



## INTRODUCTION

The Metravi RPS-20005 Digital DC Power Supply is high-frequency switching DC power supply developed by our high-quality development team, with years of power products development experience and based on our field experience with extensive user equipment operation.

It is suitable for various high-frequency switching DC systems and related supporting equipment. It is widely used for battery charging, power electronics driving, scientific research institutes, production and processing industries, electronic components aging, and other applications need stable DC output.

## FEATURES

- Using PWM pulse width modulation technology based on world-famous brand IGBT or MOSFET power switching component.
- 3C3 coating level for main control board and soft magnetic core adopted.
- Low ripple, fast dynamic response rate, ripple and accuracy up to 0.2%.
- High efficiency, accurate precision, good and reliable performance.
- The output voltage and current can be continuously adjustable from 0 to 100% rated value.
- OVP & OCP values can be arbitrarily settable.
- Relative wide load adaptability.
- Complete protection functions, such as OVP, OCP & OTP.
- Working and protection status indication.
- Equipped with RS232 or RS485 interface. (Optional)
- 5-digit LED display for output voltage and current (measuring range: 1% ~ 100% rated value)
- Forced air cooling, power supply can withstand long-term continuously working with full load.
- Adopts 19-inch, standard 2U-3U rack mount chassis.

**TECHNICAL SPECIFICATIONS**

- Input voltage: Single-phase 220Vac±10%+PE (Power ≤ 1KW)
- Frequency: 50Hz±5%
- Efficiency: > 85%
- Constant voltage working mode: Output voltage continuously adjustable from 0 to 100% rated voltage via key buttons on front panel, (when the limit current is reached, power supply will automatically switch to constant current mode)
- Constant current working mode: Output current continuously adjustable from 0 to 100% rated current via key buttons on front panel, (when the limit voltage is reached, power supply will automatically switch to constant voltage mode)
- Line regulation rate: When the mains changes between 200VAC ~ 240VAC (single-phase)
- Load regulation rate: When the load changes within the range of 15% ~ 100% full load, the output voltage change is ≤±0.05%.
- Dynamic response: ≤2ms (When the grid voltage is at the rated value, power supply works in the constant voltage mode, if the load dynamically changes from 25% to 75%, the output voltage changes is ≤5%.)
- Time drift (when continuous working time is greater than 8 hours): ≤ ±1% of rated value.
- Temperature drift (the rate of change caused by temperature changes in the specified temperature range): ≤±1% of rated value/°C
- Output voltage accuracy: < 0.2%
- Output current accuracy: < 0.2%
- Ripple voltage: ≤0.5% (typical value of effective value ripple)
- Insulation strength ≥ 20M: (no breakdown and arcing) Class-B insulation.
- Withstand voltage rating: Input → Shell: ≥1500VAC, 1min, leakage current: ≤30mA  
Input → Output: ≥1500VAC, 1min, leakage current: ≤30mA  
Output → Shell: ≥500VAC, 1min, leakage current: ≤30mA
- Environmental Parameters: Ambient temperature -10°C ~ +45°C. Relative humidity 5% ~ 90% (no condensing). Atmospheric pressure: (70 ~ 106) KPA. No strong corrosive gas, combustible gas, oil mist, conductive and explosive dust. Indoor use only, good ventilation is required.

**GENERAL SPECIFICATIONS**

Control mode		PWM control
Input	Voltage	Single-phase 220VAC + G
	Frequency	50/60Hz
	Scope	±10%
Output	Working mode	CV / CC
	Adjustment range	0 ~ 200V / 0 ~ 5A
	Accuracy	±0.2% of rated value
	Error	RMS 0.2%