

# LBD-DR

## 导轨开关电源



全铜变压器



电容滤波



散热



轨道安装

型号说明/选型，写法举例：LBD-DR-240-12

对应编号	LB	D	-	○	-	○○	-	○○
1	LB	1	2	3	4	5		
1	LB	LANBOO 蓝波代码						
2	开关电源代码	D						
3	系列号	DR (导轨式开关电源供应器)						
4	功率(W)	45W/60W/240W/480W						
5	输出电压(V)	12V/24V						

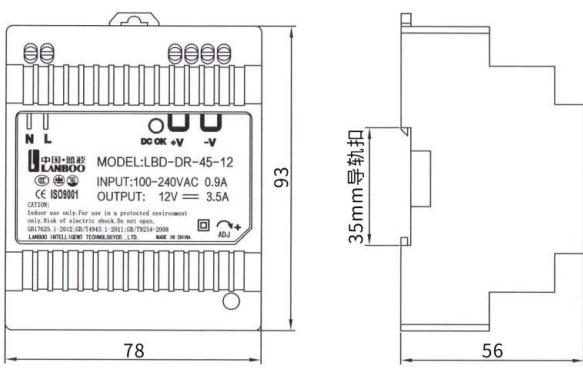
### 性能参数

输出	直流电压	12V	24V
	纹波及噪声①	<120mV	<120mV/<150mV
	电压调节范围	±10%	
	电压精度	±1%	
	线性调整率	±1%	
	负载调整率DR-(240-480)	±1%	
输入	效率(典型)② DR-(45-60)	86%	88%
	效率(典型)② DR-(240-480)	/	84%
	冲击电流	110VAC 20A, 220VAC 35A	
	漏电流 DR-(240-480)	<1.5mA 240VAC	

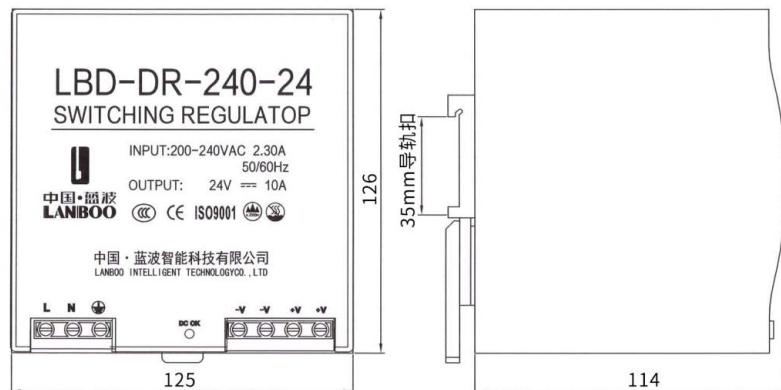
保护特性	过载保护	105%-150% 保护类型：打嗝模式，解除异常情况自动恢复正常												
	短路保护	DR-45/60	+VO降至欠压点	关闭输出，异常条件解除后自动恢复	DR-240/480									
	过压保护 (DR-240/480)	+VO降至欠压点												
	过温保护 (DR-240/480)	DR-240/480 +VO降至欠压点 关闭输出，异常条件解除后电源重启后自动恢复												
环境	工作温度、湿度	-10°C~+50°C: 20%~90RH												
	储存温度、湿度	-20°C~+85°C: 10%~90RH												
安全	耐压	DR-45/60	输入—输出: 3.0KVAC 1min	DR-240/480	输入—输出: 3.0KVAC 1min 输入—外壳: 1.5KVAC 1min 输出—外壳: 0.5KVAC 1min									
	漏电流	输入—输出: 1.5KVAC 时 < 5mA												
	绝缘电阻	输入—输出: 500VDC/100MΩ 输入—外壳: 500VDC/100MΩ 输出—外壳: 500VDC/100MΩ												
其他	产品认证	CCC CE RoHS REACH												
	质保	66个月												
备注	①纹波和噪声测量方法: 使用一条12双绞线, 同时终端要并联0.1uF和47uF的电容, 在20MHz带宽下进行测量。													
	②如未特别说明, 所有规格参数均在输入为230VAC、额定负载、25°C环境温度下进行量测。													
	精度: 包含设定误差, 线性调整率和负载调整率。													
	线性调整率测试方法: 在额定负载下从低电压到高电压测试。													
负载调整率测试方法: 从0%-100%额定负载。														
启动时间是在冷启动状态下测得, 快速频繁开关机可能会使启动时间增加, 当操作海拔高于2000米时, 操作环境温度需调降5°C/1000米。														

