

FTG series

Combined ultra-high power programmable DC power supply



Characteristic

- Unit range:
 - Voltage: 0~1500V,
 - Current: 0~20000A,
 - Power: 4~600kW;
- High precision voltage and current control and measurement;
- Constant voltage, constant current, constant power output function;
- Convenient and practical sequence function, can achieve various voltage and current waveform output;
- Complex waveform editing function, can achieve a variety of complex voltage and current waveform output;
- High power density, 3U/15kW;
- With voltage remote compensation and protection function, remote and near automatic switching, easy to use;
- Supports voltage and current monitoring output;
- The output time can be set freely, and the output time can be accurately controlled and recorded;
- Feature-rich "Faith Power Product Demonstration Platform" software is standard, with basic solar PV cell simulation functions;
- Feature-rich "Faithtech Solar PV Matrix Simulation Software" is available (optional);
- Analog programming: Output voltage and output current are controlled by analog (optional);
- Composite signal ports with powerful signal monitoring capabilities (optional);
- Monitoring output: The output waveform of voltage and current is output in the form of analog quantity for easy monitoring;
- Provides RS232, LAN, RS485 (optional), GPIB (optional), CAN (optional) a variety of remote communication interfaces;
- Standard SCPI and Modbus-RTU instructions facilitate the establishment of intelligent test platform and secondary development;
- Modular stack combination, standard rack design, easy to install and maintain;
- Over voltage/over current/over power/over temperature comprehensive intelligent protection function;
- TFT color LCD display, support simplified Chinese, traditional Chinese and English display;
- Intelligent fan control reduces noise and increases fan life.

Summary

FTG series programmable DC switching power source, voltage range from 10V to 1500V, single current up to 20000A, single maximum power of 600kW. The first technology in China, the control and measurement accuracy of 0.1% is still maintained when the current is working, which provides strong support for sensor testing, superconducting material testing, cable testing and other tests.

FTG series has the advantages of high power density, high current and low ripple noise, fast transient response, high resolution and high precision. The power supply system adopts the modular stacking architecture. The modules are connected through high-speed external buses, which ensures high reliability and facilitates maintenance and expansion. It can be used in laboratory testing, vehicle equipment testing, solar inverter testing, DC/DC converter and inverter testing, engine start-up testing, automatic battery charging, electronic product life cycle testing.

FTG series with LAN/RS232/ RS485 (optional) /GPIB (optional) /CAN (optional) interface, support both SCPI protocol and standard ModBus-RTU protocol, coupled with the built-in isolation data/mode control interface (optional), bring great application diversity and convenience for system integration applications.

Application field

- Flexible application of multiple specifications in power electronics laboratory;
- Fuel cell, power battery, lead-acid battery, supercapacitor test;
- Power supply environment simulation of vehicle, airborne and shipboard electronic equipment;
- DC charger, charging pile design and test system integration;
- Server power supply, UPS, inverter design and test;
- Solar energy, wind energy, energy storage design and testing;
- Sensor, superconducting material, cable and other product testing;
- Power supply and design testing in UAV, laser and sensor fields.

Distribution in the UK & Ireland



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**Characterisation,
Measurement &
Analysis**

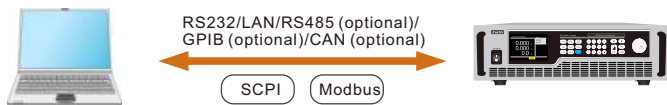
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Measuring function

FTG series built-in 16bits high precision A/D converter, voltage 0.05%F.S., current 0.1%+0.1%F.S. The measurement accuracy. The measured values of voltage, current, and power can be simultaneously displayed on the display on the front panel of the power supply. In addition, FTG provides additional voltage and current monitoring output function, users can monitor the voltage and current output waveform through the oscilloscope through the monitoring output terminal.

Multi-interface and multi-protocol

FTG series is equipped with a variety of communication interfaces, while supporting SCPI and Modbus two communication protocols. Users can configure the system on the menu according to their needs, which makes the system integration more flexible.

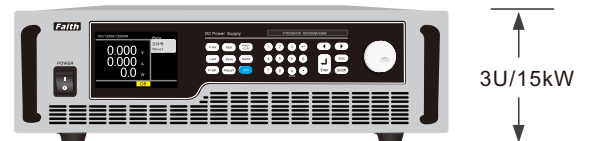


Constant power function

The FTG series power supply has a constant power output function, which allows the user to set the power output value, maximum output voltage and maximum output current. Constant power output After opening, the power supply constantly adjusts the output voltage and output current, so that the output power is maintained at the set value. Users can also adjust the response speed to accommodate various loads at different rates.

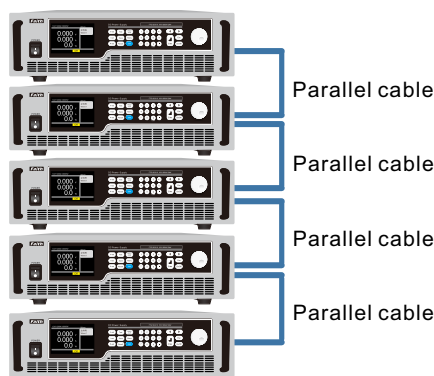
3U/15kW high power density

The FTG series offers a high power density of 3U/15kW with accurate output, fast response and low ripple noise. A wide range of voltage 10V ~ 1500V, current 3.5A ~ 20000A combination, suitable for every test verification link from design to product production process.



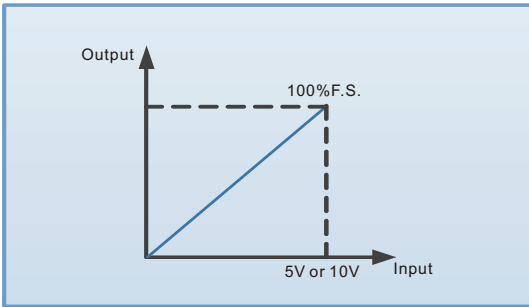
Master/slave parallel function

FTG power supply supports up to 10 power supplies in parallel, greatly expanding the application output range of the power supply. In addition to the automatic load balancing between the power supplies, the cascade function ensures the consistency of the output value, and also ensures the consistency of the output slope curve or waveform. When the host is in parallel, the power screen displays the total voltage, current, and power values. Each slave automatic flow, automatic summing.



