



Internet

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AC Electronic Load

- Parallel operation expands the load capacity  
Up to 5 units can be operated in parallel  
Max. 5kW, 50Arms
- Supports single-phase 3-wire method,  
3-phase 3-wire method  
Equipped with tracking operation function

For load test for various  
inverters such as inverter for  
Fuel Cell power generation,  
UPS inverter, inverter for  
photovoltaic generation, and  
transformer



## AC ELECTRONIC LOAD PCZ1000A

- Maximum input load power: 1000W
- Input voltage range: 14V to 280V(rms)
- Input current range: 0 to 10A(rms)
- Input frequency range: 45 to 65Hz

**Constant Current/Constant Resistance/Constant Power mode provided.**

**Useful Crest Factor function is equipped.**

PCZ1000A is an AC electronic load that enables you to perform load simulation for various inverters and transformers.

In addition to the resistive loads generally used in tests, it is capable of simulating capacitor-input rectifier loads.

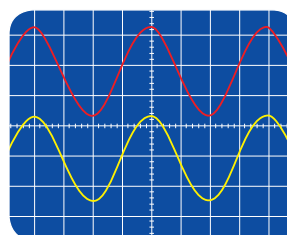
The instrument supports input up to 1000W and is equipped with 3 operation modes - Constant Current, Constant Resistance, and Constant Power.

Current waveform resemble to sine wave can be output constantly without effect by voltage waveform at each mode. Moreover, the instrument is equipped with Crest Factor function that is suitable for simulating current load test for switching power supply.

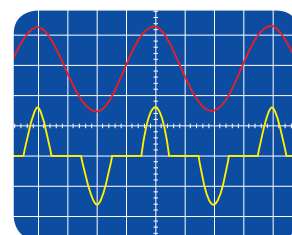
This instrument provides improved operability through CPU control and enables external control and read-back via RS-232C.

### Crest Factor Function [1.4 to 4.0]

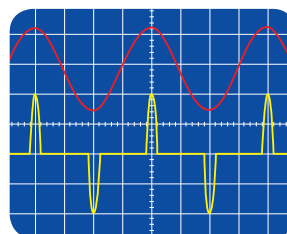
Facilitating load tests for peak or harmonic currents helps reduce design and labor time and cost as well as improve the quality of the unit under test [ — Voltage waveform — Current waveform ]



