



MPS-H-3 SERIES DC POWER SUPPLY USER MANUAL

Certification: NOM-001-SCFI-2018 (NMX-I-60950-1-NYCE-2015)

MATRIX TECHNOLOGY INC.

Triple channel linear DC power supply

MPS-H-3 Series



- Current/voltage are all four-digit display, the accuracy is improved
- Resolution 10mV, 1mA, Voltage precision 0.03%+10mV, current precision 0.1%+5Ma
- All potentiometers are replaced by coded switches with low failure rate and long service life
- Select series, parallel and follow mode with one key
- CH1, CH2 can output independently, , and can be controlled.
- Voltage and current values in series and and parallel are displayed without calculation
- Coarse and fine adjustment of voltage and current can be simply carried by pressing the knob;
- USB and RS-232 and RS-485 interface are optional

Model		MPS-3003H-3			MPS-3005H-3			MPS-3010H-3			MPS-6003H-3			MPS-6005H-3		
Parameter		CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
Rated output	Voltage	0~30V	0~30V	5V	0~30V	0~30V	5V	0~30V	0~30V	5V	0~60V	0~60V	5V	0~60V	0~60V	5V
	Current	0~3A	0~3A	3A	0~5A	0~5A	3A	0~10A	0~10A	3A	0~3A	0~3A	3A	0~5A	0~5A	3A
Load regulation	Voltage	$\leq 0.01\%+5mV$		$\leq 15mV$	$\leq 0.01\%+5mV$		$\leq 15mV$	$\leq 0.01\%+8mV$		$\leq 15mV$	$\leq 0.01\%+5mV$		$\leq 15mV$	$\leq 0.01\%+5mV$		$\leq 15mV$
	Current	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-
Power regulation	Voltage	$\leq 0.01\%+5mV$		-	$\leq 0.01\%+5mV$		-	$\leq 0.01\%+8mV$		-	$\leq 0.01\%+5mV$		-	$\leq 0.01\%+5mV$		-
	Current	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-
Set resolution	Voltage	10mV		-	10mV		-	10mV		-	10mV		-	10mV		-
	Current	1mA		-	1mA		-	1mA		-	1mA		-	1mA		-
Readback resolution	Voltage	10mV		-	10mV		-	10mV		-	10mV		-	10mV		-
	Current	1mA		-	1mA		-	1mA		-	1mA		-	1mA		-
Set value accuracy	Voltage	$\leq 0.03\%+10mV$		-	$\leq 0.03\%+10mV$		-	$\leq 0.03\%+10mV$		-	$\leq 0.03\%+10mV$		-	$\leq 0.03\%+10mV$		-
	Current	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-
Readback accuracy	Voltage	$\leq 0.03\%+10mV$		-	$\leq 0.03\%+10mV$		-	$\leq 0.03\%+10mV$		-	$\leq 0.03\%+10mV$		-	$\leq 0.03\%+10mV$		-
	Current	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-	$\leq 0.1\%+5mA$		-
Parallel mode	Power effect	$\leq 0.01\%+5mV$		-	$\leq 0.01\%+5mV$		-	$\leq 0.02\%+8mV$		-	$\leq 0.02\%+5mV$		-	$\leq 0.02\%+5mV$		-
	Load effect	$\leq 0.01\%+5mV$		-	$\leq 0.02\%+5mV$		-	$\leq 0.02\%+8mV$		-	$\leq 0.02\%+5mV$		-	$\leq 0.02\%+5mV$		-
Serial mode	Power effect	$\leq 0.01\%+5mV$		-	$\leq 0.01\%+5mV$		-	$\leq 0.01\%+8mV$		-	$\leq 0.01\%+5mV$		-	$\leq 0.01\%+5mV$		-
	Load effect	$\leq 0.01\%+5mV$		-	$\leq 0.02\%+5mV$		-	$\leq 0.01\%+8mV$		-	$\leq 0.01\%+5mV$		-	$\leq 0.01\%+5mV$		-
Ripple and Noise	Voltage	$\leq 2mV(rms)$														
	Current	$\leq 5mA(rms)$														
Working temperature		0~40°C $\leq 80\%RH$														
Size (W*H*D)	mm	250*150*330														
Weight	kg	8			9			12			10			12		

2.2 Additional features

Recommended calibration frequency: 1 year/1 time

Cooling method: forced air cooling

Operating environment temperature: 0 to 40 °C

Storage temperature: -15 to 80 °C

Use environment: indoor use design, pollution level 2, maximum humidity 80%RH.

Chapter 3 Quick Start

This chapter will briefly introduce the appearance and basic functions of the MPS-3003H-3 series DC power supply, so that you can quickly know about the MPS-3003H-3 series DC power supply. At the same time, it will tell you the basic inspections to be done after getting the power supply to ensure the normal operation of the product.

3.1 Introduction to the front and rear panels

The front panel of MPS-3003H-3 series DC power supply is shown in the figure below.