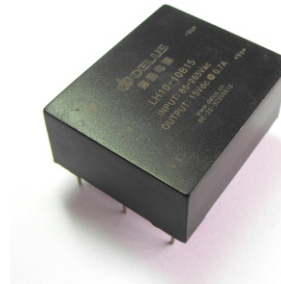


Features

- ◆ Operating temperature: -10 to +70°C
- ◆ 220Vac input
- ◆ 5V/12V/15V/24V/48V/±5V/±12V/±15V/±24V output
- ◆ Low ripple & noise
- ◆ Efficiency up to 84%
- ◆ 100% burn-in
- ◆ Continuous short circuit protection
- ◆ Technical design to meet the requirements of industrial products

General Description

LH10~30 series AC/DC converter with wide input voltage range, high efficiency, high reliability, security, isolation and other characteristics, widely used in industrial and civilian facilities.



Input Specifications

Item	Test Conditions	Min	Typ	Max	Units
Input Frequency			47~63Hz		
Input Voltage Range			85~265Vac		

Output Specifications

Item	Test Conditions	Min	Typ	Max	Units
Output Power	Ta=-10-+55°C			30	W
Input Variation			±0.1	±0.5	%
Load Variation	10%- 100% load		±1	±5	
Output Voltage Accuracy	100% load		±1	±3	
			±3	±5	
Ripple & Noise	DC-20MHz bandwidth			1%Vout	mVp-p
Start Delay Time	100% load		1		S
Transient Recovery Time				200	uS
The Overshoot Rate	0 to 25% load		≤±5%(ΔVo1/Vo1)		
Short Circuit Protection		Continuous, Automatic Recovery			

Isolation Specifications

Item	Test Conditions	Min	Typ	Max	Units
Isolation Resistance	Test at 500Vac	100			MΩ
Isolation Voltage	Tested for 1S and 1 mA max	2000			Vac

Common Specification

Item	Test Conditions	Min	Typ	Max	Units
Operating Temperature	Ta>55°C derating	-10		+70	°C
Maximum Case Temp.				90	
Storage Temperature		-40		+105	
Lead Temperature	1.5mm from case for 10 seconds			+300	
Storage Humidity				85	%
Case Material		Plastic or Aluminium Alloy			
Install		PCB			

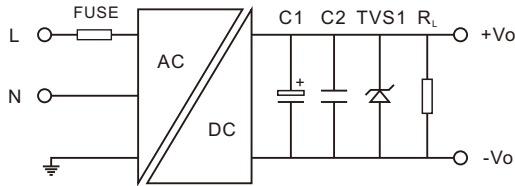
LH10~30-10Bxx & LH10~30-10Axx Series

10~30w, 220Vac input, isolated & regulated single & dual output ac-dc converter

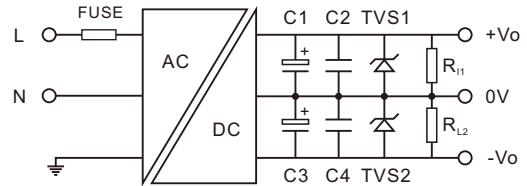


Typical Applications

LHxx-xxBxx (single output)



LHxx-xxAxx (dual output)



