Expandable for Use as Simulation Power Supplies, Power Boosters and Other Applications

Features

■ Equipped with a Sequence Function

Sequence patterns can be accurately set from the panel or using the GPIB interface function, and then stored in internal memory. Sequences can then be executed from not only the panel, but also by using a remote controller or host computer. In addition, sequence speed can be selected from among a fast speed, which allows programming of a single step at a minimum of 100μs intervals, or a normal speed, which allows programming of ramp waveforms in a single step.

Four-Quadrant Operating Regious

■ Bipolar Output

The bipolar output that is able to perform high-speed changes in polarity ranging from the positive to negative allows these power supplies to be provided with four quadrant operating regions.

Bipolar Output

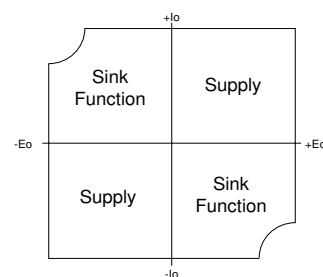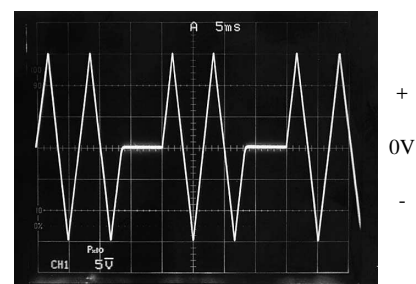**www.valuetronics.com**

PBX series

## PROGRAMMABLE BIPOLAR POWER SUPPLY (CV·CC)

Features

■ **High-Speed Response [Fast Mode of Constant Voltage Power Supply Mode]**

These power supplies can be used as simulation power supplies having high-speed rise and fall characteristics of a maximum of 50μs. In addition, these power supplies also feature a 30kHz frequency band for use as a power booster, allowing boosting of rapidly rising external signals.
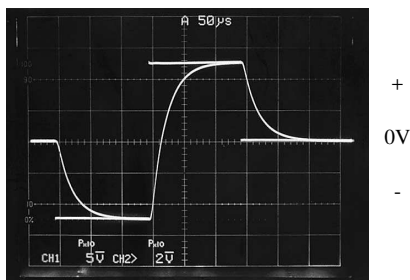
Rise and Fall Time: 50μs
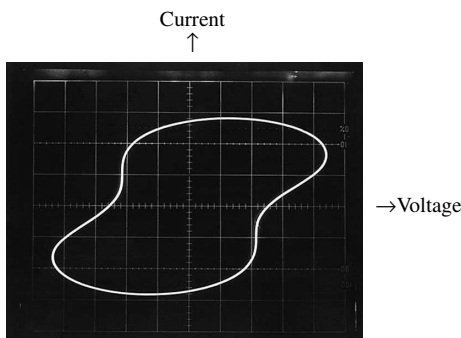
Four-Quadrant Voltage/Current Source
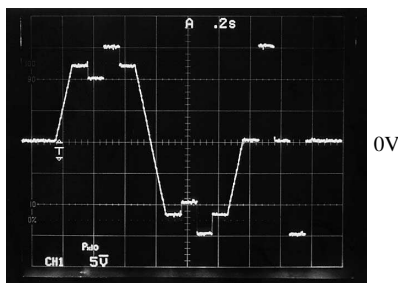
Sequence Mode
(Nomal Speed Mode)

■ **Low Ripple and Noise Levels [Normal Mode of Constant Voltage Power Supply Mode]**

The excellent output characteristics through the use of a power amplification system allow these power supplies to be used with communication devices, audio equipment and at EMC sites.

■ **Constant Current Power Supply Mode**

The providing of a dynamic mode and a static for the constant current power supply mode allows the user to select the mode which is applicable for the particular load, accommodating both rapidly fluctuating and slowly fluctuating loads.

■ **Expendability for System Incorporation**

The use of Kikusui's original MCB system (multi-channel bus system) allows simultaneous operation of a large number of bipolar power supplies, allowing operation of a maximum of 16 units with a single GPIB address, as well as a maximum of 16 units with a single RS-232C port.

■ **Human-Engineered Ease of Operation**

The use of a 10-key pad and a jog shuttle setting system allow settings to be entered easily corresponding to the particular application.

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Panel Description
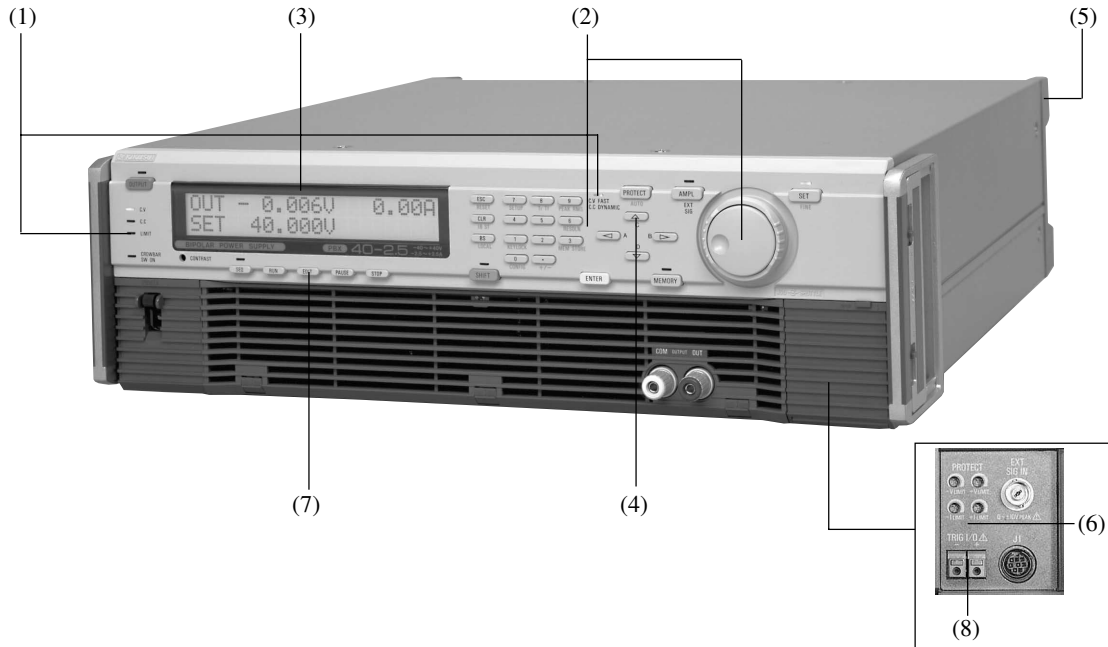
(1) **2 Modes as Power Supply**
Two operation modes in one power supply for an Expanded Application Range
1) Constant Voltage Power Supply Mode
   Equipped with two modes consisting of a fast mode and a normal mode.
2) Constant Current Power Supply Mode
   Equipped with two modes consisting of a dynamic mode and a static mode.