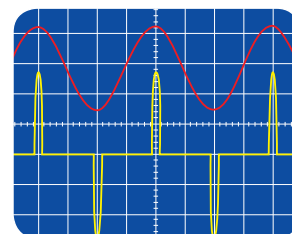
▲ C.F setting value1.4



▲ C.F setting value2.0



▲ C.F setting value3.0



▲ C.F setting value4.0

# Specifications

Input Rating (AC)	Operating Voltage*1		14 to 280Vrms 20 to 400Vpeak	*1	Input voltage range in which rated input current can flow
	Maximum Current*2		10Arms 40Apeak	*2	For an input voltage of 100Vrms or greater, the maximum current is derated at the rated input power (1000W)
	Maximum Power*3		1000W	*3	For an input voltage of 100Vrms or less, the maximum power is limited by the rated input current (10Arms).
	Frequency		45 to 65Hz	*4	Minimum input voltage at which the input current starts to flow.
	Minimum Operation Starting Voltage*4		3Vpeak	*5	The input current waveform does not change with changes in the input voltage waveform. The rms value of the input current is kept constant (response rate: approximately 1s) (Response rate: Time required to reach ±10% of the steady value (value reached 5 seconds or more after state change))
Constant Current (C.C) mode *5	Setting Range		0 to 10Arms		
	Setting Accuracy*9		Within ± (1% of set + 0.1A)		
	Setting Resolution		10mArms		
	Stability	Line variations *10	Within ± 10mArms		
		Input voltage variations*11	Within ± 100mArms		
Constant Resistance (C.R) mode *6	Temperature Coefficient (at rated current)		200PPM /°C (typical)		
	Setting Range	H range	1 Ω to 1k Ω	*6	The input current waveform does not change with changes in the input voltage waveform.. This mode allows an input current (rms value) proportional to the rms value of the input voltage to flow (response rate: approximately 1s)
		(Full current at 10V)	1S to 1mS *20		
		L range	10 Ω to 10k Ω		
		(Full current at 100V)	0.1S to 0.1mS *20		
	Setting Resolution	H range	1mS*20	*7	The input current waveform does not change with changes in the input voltage waveform. This mode allows an input current (rms value) inversely proportional to the rms value of the input voltage to flow (response rate: approximately 1s).
		L range	0.1mS*20		
Constant Power (C.P) mode *7	Setting Accuracy (in current terms) *9、*12		Within ± (2% of set + 0.2A)		
	Stability		Input voltage variations*13		
	Setting Range		50W to 1000W		
	Setting Accuracy *9、14		Within ± 5% of set		
Crest Factor (C.F)function *8	Setting Resolution		1W		
	Input voltage variations*15		Within ± 5%	*8	Varies the angular width of the current at the approximate input voltage peak, based on the sinusoidal current waveform.
	Setting Range		1.4 to 4.0	*9	At room temperature (23±5°C)
Resolution		0.1	*10	Changes in the input current when variations in the rated voltage range are given at an input voltage of 100Vrms and an input current of 10Arms, based on the nominal value of the input line voltage.	
Master-slave parallel operation			Up to 5 units including master unit		
Tracking function			Same current as master unit passes to slave unit		
Ammeter (RMS display mode)	Number of display digits (full scale)		10.00Arms		
	Accuracy*9		Within ± 1% of FS	*11	Changes in the input current when the input voltage is changed from 10Vrms to 280Vrms at an input current of 3.57Arms (rating at an input voltage of 280Vrms)
Ammeter (PEAK display mode)	Number of display digits (full scale)		40.0Apeak		
	Accuracy*9		Within ± 2% of FS	*12	At an input voltage 100Vrms
Voltmeter	Number of display digits (full scale)		300.0Vrms		
	Accuracy*9		Within ± 1% of FS	*13	Changes in the resistance value when the input voltage is varied from 10Vrms to 100Vrms at an input current of 0.5A or more.
Protection function	Peak Overcurrent protection (POCP) *16		Approx.48Apeak	*14	At an input voltage of 100Vrms
	Overcurrent protection (OCP) *17		Approx.11.5Arms	*15	Changes in the power value when the input voltage is varied from 10Vrms to 100Vrms
	Overvoltage protection (OVP) *16		Approx.470Vpeak		
	Overpower protection (OPP) *17		Approx.1150W	*16	Turns off [LOAD] KEY within 20ms
	Overheat protection (OHP) *18		—	*17	Turns off [LOAD] KEY within 3s
Internal power element protection (FUSE BRK)			Cut off internal fuse		
Input Power (AC)	Voltage range (nominal value)	1	90 to 110 (100) Vrms	*18	Detects the internal heat sink surface temperature to turn off the [LOAD] key
		2	108 to 132 (120) Vrms		
		3	180 to 220 (200) Vrms	*19	Switching
		4	216 to 250 (240) Vrms	*20	S represents unit of conductance (siemens) Conductance[S]=1 / Resistance value [Ω] Conductance[S] × Input voltage[V]=Load current[A]
	Frequency		50 / 60Hz		
Power consumption (Apparent power)			MAX220VA		
Withstanding voltage	Primary — Chassis		1500Vac、1 minute		
	Primary — Load input terminal		1500Vac、1 minute		
	Load input terminal — Chassis		500Vac、1 minute		
Insulation resistances	Primary — Chassis		DC1000V、20M Ω and over		
	Primary — Load input terminal		DC1000V、20M Ω and over		
	Load input terminal — Chassis		DC1000V、20M Ω and over		
Temperature and humidity range	Operating temperature range		0 to 40°C		
	Operating humidity range		20 to 85% rh (no condensation)		
	Storage temperature range		— 25 to 70°C		
	Storage humidity range		90% RH or less (no condensation)		
Dimensions(Chassis)			430W × 400D × 128Hmm		
Weight			Approx.22kg		

Options

■Rack mount bracket

KRB3 (Inch size, EIA standard compatible rack)

KRB150 (Metric size, JIS standard compatible rack)

■Parallel operation cable

PC01 PCZ1000A

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KRB3 (Inch size, EIA standard compatible rack)  
KRB150 (Metric size, JIS standard compatible rack)
- Parallel operation cable  
PC01 PCZ1000A



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