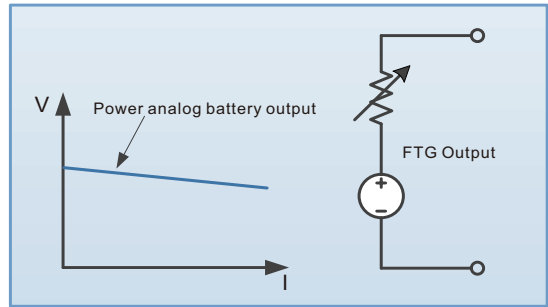
Analog programming function

FTG series has two analog input ports, voltage programming and current programming, which can respectively control the output voltage and output current. The analog programming signal can be selected from 0 ~ 5V or 0 ~ 10V DC voltage signal. The programmed signal corresponds to the output voltage and output current from 0 to 100%F.S.



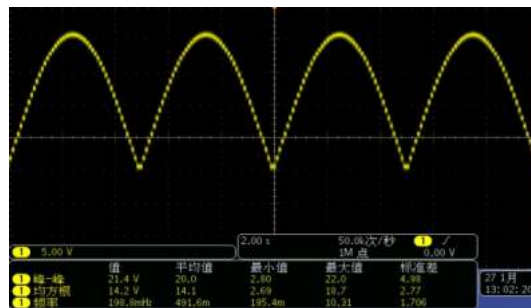
Battery internal resistance simulation function

FTG series power supply with battery internal resistance analog output function, when the output current of the power supply increases, the output voltage can be adjusted according to the user's pre-set internal resistance value.



Sequence function

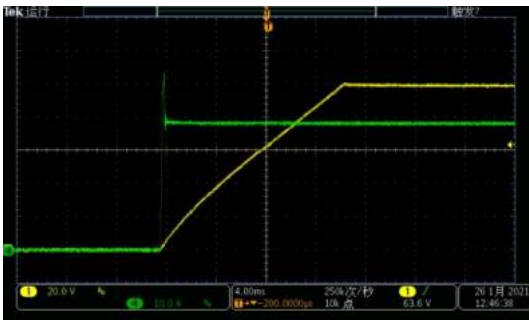
FTG series power supply has serial output function, users can edit complex voltage and current waveform according to actual needs. Support 10 sequence files, each file 100 steps, support loop, link, easy to achieve complex waveform output.



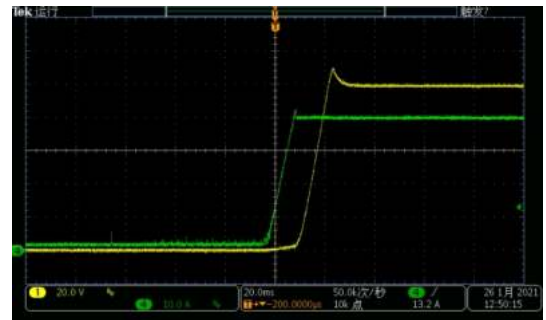
Half-wave sine generated by the sequence function

CV and CC are preferred

When the power output is connected to the inductive or capacitive load, the output current or voltage will overshoot to a certain extent, which will trigger the protection of the device under test, or directly cause damage to the device under test. FTG series with CV, CC output priority function to effectively inhibit output overshoot and the impact.



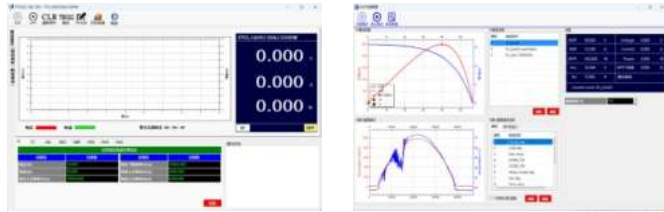
CV Priority
(High-speed build-up voltage, current overshoot)



CC priority
(High-speed build-up current, voltage overshoot)

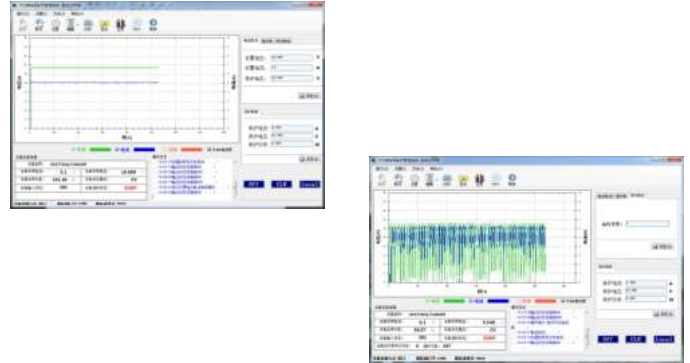
Photovoltaic array simulation function

The FTG series comes standard with the feature-rich “Faith Power Demo Platform”, which has the basic version of the PV function to test PV inverters. The FTG series comes standard with a feature-rich “Faith Power Demo Platform” with basic PV functionality to test PV inverters, and a host of additional features such as dynamic MPPT, typical weather data, customized light/temperature profiles, and more. For more complex PV test functions, the optional Faithtech Solar PV Matrix Simulation Software is available.



Computer graphical operation software

FTG series provides a host computer software with virtual instrument function, which can read test data in real time, generate images, export reports, print reports, etc., which is convenient for customers to use.



