

**Simple, user-friendly application software
for various standard testing!**



NEW

**Ultra-Compact AC/DC Programmable
Power Supply
PCR-WE/WE2 Series
Application Software**

Power Line Disturbance Immunity Testing Software [SD009-PCR-LE/WE]

Avionics Test Software [SD012-PCR-LE/WE]

Grid Simulator [SD019-PCR-LE/WE • SD020-PCR-LE/WE]

“Wavy” sequence creation software [SD032-PCR-WE Wavy for PCR-WE]

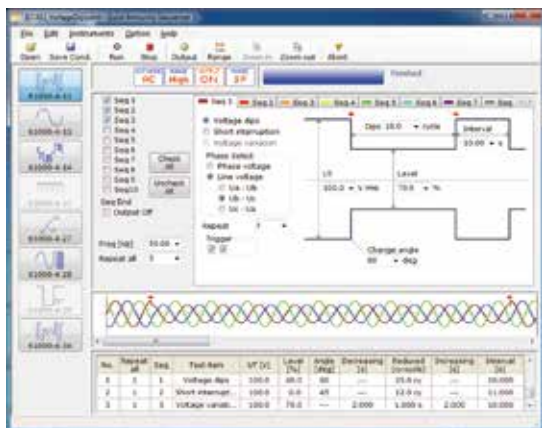
Remote control software [SD021-PCR-LE/WE]

Simple, user-friendly application software for various standard testing!



Power Line Disturbance Immunity Testing Software SD009-PCR-LE/WE (Quick Immunity Sequencer)

The latest standards for IEC61000-4 supported!



"Quick Immunity Sequencer" (model name: SD009-PCR-LE/WE) is an application software for immunity testing with the AC/DC power supply PCR-WE/WE2 series system, based on the power line disturbance standard (IEC61000-4 Series) for the immunity testing of the EMC standard. Not only can it be used for compliance testing based on the latest standards or for some types of preliminary testing, but the software can be also employed for advance checking in development phases and for immunity margin tests, because it allows extended testing conditions to be set as needed.



Avionics Test Software SD012-PCR-LE/WE (Avionics Test Software)

Easy test simulation for avionic standards including [MIL-STD-704] and [DO-160]!

Avionics Test Software [SD012-PCR-LE/WE] is a software application that support to the aircraft test standards, and is used to control the PCR-WE/WE2 Series that enables you to conduct the test standards for the MIL-STD-704, RTCA/DO-160 and JIS W0812 standards.

● Simple Operation

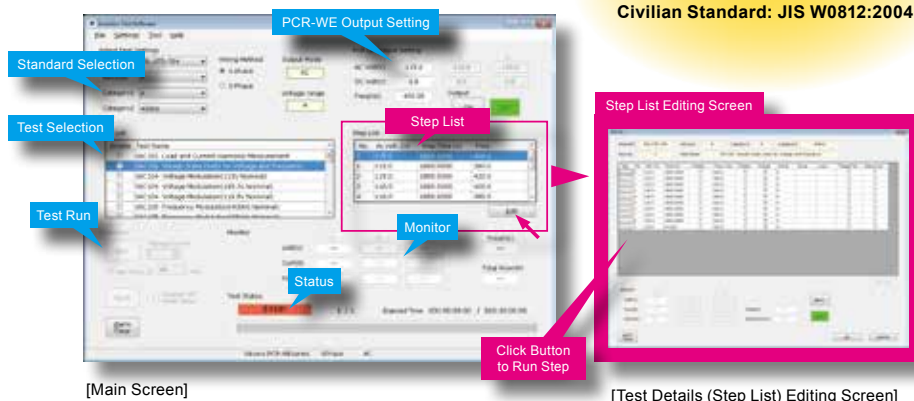
Complete test processes can be accomplished by simply clicking on the tests you wish to perform.

● Edit & Save Test Conditions

Easily create customized test conditions for specialized R&D evaluation tests and for simple confirmation of various applications.