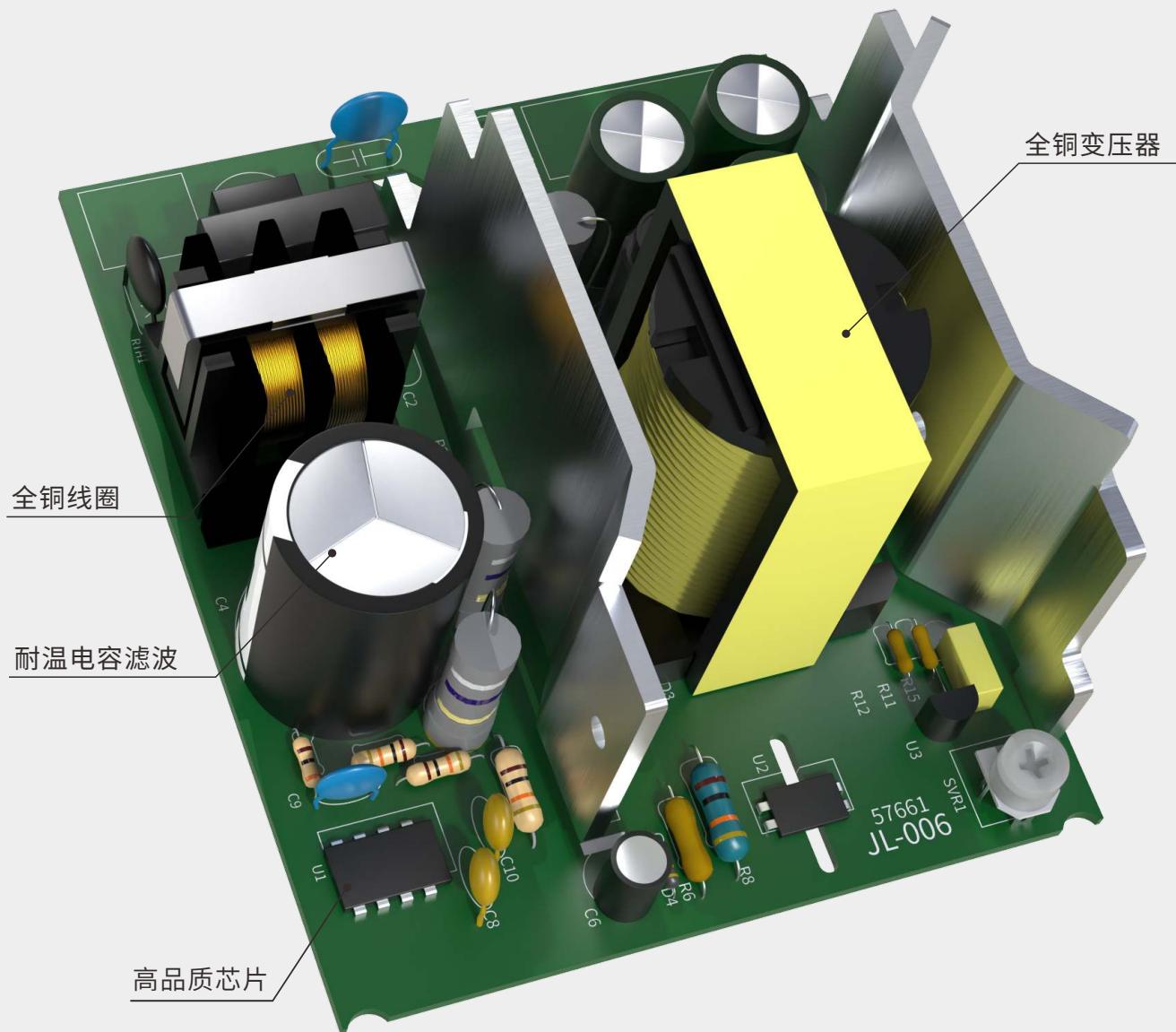
型号	LBD-DR-45	LBD-DR-60	LBD-DR-240	LBD-DR-480
直流电压	12V	24V	12V	24V
额定电流	3.5A	2A	4.5A	2.5A
额定功率	42W	48W	54A	60A
工作电流	<1A/110VAC <0.5A/220VAC	<1.2A/110VAC <0.8A/220VAC	<4A/110VAC <2.5A/220VAC	<7.5A/110VAC <4.5A/220VAC
电压范围/频率	85-264VAC 47Hz~63Hz(120VDC~370VDC)			
尺寸	78*93*56mm(L*W*H)			
启动、上升、保持时间	100ms、30ms、21ms:110VAC/100ms、30ms、100ms:220VAC		2000ms、30ms、21ms:220VAC 1200ms、30ms、10ms:115VAC	3000ms、100ms、22ms:110VAC 1500ms、1000ms、28ms:220VAC