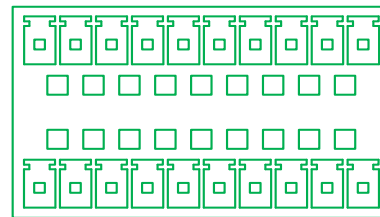
Dissipator equipped, accelerated braking (optional)

Inductive load such as motor will reverse power supply when it decelerates or stops quickly, causing overvoltage or damage to power supply. In order to release this part of energy and prevent damage to the power supply, FTG series can be equipped with the corresponding dissipator in parallel. The power of the dissipator is recommended to exceed 20% of the power of the corresponding power supply. To extend more power, multiple power dissipators are supported in parallel. During the test, the power supply is connected in parallel with the dissipator, which can effectively prevent the motor from decelerating overvoltage, reduce the decelerating distance, and improve the dynamic performance.

Composite signal port (optional)

The FTG series is available with an optional composite signal port, which provides the following functions:

- Voltage and current output monitoring;
- Voltage and current programming control;
- Working mode indication;
- Scram control input;
- READY Indicates the working status of power supply;
- DC_ON Output voltage monitoring, etc.



Faith Solar PV Matrix Simulation software (optional)

Faithtech Solar PV Matrix simulation software is a photovoltaic test software for Faithtech power supply series, using a simple and intuitive graphical interface to present users with an intuitive and friendly human-machine interface. Users can easily use the software to output, measure and display the maximum power tracking status and numerical record of the photovoltaic inverter in real time. Software built-in EN50530, Sandia and other 5 kinds of regulatory test programs, can simulate the solar panel under different parameters of the series parallel test, as well as cloud shielding and other tests; It is convenient for users to test the static and dynamic MPPT performance of photovoltaic inverters.



Ordering information-1

Voltage	Model	Current	Power	Voltage	Model	Current	Power	Voltage	Model	Current	Power
10V	FTG040-010	400A	4kW	15V	FTG045-015	300A	4.5kW	20V	FTG050-020	250A	5kW
	FTG080-010	800A	8kW		FTG090-015	600A	9kW		FTG100-020	500A	10kW
	FTG120-010	1200A	12kW		FTG135-015	900A	13.5kW		FTG150-020	750A	15kW
	FTG160-010	1600A	16kW		FTG180-015	1200A	18kW		FTG200-020	1000A	20kW
	FTG200-010	2000A	20kW		FTG225-015	1500A	22.5kW		FTG250-020	1250A	25kW
	FTG240-010	2400A	24kW		FTG270-015	1800A	27kW		FTG300-020	1500A	30kW
	FTG360-010	3600A	36kW		FTG405-015	2700A	40.5kW		FTG450-020	2250A	45kW
	FTG480-010	4800A	48kW		FTG540-015	3600A	54kW		FTG600-020	3000A	60kW
	FTG600-010	6000A	60kW		FTG675-015	4500A	67.5kW		FTG900-020	4500A	90kW
	FTG1200-010	12000A	120kW		FTG1080-015	7200A	108kW		FTG1200-020	6000A	120kW
Voltage	Model	Current	Power	Voltage	Model	Current	Power	Voltage	Model	Current	Power
30V	FTG050-030	167A	5kW	40V	FTG050-040	125A	5kW	50V	FTG050-050	100A	5kW
	FTG100-030	334A	10kW		FTG100-040	250A	10kW		FTG100-050	200A	10kW
	FTG150-030	500A	15kW		FTG150-040	375A	15kW		FTG150-050	300A	15kW
	FTG200-030	667A	20kW		FTG200-040	500A	20kW		FTG200-050	400A	20kW
	FTG250-030	833.5A	25kW		FTG250-040	625A	25kW		FTG250-050	500A	25kW
	FTG300-030	1000A	30kW		FTG300-040	750A	30kW		FTG300-050	600A	30kW
	FTG450-030	1500A	45kW		FTG450-040	1125A	45kW		FTG450-050	900A	45kW
	FTG600-030	2000A	60kW		FTG600-040	1500A	60kW		FTG600-050	1200A	60kW
	FTG900-030	3000A	90kW		FTG900-040	2250A	90kW		FTG900-050	1800A	90kW
	FTG1200-030	4000A	120kW		FTG1200-040	3000A	120kW		FTG1200-050	2400A	120kW
Voltage	Model	Current	Power	Voltage	Model	Current	Power	Voltage	Model	Current	Power
60V	FTG050-060	83.5A	5kW	100V	FTG050-100	50A	5kW	160V	FTG050-160	31.5A	5kW
	FTG100-060	167A	10kW		FTG100-100	100A	10kW		FTG100-160	62.5A	10kW
	FTG150-060	250A	15kW		FTG150-100	150A	15kW		FTG150-160	94A	15kW
	FTG200-060	333.5A	20kW		FTG200-100	200A	20kW		FTG200-160	125A	20kW
	FTG250-060	417A	25kW		FTG250-100	250A	25kW		FTG250-160	156.5A	25kW
	FTG300-060	500A	30kW		FTG300-100	300A	30kW		FTG300-160	188A	30kW
	FTG450-060	750A	45kW		FTG450-100	450A	45kW		FTG450-160	281.5A	45kW
	FTG600-060	1000A	60kW		FTG600-100	600A	60kW		FTG600-160	375A	60kW
	FTG900-060	1500A	90kW		FTG900-100	900A	90kW		FTG900-160	562.5A	90kW
	FTG1200-060	2000A	120kW		FTG1200-100	1200A	120kW		FTG1200-160	750A	120kW

*More standard voltage specification products, including 75V/80V/120V/150V/200V, etc. are not listed;

*More high power specification models are not listed;

*Suffix H indicates: 10V, 15V, 20V, 30V for current high slope models; 600V, 1000V for voltage high slope models.

