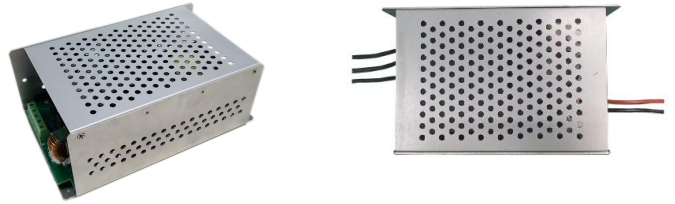


Typical Features	
◆	Wide input voltage range:85-1300VAC
◆	No-load power consumption≤1.5W
◆	Transfer efficiency (typ. 88%)
◆	Switching frequency: 65KHz
◆	Protection: Short Circuit, Over Current, Over Voltage
◆	Isolation voltage: 5000VAC
◆	Meet CE, RoHS Test Standard
◆	Designed for high voltage special electrical equipment



**Application Field**

**DA150-1000SXXG1N5 Series**----- is a special high-voltage power supply designed and developed by Aipu for customers specifically for coal mine electrical customers, with regard to equipment power supply safety, convenient installation, reliable application, technological innovation and other development requirements. This series of power supplies have the advantages of global input voltage range, low ripple, low temperature rise, low power consumption, high efficiency, high reliability, and high safety isolation. This series of products can be widely used in photovoltaic, coal mine monitoring and security industries, etc. When the product is used in an environment with relatively poor electromagnetic compatibility, please refer to the application circuit provided by our company.

**Typical Product List**

Certificate	Part No.	Output Specification					Max. Capacitive Load, 330Vac (Typical)	Ripple & Noise 20MHz (Max)	Efficiency @ Full Load 220Vac (Typical)
		Power	Voltage 1	Current 1	Voltage 2	Current 2			
		(W)	Vo1(V)	Io1(m A)	Vo2(V)	Io2(m A)			
/	DA150-1000S24G1N5	150	24	6250	-	-	5000	200	88
	DA150-1000S28G1N5	150	28	5360	-	-	5000	200	88
	DA150-1000S32G1N5	150	32	4688	-	-	4500	300	89
	DA150-1000S35G1N5	150	35	4286	-	-	4000	300	89

Note 1: The typical value of output efficiency is based on the product being aged at full load for half an hour;  
 Note 2: The full load efficiency (% , TYP) in the table fluctuates by ±2%. The full load efficiency is the total output power divided by the input power of the module;  
 Note 3: Due to limited space, the above is only a partial list of products. If you need products outside the list, please contact our sales department.

**Input Specification**

Item	Operating Condition	Min.	Typ.	Max.	Unit
Input Voltage Range	AC Input	85	450	1300	VAC
	DC Input	120	636	1840	VDC

Input Frequency Range	-	47	50	63	Hz
Input Current	176VAC	/	/	1.8	A
	450VAC	/	/	0.8	
Surge Current	450VAC	/	/	130	
	760VAC	/	/	270	
	1300VAC	/	/	390	
Leakage Current	-	0.5mA TYP/230VAC/50Hz			
Remote Control	-	Not available			
Hot plug	-	Unavailable			
External Input Fuse	-	6A/1000VAC, Necessary			

Output Specification						
Item	Operating Condition		Min.	Typ.	Max.	Unit
Voltage Accuracy	Full input voltage Range, Any load	Vo	-	±1.0	±2.0	%
Line Regulation	Nominal Load	Vo	-	-	±1.0	%
Load Regulation	Nominal input Voltage, 20%~100% load	Vo	-	-	±2.0	%
No load power consumption	Input 450VAC		-	-	1.5	W
	Input 1300VAC		-	-		
Minimum load	Single Output		0	-	-	%
Turn-on Delay Time	Nominal input voltage, full load		-	2000	-	mS
Power-off Holding Time	Input 450VAC (full load)		-	150	-	mS
	Input 660VAC (full load)		-	350	-	
Dynamic Response	Overshoot range	25%~50%~25% 50%~75%~50%	-5.0	-	+5.0	%
	Recovery time		-5.0	-	+5.0	mS
Output Overshooting	Full input voltage range		≤10%Vo			%
Short Circuit Protection			With, self-recovery after short circuit is eliminated			-
Drift Coefficient	-		-	±0.03%	-	%/°C
Over Current Protection	Input 450VAC		≥110% Io, Self-recovery			Hiccup
Over Voltage Protection	Output 24VDC		≤35			VDC
	Output 28VDC		≤45			
	Output 32VDC		≤50			

	Output 35VDC	≤50			
Ripple & Noise	-	-	100	300	mV
	Note: Ripple& Noise is tested by Twisted Pair Method, details please see Ripple& Noise Test at back.				

