c UL us
E309909

RoHS

ORDERING CODE

ZPL 15 S 12 00 W S

Example:
ZPL=Zettler standard series

Output Power (W)
15=15W

Output Type
S=Single Output

First Output Voltage
12=12V

Second Output Voltage
00= No Second Output

Input AC Voltage Range
W=Wide Voltage Input

Case Dimension
S: S Type case

FEATURES

- PCB mounted switching Power module
- AC input voltage range: 90VAC-305VAC
- DC input voltage range: 120VDC-430VDC
- Ambient temperature range: -40°C ~50°C
- Storage temperature range: -25°C ~85°C
- Leakage current (input :264VAC):＜0.3mA
- Isolation voltage: input –Output≥3600VAC 60S
- Insulation Resistance: Input –Output 500VDC≥100M Ohms
- MTBF: 300Khrs Min MIL-HDBK-217F（25°C）
- Compact size, easy installation, Surge L-N 2.5KV
- High efficiency low standby Power consumption, green environmental protection function
- Built-in output over current protection, over-voltage protection, short circuit protection
- Built-in EMI filter components, comply with the EN55032 class B standard
- Class Ⅱ Construction

APPLICATIONS

This series could be widely applied in the applications of harsh industrial, EV charger, Automotive etc.

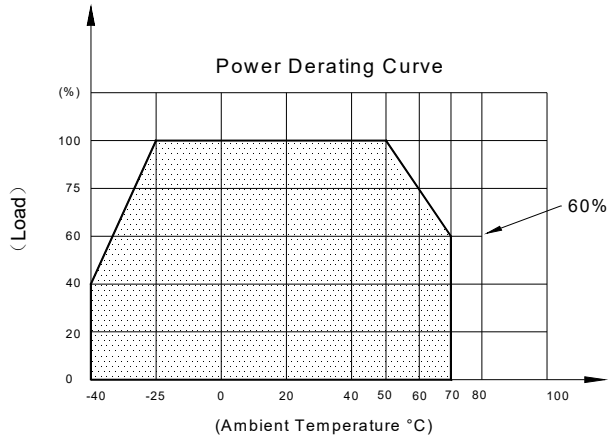
MODEL LIST

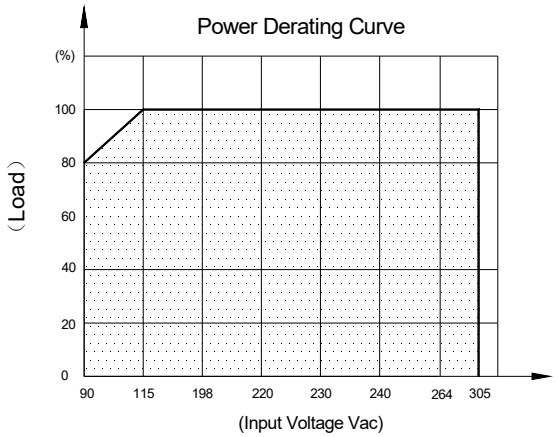
Model No.	Output Power	DC Voltage	Rated Current	Efficiency 230VAC，% Typ.	Ripple&Noise (max)	Ambient TEMP(°C)	Weight	Certificate		
								UL	TUV	CB
ZPL15S0500WS	15W	5Vdc	3000mA	78%	＜200mV	50	78g	●	●	●
ZPL15S1200WS	15W	12Vdc	1250mA	82%	＜200mV	50	78g	●	●	●
ZPL15S1500WS	15W	15Vdc	1000mA	82%	＜200mV	50	78g	●	●	●
ZPL15S1800WS	15W	18Vdc	830mA	83%	＜200mV	50	78g	●	●	●
ZPL15S2400WS	15W	24Vdc	620mA	83%	＜200mV	50	78g	●	●	●

