Provisional Edition

Capable of performing simulations of power line abnormalities easily at low cost!

RS-232C I/F
Remte Control I/F
standard
equipment

Multifunctional AC Power Supply NEW

PCR-LA SERIES

The PCR-LA series is the most advanced, with having polished multifunctional AC power supply device of our best selling AC power supply PCR-L series. By adding new functions and options while carrying over the basic performance from former model, this series is reborn as a safe and reliable model that is much easier to use. As the PCR-LA series comes with not only the basic operating functions of the main body, but also has standard equipment of RS-232C and the dedicated remote control external interface (GPIB is optional), if you have a PC, you can use almost all of the functions of the PCR-LA series. The remote controller (RC03-PCR-LA) is available for "abnormal power line simulation functions", which is the most frequently used in power supply environment testing, it makes possible for you to perform the functions easily, and above all, at a low cost. In addition, by combining the output extension kit (0T01-PCR-LA/2, 0T01-PCR-LA/3, etc.), you can easily build a single phase/single phase three-wire out-put or single phase/three phase configuration system.

With the PCR-LA series' high-quality basic performance and abundance in flexible expandability, apply to the anticipated fields of various applications, in the field of an electric, machinery and chemicals for such power supply environmental testing, immunity testing, or power amplification of the output waveform for arbitrary waveform signal generators.

- High-quality/high-stability output with a high-speed linear amp
- Equipped with various measuring functions
- Offering also DC Outputs
- Come with The RS-232C and remote control interface are standard equipment
- Switching the configuration of single phase/single phase three-wire out-put, single phase/three phase easily (option)
- Compatible with external signal input, possible to operate as a power amp (option/under development)
- Low frequency immunity test software (option/under development)

KIKUSUI

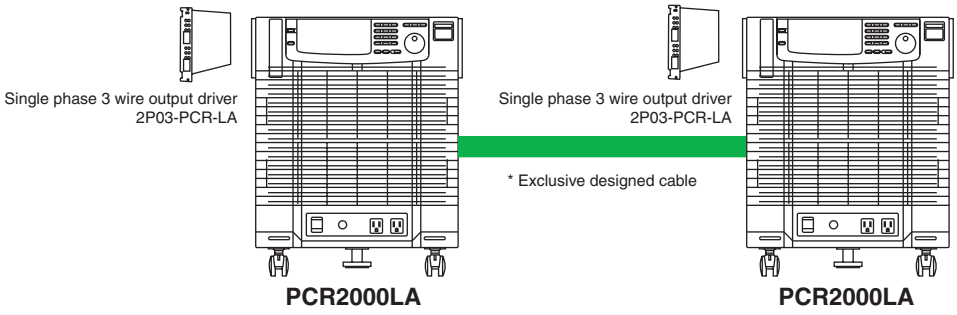
System Upgrades

By employing the available options for the PCR-LA series, it can be developed into diverse systems.
In addition to the following examples, the system can be built with a variety of combinations.
For details, please inquire at our sales department.

[NOTICE] To users of the PCR-L Series

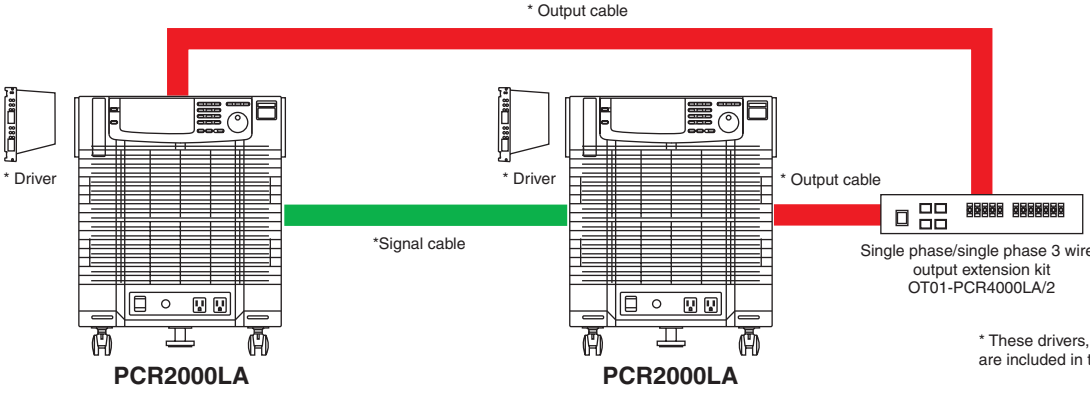
The PCR-LA series is not compatible with the previous product, the PCR-L Series. Consequently, it is not possible to perform parallel operations by such a combination, nor is it possible to upgrade a system if it includes a prior PCR-L series in the system, as shown in the figure below. Further, along with this, in principle options cannot be used, with some exceptions. Please be condsidered of this notice for your planning of future system.
If you have any other questions, please contact our sales department for details.