External Components Typical Value

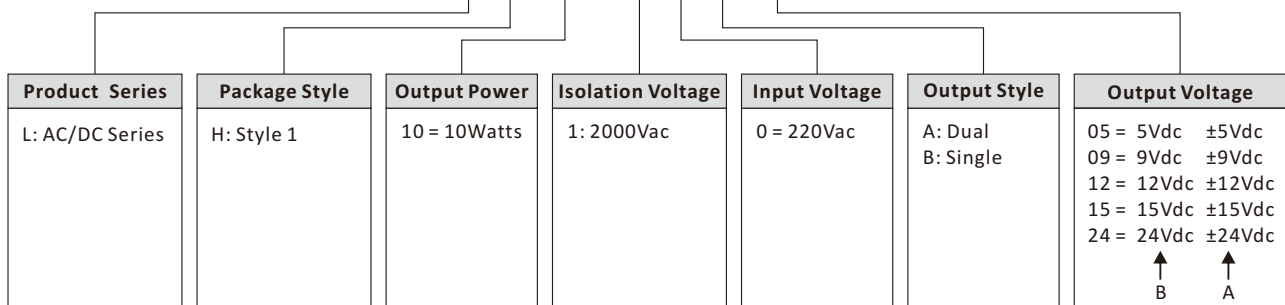
Model	C1	C2	FUSE	TVS1	Vout	C1, C3	C2, C4	FUSE	TVS1, TVS2
LH10-10B05	330uF	0.1uF	1A/250V	P6KE6.8A	LH10-10A05	120uF	0.1uF	1A/250V	P6KE6.8A
LH10-10B12	120uF			P6KE16A	LH10-10A12	68uF			P6KE16A
LH10-10B15	68uF			P6KE20A	LH10-10A15	47uF			P6KE20A
LH10-10B24	68uF			P6KE33A	LH10-10A24	10uF			P6KE33A
LH10-10B48	47uF			P6KE62A					
LH15-10B05	680uF	0.1uF	1A/250V	P6KE6.8A	LH15-10A05	470uF	0.1uF	1A/250V	P6KE6.8A
LH15-10B12	220uF			P6KE16A	LH15-10A12	220uF			P6KE16A
LH15-10B15	220uF			P6KE20A	LH15-10A15	120uF			P6KE20A
LH15-10B24	68uF			P6KE33A	LH15-10A24	47uF			P6KE33A
LH15-10B48	47uF			P6KE62A					
LH20-10B05	330uF	0.1uF	1A/250V	P6KE6.8A	LH20-10A05	470uF	0.1uF	1A/250V	P6KE6.8A
LH20-10B12	220uF			P6KE16A	LH20-10A12	220uF			P6KE16A
LH20-10B15	220uF			P6KE20A	LH20-10A15	120uF			P6KE20A
LH20-10B24	220uF			P6KE33A	LH20-10A24	47uF			P6KE33A
LH20-10B48	47uF			P6KE62A					
LH20-10B05	330uF	0.1uF	1A/250V	P6KE6.8A	LH20-10A05	470uF	0.1uF	1A/250V	P6KE6.8A
LH20-10B12	220uF			P6KE16A	LH20-10A12	220uF			P6KE16A
LH20-10B15	220uF			P6KE20A	LH20-10A15	120uF			P6KE20A
LH20-10B24	220uF			P6KE33A	LH20-10A24	47uF			P6KE33A
LH20-10B48	47uF			P6KE62A					

Remark:

Output filtering capacitors C1, C3 are electrolytic capacitors, it is recommended to use high frequency and low impedance electrolytic capacitors. For capacitance and current of capacitor please refer to manufacture's datasheet, voltage derating of capacitor should be 80% or above. C2, C4 are use to filter high frequency noise, suggest choose 0.1uF. TVS to protect post-circuits (when the circuit is abnormal), is recommended.

Selection Guide

LH10-10B24



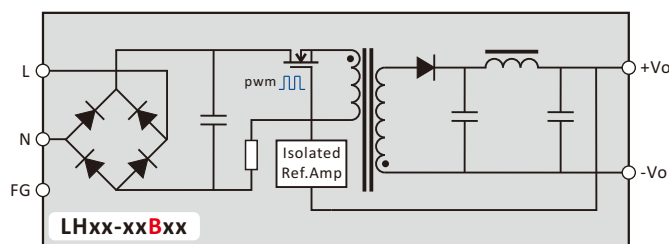
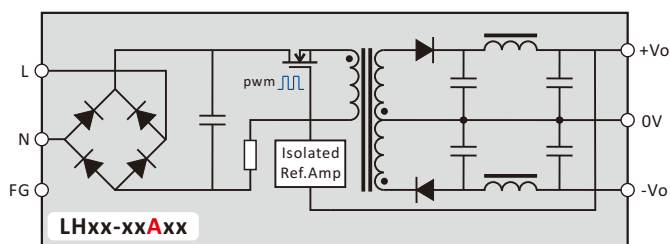
LH10~30-10Bxx & LH10~30-10Axx Series

10~30w, 220Vac input, isolated & regulated single & dual output ac-dc converter



Product Program										
Model	Input		Output			Eff (%)	Certificate	Package	Order Status	
	Voltage(Vac)		Voltage(Vdc)	Current(mA)						Ripple (mVp-p)
	Nominal	Range	Nominal	Max	Min					
LH10-10B05	220	85-265	5	2000			76	LH10	ok	
LH10-10B12			12	833			79	LH10	ok	
LH10-10B15			15	667			80	LH10	ok	
LH10-10B24			24	417			84	LH10	ok	
LH10-10B48			48	208				LH10	no	
LH10-10A05			±5	±1000			76	LH10	ok	
LH10-10A12			±12	±417			79	LH10	ok	
LH10-10A15			±15	±333			80	LH10	ok	
LH10-10A24			±24	±208				LH10	no	
LH15-10B05			220	85-265	5	3000			76	LH15
LH15-10B12	12	1250					79	LH15	ok	
LH15-10B15	15	1000					80	LH15	ok	
LH15-10B24	24	625					84	LH15	ok	
LH15-10B48	48	313						LH15	no	
LH15-10A05	±5	±1500					76	LH15	ok	
LH15-10A12	±12	±625					79	LH15	ok	
LH15-10A15	±15	±500					80	LH15	ok	
LH15-10A24	±24	±313						LH15	no	
LH20-10B05	220	85-265			5	4000			76	LH20
LH20-10B12			12	1667			79	LH20	ok	
LH20-10B15			15	1333			80	LH20	ok	
LH20-10B24			24	833			84	LH20	ok	
LH20-10B48			48	417				LH20	no	
LH20-10A05			±5	±2000			76	LH20	ok	
LH20-10A12			±12	±833			79	LH20	ok	
LH20-10A15			±15	±667			80	LH20	ok	
LH20-10A24			±24	±417				LH20	no	
LH30-10B05			220	85-265	5	6000			76	LH30
LH30-10B12	12	2500					79	LH30	ok	
LH30-10B15	15	2000					80	LH30	ok	
LH30-10B24	24	1250					84	LH30	ok	
LH30-10B48	48	625						LH30	no	
LH30-10A05	±5	±3000					76	LH30	ok	
LH30-10A12	±12	±1250					79	LH30	ok	
LH30-10A15	±15	±1000					80	LH30	ok	
LH30-10A24	±24	±625						LH30	no	

