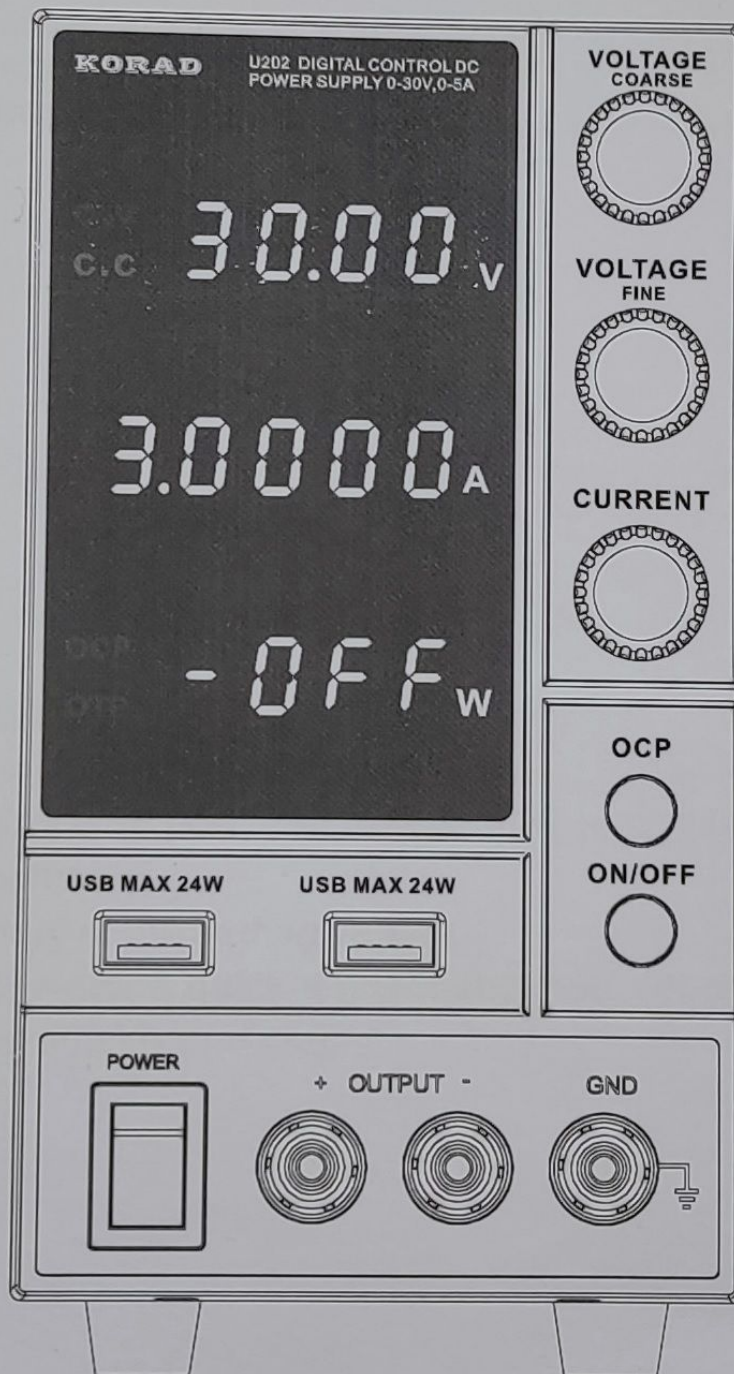


# U200 Series Digital Control & Regulated DC Power Supply



## User Manual

## Introduction

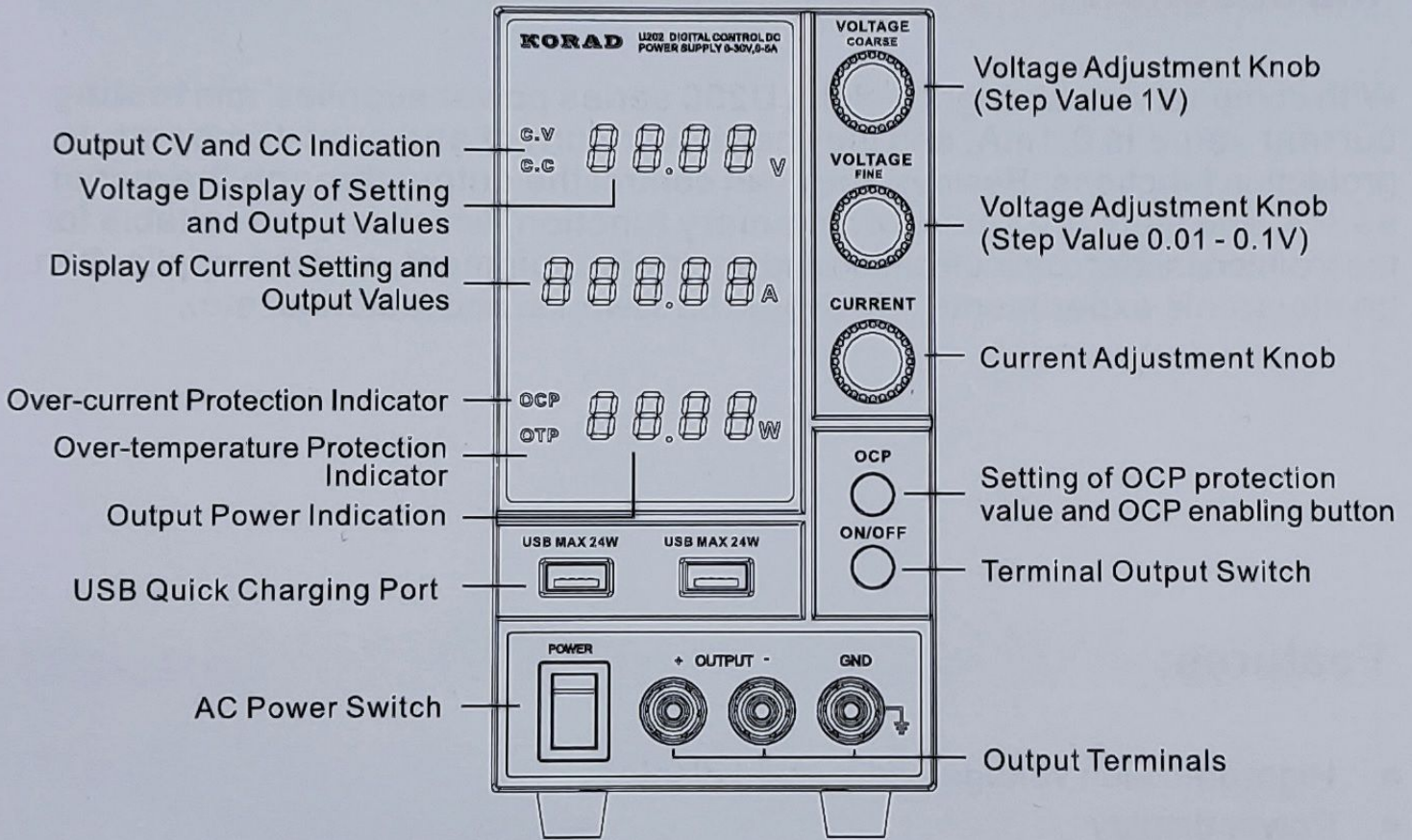
With compact size and light weight, U200 series power supplies' min testing current value is 0.1mA, and they have over-current and over-temperature protection functions. Besides, they can control the output through the output switch, and there are shutdown memory function, which is quite suitable for the maintenance of communication and electronic