Ordering information-2

Voltage	Model	Current	Power	Voltage	Model	Current	Power	Voltage	Model	Current	Power
250V	FTG050-250	20A	5kW	300V	FTG050-300	17A	5kW	400V	FTG050-400	12.5A	5kW
	FTG100-250	40A	10kW		FTG100-300	33.5A	10kW		FTG100-400	25A	10kW
	FTG150-250	60A	15kW		FTG150-300	50A	15kW		FTG150-400	37.5A	15kW
	FTG200-250	80A	20kW		FTG200-300	67A	20kW		FTG200-400	50A	20kW
	FTG250-250	100A	25kW		FTG250-300	83.5A	25kW		FTG250-400	62.5A	25kW
	FTG300-250	120A	30kW		FTG300-300	100A	30kW		FTG300-400	75A	30kW
	FTG450-250	180A	45kW		FTG450-300	150A	45kW		FTG450-400	112.5A	45kW
	FTG600-250	240A	60kW		FTG600-300	200A	60kW		FTG600-400	150A	60kW
	FTG900-250	360A	90kW		FTG900-300	300A	90kW		FTG900-400	225A	90kW
FTG1200-250	480A	120kW	FTG1200-300	400A	120kW	FTG1200-400	300A	120kW			
Voltage	Model	Current	Power	Voltage	Model	Current	Power	Voltage	Model	Current	Power
500V	FTG050-500	10A	5kW	600V	FTG050-600	8.5A	5kW	800V	FTG050-800	6.5A	5kW
	FTG100-500	20A	10kW		FTG100-600	17A	10kW		FTG100-800	12.5A	10kW
	FTG150-500	30A	15kW		FTG150-600	25A	15kW		FTG150-800	19A	15kW
	FTG200-500	40A	20kW		FTG200-600	33.5A	20kW		FTG200-800	25A	20kW
	FTG250-500	50A	25kW		FTG250-600	42A	25kW		FTG250-800	31.5A	25kW
	FTG300-500	60A	30kW		FTG300-600	50A	30kW		FTG300-800	37.5A	30kW
	FTG450-500	90A	45kW		FTG450-600	75A	45kW		FTG450-800	56.5A	45kW
	FTG600-500	120A	60kW		FTG600-600	100A	60kW		FTG600-800	75A	60kW
	FTG900-500	180A	90kW		FTG900-600	150A	90kW		FTG900-800	112.5A	90kW
FTG1200-500	240A	120kW	FTG1200-600	200A	120kW	FTG1200-800	150A	120kW			
Voltage	Model	Current	Power	Voltage	Model	Current	Power	Voltage	Model	Current	Power
1000V	FTG050-1000	5A	5kW	1200V	FTG050-1200	4.5A	5kW	1500V	FTG050-1500	3.5A	5kW
	FTG100-1000	10A	10kW		FTG100-1200	8.5A	10kW		FTG100-1500	7A	10kW
	FTG150-1000	15A	15kW		FTG150-1200	12.5A	15kW		FTG150-1500	10A	15kW
	FTG200-1000	20A	20kW		FTG200-1200	17A	20kW		FTG200-1500	13.5A	20kW
	FTG250-1000	25A	25kW		FTG250-1200	21A	25kW		FTG250-1500	17A	25kW
	FTG300-1000	30A	30kW		FTG300-1200	25A	30kW		FTG300-1500	20A	30kW
	FTG450-1000	45A	45kW		FTG450-1200	37.5A	45kW		FTG450-1500	30A	45kW
	FTG600-1000	60A	60kW		FTG600-1200	50A	60kW		FTG600-1500	40A	60kW
	FTG900-1000	90A	90kW		FTG900-1200	75A	90kW		FTG900-1500	60A	90kW
FTG1200-1000	120A	120kW	FTG1200-1200	100A	120kW	FTG1200-1500	80A	120kW			

*More standard voltage specification products, including 75V/80V/120V/150V/200V, etc. are not listed;

*More high power specification models are not listed;

*Suffix H indicates: 10V, 15V, 20V, 30V for current high slope models; 600V, 1000V for voltage high slope models.

Ordering information-3

Voltage	Model	Current	Power	Voltage	Model	Current	Power	Voltage	Model	Current	Power
10V	FTG040-010H	400A	4kW	15V	FTG045-015H	300A	4.5kW	20V	FTG050-020H	250A	5kW
	FTG080-010H	800A	8kW		FTG090-015H	600A	9kW		FTG100-020H	500A	10kW
	FTG120-010H	1200A	12kW		FTG135-015H	900A	13.5kW		FTG150-020H	750A	15kW
	FTG240-010H	2400A	24kW		FTG270-015H	1800A	27kW		FTG300-020H	1500A	30kW
	FTG480-010H	4800A	48kW		FTG540-015H	3600A	54kW		FTG600-020H	3000A	60kW
Voltage	Model	Current	Power	Voltage	Model	Current	Power	Voltage	Model	Current	Power
30V	FTG050-030H	167A	5kW	600V	FTG050-600H	8.5A	5kW	1000V	FTG050-1000H	5A	5kW
	FTG100-030H	334A	10kW		FTG100-600H	17A	10kW		FTG100-1000H	10A	10kW
	FTG150-030H	500A	15kW		FTG150-600H	25A	15kW		FTG150-1000H	15A	15kW
	FTG300-030H	1000A	30kW		FTG300-600H	150A	30kW		FTG300-1000H	30A	30kW
	FTG600-030H	2000A	60kW		FTG600-600H	100A	60kW		FTG600-1000H	60A	60kW

Optional information

Name	Model or Specification	Note
CAN interface	Suffix N	
RS485 interface	Suffix S	
GPIO interface	Suffix G	
Composite signal port	Suffix F	
Voltage/current high slope	Suffix H	Supported by some models
Battery load backfill prevention device	Suffix D	50V and above available

*Test cables are optional. For details about specifications and models, see Optional Accessories in this manual.

