AC-DC Power Supply 260 W

Model No.: D260

1. Electrical Characteristics

1.1 InputCharacteristic

No.	Item	TechnicalRequirement	Unit	Remark
1.1.1	Rated InputVoltage	100 ~ 240	Vac	
1.1.2	InputVoltage Range	90 ~ 264	Vac	
1.1.3	Frequency	47 ~ 63	Hz	Typical50 /60Hz
1.1.4	Inrush Current	≤ 60	A	Vin=115Vac,coldstart
		≤ 80	A	Vin=230Vac,cold start
1.1.5	Maximum Input Current	≤4	A	Vin=90Vac
1.1.6	Efficiency	100% Offullload		
		≥85%		115VAC input，Rated load
		≥88%		230VAC input，Rated load
1.1.7	PF Factor	110Vac≥ 0.95		Rated Input ， Rated load
		220Vac≥ 0.92		

1.2 Output Characteristics

No.	Item	TechnicalRequirement		Unit	Remark
1.2.1	Rated OutputVoltage	12V	54V	Vdc	
1.2.2	OutputVoltageRange	11.4 ~ 12.6	52.38 ~ 54.62	Vdc	±3%
1.2.3	Rated Output Current	5	3.7	A	
1.2.4	Minimum Output Current	0	0	A	
1.2.5	Load Regulation	±3%	±3 %		Rated output voltage ±3 % @90VAC~264VAC,maximum load
1.2.6	LineRegulation	±1%	±1 %		Rated output voltage ±3 % @220VAC, (min./rated/max. load)
1.2.7	Capacitive Load	3300	3300	uF	

1.2.8	Turn-on DelayTime		≤ 3		S	Rated Input ， Rated load
1.2.9	RiseTime		≤ 100	≤ 100	mS	Rated Input ， Rated load
1.2.10	Hold -upTime		≧20	≧10	mS	Rated Input ， Rated load
1.2.11	OutputRipple and Noise		≤ 120mV	≤ 200mV	mVp-p	Apply 104 ceramic cap and 10 uF E-Cap in parallel with output terminal for ripple and noise measurements, and set the oscilloscope bandwidth of 20 MHz.
1.2.12	Temperature Coefficient		±0.02%	±0.02%	V	
1.2.13	Turn-On/Off Overshoot		± 5%	± 5%		
1.2.14	Dynamic Response	Overshoot Amplitude	± 5%	± 5%		
		Recover Time	Δt ≤ 400		μS	Load variation from 10 %-100%-10%0%-50%-0% 25 %-50%-25% 50 %-75%-50% Frequency :50 Hz/5kHz Duty ratio : 50 % Current transients have and edge rate of 0.1A/uS on the +54V and 0.1 A/uS on the 12Voutput.

1.3 ProtectionCharacteristics

No.	Items	TechnicalRequirement			Unit	Remark
1.3.1	Output current-limited protection	Protection Point	6.2-8.6	4.4~7.0	A	Hiccup restart, automatic recovery with fault removal.
1.3.2	Output over voltage protection	Protection Point	13.6~16	58~62	V	Constant voltage (test under minimum output load 0.1A)
1.3.3	Over Temperature Protection	Protection Point	≥65		℃	Automatic recovery
1.3.4	Output Short-circuit Protection	Automatic recovery ofthe moduleaftershort circuittroubleshooting				

2. Insulation and Safety Regulation

No	Item		Standard（ortest condition）	Remark
2.1	Dielectric Strength	Input andoutput	3000 Vac/10mA/1min	no flash-overor breakdown
		Input and ground	1500Vac/10mA/1min	

		12Vand 55V	2250Vac/10mA/1min	
		Outputand ground	500 Vdc/5mA/1min	
2.2	Insulation Resistance	Input andoutput	≥100MΩ@500Vdc	Normaltemperature andhumidity
		Input and ground	≥100MΩ@500Vdc	
		12Vand 55V	≥100MΩ@500Vdc	
		Outputand ground	≥100MΩ@500Vdc	
2.3	Safety Approval		1, cULus(60950-1,62368-1) 2,TUVBauartmark(60950-1) 3,CBreport(60950-1,62368-1) 4 ,FCC 5 ,CE 6 ,BSMI (60950-1) 7 ,CCC (60950-1)	