● Output in CSV Format

Test measurement data as well as test reports can be created in CSV format.



[Main Screen]

[Test Details (Step List) Editing Screen]

Military Standard

Standard	Revision/ Category	AC test					DC test	
		SAC	SVF	TAC	TVF	SXF	LDC	HDC
MIL-STD-704A	Rev. A	✓	—	✓	—	—	✓	—
	Rev. E	✓	—	✓	—	—	✓	✓
	Rev. F	✓	✓	✓	✓	✓	✓	✓

Civilian Standard *1

Standard	Revision/ Category	AC test			DC test			
		A CF	A NF	A WF	A	D	B	Z
RTCA/DO-160 Section 16	Rev. F	✓	✓	✓	✓	✓	✓	✓
	Rev. G	✓	✓	✓	✓	✓	✓	✓
JIS W0812 *2	2004	✓	✓	✓	✓	✓	✓	✓

*1 Not correspond to the next standard test item.

- RTCA/DO-160F, 16.5.1.5.1 Normal Surge Voltage for 230 V equipment at RTCA/DO-160G, 16.5.2.3.1 Abnormal Surge Voltage
- 16.5.1.5.1 Normal voltage surge for 230 V equipment at JIS W0812, 16.5.3.3.1 Abnormal voltage surge

*2 Japanese domestic standard corresponding to DO-160 Rev. E

List of conformance to the EMC standard tests

✓ :Conforming as standard ▲ :Partially non-conforming — :Function not available

Standard	Item	Conforming	
		Single-phase	Three-phase
IEC61000-4-11 Voltage dips, short interruptions and voltage variations	Voltage dips	✓	✓
	Short interruptions	✓	✓
	Voltage variations	✓	✓
	Flat curve	✓	✓
	Over swing	✓	✓
IEC61000-4-13 Harmonics and interharmonics	Frequency sweep	✓	✓
	Odd harmonics the order of which is not a multiple of 3	✓	✓
	Odd harmonics the order of which is a multiple of 3	✓	✓
	Even harmonics	✓	✓
	Interharmonics	✓	✓
	Meister curve	✓	✓
IEC61000-4-14 Voltage fluctuation	Voltage fluctuation	✓	✓
	Interval	✓	✓
IEC61000-4-17 Ripple on DC input power port	Single-phase rectifier circuit	✓	—
	Three-phase rectifier circuit	✓	—
IEC61000-4-27 Unbalance in units	Unbalance	—	▲*1
IEC61000-4-28 Variation of power frequency for equipment with 16 A/phase	Frequency variation	✓	✓
IEC61000-4-29 Voltage dips, short interruptions and voltage variations on DC	Voltage dips	✓	—
	Short interruptions	▲*3	—
	Voltage variations	✓	—
IEC61000-4-34 Voltage dips, short interruptions and voltage variations for equipment with input current more than 16 A/phase	Voltage dips	▲*2	▲*2
	Short interruptions	▲*2	▲*2
	Voltage variations	✓	✓

* Immunity testing for units with 16 A/phase except for those required by IEC61000-4-34

*1. Capability of rapid change with 1 μs to 5 μs is required for 110 %, 95.2 %, 93.5 %, 90 %, 87 %, 80 %, 74 %, 71 %, 66 %. Preliminary test is capable since the voltage response of the PCR-WE/WE2 is 55 μs in FAST mode.

*2. The device between the range of 16 A to 75 A requires to have the capability of rapid change with 1 μs to 5 μs. The device exceeding 75 A does not require to have the capability of rapid change with 1 μs to 5 μs. (It is relaxed to 1 μs to 50 μs for the device exceeding 75 A.)

*3. Must support output impedance greater than 100 kΩ. The PCR-WE/WE2 output impedance is less than 100 kΩ and therefore designed for preliminary testing purposes.

