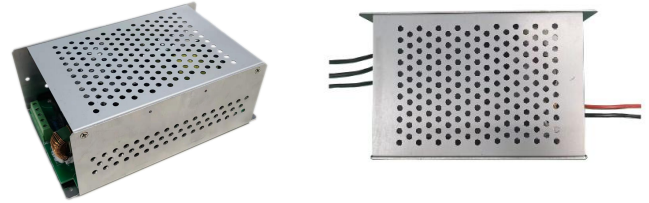


Typical Features

- ◆ 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

DA150-1000SXXG1N4 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 and other occasions. When the product is used in a harsh electromagnetic compatibility environment, 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	Current			
		(W)	Vo1(V)	Io(m A)	u F	mVp-p	%
/	DA150-1000S24G1N4	150	24	6250	5000	200	88
	DA150-1000S28G1N4	150	28	5360	5000	200	88
	DA150-1000S32G1N4	150	32	4688	4500	300	89
	DA150-1000S35G1N4	150	35	4286	4000	300	89

Note 1: Due to space limitations, above is only a part of our product list, please contact our sales team for more items.

Note 2: The typical output efficiency is based on that product is full loaded and burned-in after half an hour.

Note 3: The fluctuation range of full load efficiency(% ,TYP) is ±2%, full load output efficiency= total output power/module's input power.

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 Recommend Value	-	6A/1000VAC, Necessary			

Output Specification

Item		Operating Condition	Min.	Typ.	Max.	Unit
Voltage Accuracy		Full input voltage Range, Any load	-	±1.0	±2.0	%
Line Regulation		Nominal Load	-	-	±1.0	%
Load Regulation		Nominal input Voltage, 20%~100% load	-	-	±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 760VAC (full load)	-	350	-	
Dynamic Response	Overshoot range	25%~50%~25%	-5.0	-	+5.0	%
	Recovery time	50%~75%~50%	-5.0	-	+5.0	mS
Output Overshooting		Full input voltage range	≤10%Vo			%
Short Circuit Protection			Continuous, Self-recovery			Hiccup
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.						

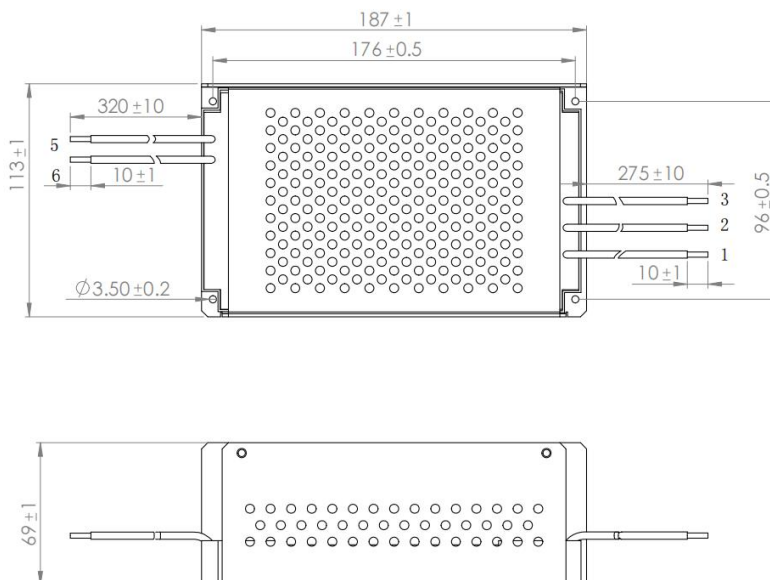
General Specifications

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 to O/P	≤5.0mA/1Min	5000	-	VAC
	O/P to PE	≤5.0mA/1Min	5000	-	
	I/P to PE	≤5.0mA/1Min	5000	-	
Insulation Resistance	Input-Output@DC500V	50	-	-	MΩ
Vibration	-	10-55Hz,10G,30Min, alongX,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



