Specification for approval

Description: Seal switching power module

Customer p/n:

ZETTLER p/n: ZP05S1200WB

Revision: A7

Drafted: Xiao Di

Checked: Xiao Xia

Approved: Xie Xianzhi

RoHS COMPLIANT

Rev.	Date	Description	Approved
A7	2018/11/20	Modify EMI	XD
A6	2018/8/14	Modify version	XD
A5	2018/7/25	Modify schematic,power derating,no load losses and Leakage Current	XD
A4	2015/1/13	Modify Label	Dana
A3	2014/9/25	Modify Power Derating Curve And Outline Drawing	Dana
A2	2014/7/23	Modify the same as-VTX	Dana
A1	2013/12/18	Modify From ZP05S1200WB-001,Operating Temperature Rise to 50°C	Dana

Approved by Customer :

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.

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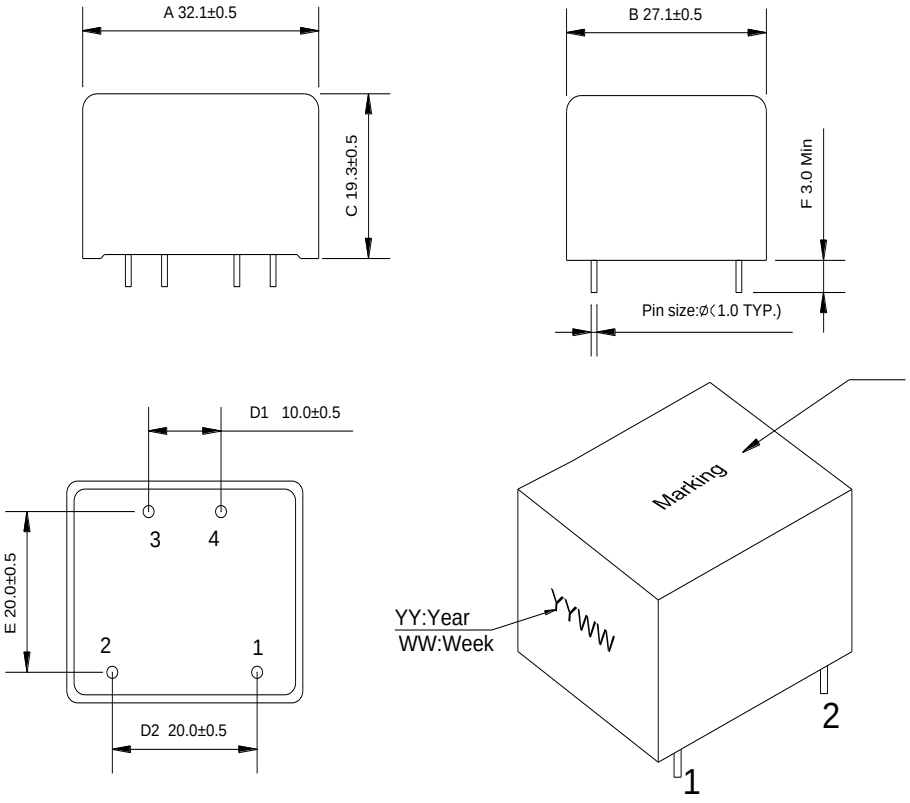
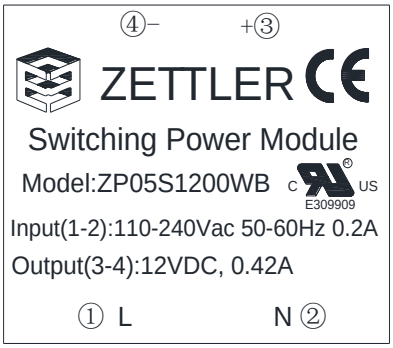
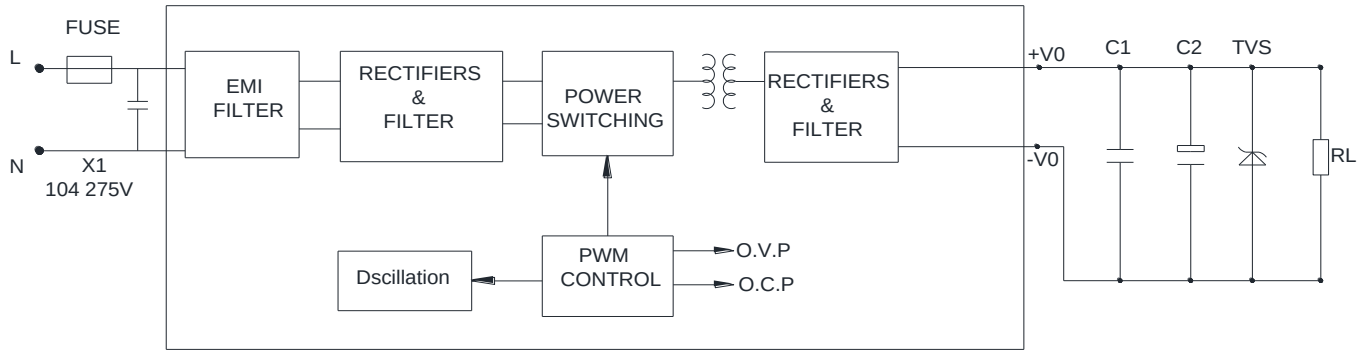
1.OUTLINE DRAWING





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

2.SCHEMATIC



Note; The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meet EMC directives.

