



PRECISION



RELIABILITY



STABILITY

HC5300

PRECISION 3 PHASE AC & DC POWER ENERGY CALIBRATOR

Features

- Precision 3 phase AC and DC power and energy calibrator
- Reference simulating source of PT and CT output signals
- High Precision
 - 100ppm Reading in ACV / ACI
 - 200ppm Reading in DCIV/ DCI
 - 100ppm Reading in AC and 300ppm in DC Powers and Energies
- Excellent TC and long term stability with Z Foil resistor networks
- Programming simulation system with AC three phases / single phase / DC power systems
 - Comparator for energy errors detection
 - Simulation / Distorted power in Harmonic domains

HC5300

Features

Potable and Light carriage type 15Kgs

2ppm linearity in 20 bit DAC setting

IPC 4 cores processor +10" Touch-screen

IP67 Potable-Water protective case

2 Years warranty



Specifications

Output setting

Output frames		AC 3 phase	AC single phase	DC power
AC 3 phase	RMS	40 - 70Hz		
Voltage	Common mode	V _{pn}	0 - 250V	
	Differential mode	V _{pp}	0 - 433V	
	Uncertainty	100ppm	V _{pn} 50 - 250V	V _{pp} 80 - 433V
Currents I _a -I _b -I _c		100ppm	0.075 - 12A	
		100ppm [^]	0.01 - 0.075A [^]	
Powers-Energies	P Q S PE QE SE	V _{pn} 50 - 250V/0 - 12A	V _{pp} 80 - 433V/0 - 12A	
	Power uncertainty	100ppm / PF	0.12 - 12A	
		100ppm [^] / PF	0.025 - 0.12A [^]	
AC single phase	RMS	40 - 70Hz		
Voltage V _{ab}	Differential mode	V _{ab} 0 - 500V / 0 - 12A		
	Uncertainty	100ppm	80 - 500V	
Current -I _a		100ppm	0.1 - 12A	
		100ppm [^]	0.01 - 0.1A [^]	

Powers-Energies	P Q S PE QE SE	90V - 500V	0 - 12A	Vab-Ia
	Power uncertainty	100ppm / PF	0.12 - 12A	
		100ppm [^] / PF	0.025 - 0.12A [^]	
DC system	DC			
Voltage	Differential mode	(V+) - (V-)	0 - 500V	
	Uncertainty	200ppm	≥ 60V	
		200ppm [^]	6 - 60V [^]	
Current- Ia	Uncertainty	200ppm	0.1 - 10A	
		200ppm [^]	0.02 - 0.1A [^]	
Powers-Energies	P- PE	(V+) - (V-)	50 - 500V	0 - 10A
	Uncertainty	300ppm	0.15 - 10A	
		300ppm [^]	0.02 - 0.15A [^]	
Energy comparator				
Energy inputs	Powered / un-powered	2.7 - 12V		
Energy constant	10 - 1000000	Imp / KEH	0.01 - 1000	Imp / EH
	0.000001 - 0.1	KEH / Imp	0.001 - 100	EH / Imp

Stability

Parameters	AC & DC	Voltages	Currents	Powers - energies
Temperature Ta	25 ± Δ°C	2ppm / °C	4ppm / °C	6ppm / °C
Long term drift	Year	20ppm	50ppm	80ppm

General

Power supply	AC 100 - 240V	45 - 65Hz	consumption	< 900VA
Operation	Temperature	-20 to 45°C	Storage	-20 to 45°C
Humidity	Non-condensed	10 - 90%		
Enclosure	IP67 protable	carriage type	safety degree	water protective
Size	L-W-H	55.9 - 35.6 - 22.cm	weight	15.2 kg

Note

1.^ : Relative uncertainty versus final Value of the test range

2.Max Voltage output loading : 70mA

3.Max Current output drop : 3 (IT/IH)V

IH=Highest I value of each section range (AC 12 - 6 - 1.2 - 0.6 A / DC 10 - 5 - 1 - 0.5 A)

IT=Test I of teach section range

4.Active power PF=CosΦ/ Reactive power PF = SinΦ



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