General specification table

Item	Parameters
AC input	Three-phase input, 340VAC~420VAC, frequency 47Hz~63Hz
Output voltage	0 ~ rated value (max. rated value 1500V, menu setting, digital or coded knob input)
Output current	0 ~ rated value (max. rated value 10000A, menu setting, digital or coded knob input)
Output power	0 ~ rated value (max. rated value 600kW, menu setting, digital or coded knob input)
Efficiency	0.87(Typical)
Linear adjustment rate	Voltage: 0.01%F.S.; Current: 0.05%F.S.
Load adjustment rate	Voltage: 0.02%F.S.; Current: 0.1%F.S.
Analog programming	Voltage control/current control; Programming voltage support: DC0~5V/DC0~10V input
Voltage measurement accuracy	0.05%F.S.
Current measurement accuracy	0.1%+0.1%F.S.
Voltage and current monitoring	Voltage/current monitoring output voltage: DC 0 to 10V
Protection	OVP/OCP/OPP/RVP/LVP/OTP
Transient response	Typical 1ms, 50% load change, time required for voltage to return to 0.75% of set value
Voltage temperature bleaching	20ppm/°C
Current temperature bleaching	40ppm/°C
Display interface	4.3-inch TFT color LCD display, support Simplified Chinese, Traditional Chinese and English display
Operating interface	Function keys, numeric keys and knobs (dual knobs set voltage and current separately)
Communication interface	RS232, LAN, GPIB (optional), RS485 (optional), CAN (optional)
Storage capacity	20 sets of quick call parameters + 10 sequence files + 1 waveform file
Heat dissipation mode	Air cooling
Operating temperature	0°C~40°C
Storage temperature	-20°C~70°C
Service altitude	<2000m

Electrical specification table-1

Model	FTG040-010	FTG045-015	FTG050-020	FTG050-030	FTG050-040	FTG050-050	FTG050-060	FTG050-100	FTG050-160
Output voltage	0-10V	0-15V	0-20V	0-30V	0-40V	0-50V	0-60V	0-100V	0-160V
Output current	0-400A	0-300A	0-250A	0-167A	0-125A	0-100A	0-83.5A	0-50A	0-31.5A
Output power	4kW	4.5kW	5kW						
Model	FTG080-010	FTG090-015	FTG100-020	FTG100-030	FTG100-040	FTG100-050	FTG100-060	FTG100-100	FTG100-160
Output voltage	0-10V	0-15V	0-20V	0-30V	0-40V	0-50V	0-60V	0-100V	0-160V
Output current	0-800A	0-600A	0-500A	0-334A	0-250A	0-200A	0-167A	0-100A	0-62.5A
Output power	8kW	9kW	10kW						
Model	FTG120-010	FTG135-015	FTG150-020	FTG150-030	FTG150-040	FTG150-050	FTG150-060	FTG150-100	FTG150-160
Output voltage	0-10V	0-15V	0-20V	0-30V	0-40V	0-50V	0-60V	0-100V	0-160V
Output current	0-1200A	0-900A	0-750A	0-500A	0-375A	0-300A	0-250A	0-150A	0-94A
Output power	12kW	13.5kW	15kW						
Model	FTG240-010	FTG270-015	FTG300-020	FTG300-030	FTG300-040	FTG300-050	FTG300-060	FTG300-100	FTG300-160
Output voltage	0-10V	0-15V	0-20V	0-30V	0-40V	0-50V	0-60V	0-100V	0-160V
Output current	0-2400A	0-1800A	0-1500A	0-1000A	0-750A	0-600A	0-500A	0-300A	0-188A
Output power	24kW	27kW	30kW						
Model	FTG480-010	FTG540-015	FTG600-020	FTG600-030	FTG600-040	FTG600-050	FTG600-060	FTG600-100	FTG600-160
Output voltage	0-10V	0-15V	0-20V	0-30V	0-40V	0-50V	0-60V	0-100V	0-160V
Output current	0-4800A	0-3600A	0-3000A	0-2000A	0-1500A	0-1200A	0-1000A	0-600A	0-375A
Output power	48kW	54kW	60kW						
Model	◆	◆	◆	◆	FTG1200-40	FTG1200-50	FTG1200-60	FTG1200-100	FTG1200-160
Output voltage	◆	◆	◆	◆	0-40V	0-50V	0-60V	0-100V	0-160V
Output current	◆	◆	◆	◆	0-3000A	0-2400A	0-2000A	0-1200A	0-750A
Output power	◆	◆	◆	◆	120kW				
Model	◆	◆	◆	◆	◆	◆	FTG1500-60	FTG1500-100	FTG1500-160
Output voltage	◆	◆	◆	◆	◆	◆	0-60V	0-100V	0-160V
Output current	◆	◆	◆	◆	◆	◆	0-2500A	0-1500A	0-940A
Output power	◆	◆	◆	◆	◆	◆	150kW		
Model	◆	◆	◆	◆	◆	◆	◆	FTG2100-100	FTG2100-160
Output voltage	◆	◆	◆	◆	◆	◆	◆	0-100V	0-160V
Output current	◆	◆	◆	◆	◆	◆	◆	0-2100A	0-1313A
Output power	◆	◆	◆	◆	◆	◆	◆		210kW
Voltage output ripple④									
V(p-p)	55mV	60mV	60mV	65mV	75mV	75mV	115mV	135mV	175mV
V(rms)	20mV	20mV	20mV	20mV	20mV	20mV	25mV	25mV	25mV
Voltage programming									
Resolution	16Bits								
Precision④	0.05%F.S.								
Current programming									
Resolution	16Bits								
Precision④	0.1%+0.1%F.S.								
External analog programming									
Control voltage	0-5V or 0-10V corresponds to 0-100%F.S.								
Voltage precision④	0.2%F.S.								
Current precision④	0.5%F.S.								
Output precision④	0.5%F.S.								
Line regulation rate④									
Voltage	0.05%F.S.				0.01%F.S.				
Current	0.05%F.S.								
Load regulation rate④									
Voltage	0.05%F.S.				0.02%F.S.				
Current	0.1%F.S.								
Voltage measurement									
Resolution	16Bits								
Precision④	0.05%F.S.								
Current measurement									
Resolution	16Bits								
Precision④	0.1%+0.1%F.S.								
OVP setting									
Range	0-110%F.S.								
Precision	1%F.S.								
Dimension(WxHxD)	(≤15kW)- 482.6mm x 132.0mm x 694.5mm; (20kW -30kW)- 482.6mm* 265.9mm x 694.5mm; (35kW-60kW) - 482.6mm x 656mm x 710.5mm; >60kW - 600mm x XXXmm x 800mm standard cabinet is used								
Weight	18.5kg/5kW; 25kg/10kW; 31.5kg/15kW; 62kg/30kW; 123kg/60kW; other models are subject to actual weight.								

