PMX-A SERIES



PMX-A mascot Pobby

Compact DC Power Supply PMX-A Series

Compact, high-performance series regulator system

LAN (LXI compliant) / USB / RS232C as standard interface

Free downloads (Limited function edition) of "Wavy" sequence creation software





A standard feature of the networking capability provides extended applications of the ordinary testing.

New-generation of the compact power supply PMX-A Series



- Series regulator system with excellent noise performance
- High setting resolution Voltage: 1 mV, Current: 0.1 mA (PMX18-2A)
- Wide range of output variations (9 models are available)
- LAN (LXI compliant) / USB / RS232C as standard interface
- External analog remote control
- Monitoring and status signal output
- CV, CC priority start function (to prevent overshoot when the output is ON)
- Remote sensing function (18 V, 35 V models)
- Key lock, 3-point preset memory function

The PMX-A series is a compact, high-performance DC power supply that provides constant voltage (CV) and constant current (CC). It is designed to improve working efficiency for benchtop uses. For this purpose, the output terminals are located on the front panel and are ergonomically designed so that wiring harnesses for electrical loads can be connected by moving your fingers naturally. Moreover, a forced air cooling system is used to intake and exhaust of the internal air, so the unit can be rack mounted without space. Furthermore, the PMX-A is equipped with LAN, USB, and RS232C interfaces as standard interfaces required for system operation. In particular, the LAN interface enables you to control and monitor the power supply from Web browsers on PCs. smartphones, tablets, and other terminal devices. Moreover, the PMX-A is LXI (LAN eXtention for Instrumentation) certified product, so it can be connected easier with

your measurement system using LAN interface. The PMX-A is also equipped with remote sensing (for 18 V, 35 V models only), analog external control/monitoring output, various protective functions, memory function, and other functions.



The Safety cover is included for the model above 70 V output rating.

REGULATED DC POWER SUPPLY **® KIKUSUI** PMX18-2A 0-18V 2A **VOLTAGE** OUTPUT CURRENT ALARM LAN LOCK REMOTE PRESET-A OVP-OCP CONFIG LOCK **△DC OUTPUT** ASENSING 0-18V CAUGE AW 320-14 **Actual**

Series line-up

	Output		Ripple		Line Regulation		Load Regulation		Weight	Power Source*	Power Consumption*
Model	CV	CC	CV	CC	CV	CC	CV	CC	kg / lbs	AC	Approx.
	V	Α	mVrms	mArms	mV	mA	mV	mA	kg / lbs	V±10%	VA
PMX18-2A	0 to 18	0 to 2	0.5	1	±1	±5	±2	±5	5 / 11.02	100	150
PMX18-5A	0 to 18	0 to 5	0.5	2	±1	±5	±5	±5	6 / 13.23	100	310
PMX35-1A	0 to 35	0 to 1	0.5	1	±3	±5	±3	±5	5 / 11.02	100	150
PMX35-3A	0 to 35	0 to 3	0.5	1	±3	±5	±4	±5	6 / 13.23	100	310
PMX70-1A	0 to 70	0 to 1	1	1	±5	±2	±5	±5	6 / 13.23	100	230
PMX110-0.6A	0 to 110	0 to 0.6	2	1	±7	±2	±7	±5	6 / 13.23	100	210
PMX250-0.25A	0 to 250	0 to 0.25	3	1	±15	±1	±15	±5	6 / 13.23	100	210
PMX350-0.2A	0 to 350	0 to 0.2	5	1	±25	±1	±25	±5	6 / 13.23	100	230
PMX500-0.1A	0 to 500	0 to 0.1	10	1	±30	±1	±30	±3	6 / 13.23	100	170

size

Communication interfaces are standard features

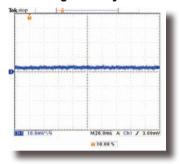




PMX-A SERIES

SI USB RS232C LAN A J1 F THIS COLLIAN IS BLANK THE LIVIN' IS WHED IN 100/ SITHING VICINIC SITHING VICINIC STANKAND 1509/ 1177 8000/ 2171/ 2244 No. MADE IN CHINA

Series regulator system with excellent noise performance



High stability and Low Ripple Noise

The PMX-A is based on the capacitorinput type of the series regulator design and which output can be generated with low noise and low ripple compared to the switching regulator design.