DR-45/60



DR-240/480





# LBD-DR

Switch power supply



All copper transformer



Capacitor filter



Radiating



Rail mounting

## Model Description/Selection, Example:LBD-DR-240-12

对应编号	LB	D	-	●	-	●●	-	●●
1 LB	LANBOO							
2 Code		D						
3 Series No.			DR	(Rail mounted switch mode power supply)				
4 Power(W)				45W/60W/240W/480W				
5 Output voltage(V)					12V/24V			

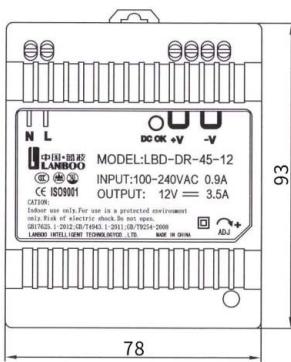
## The performance parameters

Output	DC Voltage	12V	24V
	Ripple and noise ①	<120mV	<120mV/<150mV
	Voltage regulation range	±10%	
	Voltage accuracy	±1%	
	Line Regulation	±1%	
	Load Regulation	±1%	
Input	Efficiency (typical)② (DR-45/60)	86%	88%
	Efficiency (typical)② (DR-240/480)	/	84%
	Impulse current	110VAC 20A, 220VAC 35A	
	Leakage current (DR-240/480)	<1.5mA 240VAC	

Protection characteristics	Overload protection	105%-150% Protection type: Hiccup mode, automatically returns to normal after resolving abnormal situations			
	Short circuit protection	DR-45/60	+The VO drops to the undervoltage point and closes the output. After the abnormal condition is resolved, it will automatically recover	DR-240/480	+The VO drops to the undervoltage point and closes the output. After the abnormal condition is resolved, the power supply restarts and automatically recovers
	Oversupply protection (DR-240/480)	When the output voltage is greater than 135%, the output is turned off and automatically restored after the abnormal conditions are resolved			
	Over Temperature Protection (DR-240/480)	When the temperature is greater than 85 °C, the output temperature drops and the power is restored after restarting			
Environment	Operating temperature and humidity	-10°C~+50°C: 20%~90RH			
	Storage temperature and humidity	-20°C~+85°C : 10%~90RH			
Secure	Pressurization	DR-45/60	Input — Output:3.0KVAC 1min	DR-240/480	Input — Output:3.0KVAC 1min Input — Shell:1.5KVAC 1min Output—Shell:0.5KVAC 1min
	Leakage current	Input — Output:1.5KVAC<5mA			
	Insulation resistance	Input — Output: 500VDC/100MΩ Input—Shell: 500VDC/100MΩ Output—Shell: 500VDC/100MΩ			
Other	Product Certification	CCC CE RoHS REACH			
	Quality assurance	66 months			
Notes	① Ripple and noise measurement method: a 12 twisted pair is used, and the terminal should be connected in parallel with 0.1uF and 47uF capacitors, and the measurement is carried out under 20MHz bandwidth. ② Unless otherwise specified, all specifications and parameters are measured under the input of 230VAC, rated load and 25 °C ambient temperature. Accuracy: including setting error, linear adjustment rate and load adjustment rate. Linear regulation rate test method: test from low voltage to high voltage under rated load. Load regulation rate test method: from 0% to 100% of rated load. The start-up time is measured in the cold start state. Fast and frequent switching on and off may increase the start-up time. When the operating altitude is higher than 2000 meters, the operating ambient temperature needs to be reduced by 5 °C/1000 meters.				

Model	LBD-DR-45		LBD-DR-60		LBD-DR-240	LBD-DR-480
DC Voltage	12V	24V	12V	24V	24V	24V
Rated current	3.5A	2A	4.5A	2.5A	10A	20A
Rated power	42W	48W	54A	60A	240W	480W
Working current	<1A/110VAC <0.5A/220VAC		<1.2A/110VAC <0.8A/220VAC		<4A/110VAC <2.5A/220VAC	<7.5A/110VAC <4.5A/220VAC
Voltage range/ frequency	85-264VAC 47Hz~63Hz(120VDC~370VDC)					180-264VAC 47Hz~63Hz(120VDC~370VDC)
Size	78*93*56mm(L*W*H)					125.5*100*125.2mm(L*W*H)
Start, rise, hold time	100ms、30ms、21ms:110VAC/100ms、30ms、100ms:220VAC			2000ms、30ms、21ms:220VAC 1200ms、30ms、10ms:115VAC		3000ms、100ms、22ms:110VAC 1500ms、1000ms、28ms:220VAC

DR-45/60



DR-240/480