ELECTRICAL SPECIFICATION

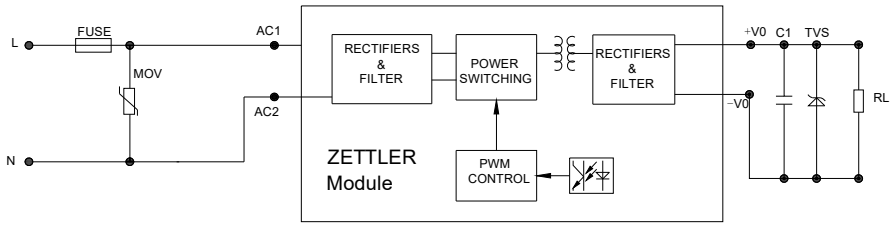
Model No.		ZPL15SXX00WS		
Input	Rated Voltage	100-277VAC		
	Voltage Range	90-305VAC or 120-430VDC		
	Frequency (Hz)	47-63 Hz		
	Current (Full load)	115VAC	230VAC	277VAC
		300mA	200mA	180mA
	Inrush Current (<500us)	20A	40A	50A
	No Load Loss	0.3W Max @230VAC		
	HOT PLUG	Unavailable		
Output	Voltage (V)	Refer to “Model List”		
	Current (mA) max.	Refer to “Model List”		
	Voltage Accuracy	±3%		
	Line Regulation	±0.5%		
	Load Regulation	±1%		
	Minimum Load (mA)	0		
	Ripple & Noise	Refer to “Model List”		
	Efficiency（typ.）	Refer to “Model List”		
	Start-up Time	3S		
	Hold up Time	76.9ms/230VAC,13.6ms/115VAC		
Protection	Over Current Protection	Hiccup mode		
	Short Circuit Protection	Hiccup mode		
Environment	Operating Temperature	-40°C…+70°C （40% Load@-40°C） (reference to the power derating)		
	Operating Humidity	20~90% RH (No Condensing) at full load		
	Storage Temperature	-25°C~85°C		
	Storage Humidity	10~95% RH		
	Temperature Coefficient	±0.05%/°C（0~50℃）		
Physical	Case Material	Plastic （UL 94V-0 rated）		
	Weight	78g（ref.）		
Safety & EMC	Dielectric Strength	I/P-O/P : 3600VAC		
	Protection against electric shock	Class II construction ⧈		
	Safety Standards	Compliance With EN62368-1, EN61558-2-16, Plastic materials in accordance with EN60335-1 clause 30		
	EMI	Compliance With EN55032 CLASS B, EN61000-3-2, EN61000-3-3	Need to add external EMC component (Refer to the Schematic)	
	EMS (Noise Immunity)	Compliance With EN 55035,Surge EN61000-4-5 (2.5KV, L-N)		
Reliability Requirement	MTBF	300Khrs Min MIL-HDBK-217F（25℃）		
	Burn-In Test	The unit shall be burned in for 2~4 hours under 277Vac input and with full load at normal temperature		

PRODUCT CHARACTERISTIC CURVE





TYPICAL APPLICATION SCHEMATIC

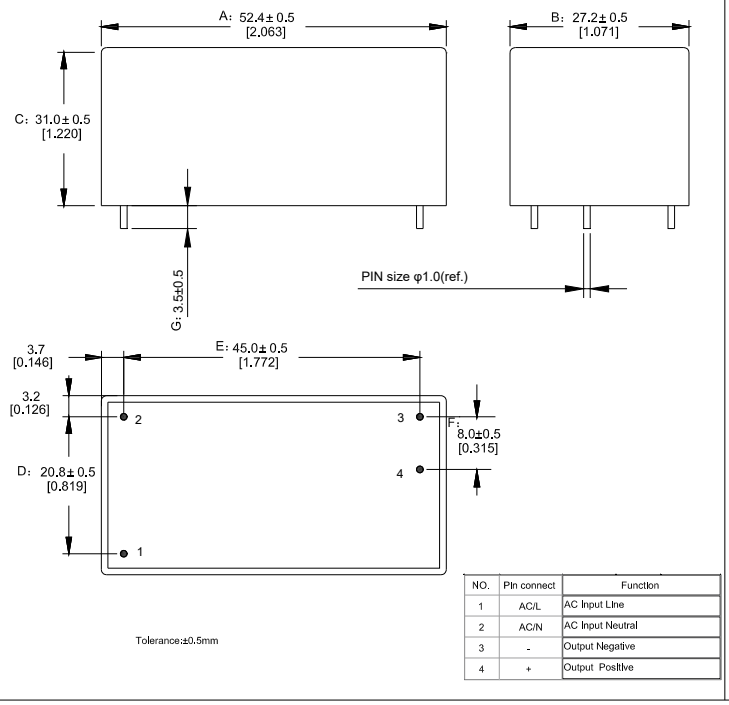


ITEM	MOV	FUSE
1~2W	14D561K	1A/300V Min
3-10W	14D561K	2A/300V Min
10~20W	14D561K	3.15A/300V Min

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

MECHANICAL SPECIFICATION

Outline Dimensions



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

Tolerance:±0.5mm

PCB Layout