3. EMC

No	Item		Standard（ortest condition）	Remark
3.1	EMI	Radiationdisturbanceemission	CLASSB (3dB)	EN55032
		Conduction disturbance emission	CLASSB (3dB)	EN55032
3.2	EMS	ElectrostaticImmunityTest	Contactdischarge:±8 KV; Airdischarge:±15KV PerformanceCriterionA	IEC61000-4-2
		RadiometricImmunityTest of RF Electromagnetic Field	LEVEL2 (4V/m)Performance CriterionA （system）	IEC61000-4-3
		ElectricalFastTransientTest	LEVEL3 ±2KVperformancecriterionA	IEC61000-4-4
		SurgeImmunityTest	Differentialmode±4.4Kvcommon mode±4.4Kv performancecriterionA	IEC61000-4-5
		ConductedDisturbance ImmunityTestforRF Field Induction	LEVEL2（4V/m）performance criterionA （system）	IEC61000-4-6
		PowerFrequency MagneticField ImmunityTest	LEVEL1（1A/m）performance criterionA	IEC61000-4-8
		VoltageSags, Short-Term Interruptions andVoltage Variation ImmunityTests	Fall to 70%U， Hold-up time: 100ms,fallto 40%U, Hold-up time:10ms，fallto 0%U， Hold-uptime:10m. Each phasemeetthe performancecriterionA	IEC61000-4-11

Performance Criterion：

Criterion A：Normal performance in the range of technical requirement;

Criterion B（DIP Test Criterion）： In the test, power matching system is allowed to lower the performance. After interference cancellation, the device can be restored to normal, any kind of reset and manual intervention is not allowed.

Criterion B（other test criterions besides DIP Test Criterion): The PSU should pass the retest by matching the device. During the testing process, the output voltage of the power supply should be kept in the normal range; the power-off reset is not allowed, and some functions of the whole system can be temporarily degraded or lost, and self-recovery can be achieved.

Criterion C： Automatic reset with short-time functional interruption can be allowed, long-term functional interruption is not allowed or manual reset will be required;

Criterion D： Damage to any device other than the protective device is not allowed, and after replacing the damaged protective device, the performance of the specimen can be restored.

4. Operating Environment

No	Item	TechnicalRequirement	Unit	Remark
4.1	Operating temperature	-20~ +65	℃	
4.2	Storagetemperature	-40 ~ +85	℃	Typicalvalue 25℃
4.3	Operating humidity	20 ~ 90%(Frost - free)		
4.4	Storagehumidity	10 ~ 95% (Frost- free)		
4.5	Altitude	≤5000	M	Normal operating
4.6	Cooling method	≥5	CFM	Fan specifications: 40*40*28 10000rpm

5. Environmental Experiment and Reliability Requirement

No	Item	TechnicalRequirement	Remark
5.1.1	High temperature operating	+65℃ 8 hrs	
5.1.2	Normaltemperature operating	+25℃ 8 hrs	standard
5.1.3	Lowtemperature operating	-10℃ 8hrs	standard，itcan riseat -40℃
5.1.4	High temperature storage	+85℃ 24hrs	standard
5.1.5	Lowtemperature storage	-40℃ 24hrs	standard
5.1.6	Temperaturecycling test		standard
5.1.7	MTBF	250000 hours	TypicalValue 50℃@120Vac; fullload
5.1.8	Operatinglife	≥5 years/40℃	Fan cool
5.1.9	Shock and Vibration Test	2-9HZ 7MM、9-200HZ2g、200-500 HZ 1.5g 5*10 cir	standard
5.1.10	Inrush Test	Lasting time:11ms,PGA:300m/s2 20 次	standard

5.1.11	LeakageTest	L	3.5 mA	standard
		N	3.5 mA	

6. Mechanical Structure

No	Item	Technical Requirement	Unit	Remark
6.1	Shape Dimension	152.4±0.5×76.2±0.5×38.6MAX	mm	(L *W * H)
6.2	Installation Dimension	See attached photograph 1		
6.3	Output Connector Definition	See attached sheet1		
6.4	Special process treatment	Put insulator under PCB and bottom		
6.5	Packing	With antistatic bubble		