■ Ripple waveform (PMX18-5A)
[Measurement Condition] Resistive Load,
Oscilloscope in 20 MHz bandwidth

Improved usability







▲ Ergonomically designed for the wiring load harness

▲The handle makes you easy to carry

Free downloads of "Wavy" sequence creation software

Limited function edition

The limited function of the optional sequence creation and control software "SD025-PMX (Wavy for PMX)" is available to be downloaded free of charge. For details, please refer to the following information and our WEB. * The number of steps is limited up to 5 steps.

■ Application Software

Rear panel

Sequence Creation Software SD025-PMX (Wavy for PMX)

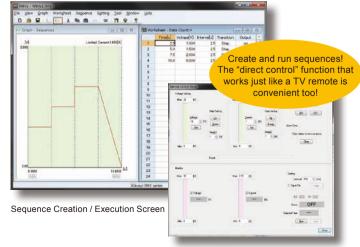
The software that supports to the auto testing of the power supply.

And it allows you to create and edit sequence data easily using a mouse!

The SD025-PMX (Wavy for PMX) is an application software that supports sequence creation and the operation of the Kikusui power supplie and the electronic load. The "Wavy" software allows you to create and edit sequences visually using a mouse without programming knowledge. It enables you to control the power supply in much the same way as remote controller for such monitoring the voltage and current, logging and so on.

[Operating environment, conditions]

- ●The "Wavy" software can control only one unit of the power supply
- ●CPU:Recommended: Core2 or better
- ●CD-ROM: Reguired to install the "Wavy"
- ●Mouse: Required
- ●Monitor: 1024 x 768 dots or higher resolution
- •Memory: 2GB or more
- ●Interfaces: LAN, USB, RS232C





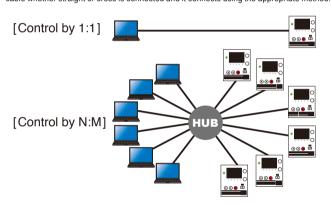
Digital, analog and other various external controls are supported. Remote control and monitoring can also be performed from Web browsers!

The PMX-A series is equipped with LAN, USB, and RS232C interfaces as standard communication interfaces. These interfaces enable remote control and monitoring to be performed efficiently in 1-to-N node configurations as well as in N-to-M node configurations even under large-scale networks. In particular, the LAN interface enables you to control and monitor the power supply through a browser on the PC, smartphone, tablet, or other terminal devices by accessing the built-in Web server of the PMX-A series.

■ LAN Interface

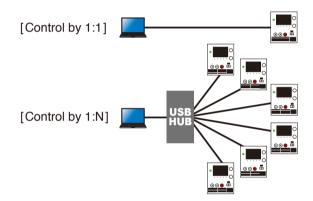
The LAN interface can control the number of devices with high speed, and it's theoretical controllable maximum number is to be calculated by approximately 4.2 billion. (The maximum transmission speed varies by the number of connected devices) In accordance with its applied standard, it is possible to combine the device that is to control or to be controlled, it is also the feature that it can be used with various applications. Also, in computers installed with Apple Bonjour, it is possible to access with a host name instead of the IP address.

AUTO MDIX function: The PMX-A series can automatically identify the type of LAN cable whether straight or cross is connected and it connects using the appropriate method.



■ USB Interface

The USB interface has a feature of high versatility, and the ease of a setup. The automatic recognition by the plug and play releases a user from the complex setting operation under the digital control, and it can be suitable interface when control by 1:1. In accordance with the standard, the maximum number of the connected devices can be configured up to 127 units. Moreover, the USB interface of the PWX series complies to USB2.0, and it has realized transmission speed of a maximum of 12 Mbps (es) (Full Speed).



