AC Power Corp. offers products widely applied in multi-professional fields and provides the best power solutions to customers. Our mission is to satisfy customers' demand by considering the whole conditions including power environment, loading allocation, module solution alternative, thoughtful design, efficient manufacturing, and complete maintenance.

Professional Power Solutions Provider

Professional Power Solutions Provider

AC Simulation Test Power Supply

- PV Inverter Testing
- Wind Power Inverter Testing
- EV Inverter Testing

ACST Series
6~1500kVA

AC POWER CORP.
艾普斯電源

AC POWER CORP.
Address: 3F., No.200, Gangqian Road,
Neihu District, Taipei City 11494, Taiwan
http://www.acpower.net
E-mail:sales@acpower.net

Branch Offices:
USA: Rowland Heights
Taiwan: Taipei Taichung Kaohsiung
PRC: Tianjin Beijing Qingdao Shenyang
Suzhou Shanghai Nanjing Kunshan
Guangzhou Shenzhen Dongguan Xiamen Fuzhou

[Service Tel]
Rowland Heights: 1-626-839 5758
Taipei: 886-2-2627 1899
Suzhou: 86-512-6809 8868
Tianjin: 86-22-8398 3777

No.: ACST-101102EN

ISO 9001:2008

ACST Series

AC Simulation Test Power Supply

6~1500kVA

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Product Introduction

Human society is facing energy shortages. Countries around the world begin to search for new alternative energy sources, such as solar and wind power, and increase of new solar and wind energy industry inputs. In recent years, components of new energy industries, especially solar inverter industry has been booming, many manufacturers have launched small and medium-power solar inverter products. However, the inverter testing method is not advanced enough, so it is difficult to meet the requirements of the relevant testing standards. At present PV inverter testing system has the following problems to be solved:

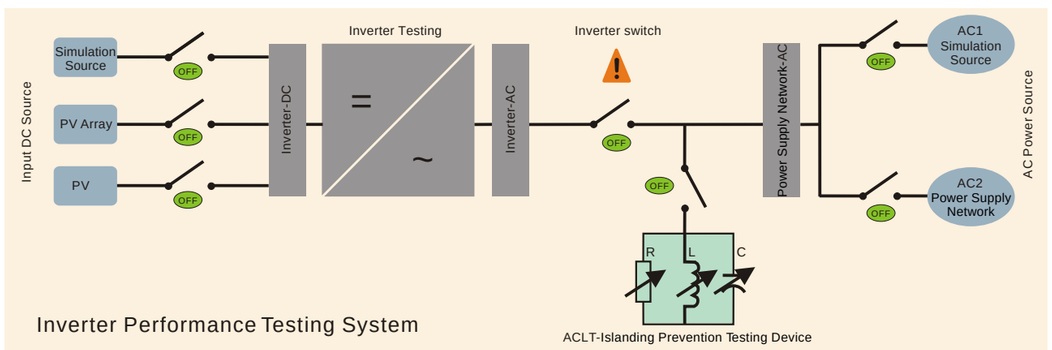
- Without complete full power range of test solutions;
- System function is not complete, and the test platform is of complex operation, low degree of automation;
- Foreign test platform products is more expensive, and the feature is not suit for PV inverters;
- The testing interface is not complete and non-standard, making professional engineer is a must in testing, etc.

ACST series simulation test power supply product is completely meet the demand of new energy industries. specifically meet for solar photovoltaic (PV) inverter test. Now ACST series have been widely used in PV, windpower, and electric vehicles inverter testing and certification bodies, PV inverter R&D and production, university electrical laboratory, product inspection and routine maintenance field.

ACST series specification refer to the following standards:

- CNCA-CTS004 2009《Technical Requirements and Test Methods for Grid Connection of PV Inverter》
- IEC62116-2008《Test Procedure of Islanding Prevention Measures for Utility-interconnected PV Inverters》
- GB/T 19939-2005《Technical Requirements for Grid Connection of PV System》
- GB/T14549-93《Quality of Electric Energy Supply Harmonics in Public Supply Network》
- IEEE 1547:2003《IEEE Standard for Interconnecting Distributed Resources》
- IEEE 1547.1:2005《IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems》 etc.