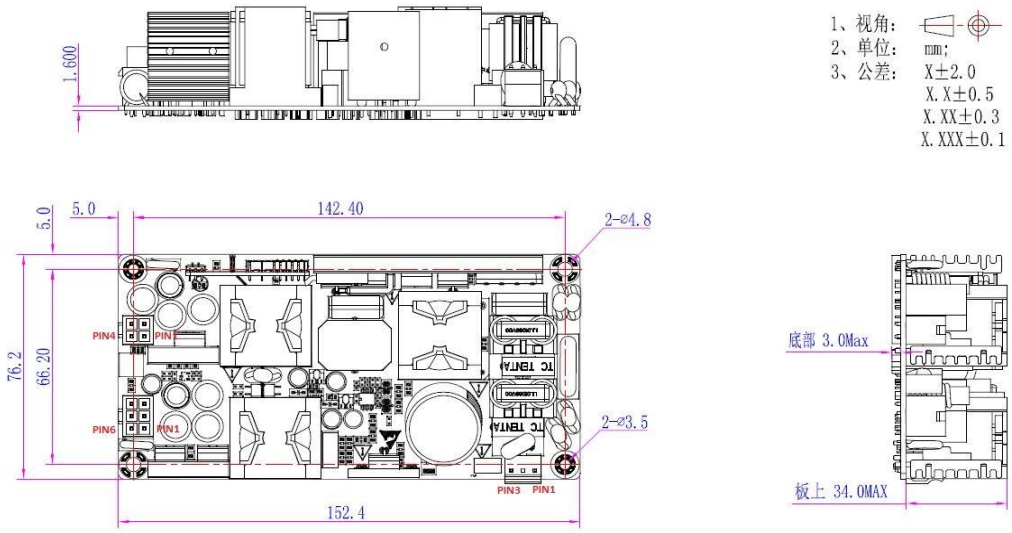
7. Other Requirements

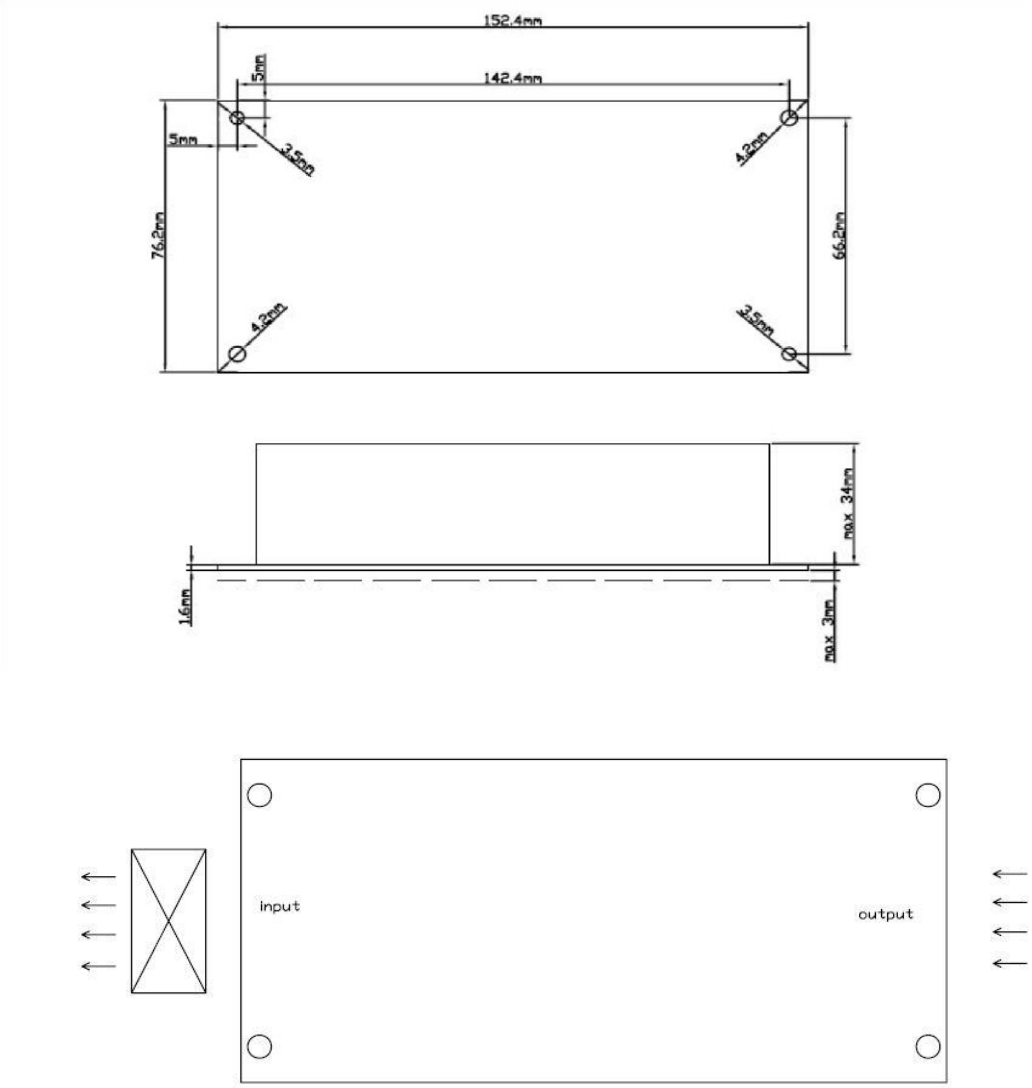
No	Item	Technical Requirement	Unit	Remark
7.1	Audible noise	≤50	dB	1 meter away from power supply
7.2	Cooling method	System fan		
7.3	Pollution degree	According toGB4943-2011, 2.10.1.2 require meet pollution Degree II		

