

AC Power Supply

Two-phase Output Frequency Conversion AC Power Supply TFC-TG Series

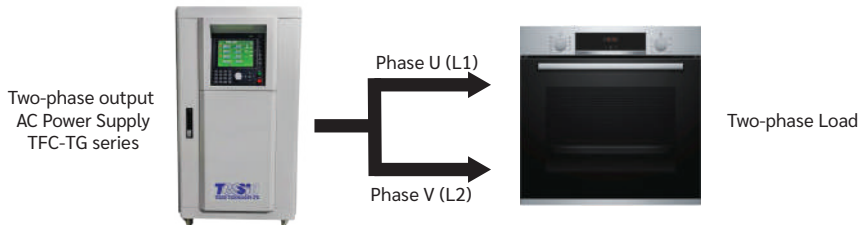


Product description:

TFC-TG series is a 2-phase AC power source capable of simulating grid voltages from any country worldwide. It delivers a highly pure and reliable sine wave to users. This type of power supply is mainly used for household appliances and particularly in Europe and more commonly in the Americas such as ovens that use both electric and gas systems and large water heaters. These appliances typically require an output power of more than 15kVA.

Features

- Advanced product design concept featuring modular design, digital control technology, high precision, fast response, intuitive human-machine interface and compliance with industrial standards.
- Utilizes dual-phase isolated control, supporting 0 ~ 100% load imbalance.



- Equipped with precision inrush current protection technology, capable of withstanding large surge currents and 2-second overcurrent events.
- Ideal for surge-type equipment like motors and compressors; capacity can be appropriately reduced to lower costs. For example, a 60kVA power supply can reliably start a 20kW motor.



- Includes a soft-start function with adjustable timing, suitable for high inrush current loads like motors.
- Fast dynamic response time, with voltage reaction occurring within 20ms.
- Output voltage and frequency are adjustable during startup, enhancing flexibility.
- 8-inch color LCD display with attractive design and user-friendly operation, featuring digital keys, function buttons, rotary knob, etc., for modular operation.
- Automatic keyboard lock function, locking after a set time to prevent accidental touches or misuse.
- Voltage range: 0.0 ~ 150.0, 150.1 ~ 300.0V or 0.0 ~ 300.0V; full high-end power output. Frequency range: 45.00 ~ 65.00Hz, resolution: 0.01Hz.
- Comprehensive measurement functions for voltage, current, peak current, frequency, active power, apparent power, power factor, voltage crest factor, etc.
- AI-Monitor function provides real-time monitoring of internal voltage, current, temperature, and alerts immediately in abnormal conditions for fast handling.
- Black-box function automatically records operational parameters during abnormal conditions for easy maintenance and traceability.
- Core components are sourced from internationally renowned brands, ensuring reliable quality.
- Key indicators follow a multi-module design; voltage stress, current stress, and thermal buildup are tightly managed for high reliability and long service life.
- Supports standard interfaces: RS-232, RS-485, with GPIB and Ethernet as optional accessories.

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Specifications

Model	TFC-015TG	TFC-030TG	TFC-045TG	TFC-060TG	TFC-090TG	TFC-120TG	TFC-150TG	TFC-180TG	TFC-240TG	
Output Capacity	15kVA	30kVA	45kVA	60kVA	90kVA	120kVA	150kVA	180kVA	240kVA	
Basic Function										
Output function	Simulate power grid voltage from all over the world									
Isolated function	Built-in Isolated transformer									
Wire Method	Input Terminal : Three-phase, 4 wires + PE				/ Output : Two-phase 2 wire + PE					
Output Parameter										
Output Mode	Two-phase Standard Sine Wave, 2 wires + PE									
Output Voltage	Automatic Low grade : 0.0 ~ 150.0V (L-N) / High grade : 150.1 ~ 300.0V (L-N)									
	High-end Lock 0.0 ~ 300.0V (L-N) / 1.0 ~ 520.0V (L-L)									
Rate	120V (Low grade)	62.5A	125A	178.5A	250A	375A	500A	625A	750A	1000A
Current	240V (High grade)	31.2A	62.5A	93.5A	125A	187.5A	250A	312.5A	375A	500A
Voltage Setting Accuracy	≤0.5%FS, Resolution : 0.1V									
Output Frequency	45.00 ~ 65.00Hz, Resolution 0.01									
Frequency Setting Accuracy	≤0.05%									
Frequency Stability	≤ 0.02%									
Voltage Distortion (THD)	<1% (Linear load)									
Response Time	≤ 2mS									
Voltage response Time	≤ 20mS									
Crest Factor	1.41 ± 0.1									
Source Voltage Effect	≤1%									
Loading Effect	≤1%									
Efficiency	>85%									
Measurement Display										
Display Mode	8 inch color LCD Screen									
Voltage Meas. Accuracy	Accuracy : 0.2%F.S + 0.2% x Reading / Resolution : 0.1V									
Frequency Meas. Accuracy	Accuracy : 0.02%, / Resolution : 0.01Hz									
Current Meas. Accuracy	Accuracy : 0.3%F.S±0.3% x Reading / Resolution : 0.1A/1A									
Power Meas. Accuracy	Accuracy : 0.5%F.S±0.5% x Reading / Resolution : 0.1kW / 0.01kW / 0.001kW									
Operation Function										
Auto Stronge Function	Automatic memory of set parameters, automatic call at start-up									
Soft Start	With soft start function, soft-start time can be set from 0.0 ~ 99.9s									
Adjustment Online Function	In the start state, the output voltage, freq. settings value can be adjusted by the numeric keys, ▲/▼ keys, knob & update imediately									
V-drop compensation Function	Impedance compensation : 0.000 ~ 0.500Ω									
Fast Call	10 shortcut groups in normal mode									
Protection Function										
Overload Capacity	105% < Output ≤ 110%, the output will be stopped within 15s									
	110% < Output ≤ 200%, the output will be stopped within 5s									
	200% < Output ≤ 300%, the output will be stopped within 2s									
	300% < Output the output will be stopped immediately									
Protection Function	Over-current, Overload, Short-circuit protection, Overheat protection, Output over-voltage, under-volatge									
Software Protection	Phase loss protection, artificial interlligence monitoring (AI-Monitor) function, Black-Box function, Auto-Lock key function									
Remote Interface										
Communication Interace	Standard : RS-232 / Optional : RS-485, GPIB, Ethernet									
Remote Interface	Optional : Analog control interface									
Input Parameter										
Input Voltage Range	Three-phase 4 wires + PE, 380V±57V (L-L)									
Input Freqncy Range	45 ~ 65Hz									
Working Environment										
Operation Temperature	0 ~ 40°C									
Operation Humidity	20 ~ 90%RH (non-condensation)									
Dimension (WxHxD) mm.	600x1150x1020			700x1350x1220			800x1750x1420			
Weight (kg.)	300	360	485	600	780	1030	1290	1320	1450	

Ordering Information

TFC-015TG : 15kVA Two-phase Output Frequency Conversion AC Power Supply

TFC-030TG : 30kVA Two-phase Output Frequency Conversion AC Power Supply

TFC-045TG : 45kVA Two-phase Output Frequency Conversion AC Power Supply

TFC-060TG : 60kVA Two-phase Output Frequency Conversion AC Power Supply

TFC-090TG : 90kVA Two-phase Output Frequency Conversion AC Power Supply

TFC-120TG : 120kVA Two-phase Output Frequency Conversion AC Power Supply

TFC-150TG : 150kVA Two-phase Output Frequency Conversion AC Power Supply

TFC-180TG : 180kVA Two-phase Output Frequency Conversion AC Power Supply

TFC-240TG : 240kVA Two-phase Output Frequency Conversion AC Power Supply

Standard Accessories :

- User Manual
- Operation Software

Optional Accessories :

- RS-485 interface port
- GPIB interface port
- LAN/ Ethernet interface port
- Analog output control
- Can be customized as requirement power upto 1200kVA
- Customized specifications and functions acceptable