■ RS232C Interface

It can be used for communication with PCs and sequencers.









SERIES

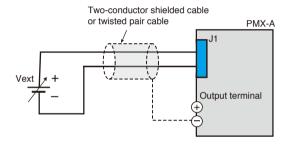
Analog Interface

The PMX-A series is equipped with external voltage/resistance control, which are interfaces necessary for analog external control and monitoring applications for test power supply devices. The input external signal and the output status signal can be conducted through the J1 connector on the rear panel.

Controlling the Output Voltage & Output Current.

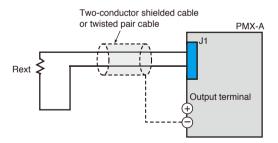
[Control using an external voltage(Vext)]

It is possible to control the output voltage and output current of the PMX-A series by using an external voltage.



[Control using an external resistance(Rext)]

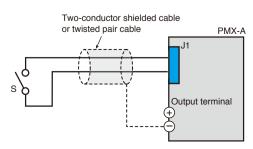
It is possible to control the output voltage and output current of the PMX-A series by using an external variable resistor.



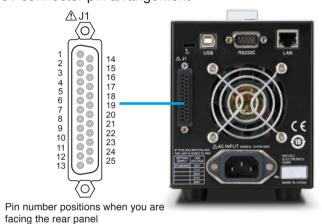
Turning output on and off

[Control using an external contact (S)]

It is possible to turn the output ON/OFF of the PMX-A series by using an external contact.



J1 connector pin arrangement



Pin No.	Signal name	Description
1	VMON	Output voltage monitor; outputs 0 V to 10 V for 0 % to 100 % of the rated output voltage
2	IMON	Output current monitor; outputs 0 V to 10 V for 0 % to 100 % of the rated output current.
3	ACOM	External signal common for pins 1, 2, 4, and 14. *1
4	EXT-V CV CONT	Output voltage control using external voltage; receives 0 V to 10 V to output 0 % to 100 % of the rated voltage.
5	ACOM	External signal common for pins 1, 2, 4, and 14. *1
6	EXT-R CV CONT	Output voltage control using external resistance; uses 0 Ω to 10 k Ω to output 0 % to 100 % of the rated voltage.
7	EXT-R CV CONT COM	Common for output voltage control using external resistance.
8	N.C.	Not connected.
9	N.C.	Not connected.
10	N.C.	Not connected.
11	CV STATUS	On when the PMX series is in CV mode (open-collector output from a photocoupler).*2
12	CC STATUS	On when the PMX series is in CC mode (open-collector output from a photocoupler).*2
13	ALM STATUS	On when a protection function (OVP, OCP, or OHP) is activated (open-collector output from a photocoupler).*2
14	EXT-V CC CONT	Output current control using external voltage; receives 0 V to 10 V to output 0 % to 100 % of the rated current.
15	ACOM	External signal common for pins 1, 2, 4, and 14.1*1
16	EXT-R CC CONT	Output current control using external resistance; uses 0 Ω to 10 k Ω to output 0 % to 100 % of therated current.
17	EXT-R CC CONT COM	Common for output current control using external resistance.
18	OUT ON/OFF CONT	Output on/off control using external contact input.
19	DCOM	External signal common for pin 18.*1
20	N.C.	Not connected.
21	N.C.	Not connected.
22	N.C.	Not connected.
23	OUT ON STATUS	On when output is on (output through an open-collector photocoupler).*2
24	PWR ON STATUS	On when the power is on (output through an open-collector photocoupler).*2
25	STATUS COM	Status signal common for pins 11, 12, 13, 23, and 24.

^{*1.} During remote sensing, this is the negative electrode (-S) of sensing input. When remote sensing is not being performed, this isconnected to the negative output

^{*2.} Open collector output: maximum voltage 30 V, maximum current (sink) 8 mA; the status common is floating (isolation voltage or less), it is isolated from the control circuit.