8. Attached photograph and sheet

Shape dimension：L×W×H= 152.4±0.5×76.2±0.5×38.6MAX （Unit：mm） Photograph1:

Installation dimension（diagram, but based on real thing）

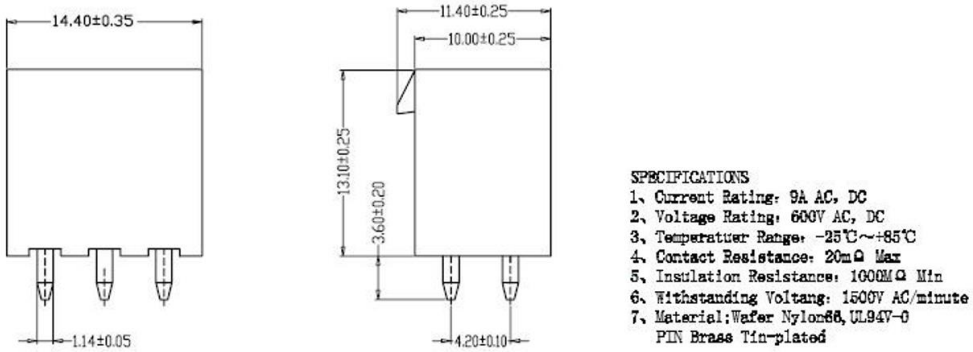


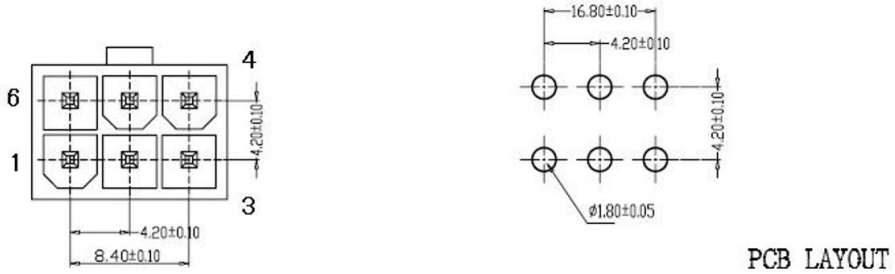


Sheet1: Connector foot definition:

