- 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

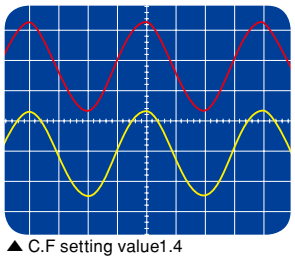
- Maximum input load power: 1000W
- Input voltage range: 14V to 280V(rms)
- Input current range: 0 to 10A(rms)
- Input frequency range: 45 to 65Hz

## Constant Current/Constant Resistance/Constant Power mode provided.
## Useful Crest Factor function is equipped.

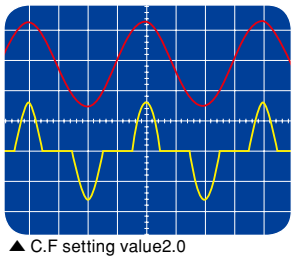
PCZ1000A is an AC electronic load that enables you to perform load simulation for various inverters and transformers.
In addition to the resistive loads generally used in tests, it is capable of simulating capacitor-input rectifier loads.
The instrument supports input up to 1000W and is equipped with 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 operationality through CPU control and enables external control and read-back via RS-232C.

### Crest Factor Function [1.4 to 4.0]

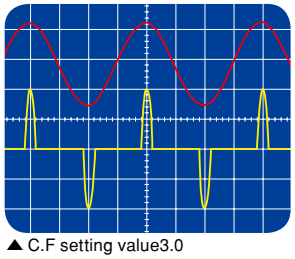
Facilitating load tests for peak or harmonic currents helps reduce design and labor time and cost as well as improve the quality of the unit under test [—Voltage waveform ═Current waveform ]



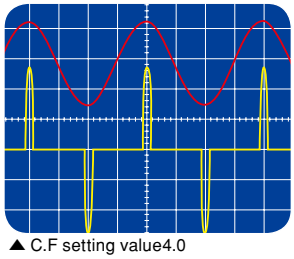
▲ C.F setting value1.4



▲ 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 |
| | Maximum Current*2 | | 10Arms |
| | | | 40Apeak |
| | Maximum Power*3 | | 1000W |
| | Frequency | | 45 to 65Hz |
| | Minimum Operation Starting Voltage*4 | | 3Vpeak |
| 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 |
| | Temperature Coefficient (at rated current) | | 200PPM／℃ (typical) |
| Constant Resistance (C.R) mode *6 | Setting Range | H range (Full current at 10V) | 1 Ω to 1k Ω |
| | | | 1S to 1mS *20 |
| | | L range (Full current at 100V) | 10 Ω to 10k Ω |
| | | | 0.1S to 0.1mS *20 |
| | Setting Resolution | H range | 1mS*20 |
| | | L range | 0.1mS*20 |
| | Setting Accuracy | (in current terms) *9、*12 | Within ± (2% of set + 0.2A) |
| | Stability | Input voltage variations*13 | Within ± 10% |
| Constant Power (C.P) mode *7 | Setting Range | | 50W to 1000W |
| | Setting Accuracy *9、14 | | Within ± 5% of set |
| | Setting Resolution | | 1W |
| | Input voltage variations*15 | | Within ± 5% |
| Crest Factor (C.F)function *8 | Setting Range | | 1.4 to 4.0 |
| | Resolution | | 0.1 |
| 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 |
| Ammeter (PEAK display mode) | Number of display digits (full scale) | | 40.0Apeak |
| | Accuracy*9 | | Within ± 2% of FS |
| Voltmeter | Number of display digits (full scale) | | 300.0Vrms |
| | Accuracy*9 | | Within ± 1% of FS |
| Protection function | Peak Overcurrent protection (POCP) *16 | | Approx.48Apeak |
| | Overcurrent protection (OCP) *17 | | Approx.11.5Arms |
| | Overvoltage protection (OVP) *16 | | Approx.470Vpeak |
| | Overpower protection (OPP) *17 | | Approx.1150W |
| | Overheat protection (OHP) *18 | | — |
| | Internal power element protection (FUSE BRK) | | Cut off internal fuse |
| Input Power (AC) | Voltage range (nominal value) *19 | 1 | 90 to 110 (100) Vrms |
| | | 2 | 108 to 132 (120) Vrms |
| | | 3 | 180 to 220 (200) Vrms |
| | | 4 | 216 to 250 (240) Vrms |
| | 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℃ |
| | Operating humidity range | | 20 to 85% rh (no condensation) |
| | Storage temperature range | | — 25 to 70℃ |
| | Storage humidity range | | 90% RH or less (no condensation) |
| Dimensions(Chassis) | 430W × 400D × 128Hmm | | |
| Weight | Approx.22kg | | |

*1 Input voltage range in which rated input current can flow

*2 For an input voltage of 100Vrms or greater, the maximum current is derated at the rated input power (1000W)

*3 For an input voltage of 100Vrms or less, the maximum power is limited by the rated input current (10Arms).

*4 Minimum input voltage at which the input current starts to flow.

*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))

*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)

*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).

*8 Varies the angular width of the current at the approximate input voltage peak, based on the sinusoidal current waveform.

*9 At room temperature (23±5℃)

*10 Changes in the input current when variations in the rated voltage range are given at an inplut voltage of 100Vrms and an input current of 10Arms, based on the nominal value of the input line voltage.

*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)

*12 At an input voltage 100Vrms

*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.

*14 At an input voltage of 100Vrms

*15 Changes in the power value when the input voltage is varied from 10Vrms to 100Vrms

*16 Turns off [LOAD] KEY within 20ms

*17 Turns off [LOAD] KEY within 3s

*18 Detects the internal heat sink surface temperature to turn off the [LOAD] key

*19 Switching

*20 S represents unit of conductance (siemens)
Conductance[S]=1／Resistance value [Ω]
Conductance[S]× Input voltage[V]=Load current[A]

## 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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