	Operating Temperature / 工作温度	-25°C...+85°C @Free air convection		
	Operating Humidity / 工作湿度	10-90% RH		
	Storage Temperature / 存储温度	-40°C...+105°C		
	Storage Humidity / 存储湿度	5-95% RH		
	Temperature Coefficient/温度漂移系数	±0.03%/°C (0~85°C)		
Physical 外观结构	Case Material / 外壳材质	Plastic (UL 94V-0 rated)		
	Weight / 产品净重	20g (ref.)		
Safety & EMC 安全认证及 电磁兼容	Dielectric Strength / 绝缘强度	≥3600V/50HZ 5mA 1min (OR 4200VDC/2S) (I/P-O/P)		
	Safety Standards / 安全标准	Compliance With EN60950-1, UL60950-1, UL 62368-1		
	EMI / 电磁兼容	Compliance With EN55032, CLASS B		Need to add external EMC component (See the Schematic)
	EMS (Noise Immunity)/ 电磁抗干扰	EN61000-3-2 Class A Heavy industry level (surge L-N:1KV)		
Reliability Requirement 可靠性要求	MTBF/平均故障间隔时间	1000Khrs 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		

NOTE: Contact Zettler for information on halogen free options

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