■ Specifications

AC input Nominal input				PMX18-5A	PMX35-1A	PMX35-3A	PMX70-1A	PMX110-0.6A	PMX250-0.25A	PMX350-0.2A	PMX500-0.1	
	rating					100 Vac *1	, 50 Hz / 60 Hz, s	ingle phase				
nput voltage r						100 100	± 10 %	g.o p.i.doo				
nput frequenc							47 Hz to 63 Hz					
Inrush current			50 Amax or less	60 Amax or less	45 Amax or less	60 Amax or less	1	55 Amax or less	40 Amax or less	55 Amax or less	40 Amax or le	
Power (MAX)			150 VA	310 VA	150 VA	310 VA	230 VA	210 VA	210 VA	230 VA	170 VA	
Output			100 171	0.0 171	100 171	0.0 171	200 171	210 071	2.0 07.	200 171	170 771	
Output	Output voltage		18.00 V	18.00 V	35.00 V	35.00 V	70.00 V	110.0 V	250.0 V	350.0 V	500.0 V	
Rating	Output current		2.000 A	5.000 A	1.000 A	3.000 A	1.000 A	0.600 A	0.250 A	0.200A	0.100 A	
tuting	Output power		36 W	90 W	35 W	105 W	70 W	66 W	62.5 W	70 W	50 W	
	Setting range		0 V to 18.90 V		0 V to 36.75 V	-	0 V to 73.5 V	0 V to 115.5 V		0 V to 367.5 V		
		- *4	0 V to 18.90 V		mV	0 V to 36.75 V	2 mV	U V tO 115.5 V		mV	0 V to 525.0	
	Setting resolution				IIIV	. (0.0.0/	I .	-fti)	10	IIIV		
	Setting accuracy	 		± (0.2 % of setting +0.1 % of rating) ±1 mV ±1 mV ±3 mV ±3 mV ±5 mV ±7 mV ±15 mV ±25 mV ±30 mV								
	Line regulation *5		±1 mV	±1 mV	±3 mV	±3 mV	±5 mV	±7 mV			±30 mV	
	Load regulation *6		±2 mV	±5 mV	±3 mV	±4 mV	±5 mV	±7 mV	±15 mV	±25 mV	±30 mV	
	Transient response *7) µs				100 µs	1		
Voltage	Ripple noise (rms) *8				i mV		1 mV	2 mV	3 mV	5 mV	10 mV	
	Rise time *9			120 ms	s or less		150 ms or less	120 ms or less	120 ms or less	150 ms or less	120 ms or le	
	No load Fall time *10 Rated load			120 ms	s or less		150 ms or less	120 ms or less	120 ms or less	150 ms or less	120 ms or le	
				50 ms	or less		50 ms or less	50 ms or less	50 ms or less	80 ms or less	50 ms or le	
	raii tiille 10	No load	270 ms or less	320 ms or less	270 ms or less	270 ms or less	270 ms or less	120 ms or less	120 ms or less	220 ms or less	60 ms or le	
	Maximum remote	sensina			0.17	,				,		
	compensation vo			0.	6 V				_			
	Temperature coe	efficient (TYP)				-	100 ppm /°C			-		
	Setting range	. ,	0 A to 2.1 A	0 A to 5.25 A	0 A to 1.05 A	0 A to 3.15 A	0 A to 1.050 A	0 A to 0.630 A	0 A to 0.263 A	0 A to 0.210 A	0 A to 0.105	
	Setting resolution	n *4	1				0.1 mA					
	Setting accuracy					+ (0 3 %	of setting +0.1 %	of rating)			-	
Current	Line regulation			, =	mA	£ (0.5 %	±2 mA	±2 mA	±1 mA	±1 mA	±1 mA	
Juneni	_					-						
	Load regulation	-) *0	4 4	1	mA	4*	±5 mA	±5 mA	±5 mA	±5 mA	±3 mA	
	Ripple noise (rm		1 mA	2 mA	1 mA	1 mA	000 :		1 mA			
	Temperature coe	efficient (TYP)					200 ppm /°C					
Display function	on											
/oltage	Maximum display	У		99.9	9 (fixed decimal	point)			999.9 (fixed o	decimal point)		
lisplay	Display accuracy	/ *11				± (0.5	% of reading +2	digits)				
Current	Maximum display	y				9.99	9 (fixed decimal p	point)				
lisplay	Display accuracy	/ *11	± (1 % of reading +5 digits)									
