

IAC-380 series Intelligent AC Dummy Load

----for diesel generator & UPS capability loading test

Essential testing instrument for AC power supply devices like the generators, UPS. Available for the full power loading capability test in the acceptance inspection, renovations, overhauls and routine maintenance.

Revolutionary functions and humanized operation bring a brand-new experience to the user



For the varies of generators, gensets and UPS, the output power and loading capability test are very crucial in the acceptance inspection, performance analysis,

replacing judgments of power supply devices. But for most of device ascendants,

it is a tough issue in operating the tester and analyzing the results.

Considered all difficulties for the users, IAC-380 series intelligent AC dummy load provide a scientific and convenient measure to check the power supply devices.

Applying intelligent control technologies, IAC-380 series fulfill loading discharging and parameter checking simultaneously. After the test,

PC analysis software can create data report automatically.

It is widely available for high power UPS, inverters,

diesel generators in many industries like telecommunication stations, power sectors, airport etc.



Function Feature

- Steady-state test: automatically detect 3-phase voltage, current, active power, inactive power, apparent power, power factor, frequency, run time, total energy and so on.
- Transient-state test: according the presetted power values, IAC-380 series can create a loading dips and drops, automatically detect the maximum and minimum values of each phase voltage, current and frequency in the dips and drops, and calculate the power & power factor in each phase.
- Setting test: according the presetted values, IAC-380 series can increase the load in steps by proportion up to the maximum power, and then decrease the load in steps. In this process, IAC-380 series will automatically detect the maximum and minimum values of voltage, current and frequency, 3-phase power & power factor in each steps.
- Fluctuation test: according the presetted values, IAC-380 series can increase the load in steps by proportion up to the maximum power, and automatically detect the maximum and minimum values of voltage, current and frequency, 3-phase power & power factor.
- Harmonics analysis: IAC-380 series can analyze the current, voltage 2-20 THD (total harmonic distortion) in each phases.
- IAC-380 series can support both 3-phase and 1-phase power test. The most powerful unit can provide 100KW.
- Parallel operation: for the requirement of some high power test, IAC-380 series can co-work in parallel perfectly.
- Phase sequence test: automatically detect the phase sequence of the generator & UPS.
- Adopting 5.7 inch colorful touching LCD: English interface make the operation convenient and directviewing.
- Without PC and other recording device, the internal data storage memory of IAC-380 series can save 250 groups of data
- The user can choose browsing the real-time data in

	220				0.3V		20.3A		
Ub:	221	.2V				lb:	21.2A		
Uc:	220	.5V					20.5A		
Pa:	022	3KW		Qa:	000	.3Kvar	Sa:	20	.3KVA
Pb:	022	2KW		Qb:	000	.2Kvar	Sb:	21	.2KVA
Pc:	022	5KW		Qc:	000	.5Kvar	Sc	20	.5KVA
P:	022	5KW		Qc:	000	.5Kvar	S:	20	5KVA
PW	': O(031K	Wh					η:	1.00
tate									

Steady-state Test

LOAD:	1 OFF	1 ON	2 OFF
Umax:			
Umin :			
Fmax:	50.2HZ	50.2HZ	50.2HZ
Fmin :	50.0HZ	50.0HZ	50.0HZ
Ρ:	000.0KW	011.0KW	021.0KW
η:	0.99	0.99	0.99
State: Te	sting		

Transient-state Test

LOAD:	0%	25%	50%
Umax:			
Umin :			
Fmax:	50.2HZ	50.2HZ	50.2HZ
Fmin :	50.0HZ	50.0HZ	50.0HZ
Ρ:	000.0KW	011.0KW	021.0KW
η:	0.99	0.99	0.99
State: Te	sting		

Setting Test

LOAD:	0%	25%	50%
Umax:			
Umin :			
Fmax:	50.2HZ	50.2HZ	50.2HZ
Fmin :	50.0HZ	50.0HZ	50.0HZ
Р:	000.0KW	011.0KW	021.0KW
η:	0.99	0.99	0.99
State: To	estina		

Fluctuation Test

Ua:	230.3V	V-THD	a:	002.0V	00.00%	
Ub:	230.3V	V-THD	b:	001.0V	00.00%	
Uc:	230.3V	V-THD		001.0V	00.00%	
la:	010.3A	I-THD	a:	002.0A	00.00%	
lb:	010.3A	I-THD		001.0A	00.00%	
Ic:	010.3A	I-THD		001.0A	00.00%	
itate: Testing						

Harmonics Test



the process of testing by the software shown by laptop screen, or download the data to PC by RS-485 or USB after the testing.