Block diagram of a complete PV inverter testing system is as follows:



Inverter Performance Testing System

Features

- Digital voltage and frequency control, specifically be suitable for photovoltaic, wind power, and electric vehicle inverter test.
- Easy and reliable control, realize the automatic test.
- Control by DDS, frequency change smoothly.
- Comprehensive digital protection system: to improve the reliability.
- High efficiency energy feedback system, reduce energy consumption.
- Data setting record, multi group data record.
- Various interfaces, support RS232, RS485, GPIB etc.
- Humanized-machine interface, 320×240 big LCD display.
- Bus bar laminated construction, improve the reliability of inverter.
- Independent heat transfer air flow.
- Humanity design of appearance.

Application


Photovoltaics


Wind Power


Electric Vehicle


Car Inverter


Electric Tools


Wheel Hub Motor


DC Brushless Motor


Lab


Auto–Test System

ACST- | N | 3 | 3 | 030

ACST Series | Normal type | Input Phase 3 | Output Phase 3 | Capacity 30kVA

① N-Normal type;
L-Extended the function of simulating the test of LVRT

ACPOWER Professional Power Solutions Provider

ACST Series Specification

Model		ACST-N-33006	ACST-N-33010	ACST-N-33015	ACST-N-33020	ACST-N-33030	ACST-N-33045	ACST-N-33060	ACST-N-33075
Capacity（kVA）		6kVA	10kVA	15kVA	20kVA	30kVA	45kVA	60kVA	75kVA
Circuit Type		IGBT / PWM type							
Input	Phase	Three phase ②							
	Wave	Mains input							
	Voltage	220V/380V							
	Voltage range	220V/380V±15%							
	Frequency range	50Hz±3Hz or 60Hz±3Hz							
	Power factor	0.85（Full load）							
Output	Phase	Three phase ②							
	Wave	Standard sine wave							
	Voltage	10V ~ 300V （Phase voltage）continuously adjustable							
	Frequency	45Hz ~ 65Hz adjustable							
	Frequency regulation	≤0.01%							
	Current（A）	8.3	13.9	20.8	27.8	41.7	62.5	83.3	104.2
	Line regulation	≤1%							
	Load regulation	≤1%（Linear load）							
	THD	≤2%（Linear load）							
	Efficiency	≥85%（at Full load）							
	Response time	≤2 ms							
	Wave factor	3：1							
	Protection device	Input no-fuse breaker,electronic circuit instant trip forover voltage, over current, overload, over temperature and short circuit protectionand alarm system							
Indicator	Display	LCD（320×240）							
	Voltage	Measure range: 0~300V; analytic degree:（<100V）0.01V,（≥100V）0.1V; accurate degree: 0.5%FS+5COUNT							
	Current	Phase power≤5kW measure range: 0~50A; analytic degree:(<10A）0.001A,（≥10A,<50A）0.01A; accurate degree: 0.5%FS+5COUNT							
		Phase power>5kW measure range: 0~1200A; analytic degree:（<500A）0.01A,（≥500A,<1200A）0.1A; accurate degree: 0.5%FS+5COUNT							
	Power	Phase power≤5kW measure range: 0~5kW; analytic degree:（<1kW）0.1W,（≥1kW,≤5kW）0.001kW; accurate degree:0.5%FS+5COUNT							
		Phase power>5kW measure range：0~800kW; analytic degree: 0.1kW; accurate degree: 0.5%FS+5COUNT							
	Frequency	Measure range: 45~65Hz; analytic degree: 0.01Hz; accurate degree: 0.01%FS+2COUNT							
	Power factor	Measure range: 0~1; analytic degree: 0.01; accurate degree: 2%							
	Time	Measure range: 1s~99h; analytic degree:1s							
Default item	Voltage	Fixed range: 0~300V；analytic degree: 0.1V；accurate degree: 1%							
	Frequency	Fixed range: 45~65Hz；analytic degree: 0.01Hz；accurate degree: 0.01%							
	Time	Fixed range: 1s~99h; analytic degree:1s							
	General program memory	10 sets, for voltage and frequency default value							
	Step program memory	24 sets, for voltage, frequency and step running time							
	Gradual program memory	12 sets, for voltage, frequency and gradual running time							
	Revolving operationg function	Both step and gradual have revolving function, revolving time can be set 999999 times							
Control mode	Short range control	Keyboard control							
	Remote control	Rs232/RS485 (standard)							
		GPIB (optional)							
Environ-ment	Insulation resistance	≥DC500V 10MΩ							
	Withstand voltage insulation	AC 1800V 10mA / 1Min							
	Cooling system	Fan cooling							
	Temperature	0℃ ~ 45℃							
	Humidity	0~90% (Non-condensing)							
	Altitude	<1500m							

