

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 | ≤80mArms | ≤160mArms | ≤240mArms |
| 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 | ≤22mArms | ≤44mArms | ≤66mArms |
| 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 Voltage | ≤320mVp-p and 55mVrms | ≤320mVp-p and 55mVrms | ≤320mVp-p and 55mVrms |
| | Differential Mode Current | ≤18mArms | ≤35mArms | ≤50mArms |
| | | | | |
| 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 | ≤16mArms | ≤32mArms | ≤48mArms |
| 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 | ≤16mArms | ≤32mArms | ≤48mArms |
| 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 | ≤16mArms | ≤26mArms |
| | | | |
| 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 |