

# Power Electric Tester

## III. TH6600 Series Programmable Bidirectional DC Power Supply

### Features

- High power density: 3U high single machine power 5kW/10kW/15kW
- Master-slave mode parallel, expandable to 240kW
- Bidirectional power supply, integrating laboratory power supply and regenerative electronic load
- High accuracy and high resolution, low ripple and low noise
- Power/load mode supports CV, CC, CR, CP automatic conversion
- Built-in function generator: built-in sine, triangle, arbitrary wave and other waveforms, support custom waveforms
- 0.99 power factor
- 7-inch 24-bit color TFT LCD capacitive touch screen, 800×480 resolution
- Linux operating system
- Battery charge and discharge test: battery, supercapacitor charge and discharge and capacity test
- Photovoltaic simulation test: simple PV test, MPPT maximum power point tracking
- Data recording function: real-time recording of voltage, current and other information, and save to USB flash drive
- USB flash drive upgrade: update the instrument system through USB flash drive
- Support knob and cursor to accurately adjust the value
- Intelligent fan control, save energy and reduce noise
- Timing function: timing the instrument output
- Analog interface: for external analog control
- Protection: built-in hardware OVP, OCP, OPP and other protections, customizable alarm events
- Support SCPI and MODBUS protocols

NEW



RS232	GPIB	LAN	USB HOST	USB DEVICE
standard	standard	standard	standard	standard

### TH6600 Series

Dimension(mm): 483(W)×133(H)×793.5(D)

Weight: 18.5kg / 25.5kg / 32.5kg

### Application

- R&D and design verification general test
- New energy: solar cells, new power vehicles, electric bicycles
- Routine testing and maintenance of production line benches
- Automation equipment integration testing
- Solar PV simulation test
- Teaching laboratories
- LED testing
- Automotive wiring harness reliability test
- Supercapacitor charging, discharging and capacity test

# Power Electric Tester

## III. TH6600 Series Programmable Bidirectional DC Power Supply

### Specifications

Model		TH6680-120-05	TH6680-240-10	TH6680-360-15
Rated Output (Power Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-80V	0-80V	0-80V
	Current	0-120A	0-240A	0-360A
	Internal Resistance	0.02-25Ω	0.01-13Ω	0.006-10Ω
Rated Input (Load Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-80V	0-80V	0-80V
	Current	0-120A	0-240A	0-360A
	Internal Resistance	0.02-25Ω	0.01-13Ω	0.006-10Ω
Load Regulation *1	Voltage	≤0.05%FS	≤0.05%FS	≤0.05%FS
	Current	≤0.15%FS	≤0.15%FS	≤0.15%FS
	Power	≤0.75%FS	≤0.75%FS	≤0.75%FS
Power Regulation *2	Voltage	≤0.02%FS	≤0.02%FS	≤0.02%FS
	Current	≤0.05%FS	≤0.05%FS	≤0.05%FS
	Power	≤0.05%FS	≤0.05%FS	≤0.05%FS
Setting Resolution	Voltage	10mV	10mV	10mV
	Current	0.1A	0.1A	0.1A
	Power	1W	1W	1W
	Internal Resistance	0.001Ω	0.001Ω	0.001Ω
Readback Resolution	Voltage	10mV	10mV	10mV
	Current	0.1A	0.1A	0.1A
	Power	1W	1W	1W
	Internal Resistance	0.001Ω	0.001Ω	0.001Ω
Setpoint Accuracy 12Months (25°C±5°C)	Voltage	≤0.1%FS	≤0.1%FS	≤0.1%FS
	Current	≤0.2%FS	≤0.2%FS	≤0.2%FS
	Power	≤1%FS	≤1%FS	≤1%FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Readback Accuracy 12Months (25°C±5°C)	Voltage	≤0.2%FS	≤0.2%FS	≤0.2%FS
	Current	≤0.2%FS	≤0.2%FS	≤0.2%FS
	Power	≤1%FS	≤1%FS	≤1%FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Ripple & Noise (20Hz-2MHz)	Differential Mode Voltage	≤200mVp-p and 16mVrms	≤320mVp-p and 25mVrms	≤320mVp-p and 25mVrms
	Differential Mode Current	≤80mA rms	≤160mA rms	≤240mA rms
Dynamic Recovery Time (50%-100%Load)		≤1.5ms		
Remote Sensor Compensation		≤0.5%FS		
Power Supply Conversion Efficiency		≤93%		
Energy Feedback Efficiency		≤93%		
Volume & Weight	Rack Mount (WxHxD) mm	430×133×703.5		
	Overall Dimension (WxHxD)mm	483×133×793.5		
	Weight (net weight)	18.5kg	25.5kg	32.5kg
Power Supply		342VAC-528VAC, 44-66Hz		

\*1 Load regulation ratio at load from 0-100% when used as a power supply.

