



Aerospace quality - Craftsmanship and intelligence

# Electricity measurement Solution provider

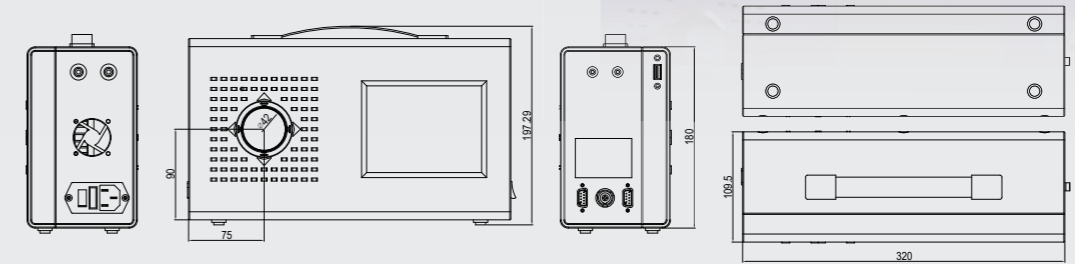
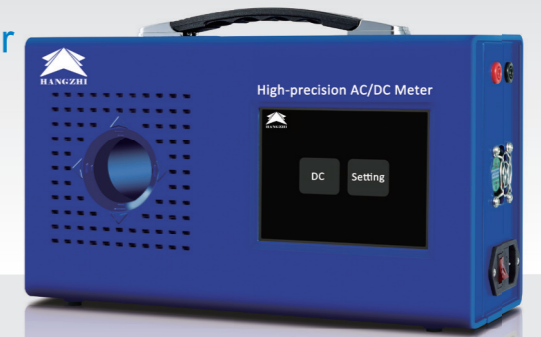
High-precision current sensor | voltage sensor | electrical measuring instrument

Shenzhen Hangzhi Precision Electronics Co., Ltd.

0.01 % grade - high-precision DC tester

# PIU SERIES

PIU600~PIU1500

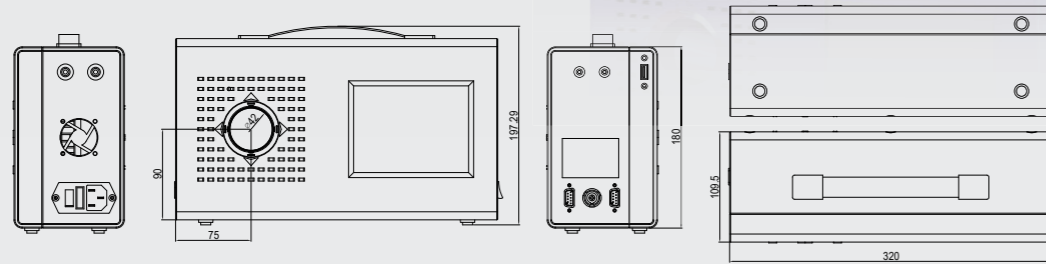


Product model	PIU600	PIU1000	PIU1500	
DC current	Measurement range limit	600A	1000A	1500A
	Measurement range	(0~110%)RG	(0~110%)RG	(0~110%)RG
	Measurement accuracy	±0.01%RD(30A≤I≤600A)	±0.01%RD(50A≤I≤1000A)	±0.01%RD(75A≤I≤1500A)
	Measurement resolution	0.001%RD(30A≤I≤600A)	0.001%RD(50A≤I≤1000A)	0.001%RD(75A≤I≤1500A)
DC voltage	Measurement range limit	1000V	1000V	1000V
	Measurement range	(0~110%)RG	(0~110%)RG	(0~110%)RG
	Measurement accuracy	±0.01%RD(50V≤U≤1000V)	±0.01%RD(50V≤U≤1000V)	±0.01%RD(50V≤U≤1000V)
DC power	Measurement accuracy	±0.01%RD (50V≤U≤1000V, 30A≤I≤600A)	±0.01%RD (50V≤U≤1000V, 50A≤I≤1000A)	±0.01%RD (50V≤U≤1000V, 75A≤I≤1500A)
	Work power supply voltage	AC85V ~ 265V, 50/60Hz	AC85V ~ 265V, 50/60Hz	AC85V ~ 265V, 50/60Hz
Other Parameters	Preheat time	≤30 minutes	≤30 minutes	≤30 minutes
	Operating temperature	10°C ~ 35°C	10°C ~ 35°C	10°C ~ 35°C
	Relative humidity	≤85%, no corrosive gas	≤85%, no corrosive gas	≤85%, no corrosive gas
	Size	320mm*180mm*110mm (length * width * height) (excluding bulge)	320mm*180mm*110mm (length * width * height) (excluding bulge)	320mm*180mm*110mm (length * width * height) (excluding bulge)
	Weight	3.0kg	3.0kg	3.0kg

