

DLRS50-1K12V (Product No.:107201690101)

Summary

DLRS50-1K12V is a 50W single output metal chassis power supply. This series of power supplies have the characteristics of universal universal input voltage range, AC / DC dual-use, high cost performance, low power consumption, high efficiency, high reliability, and safe isolation. The product is safe and reliable, and has good EMC performance, providing a cost-effective solution for various industrial power supplies.

Product Features

- Full range AC input, AC / DC dual-use (85-264VAC/120-373VDC)
- Support 300vac surge input for 5 seconds
- Low power consumption, high efficient
- Small size, ultra low height 30mm
- Working temperature: -30℃ ~ +70℃
- Short circuit/ Over current/ over voltage protections
- Meet IEC/EN/UL62368、EN60335、GB4943 certification standards
- Meet 5000m altitude applications
- Low ripple noise, low power consumption, and high efficiency
- Over voltage level III



Application



Wall Washer



LED Strip Light



LED Tube



Underground Light



AR111 Venture Light

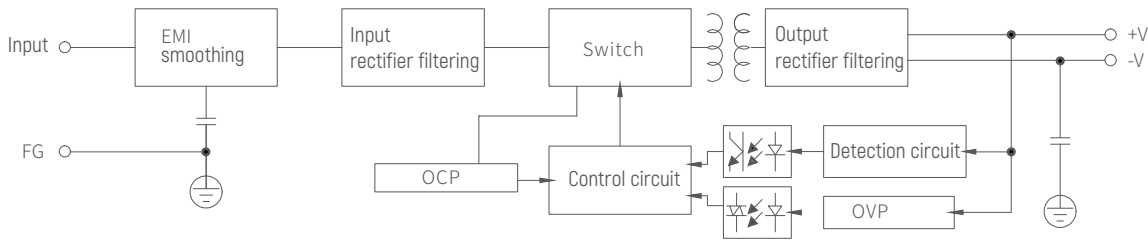


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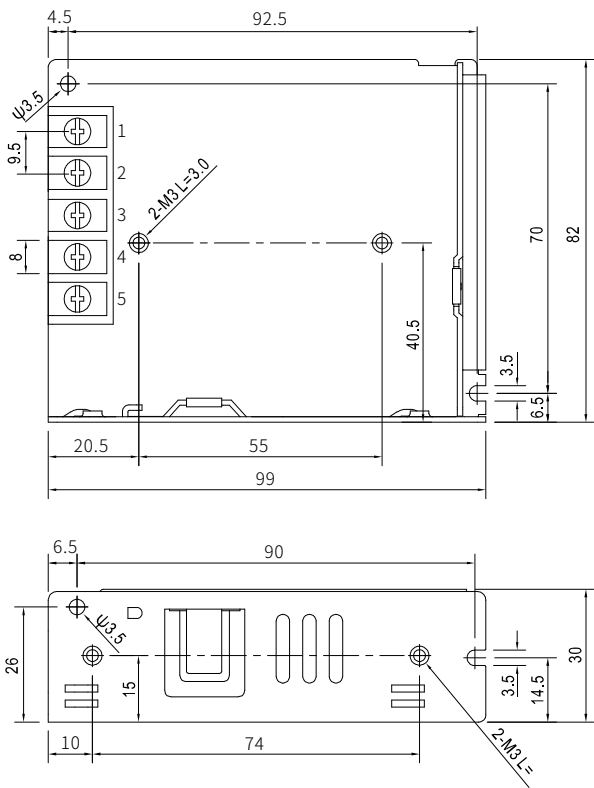
Technical Paramaters

