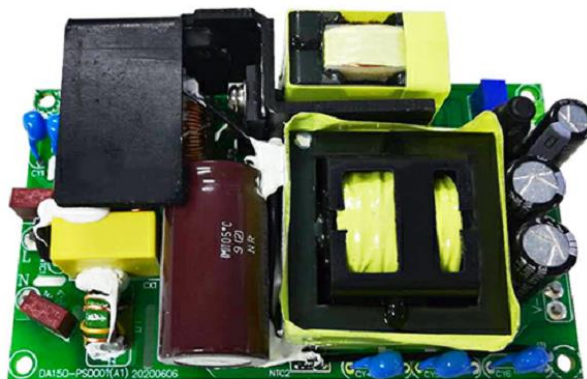




Typical Features

- ◆ Wide input voltage range:80-264VAC
- ◆ No-load power consumption≤0.1W
- ◆ Transfer efficiency (typ. 94%)
- ◆ Switching frequency: 100KHz
- ◆ Protection: Under Voltage, Short Circuit, Over Current, Over Voltage, Over Power, Over Temperature
- ◆ Isolation voltage: 3000VAC
- ◆ Meet CCC, RoHS Test Standard
- ◆ Designed for 5G electrical equipment



Application Field

DA150-220SXXG9N3 Series----- is a special power supply designed and developed by Aipu for 5G electrical customers, with regard to the safety of equipment power supply, 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 5G, monitoring and security industries and other occasions.

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)			
/	DA150-220S12G9N3	140.4	12	11700	-	-	10000	120	93
	DA150-220S24G9N3	141.6	24	5900	-	-	6000	120	94
	DA150-220S48G9N3	144	48	3000	-	-	2200	120	94

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: ".*" is model under developing.

Note 3: The typical output efficiency is based on that product is full loaded and burned-in after half an hour.

Note 4: 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	80	220	264	VAC
	DC Input	113	310	375	VDC
Input Frequency Range	-	47	50	63	Hz
Input Current	115VAC	/	/	1.8	A
	230VAC	/	/	1.0	

Surge Current	115VAC	/	/	30	
	230VAC	/	/	60	
Leakage Current	-	0.5mA TYP/230VAC/50Hz			
Remote Control	-	Not available			
Hot plug	-	Unavailable			
Input Under Voltage Protection	<70VAC	Protection of power does not work, it works normally when voltage up to 80VAC			

Output Specification

Item	Operating Condition		Min.	Typ.	Max.	Unit
Voltage Accuracy	Full input voltage Range, Any load	Vo1	-	±1.0	±3.0	%
		Vo1 (adjustable range)	11.4	12.0	12.6	VDC
Line Regulation	Nominal Load		-	-	±1.0	%
Load Regulation	Nominal input Voltage, 10%~100% load		-	-	±1.0	%
No load power consumption	Input 85VAC		-	-	0.1	W
	Input 264VAC		-	-		
Minimum load	Single Output		0	-	-	%
	Positive Negative Dual output common ground		-	-	-	
	Positive Negative Dual output isolated		-	-	-	
Turn-on Delay Time	Nominal input voltage, full load		-	500	-	mS
Power-off Holding Time	Input 115VAC (full load)		-	12	-	mS
	Input 230VAC (full load)		-	12	-	
Dynamic Response	25%~50%~25%		Overshoot range(%): ≤±5.0			%
	50%~75%~50%		Recovery time(mS): ≤5.0			mS
Output Overshooting	Full input voltage range		≤10%Vo			%
Short Circuit Protection			Self-recovery after short circuit is moved			Hiccup
Drift Coefficient	-	-	±0.03%	-	%/°C	
Over Current Protection	-	≥110% Io, Self-recovery			Hiccup	
Over Voltage Protection	Output 12VDC		13.2~15.6			VDC
	Output 24VDC		26.4~31.2			
	Output 48VDC		52.8~62.4			
Over Power Protection	Nominal input voltage		110~140% of output power			/



Ripple & Noise	-	-	80	120	mV
	Note: Ripple & Noise is tested by Twisted Pair Method, details please see Ripple & Noise Test at back.				

