PCB Heat Bed MK2B 12V24V For 3D Printer

Description:

RepRap MK2B Dual Power Supply is a Heated Bed designed for Reprap Prusa and Mendel 3D Printers. It can be used with other 3D Printers too. MK2B is the latest version of the heat bed and features LEDs and 12 / 24V Dual power supply options. This heatbed is etched directly on 35µm copper clad and features uniform even heating and a high heat output.

Feature:

- Support 12V, 24V power.
- Double-sided, the other side is no wiring, heating uniformity, smooth printing.
- Regardless of the positive and negative terminal, you can free wiring.

Specifications:

- Color: Red
- Etching: 35um copper
- Dimensions 214mmx 214mm
- Laminate FR4 1.6+-0.15mm
- 2 layer, 35µm copper
- Red Soldermask - both sides
- White Silkscreen - both sides
- Power Input: 12V or 24v
- Copper plated holes
- Resistance between 1.0 and 1.2 ohm

Connection:

- 12V connection: One cable connected to one, another cable connected to a wire 2,3 in the same time.
  At this time the resistance value of the two lines is 1.0 ~ 1.2Ω, the actual power is 144W.

- 24V connection: One cable connection 2, another line connected to 3 (1 unconnected), the resistance value of the two lines is 4.0Ω, actual power is 24 * 24/4 = 144W.
  The new version of the circuit, whether connected 12V, or 24V, the power will stable at 144W.

Test report:

- 12V connection:
  Current is 9.8A, as the temperature increases, the current drops to 8.8A (physical tips: resistance becomes larger as the temperature rises)

- 24V connection:
  The theoretical maximum current is less than 5A

Note:

The LED and resistor are soldered, good compatibility, support 12V, 24V power.

If you use 24V, this time the current is very large, MOS tube heat seriously, it is easy burned because of the high temperature.

In addition, also consider the adequacy of power supply, power up to 576W of power is very expensive, if power shortage may affect the normal operation of other equipment such as motor.

Also note that because of the wire is not enough thick and cause burning hot and soft.