- Applying overheating precaution function, IAC-380 series can cut off the load, terminate the discharge and alarm the user automatically when overheating happen.
- IAC-380 series provide the emergent stop switch, the users can terminate the test manually by single button.
- Short circuit protection function, guarantee the test safe and stable.

Q: Why the AC power supply devices need loading capability test routinely?

A: a). The test report from the AC power devices manufacturers usually show the result which given in the ideal operating circumstances, it can't say that the new installed devices can totally fulfill all the requirement under the actual conditions: the structure design for the device room; ventilation and air-cooling system; electric power distribution; the layout of power switches; even various factors in the process of AC power devices transportation and installations can affect the actual capability.

b). In the daily working, the low load or zero load operating will cause the fuel can't burn totally, and the diesel generators have carbon laydown which can cause valve piston leakage and affect the capability of the power supplying.

c). There are sorts of malfunctions because the components are aged. Regular loading test is a effective method to make the potential problem and to avoid the accidents.

Typical Applications:



Test the output power and loading capability of the diesel generators

1. In the acceptance inspection of new diesel generator, the relevant department have to check whether the new devices fulfill the actual requirement.

2. After the installation of noise reduction devices like a muffler to the diesel generator, the loading capability must be test again.

3. After the overhaul of diesel generator, it is necessary to test the situation like output power and loading capability

4. For the routine test & maintenance, it is essential to test the output power and loading capability of the diesel generators at least 15-30 minutes each 6 months.

5. For the replace judgment for the old diesel generator

Test the output power and loading capability of UPS devices

1. In the acceptance inspection of new UPS devices, the relevant department have to check



whether the new devices fulfill the actual requirement.

2. For the routine test & maintenance of the UPS devices, it is essential to make a discharging test each year.

3. For the replace judgment for the old UPS devices.

Test the output power and loading capability of AC voltage regulator, inverter, switching power supply.

Specifications:

Туре:	IAC-380-100K	IAC-380-200K					
	W	W	W	W			
Loading Power	0~100KW	0~200KW	0~500KW	0~2000KW			
(constant							
adjustable)							
Power Factor	Test range: 0.001	~ 1.000	Resolution: 0.00)1Accuracy: 0.5%			
Harmonics(TH	Test range: 2~50) harmonics(THE) Resolution: 0.01%	Accuracy: 1%			
D)							
Voltage	Test range: AC 0~450VResolution: 0.1V Accuracy: 0.5%						
Frequency	Test range: 45~65 HzResolution: 0.01Hz Accuracy: 0.2%						
Current Display	Resolution: 0.1A, Accuracy: 0.5%						
Input Voltage	AC 3 Phase 380V / AC 1 Phase 220V						
Discharging	$0\sim$ 99 hours 59 minutes, constant adjustable						
Time							
Cooling Mode	Air cooling						
PC	RS485, USB data port, USB disk port						
Communication							
Internal	Internal storage device can save 250 groups of data, and support download						
Memory	data by PC or USB disk						
Display Mode	5.7 inch colorful touching LCD, English operating menu						
Display Items	3 Phase voltage, current, frequency, temperature, power, total energy, time						
Analysis	Software English	version analysis	PC software				
Power Source	220V±10% or Po	wer from the test	ed devices				
Dimension(mm	660×600×900 1	200x1200x180	2400x2400x3600	4000x4000x7000			
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Shaanxi Foresight Electronics Co., Ltd