Model	DLRS50-1K12V		
Input	Efficiency	>86%@230VAC, Full load	
	Voltage	VAC: 85-264V	VDC: 120-373V
	Voltage Frequency	47/63Hz	
	Current(max)	1Amax@115VAC	0.6Amax@230VAC
	Surge Current (max)	Cold start,50A@230VAC	
	Leakage current	0.75mA@240VAC	
Output	Current / Voltage / Power	4.2A/12VDC/50.4W	
	Output Voltage Range	10.2~13.8V	
	normal temperature Capacitive Load(max)	2000uf	
	R & N (Max)	120mVp-p	
	Channel	1	
	Current Tolerance	±1%	
	Line regulation	rated load	±0.5%
	Load regulation	0-100% Load	±0.5%
	Temperature drift coefficient	±0.03%	
	Standby power	0.3W	
	Start-up delay	2000ms max, at115Vac	1000ms max, at230Vac
	Rise time	25ms max, at115Vac	10ms max, at230Vac
	Hot Swap	Not support	
Protection	Short Circuit	Close output , recovers automatically after fault removed	
	Over current	110~160%Io , recovers automatically	
	Over Voltage	0.1A load, 13.8V ~ 17V protection voltage range, shut down the output voltage during protection, and restart after the remaining power in the power supply is discharged.	
Electromagnetic Interference (EMI)	Conducted Emission	CISPR32 EN55032 CLASS B	
	Radiated Emission	CISPR32 EN55032 CLASS B /	
	Harmonic Current	IEC/EN61000-3-2 CLASS A	
Electromagnetic Susceptibility	Electrostatic Discharge	IEC/EN61000-4-2 Contact 6Kv/Air 8KV	Perf.Criteria A
	Radiate Susceptibility	IEC/EN61000-4-3 10V/m	Perf.Criteria A
	Pulse group immunity	IEC/EN61000-4-4 2KV	Perf.Criteria A
	Surge immunity	IEC/EN61000-4-5 Line to line 2KV/line to ground 4kV	Perf.Criteria A
	Conduction immunity	IEC/EN61000-4-6 10 Vr.m.s	Perf.Criteria A
	Voltage drops, sags and short interruption Immunity	IEC/EN61000-4-11 0%,70%	Perf.Criteria B
Safety testing	Isolation voltage (1minute , Leakage current < 10mA)	Input-Output > 3000VAC,Input-Earth > 2000VAC,Output-Earth > 1250VAC	
	SIR (500VDC/25℃/70%RH)	Input-Output,Input-Earth,Output-Earth > 100M Ohms.	
Others	Working Temp.	-30 ~+70℃	
	Storage Temp.; Humidity	20~90%RH, No condensation environment, -40~+85℃	
	tc	90℃	
	Material	PC	
	IP Rating	IP20	
	MTBF	>400K hrs. MIL-HDBK-217[25℃]	
	Switching frequency	65K Hz	
	Pack Information	Net weight:210g±5%/PCS; 60PCS/Carton; 13.6kg±5%/Carton; Carton Size:424*268*184mm[L*W*H]	
	Dimension	99*82*30mm[L*W*H]	

Circuit diagram



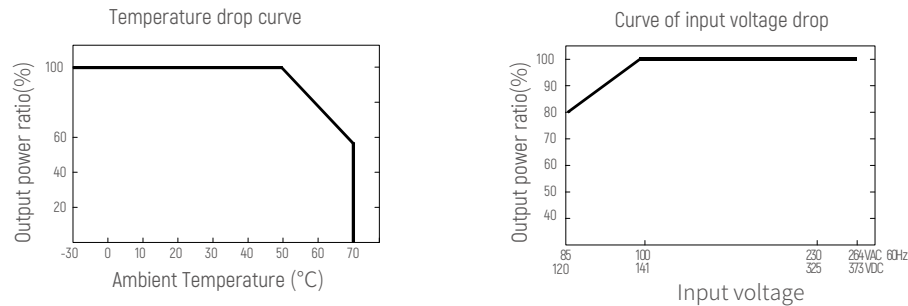
Dimension(mm)



unit of size: mm
Wire Diameter: 22-14AWG
Torque: M3 0.5Nm

Terminal	
Terminal number	Function
1	AC/L
2	AC/N
3	FG $\perp$
4	-Vo
5	+Vo

Product characteristic curve



Remarks:

1. Unless otherwise specified, the test conditions of the parameters in the specification are: input voltage 230VAC, rated load, Ta = 25 °C , humidity <75%RH
2. When working above 2000m (6500ft), the temperature is declined 5 °C / 1,000m
3. Our company can provide customized products according to customer needs, please contact our sales for details.
4. When the product terminal is used, the shell must be connected to the system PE.
5. The power supply should be considered as a part of the system. All EMC tests will test the sample on an aluminum plate with a thickness of 1mm, a length of 36cm, and a width of 36mm.

