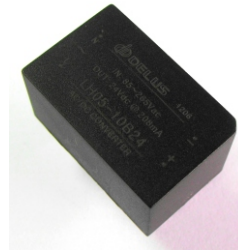


Features

- ◆ 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

LH05 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			5	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	0 to 25% load			200	uS
The Overshoot Rate			≤±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 I/O	Tested for 1S and 1 mA max	2000			Vac
Isolation Voltage out1/out2	Tested for 1S and 1 mA max	500			Vac

Common Specification

Item	Test Conditions	Min	Typ	Max	Units
Operating Temperature	Ta>55°C derating	-10		+70	°C
Maximum Case Temp.			50		
Storage Temperature		-40		+105	
Lead Temperature	1.5mm from case for 10 seconds			+300	
Storage Humidity				85	%
Case Material		Black plastic (UL94V-0)			
Install		PCB			

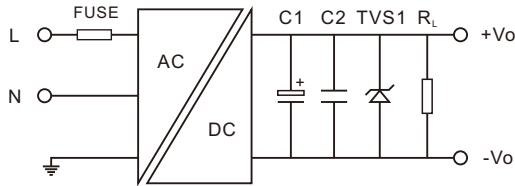
LH05-10Bxx & LH05-10Axx & LH05-10Dxx Series

5w, 220Vac input, isolated & regulated single & dual & twin output ac-dc converter

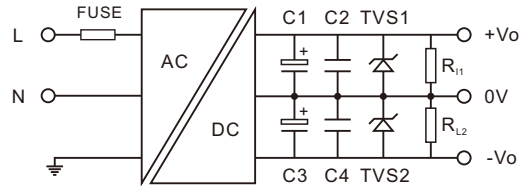


Typical Applications

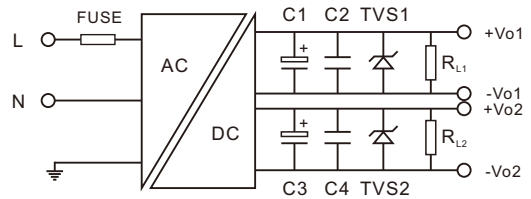
LHxx-xxBxx (single output)



LHxx-xxAxx (dual output)



LHxx-xxDxx (twin output)



External Components Typical Value

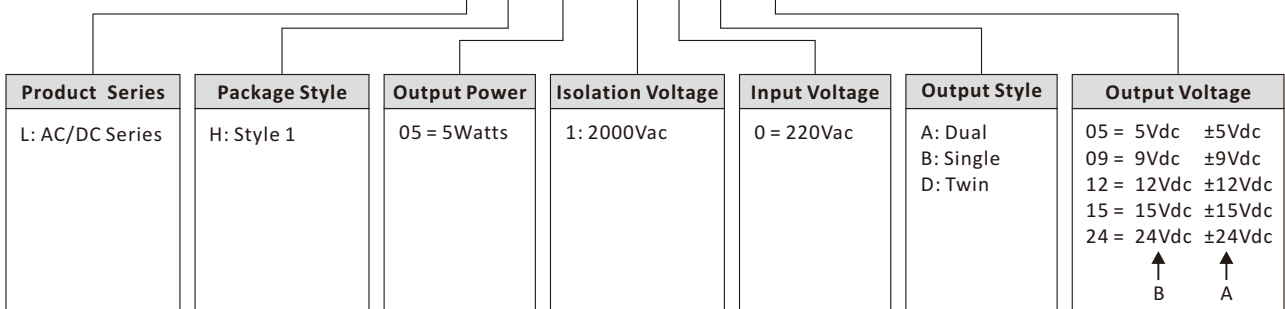
Single Models					Dual Models				
Model	C1	C2	FUSE	TVS1	Vout	C1, C3	C2, C4	FUSE	TVS1, TVS2
LH05-10B05	330uF	0.1uF	1A/250V	P6KE6.8A	LH05-10A05	120uF	0.1uF	1A/250V	P6KE6.8A
LH05-10B12	120uF			P6KE16A	LH05-10A12	68uF			P6KE16A
LH05-10B15	68uF			P6KE20A	LH05-10A15	47uF			P6KE20A
LH05-10B24	68uF			P6KE33A	LH05-10A24	10uF			P6KE33A
LH05-10B48	47uF			P6KE62A					
Twin Models									
	Vout	C1, C3	C2, C4	FUSE	TVS1, TVS2				
LH05-10D05	120uF	0.1uF	1A/250V	1A/250V	P6KE6.8A				
LH05-10D12	68uF				P6KE16A				
LH05-10D15	47uF				P6KE20A				
LH05-10D24	10uF				P6KE33A				

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 0.1μF. TVS to protect post-circuits (when the circuit is abnormal), is recommended.