(2) **Selection of 2 Setting Methods to Match the Situation**
1) Jog Shuttle Setting
2) 10-Key Setting

(3) **Large, Legible Display**
Backlighted LCD display is able to display two rows of 20 characters each.

(4) **4 Internal Memories for Added Convenience in Repetitive Testing**
4 panel setting for voltage or current can be stored in memories A to D.

(5) **Various Interface Functions are Available (optional)**
1) GPIB
2) RS-232C
3) MCB (Multi-Channel Bus System)
   The use of Kikusui's original interface function allows a large number of power supplies to be operated simultaneously.

(6) **Condensed Function Remote Controller (optional)**
Settings can be mode using the same operations as setting from the panel with a hand-held remote controller.

(7) **Dual Speed Sequence Function**
1) Fast Speed Sequence (1024 steps/file)
   Allows programming of steps at a minimum of 100μs intervals.
2) Normal Speed Sequence (256 steps/file)
   Allows programming of ramp waveforms in a single step.

(8) **Equipped with Convenient Trigger In/Out Function**
1) IN
   This allows starting of the sequence during standby.
2) OUT
   This allows the trigger to be output at a specified point in the sequence program.

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PBX series

PROGRAMMABLE BIPOLAR POWER SUPPLY (CV·CC)

Specifications

Model	PBX20-5	PBX20-10	PBX20-20	PBX40-2.5	PBX40-5	PBX40-10
Power Source	AC100V±10%, single phase, 50/60Hz (110, 120, 200, 220 and 240V available as factory options)					
Input Current (Full load, 100V)	3A	6A	10A	3A	5A	9A
Rush Current	13A (for input power supply of AC110V)					
Output Voltage	±20.00V			±40.00V		
Resolution (*1)	1mV					
Temperature Coefficient	100ppm/°C					
Ripple Noise (RMS/P-P*)	Fast: 2mV/10mV, Normal: 1mV/10mV					
Load Regulation	Fast, Normal: 0.005%+1mV					
Line Regulation	Fast,Normal:0.005%+1mV					
Rise Time	Fast Mode: 50μs, 500μs, 5ms (typical)					
	Normal Mode: 30ms (typical)					
Fall Time	Fast Mode: 50μs, 500μs. 5ms (typical)					
	Normal Mode: 30ms (typical)					
Frequency Response (-3dB)	30 kHz (typical)					
Output Current	±5A	±10A	±20A	±2.5A	±5A	±10A
Resolution (*1)	1mA					
Temperature Coefficient	100ppm/°C					
Ripple/Noise (Dynamic)RMS	2mA		3mA	1mA	2mA	3mA
Ripple/Noise (Static)RMS	2mA		4mA	1mA	2mA	3mA
Load Regulation	0.01%+1mA		0.01%+2mA	0.01%+1mA		
Line Regulation	0.01%+1mA		0.01%+2mA	0.01%+1mA		
Rise Time	Dynamic Mode: 100μs, 500μs, 5ms (typical)					
	Static Mode: 50ms (typical)					
Fall Time	Dynamic Mode: 100μs, 500μs, 5ms (typical)					
	Static Mode: 50ms (typical)					
Frequency Response (-3dB)	10 kHz (typical)			5kHz (typical)		
Protective Circuitry	±V Limiter (Soft, Hard), ±I Limiter (Soft, Hard), power Limiter					
Operating Temperature and Humidity Ranges	0 to 40°C/30 to 80% RH					
Storage Temperature and Humidity Ranges	-20 to 70°C/20 to 80% RH					
Dimensions (mm)	430W×132H×450D	430W×132H×550D		430W×132H×450D	430W×132H×550D	
Weight (Approx.)	22kg	30kg	37kg	22kg	30kg	37kg

*Items indicated with an asterisk(*) represent typical values for which performance is not guaranteed. Such values are provided to serve as a general reference during use.

*1 : When using auto fine function.

Remote controller (RC02-PBX)
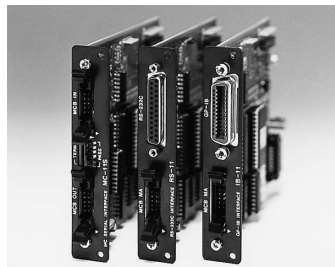
Various Interfaces are Available as User Options

Optional Accessories

RC02-PBX	Full Remote Controller
IB11	GPIB Interface
RS11	RS-232C Interface
MC11S	MCB Interface(MCB: Multi-Channel-Bus)

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