Optional recommendations on external components:

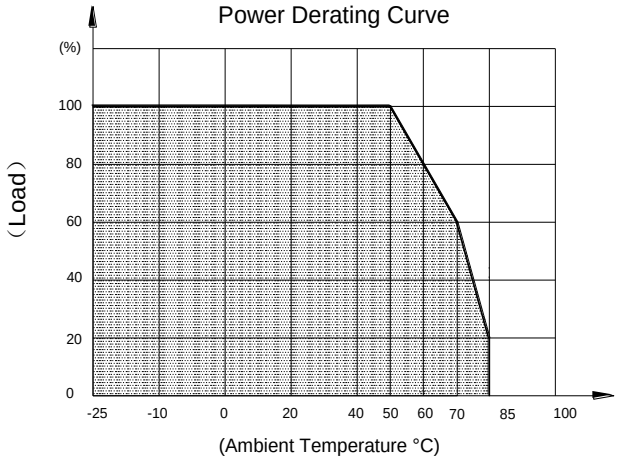
C1 from output filter is electrolytic capacitor, High frequency low resistance capacitance is recommended; withstand voltage derating over 80%.

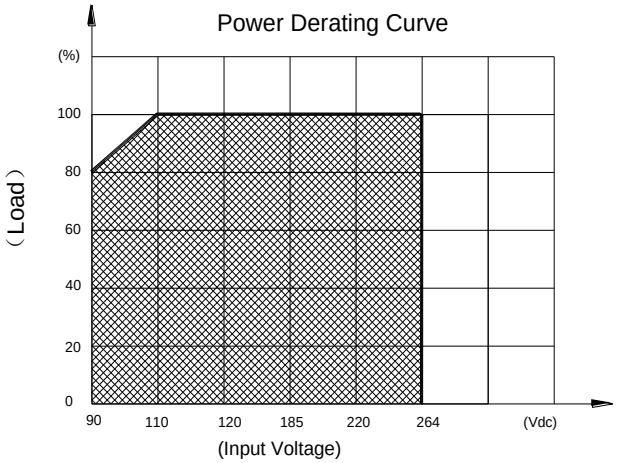
C2 from output filter is ceramic capacitor, to remove high frequency noise.

TVS from output filter is to protect the rear circuit.

Fuse from input filter is to meet safety requirement. Type: 2A/250V Slow-Blow

3.POWER DERATING





4.ELECTRICAL SPECIFICATION:

ITEM	FULL LOAD POWER (W)		LOSS POWER (W)		OUTPUT VOLTAGE (VDC)		OVER POWER PROTECTION		SHORT CIRCUIT PROTECTION	HI-POT VOLTAGE
CONDITION	Input: 110V 60Hz	Input: 240V 50Hz	Input: 110V/60Hz	Input: 240V/50Hz	Input: 110V/60Hz 240V/50Hz		110V 60Hz	240V 50Hz	240V 50Hz	4.2KVdc/2S
TERMINAL	1--2	1--2	1--2		3--4		3--4	3--4	3--4	P--S
					0mA	420mA				
STANDARD	7.5W MAX	7.5W MAX	0.15W MAX		12.0±5%	12.0±5%	≤1.5A	≤1.5A	Hiccup mode	5mA Max

5.ELECTRICAL SPECIFICATION

Model No.		ZP05S1200WB
Max Output Wattage (W)		5W
Input	Rate Voltage	100-240VAC
	Voltage Range	90-264 VAC
	Frequency (Hz)	47-63 Hz
	POWER (Full load)	7.5W MAX (At 110V/220VAC Input Rated Load)
	Inrush Current (<500us)	25A max. (100 VAC) / 35 A max. (240 VAC)
	No Load Losses	0.3W Max
	Leakage Current	0.2 mA max.
Output	Voltage 1 (V.DC.)	12V
	Voltage Accuracy	±5%
	Current (mA) max	420
	Line Regulation (LL-HL) (typ.)	±1%
	Load Regulation (0-100%) (typ.)	±3%.
	Minimum Load	0%
	Noise+Noise	≤5% Vout max (Vp-p)
	Efficiency（TYP）	70%
	Hold-up Time	15 ms min.
	Switching Frequency	100 KHz
Protection	Over Power Protection	Hiccup mode
	Over Voltage Protection	Hiccup mode
	Short Circuit Protection	Hiccup mode
Insulation	Input vs Output (V.DC)	3600V/50Hz 5mA 1min（OR 4200Vdc/2S）(keep with input connected and output pin connected)
Environment	Operating Temperature	-25°C……85°C (Refer to Power derating)
	Storage Temperature	-40°C…+105°C
	Temperature Coefficient	±0.02%/°C
	Humidity	20-95% RH
	MTBF	>300,000 h @ 25°C (MIL-HDBK-217F)
Physical	Dimension (L x W x H)	1.26 x 1.07 x0.76Inches (32.1 x 27.1 x19.3mm) （ref.）
	Case Material	Plastic resin with Fiberglass (flammability to UL 94V-0)
	Weight	30g
	Cooling Method	Free air convection
Safety	Agency Approvals	Series UL Certification For UL60950-1。 Refer to IEC60950-1/EN60950-1,IEC61558-1/EN61558-1,EN61558-2-6,EN61558-2-17
EMC(Need to add external EMC Component）	EMI (Conducted & Radiated Emission)	Compliance With EN 55032 Class B
	EMS (Noise Immunity)	Compliance With EN 55024,EN55014-1, EN55014-2,EN61000-3-2 Class A,EN61000-3-3