equipment, and the application on electronic experiments, electronic handworks, and factories, etc..

## Features:

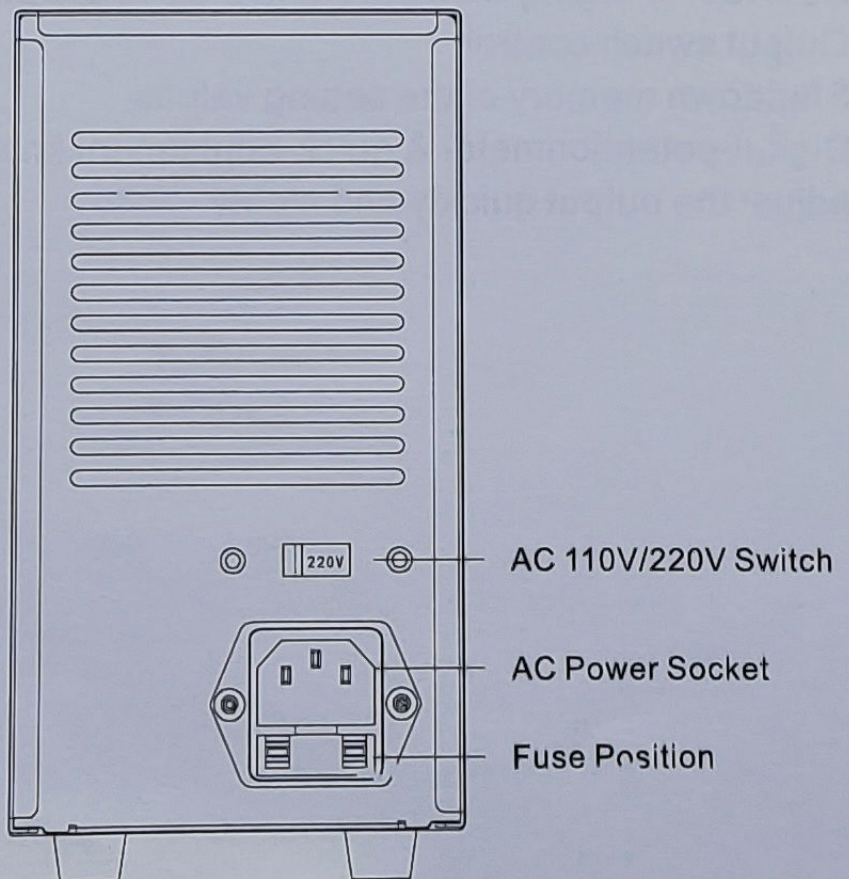
- High-precision voltage and current display
- Power display
- 0.1mA current display function
- Over-current & over-temperature protections
- Dual fast charging USB port, and max single port is 24W
- Output switch control
- Shutdown memory of the setting values
- Digital-potentiometer & quick-adjustment knob, which can adjust the output quickly and stably