Supported Standards

Military Standard: MIL-STD-704A/E/F

Civilian Standard: RTCA/DO-160F/G

Civilian Standard: JIS W0812:2004



Grid simulator

SD019-PCR-LE/WE • SD020-PCR-LE/WE

(Wavy Smart Grid Edition) *Japan only

SD019-PCR-LE/WE

(Supports single-phase three-wire)

SD020-PCR-LE/WE

(Supports single-phase three-wire/
three-phase)

Your trusty partner in grid simulation! Easy simulation of JET certification test presets!

The Kikusui grid simulator software can be used to directly control the PCR-WE/WE2 for power conditioner evaluation tests. Easily access grid simulation sequence data from our expansive library to replicate various tests based on power conditioner certification tests conducted by the Institute for Electrical Safety and Environmental Research.

Main function

- Read sequence data according to the power conditioner certification test
- Create, save, transfer and execute sequences
- Create, save and transfer arbitrary waveforms
- AC power supply PCR-WE/WE2 series main unit monitor
- Direct control and command control of AC power supply PCR-WE/WE2 series main unit



"Wavy" sequence creation software

SD032-PCR-WE "Wavy for PCR-WE"

(Sequence Creation Software)

Easy sequence control without programming knowledge.

Download!

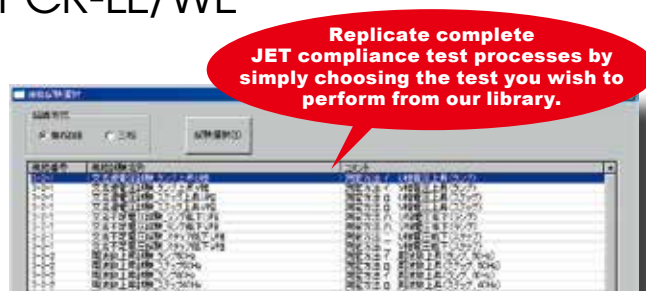
**Trial version
is available on
our web !!**

You can try it out for three weeks
without functional limitations.
[http://www.kikusui.co.jp/en/
download/index.html](http://www.kikusui.co.jp/en/download/index.html)

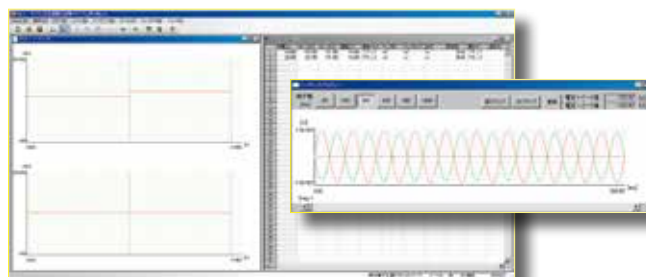
Wavy is an application software that supports sequence creation and the operation for PCR-WE/WE2 series. Wavy allows you to create and edit sequences visually with a mouse without programming knowledge.



- It makes you easier to create or edit the test condition file required for the sequence operation.
- By using the storage function of test condition data file, it enables you to manage the test condition of the standard routine test.
- The progress of execution sequence will be displayed on the "practical dialogue" with the setting value and the cursor.
- It is possible to observe the intuitionistic output through by the "monitor graph" that plots the ongoing monitor value.
- You can save the acquired monitor data as a test result.
- Added the "waveform image" window. You can easily keep track of the AC signal.
- Allows you to edit and create the new arbitrary waveform easily. You can instantly write then output the created arbitrary waveform.
- Supports the status of description of sequence step for "selected" or "not selected". It enables you to select depends on the requirement such as the "pausing function", "trigger function", or "AC waveform".



