

HLK 20M15 Power Supply Module



The 20 W ultra-small series power supply module is a small volume, high efficiency power module for customers designed 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

FEATURES:

- Ultra thin, ultra small, minimum volume in the industry
- Universal input voltage (90~265Vac)
- Low power consumption, environmental protection, no-load loss<0.1W
- Low ripple and low noise
- Good output short circuit, over-current protection and self-recovery
- High efficiency and high power density
- Input-output isolated voltage-proof 3000Vac
- 100% full load aging and testing
- High reliability, long life design, continuous working time more than 100000 hours
- Meet UL, CE requirements; product design meets EMC and safety test requirements
- 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
- Economic solution, cost-effective
- Working without an external circuit

SPECIFICATIONS:

- Hi-link part number: HLK-20M15
- Morsun part number: LH20-13B15
- Power: 20W
- Package size: 56*32*22.5 mm
- Input voltage range: 90~264 VDC
- Output voltage form: Step down power supply module
- Isolation voltage: 3000Vdc

ENVIRONMENTAL CONDITION:

Items	Technical parameters	Unit	Remarks
Working temperature	-40—+85	℃	
Storage temperature	-40—+80	℃	
Relative humidity	5—95	%	
Heat dissipation method	Natural cooling		
Atmospheric pressure	80—106	Kpa	
Vibration	Vibration coefficient: 10~500Hz,2G10min./1cycle, 60min. each along X,Y,Z axes		Meet secondary road transport requirements

INPUT CHARACTERISTICS:

Project Name	Technical Critical	Unit	Note
Rated input voltage	100-240	Vac	
Input voltage range	85-264	Vac	Or 70-350Vdc
Maximum input current	≤ 0.6	A	
Input surge current	≤ 34	A	
Input low start	≤ 50	mS	
Long-term reliability	MTBF $\geq 100,000$	h	
External fuse recommendation	2A/250Vac		Slow fuse

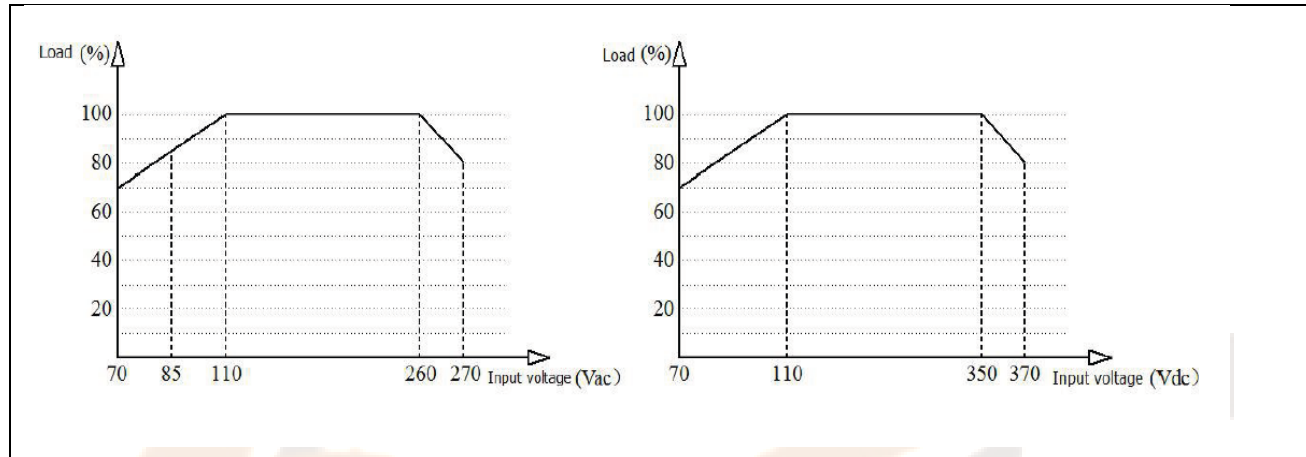
Notes: Test at room temperature

OUTPUT CHARACTERISTICS:

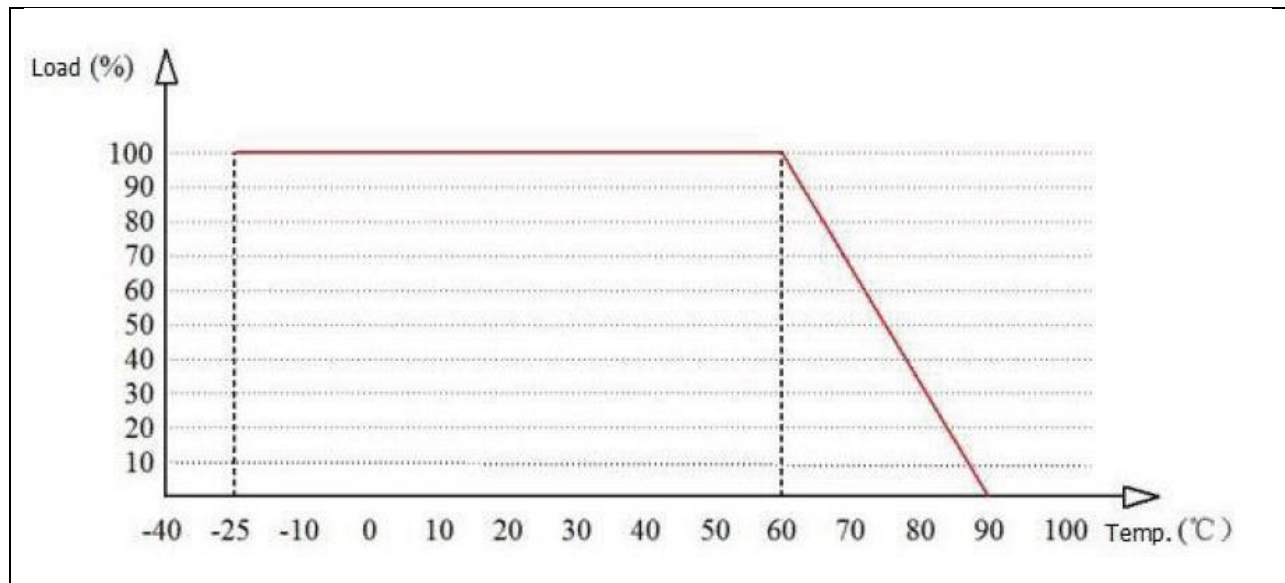
Project Name	Technical Critical	Unit	Note
No-load rated output voltage	15.0±0.1	Vdc	
Full-load rated output voltage	15.0±0.2	Vdc	
Short time maximum output current	≤1400	mA	
Rated output current	1300	mA	
Voltage regulation	±0.2	%	
Load regulation	±0.5	%	
Input low voltage efficiency	Vin=115Vac , output full-load≥82	%	
Input high voltage efficiency	Vin=230Vac , output full-load≥84	%	
Output ripple and noise (mVp-p)	≤150 Rated input voltage , full output load, Using 20MHz bandwidth oscilloscope , Load side and 10uF and 0.1uF capacitors are tested.	mV	
Turn on or turn off overshoot amplitude	(rated input voltage, output plus 10% load) ≤5	%V _O	
Output over-current protection	110-150% of output maximum 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



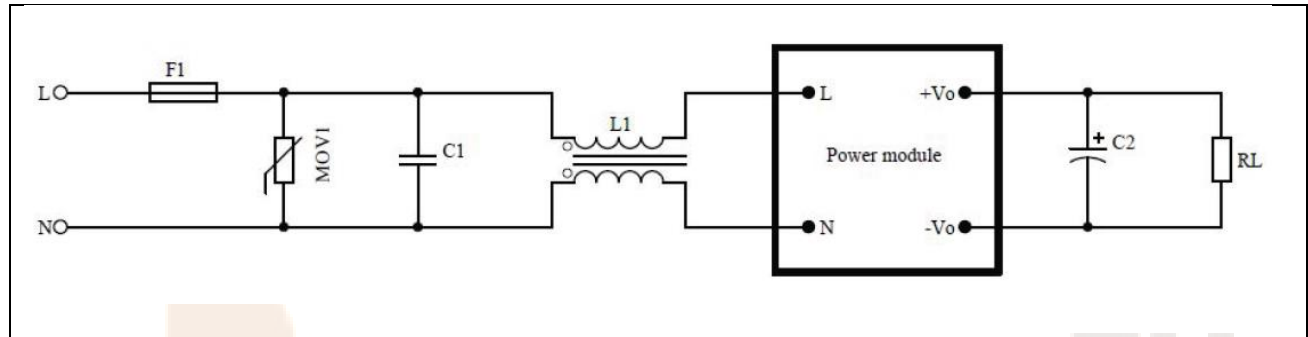
INPUT VOLTAGE AND LOAD CHARACTERISTICS:



WORKING ENVIRONMENT AND LOAD CHARACTERISTICS:



TYPICAL APPLICATION CIRCUIT:





Certificate of Conformity

Certificate No. : HTT202006309E
Applicant : Shenzhen Hi-Link Electronics Co., Ltd.
Applicant Address : 3/F, West Gate, Caiyue Building, 24 Liuxian Avenue,
Longhua, Shenzhen
Manufacturer : Shenzhen Hi-Link Electronics Co., Ltd.
Manufacturer Address : 3/F, West Gate, Caiyue Building, 24 Liuxian Avenue,
Longhua, Shenzhen
Product : Power module
Model No. : HLK-5M05, HLK-5M03, HLK-5M04, HLK-5M06,
HLK-5M09, HLK-5M12, HLK-5M15, HLK-5M24
Trademark : N/A

The following products have been tested by us with listed standards and found in compliance with the council EMC 2014/30/EU. It is possible to use CE marking to demonstrate the compliance with this EMC.

Test standards:	Report(s) Number	Issued By	Issued Date
EN 55032: 2015+AC:2016+A11:2020 EN 55035: 2017+A11:2020 EN IEC 61000-3-2: 2019 EN 61000-3-3:2013+A1:2019	HTT202006309ER	HTT	Jun.29,2020

This certificate of conformity is not transferable and based on an evaluation of a sample of the above mentioned product.



Authorized Signer:

Kevin Yang

Kevin Yang/Senior Manager

Date: Jun.29,2020