Ratio: 1:2
Unit:mm
Projection

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

Pin Definition

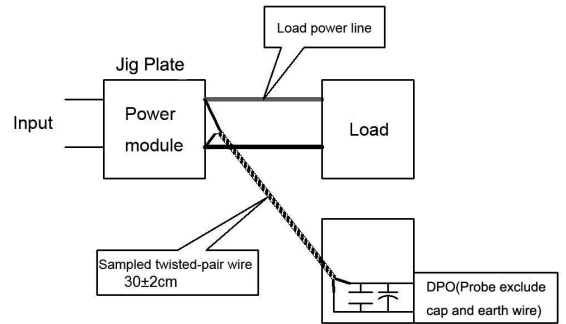
Pin-out	1	2	3	4	5	6
Single(S)	PE	AC(L)	AC(N)	-	-Vo	+Vo

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

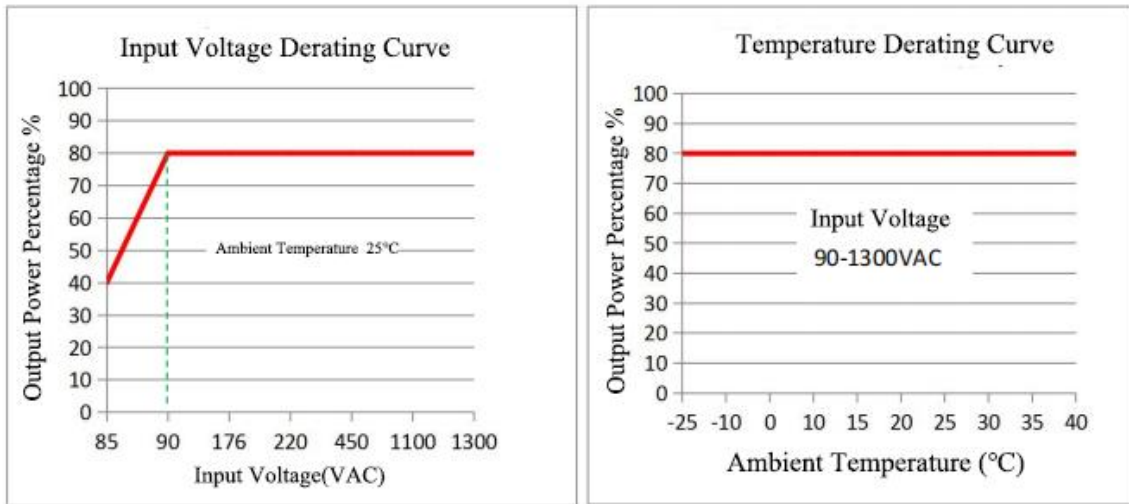
Test Method:

(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.

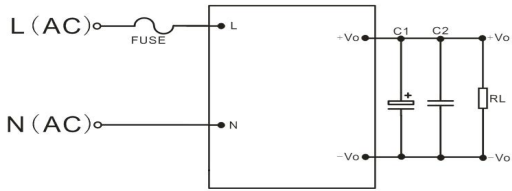


Product Characteristic Curve



- 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 under the specification range, otherwise it will cause permanent damage to it.
 - 2.Product's input terminal should connect to fuse;
 - 3.If the product is not worked under the load range(below the minimum load or beyond the load range), we cannot ensure that the performance of product is in accordance with all the indexes in this manual;
 - 4.Unless otherwise specified, data in this datasheet are tested under conditions of **Ta=25°C, humidity<75%** when inputting nominal voltage and outputting rated load(pure resistance load);
 - 5.All index testing methods in this datasheet are based on our Company's corporate standards
 - 6.The performance indexes of the product models listed in this manual are as above, but some indexes of non-standard model products will exceed the above-mentioned requirements, please directly contact our technician for specific information;
 - 7.We can provide customized product service;
 - 8.The product specification may be changed at any time without prior notice.

Guangzhou Aipu Electron Technology Co., Ltd

Address: Building 4, HEDY Park, No.63, Punan Road, Huangpu Dist, Guangzhou, China.
 Tel: 86-20-84206763 Fax: 86-20-84206762 HOTLINE: 400-889-8821
 E-mail: sales@aipu-elec.com Website: www.aipupower.com