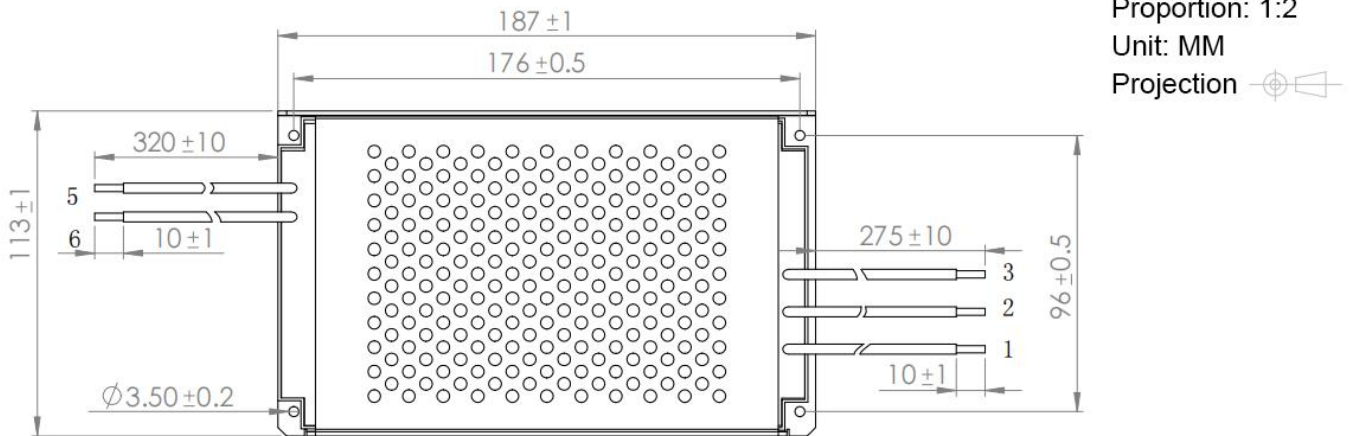
**General Specifications**

Item	Operating Condition	Min.	Typ.	Max.	Unit
Switching Frequency	-	-	65	-	KHz
Operating Temperature	-	-25	-	+40	°C
Storage Temperature	-	-40	-	+70	
Soldering Temperature	Wave-soldering	260±4°C, timing 5-10S			
	Manual-soldering	360±8°C, timing 4-7S			
Relative Humidity	-	10	-	90	%RH
Isolation Voltage	I/P-O/P	≤ 5.0 mA /1Min	5000	-	VAC
	O/P-PE	≤ 5.0 mA /1Min	5000	-	
	I/P-PE	≤ 5.0 mA /1Min	5000	-	
Insulation Resistance	Input-Output@DC500V	50	-	-	MΩ
Vibration	-	10-55Hz, 10G, 30Min, along X, Y, Z			
Safety Class	-	CLASS I			
MTBF	-	MIL-HDBK-217F 25°C > 300,000H			

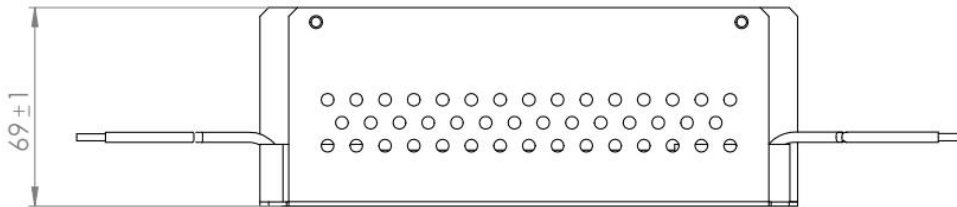
**EMC Characteristics**

Total Item	Sub Item	Test Standard	Class
EMS	ESD	IEC/EN61000-4-2	Contact ±6KV Perf.Criteria B
	RS	IEC/EN61000-4-3	10V/m Perf.Criteria A
	Surge	IEC/EN61000-4-5	Line to line ±2KV Line to ground ±4KV Perf.Criteria B
	EFT	IEC/EN61000-4-4	±4KV Perf.Criteria B
	CS	IEC/EN61000-4-6	10Vr.m.s Perf.Criteria A

**Dimension and Pin out Specifications**



Proportion: 1:2  
Unit: MM  
Projection



Package Code	L x W x H	
With Case	187.0X113.0X69.0mm	7.362X4.449X2.716inch

**Pin Definition**

Pin-out	1	2	3	4	5	6
Single(S)	PE	AC(L)	AC(N)	-	-Vo	+Vo

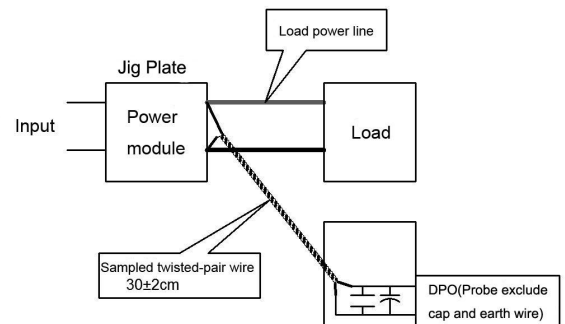
Note: If the definition of pin is not in accordance with the model selection manual, please refer to the label on actual item.