Functional Diagram



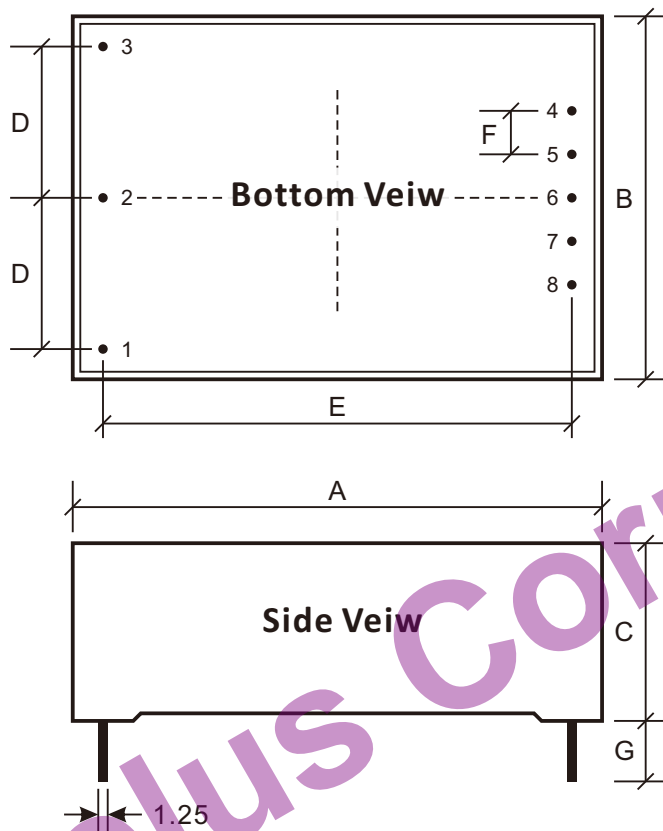
LH10~30-10Bxx & LH10~30-10Axx Series

10~30w, 220Vac input, isolated & regulated single & dual output ac-dc converter



Outline Dimensions

First Angle Projection



Footprint Details			
Pin	Single	Dual	
1			
2	AC(N)-	AC(N)-	
3	AC(L)+	AC(L)+	
4	+Vo	+Vo	
5	no pin	no pin	
6	no pin	0V	
7	no pin	no pin	
8	-Vo	-Vo	

Outline and Dimensions (unit:mm)				
No.	LH10	LH15	LH20	LH30
A	55.0±0.5	62.0±0.5	72.0±0.5	72.0±0.5
B	45.0±0.5	45.0±0.5	50.0±0.5	50.0±0.5
C	22.0±0.5	22.0±0.5	23.5±0.5	23.5±0.5
D	17.5±0.2	17.5±0.2	20.5±0.2	20.5±0.2
E	47.0±0.2	54.0±0.2	62.0±0.2	62.0±0.2
F	5.0±0.2	5.0±0.2	5.75±0.2	5.75±0.2
G	5.0±0.2	5.0±0.2	5.0±0.2	5.0±0.2

Delus Corporation

File Release Notes

DBN-502 Technical Data Sheet Version



No.	Version	Data	Description
1	V0	2011/11/01	First release
2			
3			
4			
5			

Delus Corporation

1. All data in addition to particular things, are Ta = 25°C, humidity<75%, nominal input voltage and output measured at rated load;
2. Non-standard models with some of the following indicators may be different from the specific circumstances of the Secretary to direct contact with me;
3. In the use of this manual, if some of them do not quite understand terms please refer to our <<DC / DC Converter Application Guide>>;
4. The Company focused on technological improvements, product specifications and parameter updates without notice, to pay attention to the latest information on website: www.delus.cn

All Delus Corporation's products are manufactured, assembled and tested utilizing ISO9001 quality systems.
For information regarding Delus Corporation and its products please see www.delus.cn