### Description of the Operation Panel



### Description of Rear Panel





### Voltage Setting



— Rotate this knob to do coarse adjustment of voltage, and the step adjustment value is 1V or 10V. By pressing this button, you can select the adjustment digit.

— Rotate this knob to do fine adjustment of voltage, and the step adjustment value is 0.1V or 0.01V. By pressing this button, you can select the adjustment digit.

### Current Setting



— Rotate this current adjustment knob to adjust the current value, and press this button to select the adjustment digit.

### Over-current Protection Function



**OCP Protection value setting:** press and hold the key OCP for 1.5 seconds and the OCP indicator starts to blink, and so does the current display value. At this time, adjust the current knob to set the required overcurrent protection value. Then press and hold the key OCP again for 1.5 seconds to save the setting value and exit the setting.

**The OCP function is enabled :** Press this key to enable the over-current protection function, and then OCP indicator lights ON.

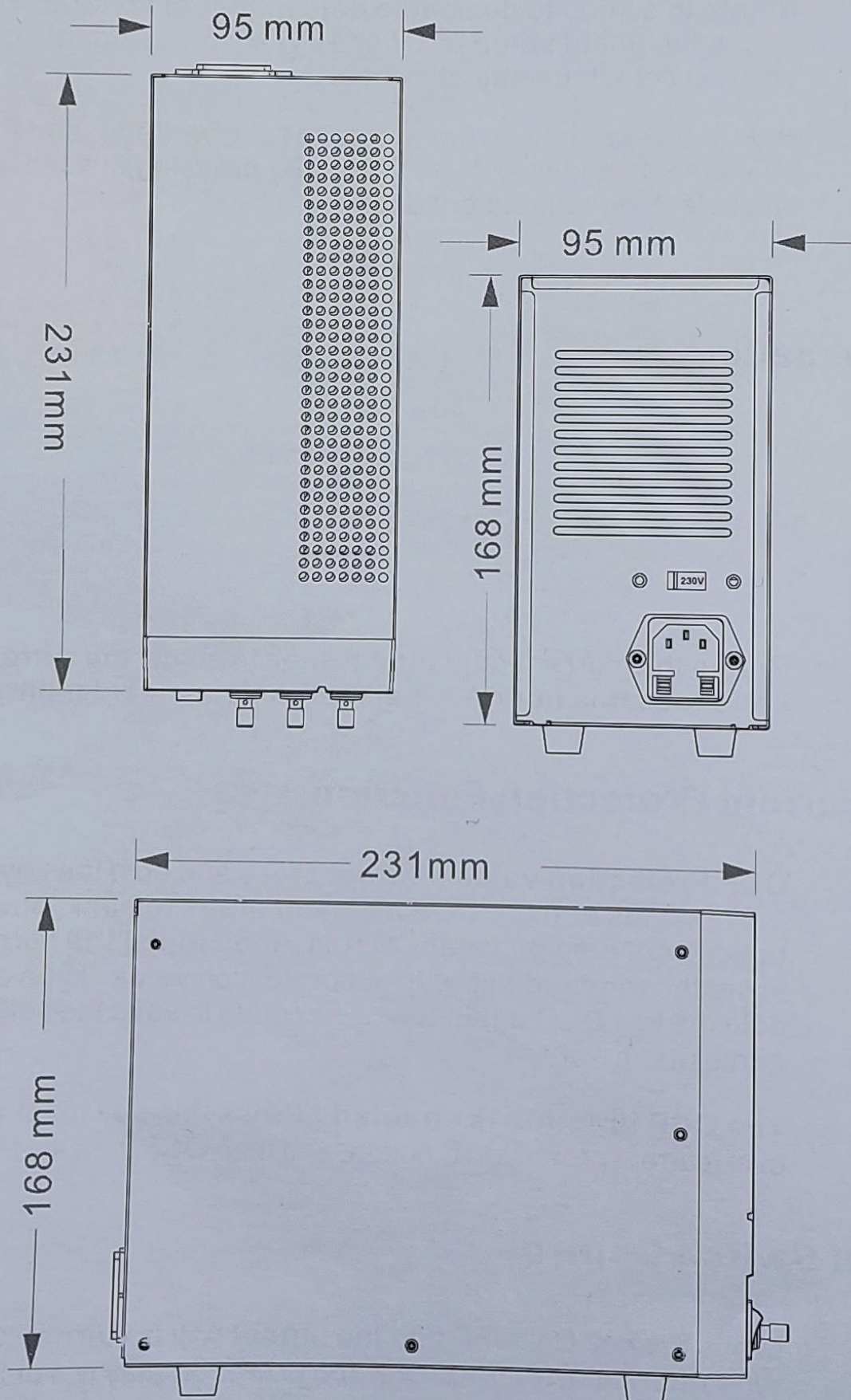
### Output Switch Control



Press the key ON/OFF and the output will be turned ON or OFF. When the output is turned OFF, the power display will display -OFF.



### Overall Dimension





## Specifications

Note: the following specifications are measured by preheating the machine for 3 minutes and the ambient temperature is  $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$ .

Moldels	U202	U203	U205	U206	U210
Voltage	0-30V	0-30V	0-60V	0-60V	0-400V
Current	0-5A	0-10A	0-3A	0-5A	0-1A
<b>Load Regulation</b>					
Voltage	$\leq 0.01\% + 2\text{mV}$	$\leq 0.01\% + 2\text{mV}$	$\leq 0.01\% + 2\text{mV}$	$\leq 0.01\% + 2\text{mV}$	$\leq 0.01\% + 10\text{mV}$