Single phase Three-wire output



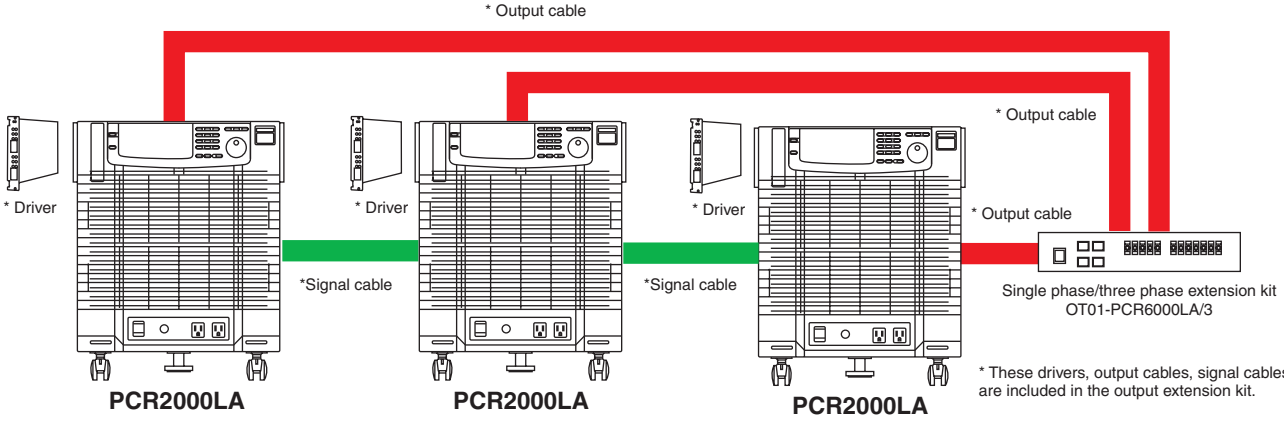
* Single phase 3 wire output driver comes with 2pcs as a set, and the exclusive designed cable is included.

Single phase/Single phase Three-wire output Switching



* These drivers, output cables, signal cables are included in the output extension kit.

Single phase/Three phase output Switching

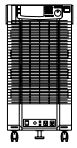


* These drivers, output cables, signal cables are included in the output extension kit.

Specifications (Provisional Edition)