※ The contents of this manual are updated without prior notice. If the function of the product you are using is inconsistent with the instructions, the function of the product shall prevail. Please contact us if you have any questions .

DLRS50-1K12V [产品代码:107201690101]

概述

DLRS50-1K12V是一款50W单组输出金属机壳式电源。该系列电源具有全球通用输入电压范围、交直流两用、高性价比、低功耗、高效率、高可靠性、安全隔离等特点。产品安全可靠，EMC性能好，为各种工业电源提供了一个高性价比的解决方案。

产品特点

- 全范围交流输入，交直流两用（85-264VAC/120-373VDC）
- 可承受300vac浪涌输入5秒
- 低功耗，高效率
- 体积小，超低高度30mm
- 工作温度范围：-30℃~+70℃
- 输出短路/过电流/过电压保护
- 符合IEC/EN/UL62368、EN60335、GB4943认证标准
- 满足5000m海拔应用
- 低纹波噪声，低功耗，高效率
- 过电压等级III

技术参数

型号	DLRS50-1K12V		
输入	效率	>86%@230VAC, 满载	
	电压	VAC: 85-264V	VDC: 120-373V
	电压频率	47/63Hz	
	电流	1Amax@115VAC	0.6Amax@230VAC
	浪涌电流	冷启动50A@230VAC	
	漏电流	0.75mA@240VAC	
输出	电流/电压/功率	4.2A/12VDC/50.4W	
	输出电压调节范围	10.2~13.8V	
	常温下最大容性负载	2000	
	波纹	120mVp-p	
	通道	1	
	电流精度	±1%	
	线性调节率	额定负载	±0.5%
	负载调节率	0-100%负载	±0.5%
	温度漂移系数	±0.03%	
	待机功耗	0.3W	
	启动延时	2000ms max, at115Vac	1000ms max, at230Vac
	上升时间	25ms max, at115Vac	10ms max, at230Vac
	热插拔	不支持	
保护	短路	打嗝，去除故障后可恢复	
	过流	110~160%Io，自恢复	
	过压	负载0.1A,保护电压范围13.8V~17V,保护时关断输出电压，待电源内余电放尽后可重启恢复	
电磁干扰 (EMI)	传导骚扰	CISPR32 EN55032 CLASS B	
	辐射骚扰	CISPR32 EN55032 CLASS B /	
	谐波电流	IEC/EN61000-3-2 CLASS A	
电磁敏感度	静电放电	IEC/EN61000-4-2 Contact 6kV/Air 8kV	Perf.Criteria A
	辐射抗扰度	IEC/EN61000-4-3 10V/m	Perf.Criteria A
	脉冲群抗扰度	IEC/EN61000-4-4 2kV	Perf.Criteria A
	浪涌抗扰度	IEC/EN61000-4-5 Line to line 2kV/line to ground 4kV	Perf.Criteria A
	传导骚扰抗扰度	IEC/EN61000-4-6 10 Vr.m.s	Perf.Criteria A
	电压暂降、跌落和短时中断抗扰度	IEC/EN61000-4-11 0%~70%	Perf.Criteria B
安规测试	隔离电压（1分钟，漏电流<10mA）	输入-输出>3000VAC,输入-地>2000VAC，输出-地>1250VAC	
	绝缘阻抗（500VDC/25℃/70%RH）	输入-输出,输入-地，输出-地>100M Ohms.	
其它	工作温度	-30 ~+70 °C 额线图，具体参考温度降曲线图	
	储存温度、湿度	20-90%RH,无结露环境，-40~+85 °C	
	tC	90°C	
	材质	PC	
	防水等级	IP20	
	MTBF	>400K hrs. MIL-HDBK-217[25°C]	
	开关频率	65K Hz	
	包装信息	净重: 210g±5%/PCS; 60PCS/Cartron; 13.6kg±5%/箱; 外箱尺寸: 424*268*184mm[长*宽*高]	
尺寸		99*82*30mm[长*宽*高]	



