HDL-MDB0210.433 2CH 10A MOSFET Power Amplifier
2路10A MOS管功率放大器

buspro

Datasheet
产品说明书

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Figure 1. 2CH 10A MOSFET Power Amplifier
图 1. 2路10A MOS管功率放大器

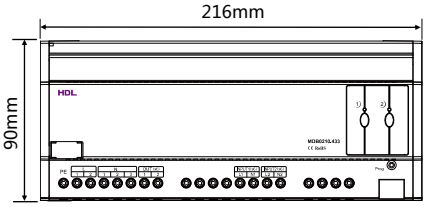


Figure 2. Dimensions - Front View
图 2. 尺寸图 - 正面

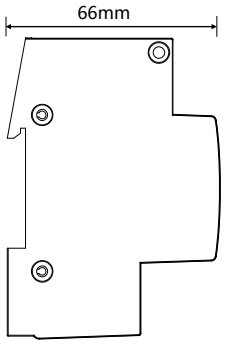
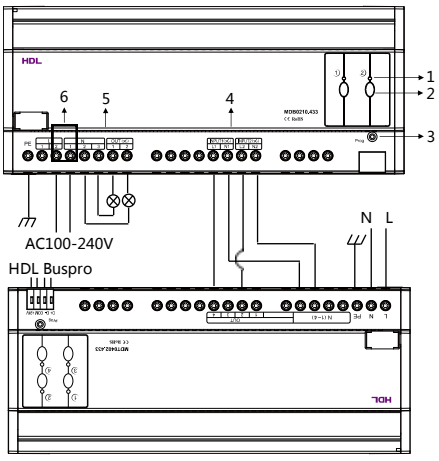
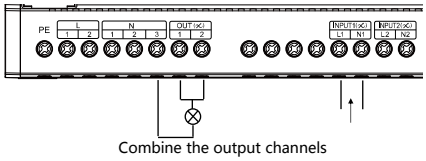


Figure 3. Dimensions - Side View
图 3. 尺寸图 - 侧面



Dimmer, take MDT0402.433 as an example
Figure 4. Wiring
图 4. 接线图



Combine the output channels
Figure 5. Wiring
图 5. 接线图

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Overview

2CH 10A MOSFET Power Amplifier (See Figure 1) works in conjunction with the dimming module to increase the output current of the dimming module. It has 2 output channels and manual switch is available for each channel. And it supports short circuit protection and over heat protection.

Functions

- Mosfet dimming mode is adopted.
- It must work in conjunction with dimmer.
- LED status indicator for each output channel and manual control switch are available.
- Supports short circuit protection and over heat protection
- When the temperature of the aluminum alloy radiator on the MOSFET power amplifier reaches 80℃, the output power will decrease; when it reaches 85℃, the MOSFET Power Amplifier will stop to output power; when it drops below 85℃, the power resumes output.
- Two output channels can be combined into one channel, the output current increases to 16A .(The input channel is the first channel.)

Important Notes

- Make sure that the power supply is disconnected before installation.
- The ground terminal (PE) should be connected.
- Make sure the working temperature does not exceed 45℃.
- Check connection : check and ensure all connections are properly connected after installation.
- Inductive loads must not be connected, such as transformer, motor, fan and inductance ballast etc.
- Output circuit : the current per circuit shall not exceed 10A, the total current should not exceed 16A.

Product Information

Dimensions - See Figure 2 - 3

Wiring - See Figure 4 - 5

1. LED Indicator, shows the status of the channel. A LED indicator is available for each channel.
2. Manual switch, is available for each channel. Long pressing enables dimming the light.
3. Programming button and indicator.
4. Input terminal, voltage input range is 0-240V AC, supports leading edge mode and trailing edge mode.
5. Output terminal, connects the load
6. Power, supports 110V and 220V, 110V(85-132V)and 220V(160-250V). The amplifier works in optional voltage according to actual requirement. The default setting is 220V AC.
7. The aluminum alloy radiator.