Model name			PCR500LA	PCR1000LA	PCR2000LA	PCR4000LA	PCR6000LA
Input rating (AC rms values)							
Voltage (input voltage range of 100 V/200 V) (*1)			85 to132 V/170 to 250 V				170 to 250 V
Number of phases, frequency			Single phase, 47 Hz to 63 Hz				
Apparent power			Approx. 1 kVA	Approx. 2 kVA	Approx 4 kVA	Approx. 8 kVA	Approx. 12 kVA
Power factor (*2)			0.95 (typical value)				
Current (line voltage range: 100 V/200 V)			12 A/6 A or less	24 A/12 A or less	48 A/24 A or less	96 A/48 A or less	72 A or less
Output rating, AC mode (AC rms values)							
Voltage (output voltage range of 100 V/200 V) (*3)			1 to 150 V/2 to 300 V				
Voltage setting accuracy (output voltage range of 100 V/200 V) (*16)			± (0.1% of set value + 0.1 V/0.2 V)				
Maximum current (*4)			5 A/2.5 A	10 A/5 A	20 A/10 A	40 A/20 A	60 A/30 A
Number of phases			Single phase				
Power capacity			500 VA	1 kVA	2 kVA	4 kVA	6 kVA
Maximum peak current (*5)			Four times the maximum current (rms value)				
Power factor of load			0 to 1 (leading phase or lagging phase) (*4)				
Frequency			1 Hz to 999.9 Hz (*4, *6)				
Output rating DC mode							
Voltage (output voltage range of 100 V/200 V) (*3)			1.4 to 212 V/2.8 to 424 V				
Voltage setting accuracy (output voltage range of 100 V/200 V) (*17)			± (0.05% of set value + 0.05 V/0.1 V)				
Maximum current (*4)			2.5 A/1.25 A	5 A/2.5 A	10 A/5 A	20 A/10 A	30 A/15 A
Maximum instantaneous current (*18)			Four times the maximum current (rms value)				
Power capacity			250 W	500 W	1 kW	2 kW	3 kW
Output voltage stability							
Line voltage variation (with respect to changes in the rated range)			Within ± 0.1%				
Output current variation (with respect to 0% to 100% changes in rating)			Within ± 0.1 V/ ± 0.2 V (output voltage range of 100 V/200 V) (*7)				
Output frequency variation	AC mode (in the range of 40 Hz to 999.9 Hz)		Within ± 0.3% (*8)				
	AC-S mode (in the range of 40 Hz to 999.9 Hz)		Within ± 1% (*8)				
Ripple noise: DC mode (5Hz to 1MHz components)			0.1 V rms or less	0.15 V rms or less	0.2 V rms or less	0.3 V rms or less	0.4 V rms or less
Ambient-temperature variation (with respect to changes in the rated range)			100 ppm/ °C (typical value) (*9)				
Output frequency setting accuracy and stability, waveform distortion rate, response rate, and efficiency							
Output frequency stability (with respect to changes in all rated ranges)			Within ± 5 x 10^{-5}, Frequency setting accuracy:Within ± 1 x 10^{-4}				
Output voltage waveform distortion ratio (*10)			0.3 % or less				
Output voltage response rate (*11)			30 μs (typical value)				
Efficiency (*2)			50 % or more				
Indicators (vacuum fluorescent display (VFD) indication)							
Voltmeter (*12, *14)	Resolution	RMS display mode	± 0.1V				
		PEAK and AVE display mode	0.2 V (0 to ± 212 V) / 0.3 V (± 212 to ± 424 V)				
	Accuracy	RMS and AVE display mode	Within ± (1% of rdg + 2 digits) (in the range of 10 V to 424 V at room temperature)				
		PEAK display mode	Within ± (2% of rdg + 2 digits) (in the range of 10 V to 424 V at room temperature)				
Ammeter (*12, *14)	Resolution	RMS display mode	0.01 A	0.01 A	0.01 A	0.1 A	0.1 A
		PEAK and AVE display mode	0.02 A	0.02 A	0.02 A	0.2 A	0.2 A
	Accuracy	RMS and AVE display mode	Within ± (1% of rdg + 2 digits) (in the range of 5% of the rated maximum current to the rated maximum current at room temperature) (*19)				
		PEAK display mode	Within ± (2% of rdg + 4 digits) (in the range of 5% of the rated maximum current to the rated maximum peak current at room temperature) (*19)				
Power meter (*15)		Resolution	0.1 W/1 W				
		Accuracy	Within ± (1% of rdg + 3 digits) (in the range of 10% of the rated power capacity to the rated power capacity, load power factor of 1, and at room temperature)				
Frequencymeter (*13)		Resolution	0.01 Hz/0.1 Hz				
Insulation resistance, withstand voltage, circuit method, operating ambient temperature/humidity							
Insulation resistance (input to cubicle, output to cubicle, and input to output)			300 MΩ or more at 500 V DC		10 MΩ or more at 500 V DC		
Withstand voltage (input to cubicle, output to cubicle, and input to output)			1.5 kV AC for 1 minute				
Circuit method			Linear amplifier system				
Operating ambient temperature/humidity			0 to +50 °C/20% to 80% R.H (no condensation allowed)				
External dimensions and weight							
External dimensions (cubicle)			430 x 217 x 550	430 x 351 x 550	430 x 484 x 550	430 x 839 x 550	430 x 1105 x 550
Weight			Approx. 25 kg	Approx. 49 kg	Approx. 69 kg	Approx. 120 kg	Approx. 160 kg