\*2 Power regulation ratio at power supply from 0-100% when used as a load.

# Power Electric Tester

## III. TH6600 Series Programmable Bidirectional DC Power Supply

### Specifications

Model		TH66200-70-05	TH66200-140-10	TH66200-210-15
Rated Output (Power Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-200V	0-200V	0-200V
	Current	0-70A	0-140A	0-210A
	Internal Resistance	0.1-150Ω	0.05-75Ω	0.033-50Ω
Rated Input (Load Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-200V	0-200V	0-200V
	Current	0-70A	0-140A	0-210A
	Internal Resistance	0.1-150Ω	0.05-75Ω	0.033-50Ω
Load Regulation*1	Voltage	≤0.05% FS	≤0.05% FS	≤0.05% FS
	Current	≤0.15% FS	≤0.15% FS	≤0.15% FS
	Power	≤0.75% FS	≤0.75% FS	≤0.75% FS
Power Regulation*2	Voltage	≤0.02% FS	≤0.02% FS	≤0.02% FS
	Current	≤0.05% FS	≤0.05% FS	≤0.05% FS
	Power	≤0.05% FS	≤0.05% FS	≤0.05% FS
Minimum resolution of setpoint	Voltage	10mV	10mV	10mV
	Current	0.01A	0.01A	0.01A
	Power	1W	1W	1W
	Internal Resistance	0.01Ω	0.01Ω	0.01Ω
Minimum resolution of readback value	Voltage	10mV	10mV	10mV
	Current	0.01A	0.01A	0.01A
	Power	1W	1W	1W
	Internal Resistance	0.0001Ω	0.0001Ω	0.0001Ω
Setpoint accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Readback accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Ripple & Noise (20Hz-2MHz)	Differential Mode Voltage	≤320mVp-p and 45mVrms	≤320mVp-p and 45mVrms	≤320mVp-p and 45mVrms
	Differential Mode Current	≤22mA rms	≤44mA rms	≤66mA rms
Dynamic recovery time (50%-100% Load)		≤1.5ms		
Remote Sensor Compensation		≤5% FS		
Power Supply Conversion Efficiency		≤93%		
Energy Feedback Efficiency		≤93%		
Volume & Weight	Rack Mount(WxHxD)mm	430×133×703.5		
	Overall Dimension (WxHxD)mm	483×133×793.5		
	Weight (net weight)	18.5kg	25.5kg	32.5kg
Power Supply		342VAC-528VAC, 44-66Hz		

# Power Electric Tester

## III. TH6600 Series Programmable Bidirectional DC Power Supply

### Specifications

Model		TH66360-40-05	TH66360-80-10	TH66360-120-15
Rated Output (Power Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-360V	0-360V	0-360V
	Current	0-40A	0-80A	0-120A
	Internal Resistance	0.3-520Ω	0.15-260Ω	0.1-180Ω
Rated Input (Load Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-360V	0-360V	0-360V
	Current	0-40A	0-80A	0-120A
	Internal Resistance	0.3-520Ω	0.15-260Ω	0.1-180Ω
Load Regulation*1	Voltage	≤0.05% FS	≤0.05% FS	≤0.05% FS
	Current	≤0.15% FS	≤0.15% FS	≤0.15% FS
	Power	≤0.75% FS	≤0.75% FS	≤0.75% FS
Power Regulation*2	Voltage	≤0.02% FS	≤0.02% FS	≤0.02% FS
	Current	≤0.05% FS	≤0.05% FS	≤0.05% FS
	Power	≤0.05% FS	≤0.05% FS	≤0.05% FS
Minimum resolution of setpoint	Voltage	10mV	10mV	10mV
	Current	0.01A	0.01A	0.01A
	Power	1W	1W	1W
	Internal Resistance	0.01Ω	0.01Ω	0.01Ω
Minimum resolution of readback value	Voltage	10mV	10mV	10mV
	Current	0.01A	0.01A	0.01A
	Power	1W	1W	1W
	Internal Resistance	0.0001Ω	0.0001Ω	0.0001Ω
Setpoint accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Readback accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Ripple & Noise (20Hz-2MHz)	Differential Mode	≤320mVp-p and	≤320mVp-p and	≤320mVp-p and
	Voltage	55mVrms	55mVrms	55mVrms
	Differential Mode	≤18mArms	≤35mAmps	≤50mAmps
	Current			
Dynamic recovery time (50%-100%Load)		≤1.5ms		
Remote Sensor Compensation		≤5% FS		
Power Supply Conversion Efficiency		≤93%		
Energy Feedback Efficiency		≤93%		
Volume & Weight	Rack Mount (WxHxD)mm	430×133×703.5		
	Overall Dimension (WxHxD)mm	483×133×793.5		
	Weight (net weight)	18.5kg	25.5kg	32.5kg
Power Supply		342VAC-528VAC, 44-66Hz		