Operation instruction:

Power selection:
Press the PROG button and two manual dimming switches simultaneously, the working voltage mode of the MOSFET Power Amplifier will switch after 5 seconds, and then the third indicator will change it' s color.
Red and green means 110V AC. Green means 220V AC.
Combine the output channels:
Press the PROG button for 5 seconds until the third indicator flickers quickly, two output channels will be combined into one channel which supplies 16A. As Figure 5 shows.
Press the PROG button for 5 seconds until the third indicator flickers slowly, the output channel will be divided into two channels.

Installation - See Figure 6 - 8

Step 1. Fix the din rail with screws.
Step 2. Buckle the bottom cap of the 2CH 10A MOSFET Power Amplifier on the edge of the din rail.
Step 3. Press the device on the din rail, slide it and fix it up until an appropriate position is adjusted.

Safety Precautions

- The installation and commissioning of the device must be carried out by HDL or the organization designated by HDL. For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.
- The device should be installed with Din rail in DB box. HDL does not take responsibility for all the consequences caused by installation and wire connection that are not in accordance with this document.
- Please do not privately disassemble the device or change components, otherwise it may cause mechanical failure, electric shock, fire or body injury.
- Please resort to our customer service department or designated agencies for maintenance service. The warranty is not applicable for the product fault caused by private disassembly.
- It is not allowed to exceed the range.

Package Contents

HDL-MDB0210.433*1 / Label*5 / Datasheet*1

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产品概述

2路10A MOS管功率放大器（见图1）与调光模块配合使用，用以增大调光器的输出电流。有2个输出回路，每回路具有手动按键，具有短路保护，过热保护功能。

功能说明

- 采用MOS管调光方式
- 与调光器配合使用
- 每回路输出设有LED状态指示灯及手动按键控制
- 输出短路保护及过热保护功能
- 当2路10A MOS管功率放大器铝合金散热片温度达到80℃时，输出功率开始降低；当达到85℃时，停止输出。当散热片温度降到85℃以下时又重新输出
- 2个回路可以合并成一个回路输出，输出电流增大到16A（输入为第1回路）

注意事项

- 设备安装前断开电源。
- 必须连接接地端子做接地保护。
- 确保设备工作温度不超过45℃。
- 连接检查-安装后，检查所有的连接是否正确连接。
- 不能连接感性负载，比如变压器，电机，风扇，电感镇流器。
- 输出回路-每回路的电流不能超过10A，总电流不能超过16A。

产品信息

产品尺寸- 见图 2 - 3

产品接线 - 见图 4 - 5

1. LED指示灯，显示回路的状态，第1、2回路各有一个指示灯
2. 手动按键，第1、2回路各有一个手动按键，长按可以调光
3. 编程按键&指示灯
4. 调光器输入端，电压范围从0-240V AC，支持前沿（Leading）和后沿（Trailing）两种调光器
5. 输出端，连接负载
6. 电源，支持110V AC和220V AC，110V（85~132V）和220V（160~250V）工作时根据实际需要进行选择，出厂默认为220V AC
7. 铝合金散热片

操作说明：

电源选择：
同时按下编程按钮和2个手动调光按钮，5秒后MOS管功率放大器切换工作电压模式，切换后指示灯3颜色发生改变。
红绿双色代表110V AC。 绿色代表220V AC。
输出回路合并：
按编程按键5秒，直至指示灯3快闪，2个输出回路合并成一回路，共输出16A。如图5所示。
再长按编程按键5秒，直至指示灯3慢闪，输出回路分开。

设备的安装 - 见图 6-8

步骤1. 用螺丝固定丁导轨。
步骤2. 将2路10A MOS管功率放大器底盖的一端扣在导轨的边上。
步骤3. 将整个模块压到导轨上，并滑动模块直至调整到合适的位置则固定下来。