Electrical specification table-2

Model	FTG050-250	FTG050-300	FTG050-400	FTG050-500	FTG050-600	FTG050-800	FTG050-1000	FTG050-1200	FTG050-1500
Output voltage	0-250V	0-300V	0-400V	0-500V	0-600V	0-800V	0-1000V	0-1200V	0-1500V
Output current	0-20A	0-17A	0-12.5A	0-10A	0-8.5A	0-6.5A	0-5A	0-4A	0-3.5A
Output power	5kW								
Model	FTG100-250	FTG100-300	FTG100-400	FTG100-500	FTG100-600	FTG100-800	FTG100-1000	FTG100-1200	FTG100-1500
Output voltage	0-250V	0-300V	0-400V	0-500V	0-600V	0-800V	0-1000V	0-1200V	0-1500V
Output current	0-40A	0-33.5A	0-25A	0-20A	0-17A	0-12.5A	0-10A	0-8.5A	0-7A
Output power	10kW								
Model	FTG150-250	FTG150-300	FTG150-400	FTG150-500	FTG150-600	FTG150-800	FTG150-1000	FTG150-1200	FTG150-1500
Output voltage	0-250V	0-300V	0-400V	0-500V	0-600V	0-800V	0-1000V	0-1200V	0-1500V
Output current	0-60A	0-50A	0-37.5A	0-30A	0-25A	0-19A	0-15A	0-12.5A	0-10A
Output power	15kW								
Model	FTG300-250	FTG300-300	FTG300-400	FTG300-500	FTG300-600	FTG300-800	FTG300-1000	FTG300-1200	FTG300-1500
Output voltage	0-250V	0-300V	0-400V	0-500V	0-600V	0-800V	0-1000V	0-1200V	0-1500V
Output current	0-120A	0-100A	0-75A	0-60A	0-50A	0-37.5A	0-30A	0-25A	0-20A
Output power	30kW								
Model	FTG600-250	FTG600-300	FTG600-400	FTG600-500	FTG600-600	FTG600-800	FTG600-1000	FTG600-1200	FTG600-1500
Output voltage	0-250V	0-300V	0-400V	0-500V	0-600V	0-800V	0-1000V	0-1200V	0-1500V
Output current	0-240A	0-200A	0-150A	0-120A	0-100A	0-75A	0-60A	0-50A	0-40A
Output power	60kW								
Model	FTG1200-250	FTG1200-300	FTG1200-400	FTG1200-500	FTG1200-600	FTG1200-800	FTG1200-1000	FTG1200-1200	FTG1200-1500
Output voltage	0-250V	0-300V	0-400V	0-500V	0-600V	0-800V	0-1000V	0-1200V	0-1500V
Output current	0-480A	0-400A	0-300A	0-240A	0-200A	0-150A	0-120A	0-100A	0-80A
Output power	120kW								
Model	FTG2100-250	FTG2100-300	FTG2100-400	FTG2100-500	FTG2100-600	FTG2100-800	FTG2100-1000	FTG2100-1200	FTG2100-1500
Output voltage	0-250V	0-300V	0-400V	0-500V	0-600V	0-800V	0-1000V	0-1200V	0-1500V
Output current	0-840A	0-700A	0-525A	0-420A	0-350A	0-262A	0-210A	0-175A	0-140A
Output power	210kW								
Voltage output ripple Ⓓ									
V(p-p)	185mV	200mV	300mV	350mV	350mV	500mV	650mV	750mV	850mV
V(rms)	35mV	40mV	50mV	50mV	60mV	80mV	100mV	120mV	140mV
Voltage programming									
Resolution	16Bits								
Precision	0.05%F.S.								
Current programming									
Resolution	16Bits								
Precision	0.1%+0.1%F.S.								
External analog programming									
Control voltage	0-5V or 0-10V corresponds to 0-100%F.S.								
Voltage precision	0.2%F.S.								
Current precision	0.5%F.S.								
Output precision	0.5%F.S.								
Line regulation rate Ⓓ									
Voltage	0.01%F.S.								
Current	0.05%F.S.								
Load regulation rate Ⓓ									
Voltage	0.02%F.S.								
Current	0.1%F.S.								
Voltage measurement									
Resolution	16Bits								
Precision	0.05%F.S.								
Current measurement									
Resolution	16Bits								
Precision	0.1%+0.1%F.S.								
OVP setting									
Range	0-110%F.S.								
Precision	1%F.S.								
Dimension(WxHxD)	(≤15kW)- 482.6mm x 132.0mm x 694.5mm; (20kW -30kW)- 482.6mm* 265.9mm x 694.5mm ; (35kW-60kW) - 482.6mm x 656mm x 710.5mm; >60kW - using 600mm x XXXmm x 800mm								
Weight	18.5kg/5kW; 25kg/10kW; 31.5kg/15kW; 62kg/30kW; 123kg/60kW; other models are subject to actual weight.								

Electrical specification table-3

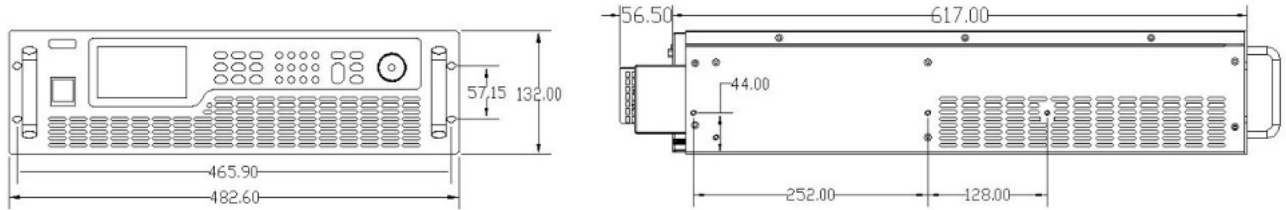
Model	FTG040-010H	FTG045-015H	FTG050-020H	FTG050-030H
Output voltage	0-10V	0-15V	0-20V	0-30V
Output current	0-400A	0-300A	0-250A	0-167A
Output power	4kW	4.5kW	5kW	5kW
Model	FTG080-010H	FTG090-015H	FTG100-020H	FTG100-030H
Output voltage	0-10V	0-15V	0-20V	0-30V
Output current	0-800A	0-600A	0-500A	0-334A
Output power	8kW	9kW	10kW	10kW
Model	FTG120-010H	FTG135-015H	FTG150-020H	FTG150-030H
Output voltage	0-10V	0-15V	0-20V	0-30V
Output current	0-1200A	0-900A	0-750A	0-500A
Output power	12kW	13.5kW	15kW	15kW
Model	FTG240-010H	FTG270-015H	FTG300-020H	FTG300-030H
Output voltage	0-10V	0-15V	0-20V	0-30V
Output current	0-2400A	0-1800A	0-1500A	0-1000A
Output power	24kW	27kW	30kW	30kW
Model	FTG480-010H	FTG540-015H	FTG600-020H	FTG600-030H
Output voltage	0-10V	0-15V	0-20V	0-30V
Output current	0-4800A	0-3600A	0-3000A	0-2000A
Output power	48kW	54kW	60kW	60kW
Voltage slope	0.001V/ms - 5V/ms			
Current slope	0.001A/ms - 150A/ms			
Voltage output ripple④				
V(p-p)	55mV	60mV	60mV	65mV
V(rms)	20mV	20mV	20mV	20mV
Voltage programming				
Resolution	16Bits			
Precision①	0.05%F.S.			
Current programming				
Resolution	16Bits			
Precision①	0.1%+0.1%F.S.			
External analog programming				
Control voltage	0-5V or 0-10V corresponds to 0-100%F.S.			
Voltage precision①	0.2%F.S.			
Current precision①	0.5%F.S.			
Output precision①	0.5%F.S.			
Line regulation rate②				
Voltage	0.05%F.S.			
Current	0.05%F.S.			
Load regulation rate③				
Voltage	0.05%F.S.			
Current	0.1%F.S.			
Voltage measurement				
Resolution	16Bits			
Precision①	0.05%F.S.			
Current measurement				
Resolution	16Bits			
Precision①	0.1%+0.1%F.S.			
OVP setting				
Range	0~110%F.S.			
Precision	1%			
Dimension(WxHxD)	(≤15kW) - 482.6mm x 132.0mm x 694.5mm; (20kW~30kW) - 482.6mm* 265.9mm x 694.5mm; (35kW~60kW) - 482.6mm x 656mm x 710.5mm			
Weight	18.5kg/5kW; 25kg/10kW; 31.5kg/15kW; 62kg/30kW; 123kg/60kW			

Electrical specification table-4

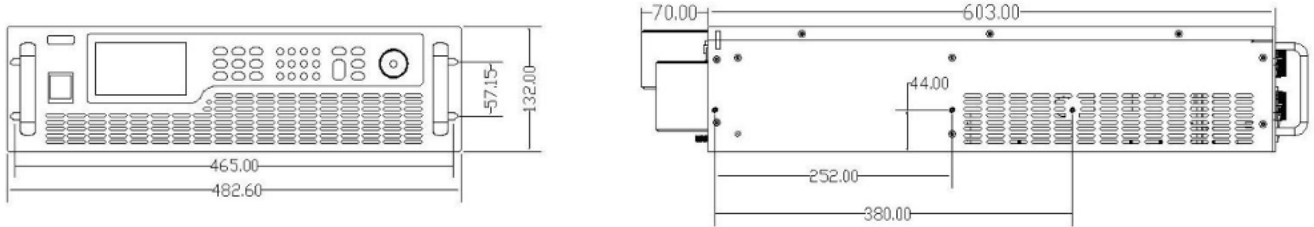
Model		FTG050-600H	FTG050-1000H
Output voltage		0-600V	0-1000V
Output current		0-8.5A	0-5A
Output power		5kW	5kW
Model		FTG100-600H	FTG100-1000H
Output voltage		0-600V	0-1000V
Output current		0-17A	0-10A
Output power		10kW	10kW
Model		FTG150-600H	FTG150-1000H
Output voltage		0-600V	0-1000V
Output current		0-25A	0-15A
Output power		15kW	15kW
Model		FTG300-600H	FTG300-1000H
Output voltage		0-600V	0-1000V
Output current		0-50A	0-30A
Output power		30kW	30kW
Model		FTG600-600H	FTG600-1000H
Output voltage		0-600V	0-1000V
Output current		0-100A	0-60A
Output power		60kW	60kW
Rising time	50%F. S. CC Load	30ms	25ms
	No Load	30ms	25ms
Down time	50%F. S. CC Load	30ms	25ms
	10%F. S. CC Load	100ms	80ms
	No Load	1.2s	3s
Voltage slope		0.001V/ms - 20V/ms	0.001V/ms - 40V/ms
Current slope		0.001A/ms - 2A/ms	0.001A/ms - 2A/ms
Voltage output ripple④			
V(p-p)		1500mV	2550mV
V(rms)		650mV	1950mV
Voltage programming			
Resolution		16Bits	
Precision⑤		0.05%F.S.	
Current programming			
Resolution		16Bits	
Precision⑤		0.1%+0.1%F.S.	
External analog programming			
Control voltage		0-5V or 0-10V corresponds to 0-100%F.S.	
Voltage precision⑥		0.2%F.S.	
Current precision⑥		0.5%F.S.	
Output precision⑥		0.5%F.S.	
Line regulation rate②			
Voltage		0.01%F.S.	
Current		0.05%F.S.	
Load regulation rate③			
Voltage		0.02%F.S.	
Current		0.1%F.S.	
Voltage measurement			
Resolution		16Bits	
Precision⑦		0.05%F.S.	
Current measurement			
Resolution		16Bits	
Precision⑦		0.1%+0.1%F.S.	
OVP setting			
Range		0~110%F.S.	
Precision		1%	
Dimension(WxHxD)		(≤15kW) - 482.6mm x 132.0mm x 694.5mm; (20kW~30kW)- 482.6mm x 265.9mm x 694.5mm ; (35kW~60kW)-482.6mm x 656mm x 710.5mm	
Weight		18.5kg/5kW; 25kg/10kW; 31.5kg/15kW; 62kg/30kW; 123kg/60kW	

Dimension drawing

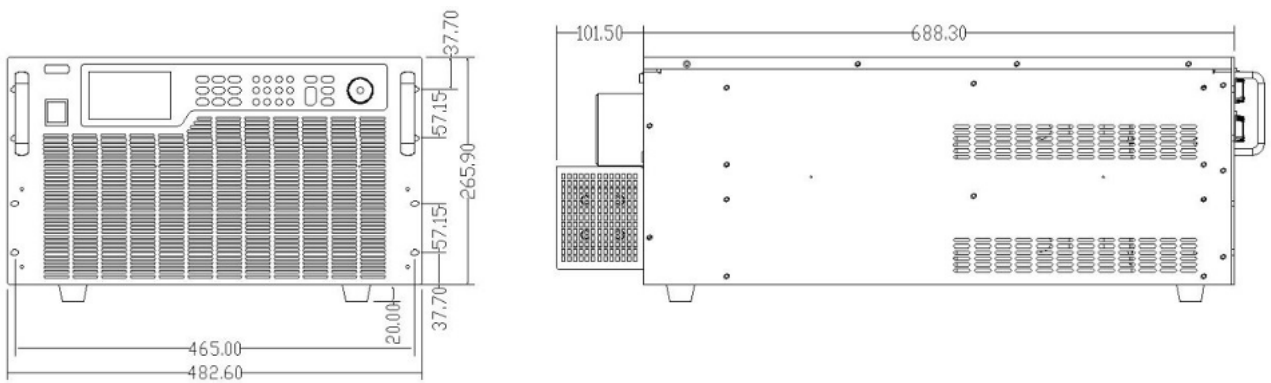
Dimensional drawings for 4kW ~ 15kW models (40V or less models)



Dimensional drawings for 5kW to 15kW models (40V and above models)

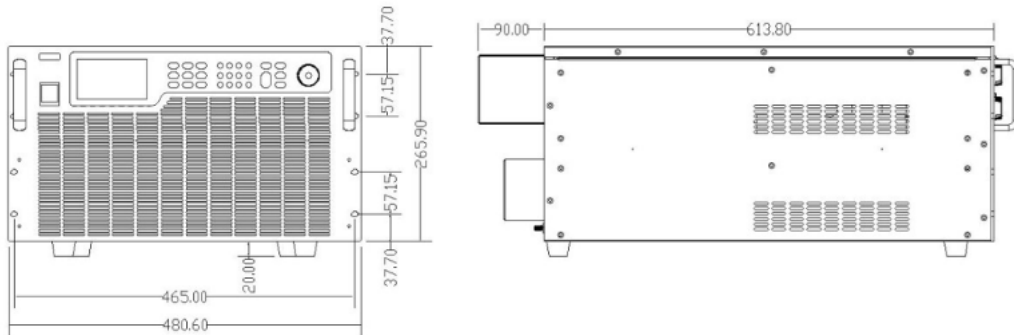


Dimensional drawings for 16kW to 30kW models (40V and below)

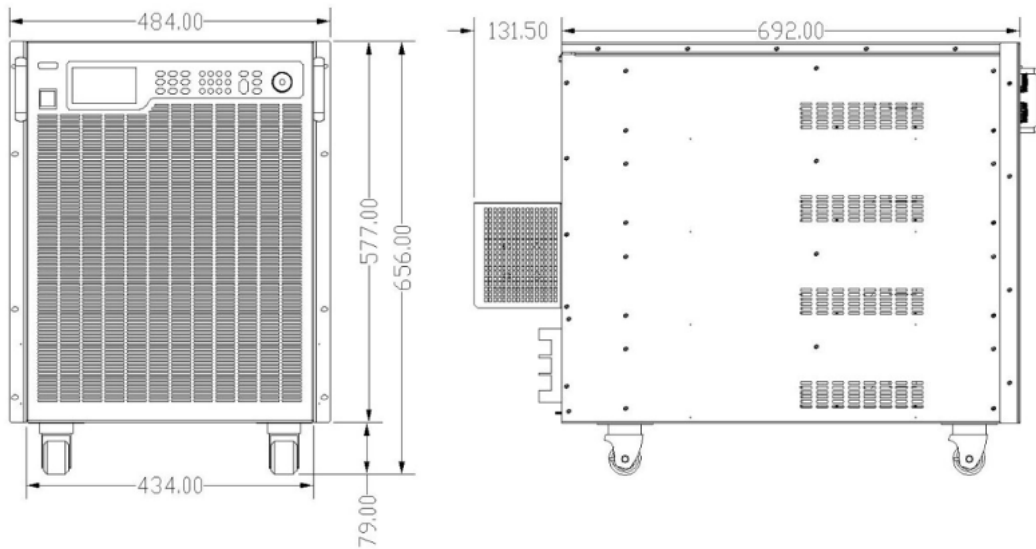


Dimension drawing

Dimension drawing of 20kW □ 30kW model (40V or above model)



Dimensions for 28kW to 60kW models (40V and below)



Dimensions for 35kW to 60kW models (40V and above)