# Power Electric Tester

## III. TH6600 Series Programmable Bidirectional DC Power Supply

### Specifications

Model		TH66500-30-05	TH66500-60-10	TH66500-90-15
Rated Output (Power Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-500V	0-500V	0-500V
	Current	0-30A	0-60A	0-90A
	Internal Resistance	0.5-1000Ω	0.25-500Ω	0.16-340Ω
Rated Input (Load Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-500V	0-500V	0-500V
	Current	0-30A	0-60A	0-90A
	Internal Resistance	0.5-1000Ω	0.25-500Ω	0.16-340Ω
Load Regulation*1	Voltage	≤0.05% FS	≤0.05% FS	≤0.05% FS
	Current	≤0.15% FS	≤0.15% FS	≤0.15% FS
	Power	≤0.75% FS	≤0.75% FS	≤0.75% FS
Power Regulation*2	Voltage	≤0.02% FS	≤0.02% FS	≤0.02% FS
	Current	≤0.05% FS	≤0.05% FS	≤0.05% FS
	Power	≤0.05% FS	≤0.05% FS	≤0.05% FS
Minimum resolution of setpoint	Voltage	10mV	10mV	10mV
	Current	0.01A	0.01A	0.01A
	Power	1W	1W	1W
	Internal Resistance	0.01Ω	0.01Ω	0.01Ω
Minimum resolution of readback value	Voltage	10mV	10mV	10mV
	Current	0.01A	0.01A	0.01A
	Power	1W	1W	1W
	Internal Resistance	0.0001Ω	0.0001Ω	0.0001Ω
Setpoint accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Readback accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Ripple & Noise (20Hz-2MHz)	Differential Mode Voltage	≤350mVp-p and 70mVrms	≤350mVp-p and 70mVrms	≤350mVp-p and 70mVrms
	Differential Mode Current	≤16mA rms	≤32mA rms	≤48mA rms
Dynamic recovery time (50%-100%Load)		≤1.5ms		
Remote Sensor Compensation		≤5%		
Power Supply Conversion Efficiency		≤93%		
Energy Feedback Efficiency		≤93%		
Volume & Weight	Rack Mount (WxHxD)mm	430×133×703.5		
	Overall Dimension (WxHxD)mm	483×133×793.5		
	Weight (net weight)	18.5kg	25.5kg	32.5kg
Power Supply		342VAC-528VAC, 44-66Hz		