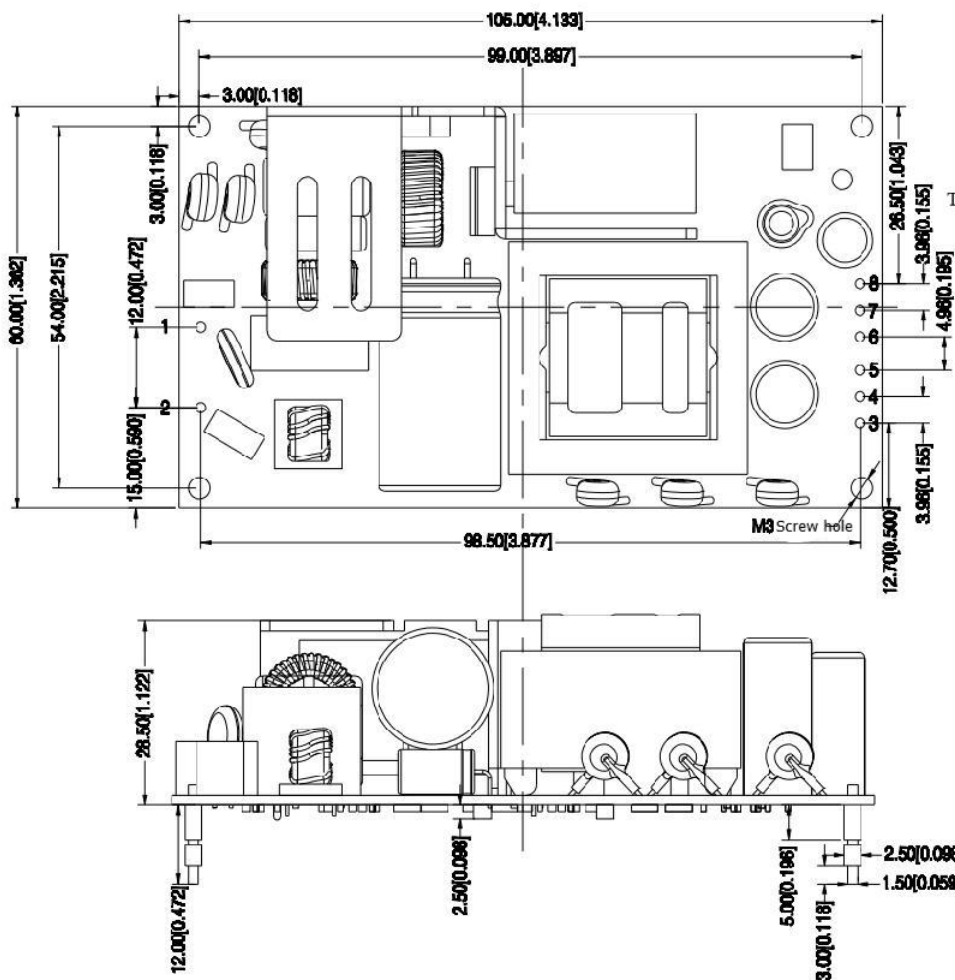
General Specifications

Item	Operating Condition	Min.	Typ.	Max.	Unit
Switching Frequency	-	-	100	-	KHz
Operating Temperature	-	-30	-	+70	°C
Storage Temperature	-	-40	-	+85	
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	Input to output ≤3.0mA/1Min	3000	-	-	VAC
	Input to FG ≤ 3.0mA/1Min	2000			
	Output to FG ≤ 3.0mA/1Min	500			
Insulation Resistance	Input-Output: 500VDC	100	-	-	MΩ
	Input to FG: 500VDC				
Vibration	-	10-55Hz, 10G, 30Min, along X, Y, Z			
Safety Class	-	CLASS B			
MTBF	-	MIL-HDBK-217F @ 25°C > 500,000H			