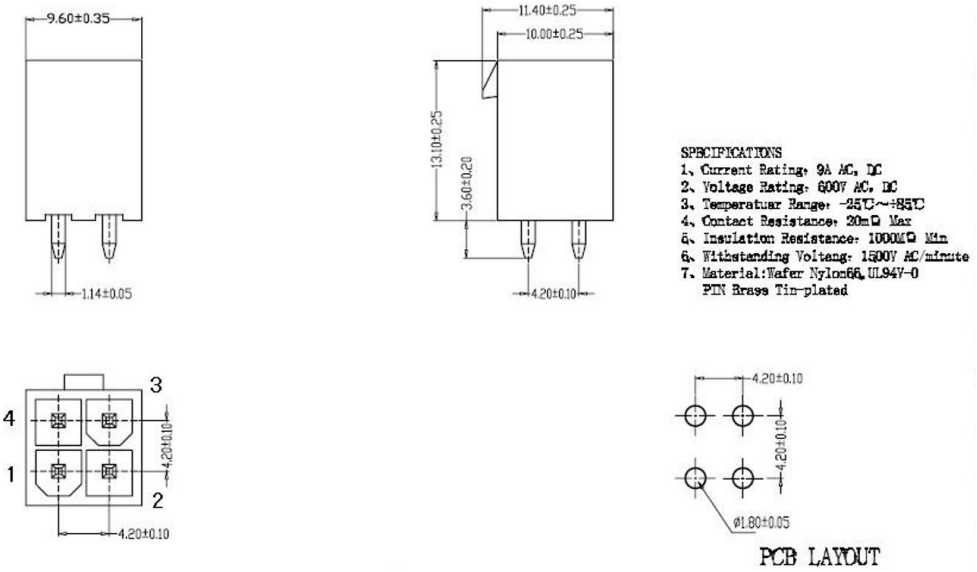
Connector function

CN2:12V OUTPUT		
PIN NO.	**Define**	**Mating Housing**
3,4	+12V	5569/2*3 180°
2,5	N.C	
1,6	12 V_GND	



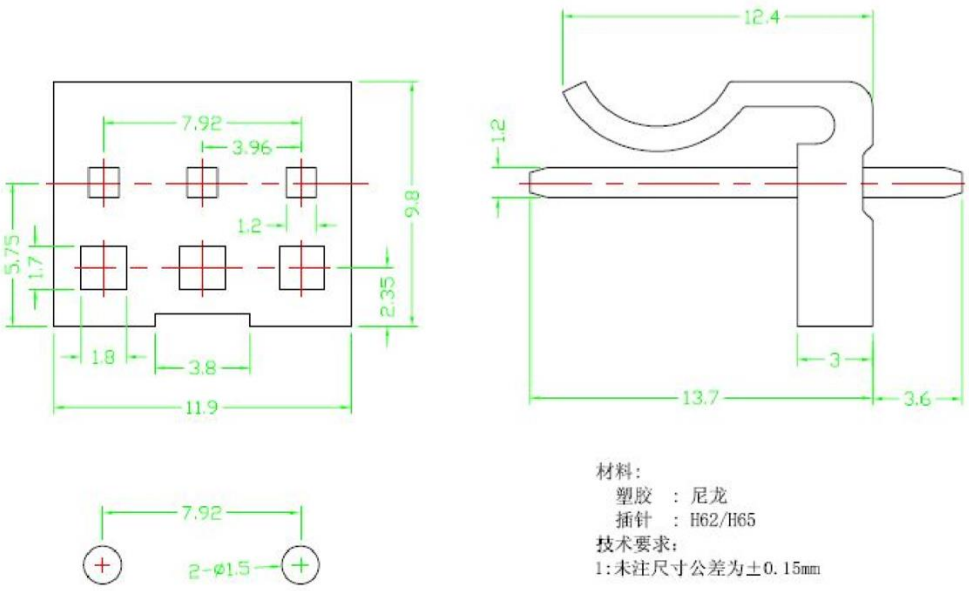


CN3:54V OUTPUT		
PIN NO.	Define	**Mating Housing**
1,2	54V_GND	5569/2*2 180°
3,4	+54 V	



Input terminal:

Pin No	Define	Mating Housing
3	L to live line	3.96 180°
2	NC	
1	N to null line	



9. Product Characteristics and Photograph

Product characteristics

This power supply has a worldwide input voltage range, and it has the functions of over-temperature, over-voltage, over-current, short circuit with high stability and reliability. Dual output: output voltage at: 1, 12 VDC, rated output current 5A; output voltage at: 2, 54VDC, rated output current 3.7A.

Product feature （Physical drawing）: