

AC Power Supply

Three-phase Output Frequency Conversion AC Power Supply TFC-T Series

Product description:

TFC-T series is single-phase AC variable frequency power supply can simulate the voltage of power grids in various countries around the world, providing customers with high-purity and high-reliability sine wave power output and is professionally used in home appliances, small appliances, motors, certification agencies, medical equipment, lighting and other fields to meet the requirements of product design and development, production line testing, quality assurance testing, aging life testing, voltage and frequency conversion and other testing requirements.



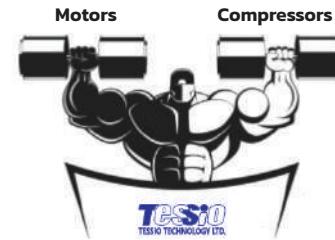
Features

- Product design, the use of modular design and digital control technology, high stability, high precision, fast response, man-machine interface and operation in line with industry habits.
- Strong carrying capacity to meet the aging needs of home appliance production line.
- The use of accurate anti-impact technology, can withstand the load of large current impact, 3 times the rated current can mature 2s, especially suitable for motor, motor and other impact equipment.
- With soft start function, and soft start time can be set, suitable for motors and other equipment frequent starting occasions, can be set according to the working condition, soft start time, reduce the impact current.
- The dynamic response speed is fast, and the voltage mutation reaction time is within 20ms.
- The output voltage and frequency can be adjusted under the starting state, and the use is flexible.
- 8-inch color touch screen, all operations can be achieved through the touch screen, exquisite appearance, convenient operation and equipped with digital keys, function keys, knobs, etc., diversified operation.
- With Auto-Lock function, timed to automatically lock the keyboard to prevent miscontact.
- Voltage range design: 0.0 ~ 150.0V, 150.1 ~ 300.0V or 0.0 ~ 300.0V, high grade and low grade can be full power output; Frequency output range 45.00 ~ 65.00Hz, resolution 0.01Hz.
- The measurement function is complete, can measure voltage, current, current peak, frequency, active power, apparent power, power factor, voltage peak factor and other power parameters.
- With the "black box" function, real-time monitoring of internal voltage, current, temperature and other parameters, abnormal conditions immediately alarm and automatically record operating parameters, convenient for later viewing and maintenance.
- Communication interface standard RS232, optional RS485, ETHERNET, GPIB and analog control, etc.

Type Recommendation

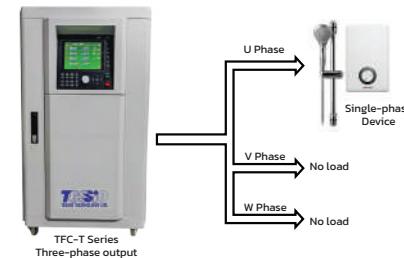
- ◆ Overload capability makes it easier to start motors, compressors and other equipment

TFC-T series adopts precise current control technology, which can withstand the impact of 3 times the rated current for 2s, and easily scope with 5-10 times the impact current at the start of the load such as motors and compressors.



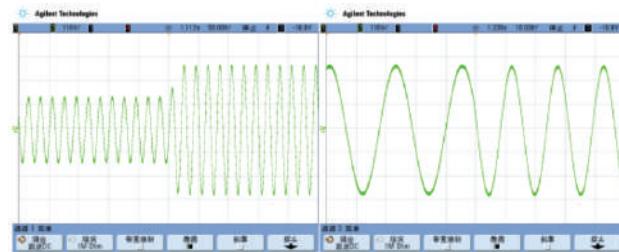
◆ Three-phase decoupling control, three-phase independent load

Three phase voltage of TFC-T series adopts independent channel decoupling control, independent regulation, and no influence on each other, which can adapt to 100% load imbalance.



◆ Online frequency regulation, with digital keys, one step in place, seamless switching, accurate and fast.

TFC-T series uses digital synthetic DDS, which allows voltage and frequency values to be set via digital keys. Voltage & Frequency respond instantaneously without transition, making the test accurate and efficient.



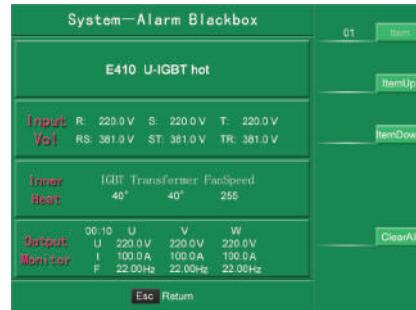
◆ **8 inch color touch screen, operation experience upgrade**

TFC-T series 8 "color touch screen, all operations can be done by touch screen, intuitive, friendly and efficient.



◆ **Black box function, real-time monitoring, improved maintenance efficiency**

TFC-T series built-in "black box" function enables real-time monitoring of power operation data and timely recording of input and output parameters in case of abnormal operation, making maintenance easier.



  **Specifications**

Model	TFC-015T	TFC-030T	TFC-045T	TFC-060T	TFC-090T	TFC-120T	TFC-150TS	TFC-180T	TFC-240T	
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 Parameter										
Output Mode	Three-phase Standard Sine Wave									
Output	Automatic	Low range : 0.0 ~ 150.0V (L-N) / High range : 150.1 ~ 300.0V (L-N)								
Voltage	High-end Lock	0.0 ~ 300.0V (L-N)								
Rate	110V (Low grade)	45.5A	90.9A	136.3A	181.8A	272.6A	363.6A	454.5A	545.4A	727.2A
Current	220V (High grade)	22.7A	45.5A	68.1A	90.9A	136.3A	181.8A	227.2A	272.7A	363.6A
Voltage Setting Accuracy	≤0.4%FS, Resolution : 0.01Hz									
Output Frequency	45.00 ~ 65.00Hz									
Frequency Setting Accuracy	Accuracy : 0.02% Resolution : 0.01Hz									
Frequency Stability	≤ 0.02% or less									
Voltage Distortion (THD)	<1% (linear load)									
Response Time	≤ 2mS									
Voltage Sudden response Time	≤ 20mS									
Crest Factor	1.14 ± 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%FS + 0.2% x Reading value, Resolution : 0.1V									
Frequency Meas. Accuracy	Accuracy : 0.02%, Resolution : 0.01Hz									
Current Meas. Accuracy	Accuracy : 0.3%FS ± 0.3% x Reading value, Resolution : 0.1A/1A									
Power Meas. Accuracy	Accuracy : 0.5%FS ± 0.5% x Reading value, Resolution : 0.1kW / 0.01kW / 0.001kW									
Operation Function										
Auto Strong 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									
Real-time adjustment	In the start state, the output voltage, freq. settings value can be adjusted by the numeric keys, ▲/▼ keys, knob & update immediately									
Line Volt-drop compensation	Impedance compensation : 0.000 ~ 0.500Ω									
Fast Call	Conventional mode 10 shortcut groups									
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-voltage									
Software Protection	Phase loss protection, artificial intelligence monitoring (AI-Monitor) function, Black-Box function, Auto-Lock key function									
Remote Interface										
Communication Interface	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 Frequency 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.)	265	310	440	550	740	980	1250	1270	1400	

Specifications

Model	TFC-350T	TFC-450T	TFC-550T	TFC-650T	TFC-1000T	TFC-1500T	TFC-2000T
Output Capacity	350kVA	450kVA	550kVA	650kVA	1000kVA	1500kVA	2000VA
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 Parameter							
Output Mode	Three-phase Standard Sine Wave						
Output (L-N)	Automatic	Low range : 0.0 ~ 150.0V (L-N) / High range : 150.1 ~ 300.0V (L-N)					
Voltage	High-end Lock	0.0 ~ 300.0V (L-N) or 0.0 ~ 520.0V (L-L)					
Rate (L-N)	110V (Low grade)	1060.6A	1363.6A	1666.7A	1969.7A	3030.3A	4545.5A
Current	220V (High grade)	530.3A	681.8	833.4A	984.9A	1515.2A	2272.8A
Voltage Setting Accuracy	≤0.4%FS, Resolution : 0.1V						
Output Frequency	45.00 ~ 65.00Hz						
Frequency Setting Accuracy	Accuracy : 0.02% Resolution : 0.01Hz						
Frequency Stability	≤ 0.02% or less						
Voltage Distortion (THD)	<1% (linear load)						
Response Time	≤ 2mS						
Voltage Sudden response Time	≤ 20mS						
Crest Factor	1.14 ± 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%FS + 0.2% x Reading value, Resolution : 0.1V						
Frequency Meas. Accuracy	Accuracy : 0.02%, Resolution : 0.01Hz						
Current Meas. Accuracy	Accuracy : 0.3%FS ± 0.3% x Reading value, Resolution : 0.1A/1A						
Power Meas. Accuracy	Accuracy : 0.5%FS ± 0.5% x Reading value, Resolution : 0.1kW / 0.01kW / 0.001kW						
Operation Function							
Auto Strong 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						
Real-time adjustment	In the start state, the output voltage, freq. settings value can be adjusted by the numeric keys, ▲/▼ keys, knob & update immediately						
Line Volt-drop compensation	Impedance compensation : 0.000 ~ 0.500Ω						
Fast Call	Conventional mode 10 shortcut groups						
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-voltage						
Software Protection	Phase loss protection, artificial intelligence monitoring (AI-Monitor) function, Black-Box function, Auto-Lock key function						
Remote Interface							
Communication Interface	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 Frequency Range	45 ~ 65Hz						
Working Environment							
Operation Temperature	0 ~ 40°C						
Operation Humidity	20 ~ 90%RH (non-condensation)						
Dimension (WxHxD cm.)	180x200x140	240x200x140		480x200x120	-	-	-
Weight (kg.)	2750	3200	3500	4500	-	-	-