应用



洗墙灯



LED灯带



LED硬灯条



地埋灯

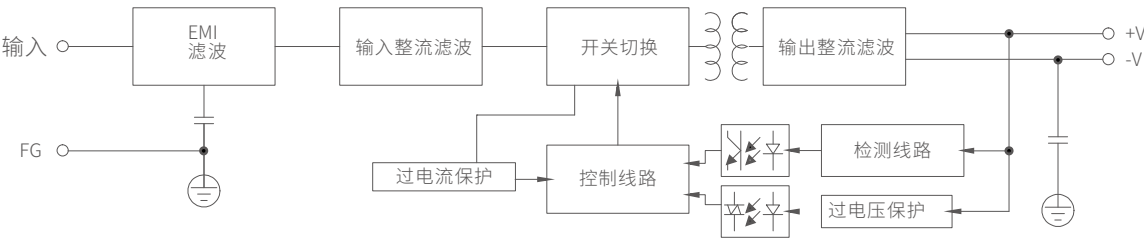


AR111斗胆灯

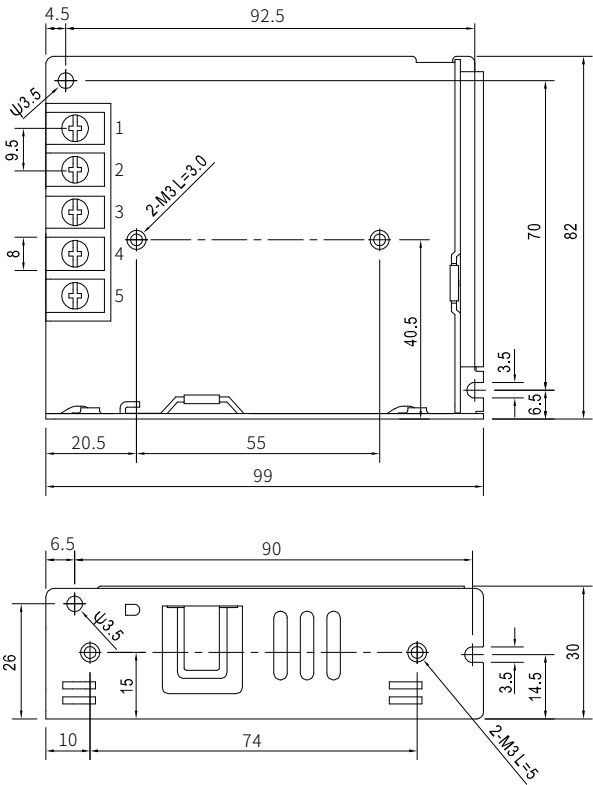


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线路框图



机构尺寸

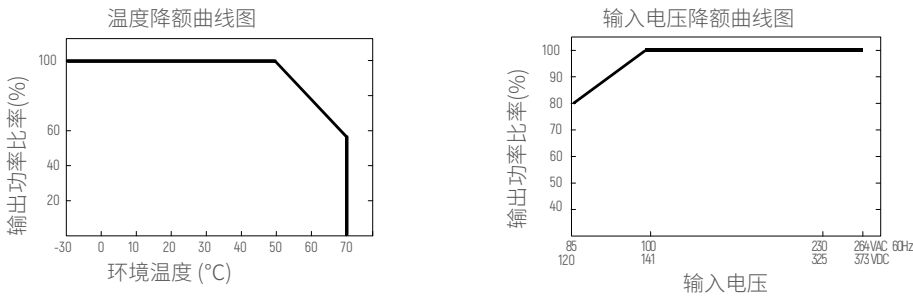


尺寸单位：mm
接线线径：22-14AWG
扭力大小： „ M3 0.5Nm

引脚功能定义

引脚编号	功能
1	AC/L
2	AC/N
3	FG $\perp$
4	-Vo
5	+Vo

产品特性曲线



备注：

1. 如无特别说明，规格书内参数的测试条件为：输入电压230VAC,额定负载，Ta=25°C，湿度<75%RH
2. 当工作于海拔2000m（6500ft）以上时，温度降额5°C/1000米
3. 我司可按客户需求提供定制产品，具体请联系我司业务
4. 产品终端使用时，外壳需与系统PE连接
5. 电源应视为系统内元件的一部分，所有的EMC测试都将测试样品安装在一个厚度1mm，长36cm，宽36mm的铝板上测试

※ 本说明书内容如有更新，恕不另行通知。若您使用的产品功能与说明书不一致时，请以产品为准。如有疑问请与我们联系。