安全警告

- 本设备的安装及调试工作必须由我司或我司指派的机构进行。其电气安装的计划和施工，必须遵守当地相关的安全标准和法规。
- 该产品需以丁导轨安装方式，安装在电箱里，未按照本说明书进行安装及接线方式的，所造成的一切后果皆与我司无关。
- 请不要私自拆装或更换零部件，否则可能会导致机械故障、电击、火灾或身体伤害。
- 请将一切维修工作交由我司售后部门或指定机构进行，本产品的保修范围不适用于因用户拆卸产品而导致的故障。
- 不得超量程使用。

装箱清单

HDL-MDB0210.433*1 / 标签纸*5 / 说明书*1

Figure 6 / 图 6

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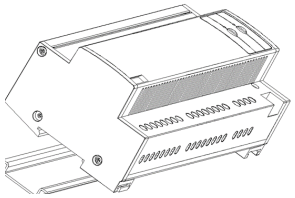

Figure 7 / 图 7

2

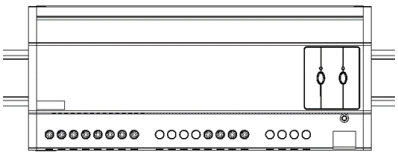

Figure 8 / 图 8

Figure 6 – 8. Installation
图 6 – 8. 安装图

技术支持
服务热线：020-85820195
(工作时间：9:00-12:00, 13:00-18:00, 星期一至星期五)
邮箱：kfb@hdlchina.com.cn
网址：http://www.hdlchina.com

Technical support
E-mail: support@hdlchina.com.cn
Website: https://www.hdlautomation.com

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Technical Data

Electrical Parameters

Input power voltage	AC100-240V (50/60Hz)
Input control voltage	AC0-240V (50/60Hz)
Output channel	2CH,10A/CH
Maximum total output current	16A
Dimming mode	Trailing edge

External Environment

Working temperature	-5℃~45℃
Working relative humidity	≤90%
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%

Specifications

Dimensions	216mm×90mm×66mm
Net weight	541g
Housing material	Nylon, PC
Installation	35mm DIN rail installation (See Figure 6 - 8)
Protection rating (Compliant with EN 60529)	IP20

Name and Content of Hazardous Substances in Products

Components	Hazardous substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Chromium VI (Cr (VI))	Poly-brominated biphenyls (PBB)	Poly-brominated diphenyl ethers (PBDE)
Plastic	o	o	o	o	o	o
Hardware	o	o	o	o	-	-
Screw	o	o	o	×	-	-
Solder	×	o	o	o	-	-
PCB	×	o	o	o	o	o
IC	o	o	o	o	×	×

The symbol "-" indicates that the hazardous substance is not contained.
The symbol "o" indicates that the content of the hazardous substances in all the homogeneous materials of the component is below the limit requirement specified in the Standard IEC62321-2015.
The symbol "×" indicates that the content of the hazardous substance in at least one of the homogeneous materials of the part exceeds the limit requirement specified in the Standard IEC62321-2015.

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技术参数

电气参数

输入电源电压	AC100-240V (50/60Hz)
输入控制电压	AC0-240V (50/60Hz)
输出回路	2路，10A/CH
设备最大总输出电流	16A
调光方式	后沿调光

外部环境

工作温度	-5℃~45℃
工作相对湿度	≤90%
储存温度	-20℃~60℃
储存相对湿度	≤93%

产品规格

尺寸	216mm×90mm×66mm
净重	541g
外壳材料	尼龙, PC
安装方式	35mm 丁导轨安装 (见图6-8)
防护级别 (符合 EN 60529)	IP20

产品中有害物质的名称及含量

部件名称	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
塑胶组件	o	o	o	o	o	o
五金铜件	o	o	o	o	-	-
螺丝组件	o	o	o	×	-	-
焊锡	×	o	o	o	-	-
PCB组件	×	o	o	o	o	o
IC	o	o	o	o	×	×

-：表示不含有该有害物质。
o：表示该有害物质在该部件所有均质材料中的含量均在IEC62321-2015规定的限量要求以下。
×：表示该有害物质至少在该部件的某一均质材料中的含量超出IEC62321-2015规定的限量要求。