



1. Miniature Series Power supply Module

The 3 W ultra-small series power supply module is a small volume, high efficiency power module designed for customers by Hi-Link. It has the advantage of global input voltage range, low temperature rise, low power consumption, high efficiency, high reliability, high security isolation etc.,and has been widely used in smart home, automation control, communication equipment, instruments and other industries.

2. Product Model

Type number (MODEL)	Size (mm)	Output Power (W)	Output Voltage (V)	Output Current (mA)
HLK-PM24	34*20*15	3	24	125

3. Product Characteristics

1. Ultra-thin, ultra-small, minimum volume in the industry
2. Universal input voltage (90~245Vac)
3. Low power consumption, environmental protection, no-load loss <0.1W
4. Low ripple and low noise
5. Good output short circuit and over-current protection and self-recovery
6. High efficiency, high power density
7. Input-output isolated voltage-proof 3000Vac
8. 100% full load aging and testing
9. High reliability, long life design, continuous working time more than 100000 hours
10. Meet UL,CE requirements; product design meets EMC and safety test requirements
11. Adopt high quality environmental protection waterproof heat conduction glue to fill seal, moisture-proof, anti-vibration, meet the IP65 standard of waterproof and dust proof
12. Economic solution, cost-effective
13. Work without an external circuit
14. 1 year warranty

4. Environment Condition

Project Name	Technical Criteria	Unit	Remarks
Working Temperature	-25—+60	°C	
Storage Temperature	-40—+80	°C	
Relative Humidity	5—95	%	
Heat Dissipation Mode	natural cooling		
Atmospheric Pressure	80—106	Kpa	
Sea Level Elevation	≤2000	m	
Vibrate	Vibration coefficient 10~500Hz,2G10min./1cycle, 60min.each along X,Y,Z axes		Meet the requirements of secondary road transportation

5. Electrical Character

5.1. Input characteristics

Project Name	Technical Criteria	Unit	Remarks
Rated Input Voltage	-90-245	Vac	
Input Voltage Range	85-264or70-350	Vac	Or 70-350Vdc
Maximum input current	≤0.2	A	
Input surge current	≤10	A	
Maximum input voltage	≤270	Vac	
Input slow start	≤50	mS	

Input low voltage efficiency	Vin=110Vac, output full load ≥69	%	
Input high voltage efficiency	Vin=220Vac, output full load ≥70	%	
Long-term reliability	MTBF ≥100, 000	h	
External fuse recommendation	0.5A/250Vac		Slow fuse

Note: test at room temperature

5.2. Output Characteristic

Project Name	Technical Criteria	Unit	Remarks
No-load rated output voltage	24.0±0.2	Vdc	
Full load rated output voltage	24.0±0.5	Vdc	
Short-time maximum output current	≥150	mA	
Long time maximum output current	≥125	mA	
voltage regulation	±0.2	%	
load regulation	±0.5	%	
Output ripple and noise (mVp-p)	≤70 Rated input voltage, full output load. Using 20MHz bandwidth oscilloscope, Load side and 10uF and 0.1uF capacitors are tested.	mV	
Switching machine overshoot amplitude	(rated input voltage, output plus 10% load) ≤5	%V _O	
Output over-current protection	110-150% of maximum output load	A	
Output short circuit protection	Direct short circuit in normal output and automatic return to normal operation after removal of short circuit		No damage to the whole machine