15W, AC-DC converter

FEATURES

- Wide input voltage range: 85 - 264VAC/100 - 370VDC
- Regulated output, Low ripple & noise
- High efficiency up to 84%
- Output short circuit, over-current, over-voltage protection
- Plastic case, meets UL94V-0
- IEC60950, UL60950, EN60950 approval
- Mounting: Chassis mounting

RoHS

LH15 series features universal input voltage, taking both DC and AC input voltage, low power consumption, high efficiency, high reliability, safer isolation. It offers good EMC performance, which meet IEC/EN61000-4, CISPR22/EN55022, UL60950 and EN60950 standards, and it's widely used in industrial, office and civil applications.

Selection Guide

RS Stock No.	Part No.*	Output Power	Nominal Output Voltage and Current	Efficiency (230VAC, %/Typ.)	Max. Capacitive Load(μF)
1446265	LH15-10B05A2	14W	5V/2800mA	76	20000
1446266	LH15-10B12A2	15W	12V/1250mA	80	5200
1446267	LH15-10B15A2		15V/1000mA	80	5000
1446268	LH15-10B24A2		24V/625mA	84	900

Input Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Input Voltage Range	AC input	85	--	264	VAC
	DC input	100	--	370	VDC
Input frequency		47	--	63	Hz
Input current	115VAC	--	--	0.37	A
	230VAC	--	--	0.22	
Inrush current	115VAC	--	10	--	
	230VAC	--	20	--	
Leakage current		0.3mA RMS typ./230VAC/50Hz			
Built in input fuse		2A/250V, slow blow.			

Output Specifications

Item	Operating Conditions	Min.	Typ.	Max.	Unit
Output Voltage Accuracy	Main circuit	--	±2	--	%
Line Regulation	Full load	--	±0.5	--	
Load Regulation	10% - 100% load	--	±1	--	
Ripple & Noise*	Main circuit 20MHz bandwidth (peak-peak value)	--	50	100	mV
Temperature Coefficient	Main circuit	--	±0.02	--	%/°C
Short Circuit Protection		Continuous, self-recovery			
Over-current Protection		≥110%Io self-recovery			
Over-voltage Protection	5VDC Output	≤7.5VDC			
	12 /15VDC Output	≤20VDC			
	24VDC Output	≤30VDC			
Min. Load	Single output	0	--	--	%
Hold-up Time	115VAC input	--	15	--	ms
	230VAC input	--	80	--	

General Specifications

Item		Operating Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Input-output	Test time: 1min	3000	--	--	VAC
	Input- ⏚		2000	--	--	
Operating Temperature			-40	--	+70	℃
Storage Temperature			-40	--	+105	
Storage Humidity			--	--	95	%RH
Soldering Temperature		Wave-soldering	260 ± 5℃; time: 5 - 10s			
		Manual-welding	360 ± 10℃; time: 3 - 5s			
Switching Frequency			--	65	--	kHz
Power Derating		-40℃ to -10℃	2.0	--	--	%/℃
		+55℃ to +70℃	4.0	--	--	
Safety Standard			IEC60950/EN60950/UL60950			
Safety Certification			IEC60950/EN60950/UL60950			
Safety Class			CLASS II			
MTBF			MIL-HDBK-217F@25°C > 300,000 h			

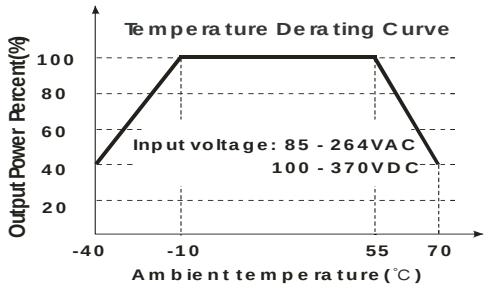
Physical Specifications

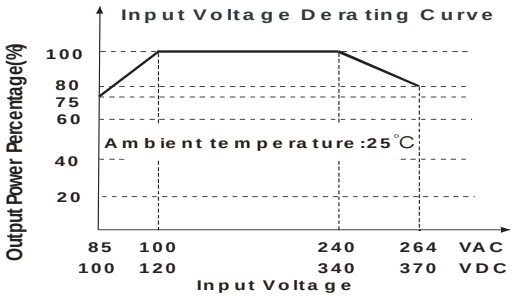
Casing Material	Black flame-retardant and heat-resistant plastic (UL94V-0)
Dimension	96.10*54.00*31.00mm
Weight	135g
Cooling method	Free air convection