*1 An input voltage range of 100 V/200 V can be selected using a switch.
*2 For the output voltage range of 100 V/200 V, the output current rating, a load power factor of 1, and an output frequency of 40 Hz to 999.9 Hz
*3 An output voltage range of 100 V/200 V can be selected using a switch on the front panel. Resolution: 0.1 V.
*4 For output voltage of 1 V to 100 V/2 V to 200 V and a load power factor of 0.8 to 1 (AC/AC-S mode)
When the output voltage is 100 V to 150 V/200 V to 300 V (AC/AC-S mode) or 100 V to 212 V/200 V to 424 V (DC mode), the output current is reduced based on the output voltage.
When the load power factor is 0 to 0.8, the output current is reduced based on the load power factor (AC/AS-S mode).
When the output frequency is 1 Hz to 40 Hz, the output current is reduced based on the output frequency (AC/ACS mode).
*5 With respect to a capacitor input-type rectifier load (Note that the peak current is limited based on the rms value of the rated output current.)
*6 Resolution: 1) 0.01 Hz (1.00 Hz to 100.0 Hz); 2) 0.1 Hz (100.0 Hz to 999.9 Hz)
*7 For output voltage of 80 V to 150 V/160 V to 300 V and a load power factor of 1. The specified value is obtained at the output terminal board.
*8 For output voltage of 80 V to 150 V/160 V to 300 V and a load power factor of 1. The specified range is output voltage variations measured with 200 Hz as a reference.
*9 For output voltage range of 100 V/200 V and an output current of 0 A
*10 For output voltage of 80 V to 150 V/160 V to 300 V and a load power factor of 1
*11 With respect to changes from an output current of 0 A to the rating and vice versa when the output voltage range is 100 V/200 V and the load power factor is 1
*12 With the display of a true rms value and waveform having a crest factor of 3 or less
*13 Displays the output frequency set value (frequency of the internal reference voltage)
*14 At an output frequency of 40 Hz to 999.9 Hz
*15 At an output frequency of 45 Hz to 65 Hz
*16 At an output frequency of 45 Hz to 65 Hz, with no load, and at room temperature
*17 With no load and at room temperature
*18 Limited by the rms value of the rated output current
*19 Rated maximum current in an output voltage range of 100 V

Model name			PCR500LA	PCR1000LA	PCR2000LA	PCR4000LA	PCR6000LA
Input/output terminal board connecting screws and accessories							
Input terminal board connecting screws			(Inlet)	M6			
Output terminal board connecting screws			M4	M6			
Accessories	Input power cable	Shape	Exclusive designed cable	Three-core heavy PVC jacketed cable	Single core cable, 3		
	(sectional conductor area/length)	Wire diameter	2 mm²/3 m with a threepronged plug	5.5 mm²/3 m	8 mm²/3 m	22 mm²/3 m	22 mm²/3 m
	Cable clamper		-	1 set			
	Cable-clamper fixing screws		-	M3, 1 pc. / M4, 2 pcs.	M4, 2 pcs. / M3, 4 pcs.	M3, 2 pcs. / M4, 2 pcs.	
	Operation Manual		1 copy				
	Weight seal		1 sheet				
External							
							

Option

■ Remote Controller

RC03-PCR-LA(Limited in functions)

RC04-PCR-LA*(Full-functional)

RC03-PCR-LA

■ Interface

IB03-PCR-LA (for GPIB)

EX03-PCR-LA* (for external signal input)

■ Driver

PD03M-PCR-LA (for Master unit operated in parallel)

PD03S-PCR-LA (for Slave unit operated in parallel)

3P03-PCR-LA (for Three-phase output)

2P03-PCR-LA(for Single-phase three-wire output)

■ Output extension kit** (Single-phase/single-phase three-wire switching)

OT01-PCR4000LA/2*(4kVA)

OT01-PCR8000LA/2*(8kVA)

OT01-PCR12000LA/2*(12kVA)

OT01-PCR4000LA/2

■ Output extension kit** (Single-phase/three-phase switching)

OT01-PCR6000LA/3*(6kVA)

OT01-PCR12000LA/3*(12kVA)

OT01-PCR18000LA/3*(18kVA)

OT01-PCR18000LA/3

*Be available soon.

**Output extension kit includes to attach software driver, signal cable and output cable respectively.

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