注： ① N-Normal type； L-extended the function ofsimulating the test ofLVRT(Low voltage ride through), can provide thetest mode of LVRT；
② Other required voltage, pleasecontact our business representative;
③ Capacity >800kVAproducts are on request;
④ Custom-made specifications are onrequest;
⑤ All specifications aresubject to changewithout prior notice.

Model		ACST-N-33100	ACST-N-33150	ACST-N-33200	ACST-N-33300	ACST-N-33400	ACST-N-33450	ACST-N-33600	ACST-N-33800
Capacity（kVA）		100kVA	150kVA	200kVA	300kVA	400kVA	450kVA	600kVA	800kVA
Circuit Type		IGBT / PWM type							
Input	Phase	Three phase ②							
	Wave	Mains input							
	Voltage	220V/380V							
	Voltage range	220V/380V±15%							
	Frequency range	50Hz±3Hz or 60Hz±3Hz							
	Power factor	0.85（Full load）							
Output	Phase	Three phase ②							
	Wave	Standard sine wave							
	Voltage	10V ~ 300V （Phase voltage）continuously adjustable							
	Frequency	45Hz ~ 65Hz adjustable							
	Frequency regulation	≤0.01%							
	Current（A）	138.9	208.1	277.7	416.7	555.5	625	833.3	1111.1
	Line regulation	≤1%							
	Load regulation	≤1%（Linear load）							
	THD	≤2%（Linear load）							
	Efficiency	≥85%（at Full load）							
	Response time	≤2 ms							
	Wave factor	3：1							
	Protection device	Input no-fuse breaker,electronic circuit instant trip forover voltage, over current, overload, over temperature and short circuit protectionand alarm system							
Indicator	Display	LCD（320×240）							
	Voltage	Measure range: 0~300V; analytic degree:（<100V）0.01V,（≥100V）0.1V; accurate degree: 0.5%FS+5COUNT							
	Current	Phase power≤5kW measure range: 0~50A; analytic degree:(<10A）0.001A,（≥10A,<50A）0.01A; accurate degree: 0.5%FS+5COUNT							
		Phase power>5kW measure range: 0~1200A; analytic degree:（<500A）0.01A,（≥500A,<1200A）0.1A; accurate degree: 0.5%FS+5COUNT							
	Power	Phase power≤5kW measure range: 0~5kW; analytic degree:（<1kW）0.1W,（≥1kW,≤5kW）0.001kW; accurate degree:0.5%FS+5COUNT							
		Phase power>5kW measure range：0~800kW; analytic degree: 0.1kW; accurate degree: 0.5%FS+5COUNT							
	Frequency	Measure range: 45~65Hz; analytic degree: 0.01Hz; accurate degree: 0.01%FS+2COUNT							
	Power factor	Measure range: 0~1; analytic degree: 0.01; accurate degree: 2%							
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Control mode	Short range control	Keyboard control							
	Remote control	Rs232/RS485 (standard)							
		GPIB (optional)							
Environ-ment	Insulation resistance	≥DC500V 10MΩ							
	Withstand voltage insulation	AC 1800V 10mA / 1Min							
	Cooling system	Fan cooling							
	Temperature	0℃ ~ 45℃							
	Humidity	0~90% (Non-condensing)							
	Altitude	<1500m							

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