Selection Guide

LH05-10B24



LH05-10Bxx & LH05-10Axx & LH05-10Dxx Series

5w, 220Vac input, isolated & regulated single & dual & twin output ac-dc converter

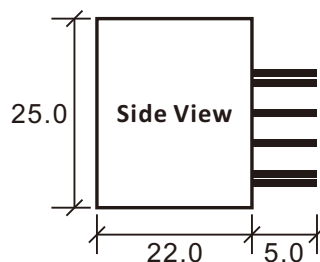
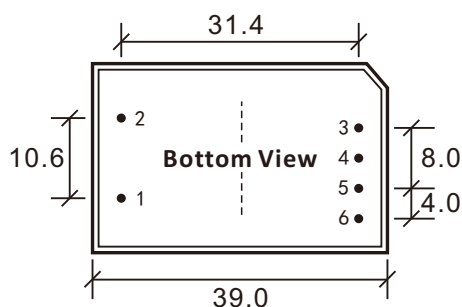


Product Program

Model	Input		Output			Eff (%)	Certificate	Pin-Out Config.	Order Status	
	Voltage(Vac)		Voltage(Vdc)	Current(mA)						Ripple (mVp-p)
	Nominal	Range		Nominal	Max					
LH05-10B05	220	85-265	5	1000			75	Fig.1	ok	
LH05-10B12			12	417			79	Fig.1	ok	
LH05-10B15			15	333			80	Fig.1	ok	
LH05-10B24			24	208			84	Fig.1	ok	
LH05-10B48			48	104						no
LH05-10A05	220	85-265	±5	±500			75	Fig.1	ok	
LH05-10A12			±12	±208			79	Fig.1	ok	
LH05-10A15			±15	±167			80	Fig.1	ok	
LH05-10A24			±24	±104						no
LH05-10D05	220	85-265	5/5	500/500			75	Fig.1	ok	
LH05-10D12			12/12	208/208			79	Fig.1	ok	
LH05-10D15			15/15	167/167			80	Fig.1	ok	
LH05-10D24			24/24	104/104						no

Outline Dimensions

Fig.1



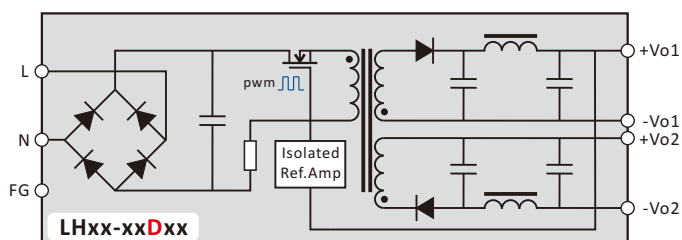
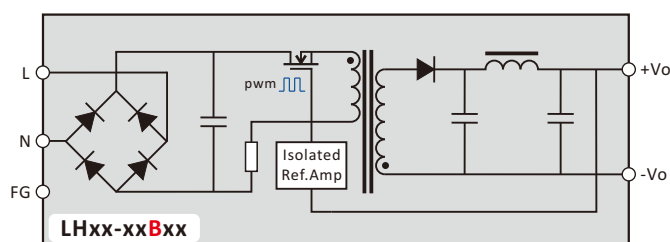
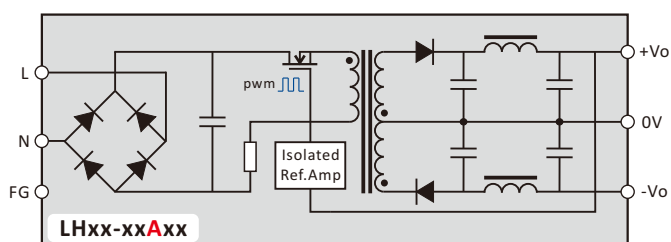
First Angle Projection

Footprint Details

Pin	Single	Dual	Twin
1	AC(N)-	AC(N)-	AC(N)-
2	AC(L)+	AC(L)+	AC(L)+
3	+Vo	+Vo	+Vo1
4	no pin	0V	-Vo1
5	-Vo	-Vo	+Vo2
6	no pin	no pin	-Vo2

Note: all size units mm
diameter of all terminal 1 mm

Functional Diagram



File Release Notes

DBN-501 Technical Data Sheet Version



No.	Version	Data	Description
1	V0	2011/11/01	First release
2	V1	2012/07/13	Increase in the twin series model
3			
4			
5			

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