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	±1KV Perf.Criteria B
	EFT	IEC/EN61000-4-4	±2KV Perf.Criteria B
	CS	IEC/EN61000-4-6	10Vr.m.s Perf.Criteria A

Dimension and Pin out Specifications



THIRD ANGLE PROJECTION

Pin-out	
Pin	Function
1	AC-L
2	AC-N
3	-V
4	-V
5	-V
6	+V
7	+V
8	+V

Note:
unit: mm[inch]
Pin section tolerance:±0.10mm[±0.004 inch]
General tolerance:±1.00mm[±0.039 inch]
Layout of the device is for reference only,
please refer to actual product

Package Code

L x W x H

-

105X60X31mm

4.134X2.362X1.220inch

Pin Definition

Pin-out	1	2	3	4	5	6	7	8
Single(S)	AC(L)	AC(N)	-Vo	-Vo	-Vo	+Vo	+Vo	+Vo

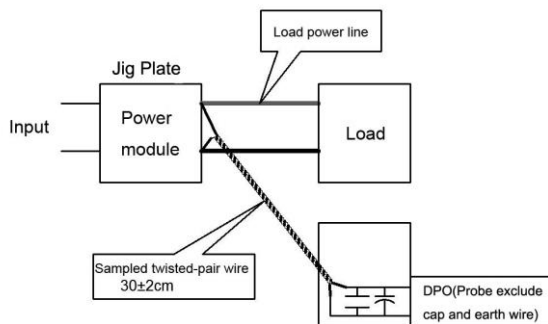
Note: If the definition of pin is not in accordance with the model selection manual, please refer to the label on actual item.

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

Test Method:

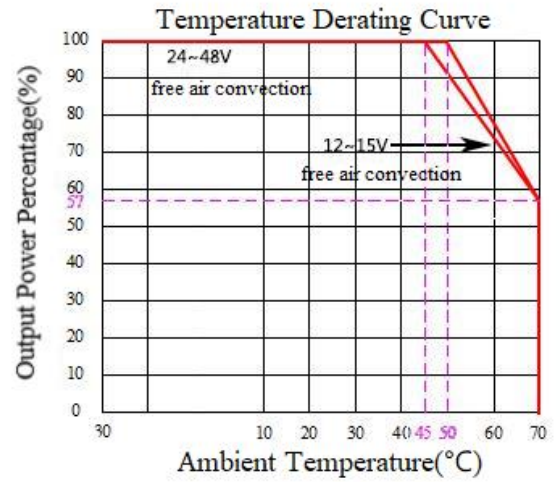
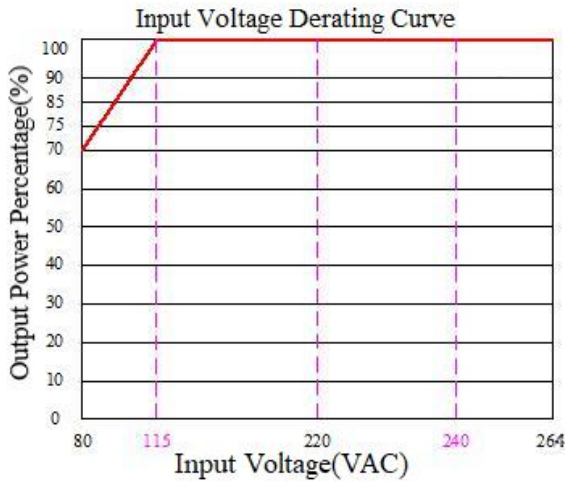
(1) 12# twisted pair to connect, Oscilloscope bandwidth set as 20MHz, 100M bandwidth probe, terminated with 0.1uF polypropylene capacitor and 10uF high frequency low resistance electrolytic capacitor in parallel, oscilloscope set as Sample pattern.

(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 and temperature should be derated base on Input Voltage Derating Curve and Ambient Temperature Curve when it is 80~115VAC, ambient temperature -30~+70°C.
- 2: Our product is suitable to use under natural air cooling environment, if use it under closed condition, please contact with us.

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.