# Power Electric Tester

## III. TH6600 Series Programmable Bidirectional DC Power Supply

### Specifications

Model		TH66750-20-05	TH66750-40-10	TH66750-60-15
Rated Output (Power Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-750V	0-750V	0-750V
	Current	0-20A	0-40A	0-60A
	Internal Resistance	1.2-2200Ω	0.6-1100Ω	0.4-740Ω
Rated Input (Load Mode)	Power	0-5kW	0-10kW	0-15kW
	Voltage	0-750V	0-750V	0-750V
	Current	0-20A	0-40A	0-60A
	Internal Resistance	1.2-2200Ω	0.6-1100Ω	0.4-740Ω
Load Regulation*1	Voltage	≤0.05% FS	≤0.05% FS	≤0.05% FS
	Current	≤0.15% FS	≤0.15% FS	≤0.15% FS
	Power	≤0.75% FS	≤0.75% FS	≤0.75% FS
Power Regulation*2	Voltage	≤0.02% FS	≤0.02% FS	≤0.02% FS
	Current	≤0.05% FS	≤0.05% FS	≤0.05% FS
	Power	≤0.05% FS	≤0.05% FS	≤0.05% FS
Minimum resolution of setpoint	Voltage	10mV	10mV	10mV
	Current	0.01A	0.01A	0.01A
	Power	1W	1W	1W
	Internal Resistance	0.01Ω	0.01Ω	0.01Ω
Minimum resolution of readback value	Voltage	10mV	10mV	10mV
	Current	0.01A	0.01A	0.01A
	Power	1W	1W	1W
	Internal Resistance	0.0001Ω	0.0001Ω	0.0001Ω
Setpoint accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Readback accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current		
Ripple & Noise (20Hz-2MHz)	Differential Mode Voltage	≤800mVp-p and 200mVrms	≤800mVp-p and 200mVrms	≤800mVp-p and 200mVrms
	Differential Mode Current	≤16mA rms	≤32mA rms	≤48mA rms
Dynamic recovery time (50%-100%Load)		≤1.5ms		
Remote Sensor Compensation		≤5%		
Power Supply Conversion Efficiency		≤93%		
Energy Feedback Efficiency		≤93%		
Volume & Weight	Rack Mount(WxHxD)mm	430×133×703.5		
	Overall Dimension (WxHxD)mm	483×133×793.5		
	Weight (net weight)	18.5kg	25.5kg	32.5kg
Power Supply		342VAC-528VAC, 44-66Hz		

# Power Electric Tester

## III. TH6600 Series Programmable Bidirectional DC Power Supply

### Specifications

Model		TH661000-40-15	TH661500-30-15
Rated Output (Power Mode)	Power	0-15kW	0-15kW
	Voltage	0-1000V	0-1500V
	Current	0-40A	0-30A
	Internal Resistance	0.8-1300Ω	2.5-3000Ω
Rated Input (Load Mode)	Power	0-15kW	0-15kW
	Voltage	0-1000V	0-1500V
	Current	0-40A	0-30A
	Internal Resistance	0.8-1300Ω	2.5-3000Ω
Load Regulation*1	Voltage	≤0.05% FS	≤0.05% FS
	Current	≤0.15% FS	≤0.15% FS
	Power	≤0.75% FS	≤0.75% FS
Power Regulation*2	Voltage	≤0.02% FS	≤0.02% FS
	Current	≤0.05% FS	≤0.05% FS
	Power	≤0.05% FS	≤0.05% FS
Minimum resolution of setpoint	Voltage	10mV	10mV
	Current	0.01A	0.01A
	Power	1W	1W
	Internal Resistance	0.01Ω	0.01Ω
Minimum resolution of readback value	Voltage	10mV	10mV
	Current	0.01A	0.01A
	Power	1W	1W
	Internal Resistance	0.0001Ω	0.0001Ω
Setpoint accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current	≤1% of maximum resistance ±1% of maximum current
Readback accuracy 12Months (25°C±5°C)	Voltage	≤0.1% FS	≤0.1% FS
	Current	≤0.2% FS	≤0.2% FS
	Power	≤1% FS	≤1% FS
	Internal Resistance	≤1% of maximum resistance ±1% of maximum current	≤1% of maximum resistance ±1% of maximum current
Ripple & Noise (20Hz-2MHz)	Differential Mode Voltage	≤1600mVp-p and 300mVrms	≤2400mVp-p and 400mVrms
	Differential Mode Current	≤16mA rms	≤26mA rms
Dynamic recovery time(50%-100%Load)		≤1.5ms	≤1.5ms
Remote Sensor Compensation		≤5%	≤5%
Power Supply Conversion Efficiency		≤93%	≤93%
Energy Feedback Efficiency		≤93%	≤93%
Volume & Weight	Rack Mount (WxHxD)mm	430×133×703.5	430×133×703.5
	Overall Dimension (WxHxD)mm	483×133×793.5	483×133×793.5
	Weight (net weight)	32.5kg	32.5kg
Power Supply		342VAC-528VAC, 44-66Hz	342VAC-528VAC, 44-66Hz