EMC Specifications

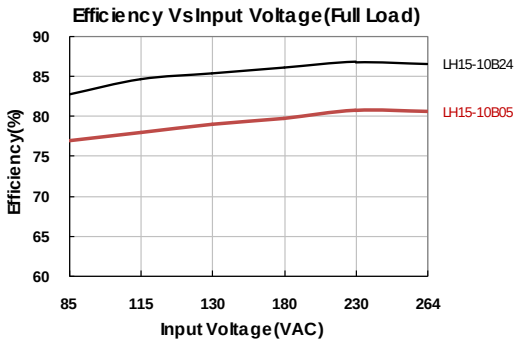
EMI	CE	CISPR22/EN55022	CLASS B	
	RE	CISPR22/EN55022	CLASS B	
EMS	ESD	IEC/EN61000-4-2	Contact ±6KV/Air ±8KV	Perf. Criteria B
	RS	IEC/EN61000-4-3	10V/m	perf. Criteria A
	EFT	IEC/EN61000-4-4	±2KV	perf. Criteria B
		IEC/EN61000-4-4	±4KV (See Fig. 5 for recommended circuit)	perf. Criteria B
	Surge	IEC/EN61000-4-5	line to line ±1KV/line to ground ±2KV	perf. Criteria B
		IEC/EN61000-4-5	line to line ±2KV/line to ground ±4KV (See Fig. 5 for recommended circuit)	perf. Criteria B
	CS	IEC/EN61000-4-6	10 Vr.m.s	perf. Criteria A
	PFM	IEC/EN61000-4-8	10A/m	perf. Criteria A
	Voltage dips, short interruptions and voltage variations immunity	IEC/EN61000-4-11	0%,70%	perf. Criteria B

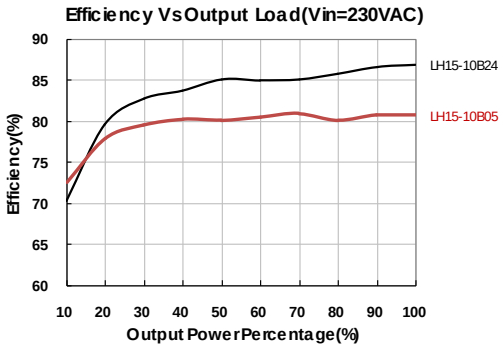
Product Characteristic Curve



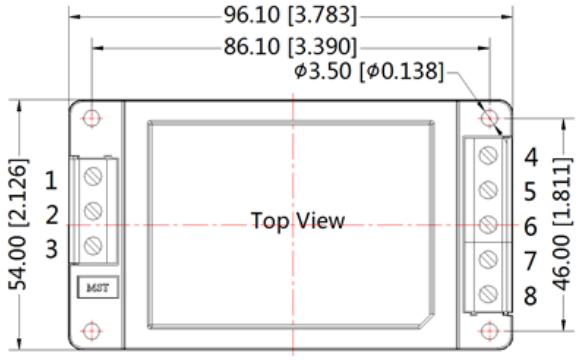


Note:
①When input 85 - 100VAC/240 - 264VAC/100 - 120VDC/340 - 370VDC, it need to be voltage derated on basis of temperature derating;
②This product is suitable for use in natural air cooling environments, if in a closed environment, please contact our company's FAE.

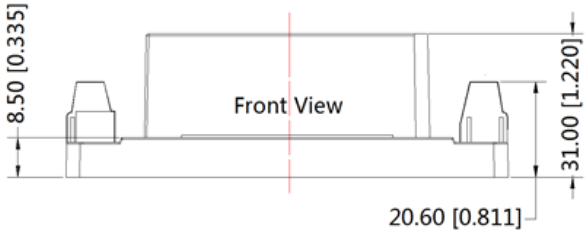




Dimensions



Pin	LH15-10B
1	NC
2	AC(N)
3	AC(L)
4	-Vo
5	NC
6	NC
7	NC
8	+Vo



Note:
Unit:mm[inch]
Wire range : 24–12 AWG
Tightening torque: Max 0.4 N·m
General tolerances:±0.50[±0.020]

Note:

1. If the product is not operated within the required load range, the product performance cannot be guaranteed to comply with all parameters in the datasheet;
2. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25℃, humidity<75% with nominal input voltage and rated output load;
3. All index testing methods in this datasheet are based on our Company's corporate standards;
4. We can provide product customization service, please contact our technicians directly for specific information;
5. Specifications are subject to change without prior notice.