**Ripple & Noise Test: (Twisted Pair Method 20MHZ bandwidth)**

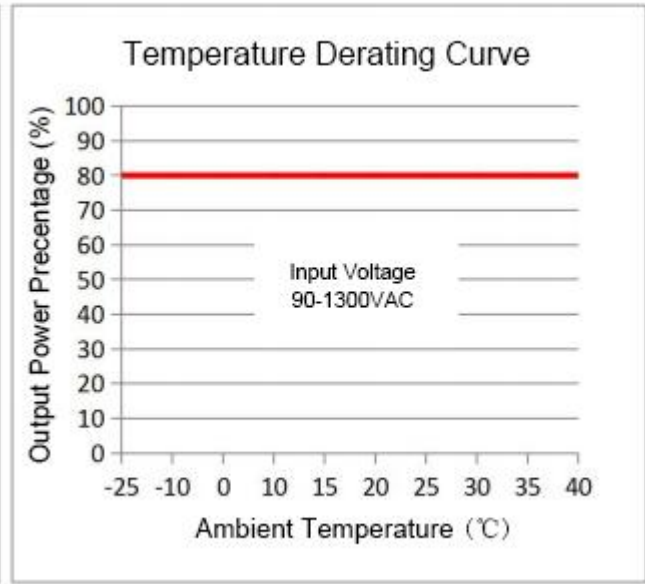
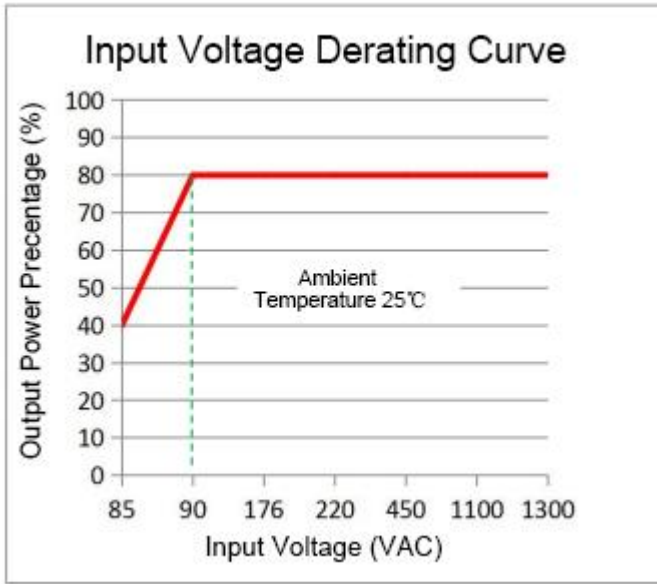
Test Method:

(1) 12# twisted pair to connect, Oscilloscope bandwidth set as 20MHz, 100M bandwidth probe, terminated with 0.1uF polypropylene capacitor and 10uF high frequency low resistance electrolytic capacitor in parallel, oscilloscope set as Sample pattern.

(2) Input terminal connect to power supply, output terminal connect to electronic load through jig plate, Use 30cm±2 cm sampling line. Power line selected from corresponding diameter wire with insulation according to the flow of output current.

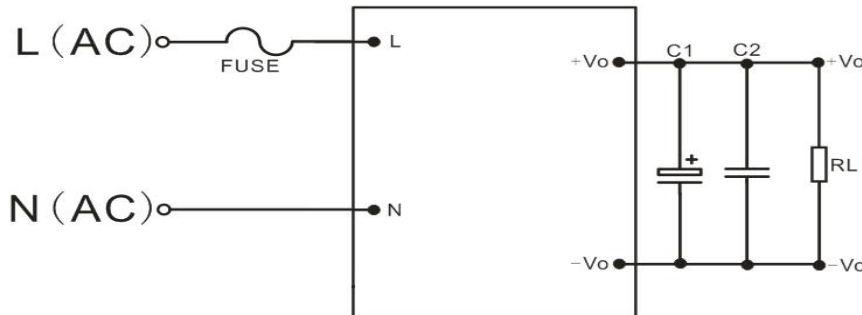


**Product Characteristic Curve**



- Note**
- 1: Input Voltage should be derated base on Input Voltage Derating Curve when it is 85~90VAC.
  - 2: Our product is suitable to use under natural air cooling environment, if use it under closed condition, please contact with us.

**Typical application circuit**



Component	Component Name	Recommended Value
FUSE	Fuse	6A/1000VAC, Necessary
C1	High frequency electrolytic capacitor	220uF/50V
C2	Ceramic capacitors	1uF/50V

**Note:**

1. The product should be used within the specification range, otherwise it will cause permanent damage to the product;
2. The product input terminal must be connected to a fuse;
3. If the product works below the minimum required load, it cannot be guaranteed that the product performance meets all the performance indicators in this manual;
4. If the product works beyond the product load range, it cannot be guaranteed that the product performance meets all the performance indicators in this manual;
5. Unless otherwise specified, the above data are measured at  $T_a=25^{\circ}\text{C}$ , humidity<75%, input nominal voltage and output rated load (pure resistance load);
6. All the above index test methods are based on our company's standards;
7. The above are the performance indicators of the product models listed in this manual. Some indicators of non-standard model products will exceed the above requirements. For specific circumstances, please contact our technical personnel directly;
8. Our company can provide product customization;
9. The product specification may be changed at any time without prior notice.

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