Current	$\leq 0.1\% + 2\text{mA}$	$\leq 0.1\% + 5\text{mA}$	$\leq 0.1\% + 2\text{mA}$	$\leq 0.1\% + 2\text{mA}$	$\leq 0.1\% + 2\text{mA}$
<b>Line Regulation</b>					
Voltage	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 3\text{mV}$	$\leq 0.01\% + 0.2\text{V}$
Current	$\leq 0.1\% + 3\text{mA}$	$\leq 0.1\% + 5\text{mA}$	$\leq 0.1\% + 3\text{mA}$	$\leq 0.1\% + 3\text{mA}$	$\leq 0.1\% + 3\text{mA}$
<b>Setup Resolution</b>					
Voltage	10mV	10mV	10mV	10mV	100mV
Current	1mA	1mA	1mA	1mA	1mA
<b>Setup Accuracy(<math>25^{\circ}\text{C} + -5^{\circ}\text{C}</math>)</b>					
Voltage	$\leq 0.5\% + 10\text{mV}$	$\leq 0.5\% + 10\text{mV}$	$\leq 0.5\% + 10\text{mV}$	$\leq 0.5\% + 10\text{mV}$	$\leq 0.5\% + 200\text{mV}$
Current	$\leq 0.5\% + 5\text{mA}$	$\leq 0.5\% + 5\text{mA}$	$\leq 0.5\% + 5\text{mA}$	$\leq 0.5\% + 10\text{mA}$	$\leq 0.5\% + 5\text{mA}$
<b>Ripple(20-20M)</b>					
Voltage	$\leq 20\text{mVrms}$	$\leq 20\text{mVrms}$	$\leq 20\text{mVrms}$	$\leq 20\text{mVrms}$	$\leq 50\text{mVrms}$
Current	$\leq 10\text{mA rms}$	$\leq 10\text{mA rms}$	$\leq 10\text{mA rms}$	$\leq 20\text{mA rms}$	$\leq 30\text{mA rms}$
<b>Temp. Coefficient</b>					
Voltage	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$
Current	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$
<b>Read Back Resolution</b>					
Voltage	10mV	10mV	10mV	10mV	100mV
Current	C>0.5A 1mA C<0.5A 0.1mA	C>0.5A 1mA C<0.5A 0.1mA	C>0.5A 1mA C<0.5A 0.1mA	C>0.5A 1mA C<0.5A 0.1mA	C>0.5A 1mA C<0.5A 0.1mA
<b>Read Back Temp. Coefficient</b>					
Voltage	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$
Current	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$	$\leq 150\text{ppm}$
<b>Weight and Dimension</b>					
U202, U203, U205, U206 & U210: 95mm(W)*168(H)*231mm(D)					
U202: 1.8kgs, U203: 2.5kgs, U205: 2kgs, U206: 2.5kgs & U210: 2.5kgs					

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