0.01 % grade - high-precision DC tester

# PIU SERIES

PIU2000~PIU10000



Product model	PIU2000	PIU5000	PIU10000	
DC current	Measurement range limit	2000A	5000A	10000A
	Measurement range	(0~110%)RG	(0~110%)RG	(0~110%)RG
	Measurement accuracy	±0.01%RD(100A≤I≤2000A)	±0.01%RD(250A≤I≤5000A)	±0.01%RD(500A≤I≤10000A)
	Measurement resolution	0.001%RD(100A≤I≤2000A)	0.001%RD(250A≤I≤5000A)	0.001%RD(500A≤I≤10000A)
DC voltage	Measurement range limit	1000V	1000V	1000V
	Measurement range	(0~110%)RG	(0~110%)RG	(0~110%)RG
	Measurement accuracy	±0.01%RD(50V≤U≤1000V)	±0.01%RD(50V≤U≤1000V)	±0.01%RD(50V≤U≤1000V)
	Measurement resolution	0.001%RD(50V≤U≤1000V)	0.001%RD(50V≤U≤1000V)	0.001%RD(50V≤U≤1000V)
DC power	Measurement accuracy	±0.01%RD (50V≤U≤1000V, 100A≤I≤2000A)	±0.01%RD (50V≤U≤1000V, 250A≤I≤5000A)	±0.01%RD (50V≤U≤1000V, 500A≤I≤10000A)
	Work power supply voltage	AC85V ~ 265V, 50/60Hz	AC85V ~ 265V, 50/60Hz	AC85V ~ 265V, 50/60Hz
Other Parameters	Preheat time	≤30 minutes	≤30 minutes	≤30 minutes
	Operating temperature	10°C ~ 35°C	10°C ~ 35°C	10°C ~ 35°C
	Relative humidity	≤85%, no corrosive gas	≤85%, no corrosive gas	≤85%, no corrosive gas
	Size	320mm*180mm*110mm (length * width * height) (excluding bulge)	320mm*180mm*110mm (length * width * height) (excluding bulge)	320mm*180mm*110mm (length * width * height) (excluding bulge)
	Weight	/	/	/



# TYPICAL APPLICATION

PIU Series - Typical applications

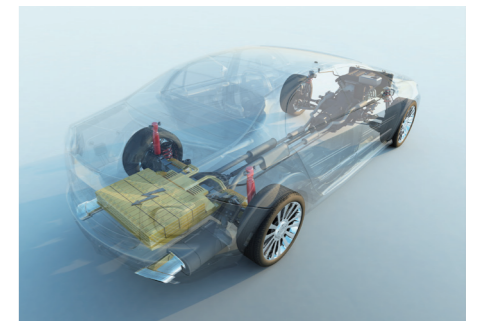
## Application Overview

The battery charging and discharging testing system mainly consists of a microcomputer control unit, a charging unit (DC stable power supply), a discharging unit (DC electronic load), a charging/discharging switching unit, a measuring unit, etc.

The battery charging and discharging testing system is a device that regulates and protects battery charging and discharging by establishing charging and discharging parameters. The typical voltage range can be regulated throughout the battery charging and discharging operation to prevent overcharging or discharging of the battery. The typical current range can be set. When the test reaches the specified value, it will immediately terminate. The battery charging and discharging testing system is primarily used to detect the battery's current, voltage, capacity, internal resistance, charging and discharging temperature, battery cycle life, etc. There are many channels to choose from and different battery models and types can be tested at the same time.

## The parameters of the battery charging and discharging testing system that must be measured

- Voltage range: 100mV~1000V, maximum allowable error: ± (0.02% -5%);
- Voltage measurement range: 100mV~1000V, maximum allowable error: ± (0.02% -5%);
- Setting range of charging and discharging current: 10mA~1500A, maximum allowable error: ± (0.05% -5%);
- The charging and discharging current measurement range is 10mA~1500A, with maximum allowable error: ± (0.05% -5%).



## PIU series high-precision DC tester parameters

- Voltage measurement range: ± (0.1V -1000V), maximum allowable error: ± 0.005%;
- Current measurement range: 10mA~2000A, maximum allowable error: ± 0.005%

The above parameters demonstrate that the accuracy of the PIU series high-precision DC tester is at least two orders of magnitude greater than the parameters required by the battery charging and discharging testing system for metrological verification, fully meeting the needs of the battery charging and discharging testing system for metrological verification.