**Replicate complete
JET compliance test processes by
simply choosing the test you wish to
perform from our library.**



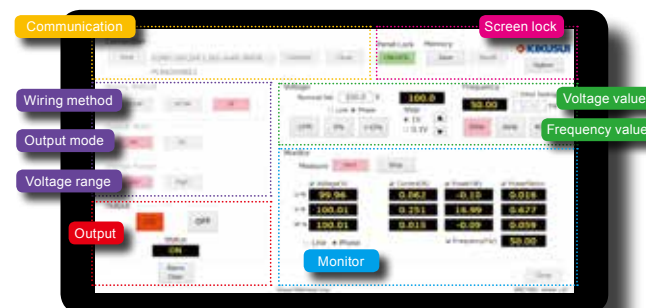
Remote control software for the Windows tablet

SD021-PCR-LE/WE

(RMT CONT Software for PCR-WE)

The Windows tablet can be used as a remote controller !

The SD021-PCR-LE/WE is the software that can control the PCR-WE/WE2 Series. It is easily capable to change the setting condition. And these settings changed by the remote controller can be saved and recalled. Moreover, it can display the measurement value of the AC power supply. The remote operation and control of the AC power supply from the distance can be easily realized.



Screen display (main screen)

- The Windows tablet can be used as a remote controller.
- It is capable to change the setting condition of the "wiring method", "output mode", "voltage range", "voltage value", and "frequency value".
- These settings changed by the remote controller can be saved and recalled.
- Equipped with communication monitoring function.

■ Output Terminal Box

Alternate between single-phase, single-phase 3 wire, and 3-phase output with the press of a button!



PCR-WE/WE2 installation example

- Two Lineup Options: (6 kVA - 18 kVA) & (24 kVA - 36 kVA)
- Alternate between the single phase terminal and the single-phase 3 wire/3-phase terminal with the flip of a switch.

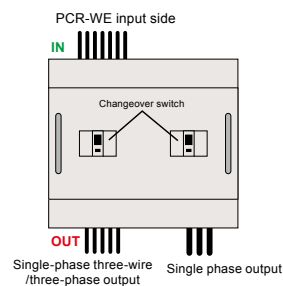
The output terminal box can be switched between single-phase, single-phase 3 wire, and 3-phase due to PCR-WE/WE2 series unique power distribution system.



Input terminal



Output terminal



Connection example

Specification

		For 6 kVA to 18 kVA	For 24 kVA to 36 kVA
Input terminal (For PCR-WE/WE2 connection)		Shape: 7 pin M6 screw terminal block Rated: AC640 V/60 A	Shape: 7 pin M8 screw terminal block Rated: AC640 V/120 A
Output terminal	Single-phase two-wire	Shape: 3 pin M10 screw terminal block Rated: AC320 V/180 A	Shape: 3 pin M10 screw terminal block Rated: AC320 V/360 A
	Single-phase three-wire/Three-phase	Shape: 5 pin M6 screw terminal block Rated: AC640 V/60 A	Shape: 5 pin M8 screw terminal block Rated: AC640 V/120 A
Temperature range		0 °C to 40 °C	0 °C to 40 °C
Weight		15 kg or less	20 kg or less
Dimensions(W×H×D)		445(17.52")×215(8.46")×410(16.14") mm(inch)	445(17.52")×270(10.63")×410(16.14") mm(inch)

HIGH POWER, DOWNSIZED

PWM Inverter type - Programmable AC power supply

The PCR-WE/WE2 series brings new innovations to the power electronics industry.

Ultra-Compact AC/DC Programmable Power Supply

PCR-WE/WE2 Series

NEW

- Compact Size: 6 kVA in 6U frame (PCR6000WE2)
- Up to 36 kVA in a single unit (PCR36000WE2)
- 100% Regenerative power capability
(3-phase 200 V input model, local regeneration only)
- Mix-and-match parallel operation up to 144 kVA
- Flexible Digital Interface: LAN (LXI), USB, RS232C, GPIB (option)
- Power line disturbance simulation features
- Sequence function for advanced simulation
- Power-saving function
- DC output (100% of rated power)
- Output Frequency up to 5 kHz
- Output Rating: AC 0 to 310 Vrms, DC 0 to ±438 V



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Printed in Japan

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Issue:Apr.2019 2019040.1KPRIEC11