	OUTPUT ON / O	FF			Output on: C	UTPUT LED ligh	nts in green.Outp	ut off: OUTPUT L	.ED turns off.			
	CV operation		Output on: OUTPUT LED lights in green. Output off: OUTPUT LED turns off. CV LED lights in green.									
	CC operation		CC LED lights in red.									
	Alarm operation			ALARM LED lights in red when a protection function has been activated.								
Operation	Remote operation		REMOTE LED lights in green during remote control.									
display	Tromoto operatio											
		LAN operation	LAN LED lights or blinks depending on the LAN communication status. No fault status: Lights in green Fault status: Lights in red Standby status: Lights in grange WEB identify status: Rlinks green									
			No fault status: Lights in green.Fault status: Lights in red.Standby status: Lights in orange.WEB identify status: Blinks green.									
	Key lock operation		LOCK LED lights in green when the keys are locked.									
		on			L	OCK LED lights	in green when th	e keys are locked	d.			
	Preset memory	on		W			in green when th ng used, the PRE					
Protection fun		on		W								
Protection fun		Operation		W	/hen a preset me	mory entry is bei		ESET A, B, or C I	ED lights in gree			
Protection fun		Operation	1.8 V to	1.8 V to	/hen a preset me	mory entry is bei	ng used, the PRE	ESET A, B, or C I	ED lights in gree		50 V to	
		Operation Setting	1.8 V to 19.8 V		/hen a preset me	mory entry is bei	ng used, the PRE	SET A, B, or C I	ED lights in gree	en.		
	octions	Operation		1.8 V to	/hen a preset me T 3.5 V to	urns the output of 3.5 V to 38.5 V	off, displays OVP,	and lights ALAR	ED lights in gree M 25 V to	en. 35 V to	50 V to	
	octions	Operation Setting range		1.8 V to	/hen a preset me T 3.5 V to	urns the output of 3.5 V to 38.5 V	ng used, the PRE off, displays OVP, 7 V to 77.00 V % of the rated out	and lights ALAR	ED lights in gree M 25 V to	en. 35 V to	50 V to	
	octions	Operation Setting range Setting accuracy		1.8 V to	/hen a preset me T 3.5 V to 38.5 V	urns the output o 3.5 V to 38.5 V 10 % to 110	off, displays OVP,	and lights ALAR 11 V to 121.0 V	ED lights in gree M 25 V to 275.0 V	en. 35 V to	50 V to	
	octions	Operation Setting range	19.8 V	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V	urns the output of 3.5 V to 38.5 V to 10 % to 110 urns the output o	of the rated ou ± (1 % of rating)	SET A, B, or C I and lights ALAR 11 V to 121.0 V utput voltage and lights ALAR	ED lights in gree M 25 V to 275.0 V	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p	orotection (OVP)	Operation Setting range Setting accuracy Operation *12 Setting		1.8 V to	/hen a preset me T 3.5 V to 38.5 V	urns the output o 3.5 V to 38.5 V 10 % to 110	ng used, the PRE off, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating)	and lights ALAR 11 V to 121.0 V	ED lights in gree M 25 V to 275.0 V	en. 35 V to	50 V to 550.0 V	
Overvoltage p	octions	Operation Setting range Setting accuracy Operation *12	19.8 V	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to	urns the output of 3.5 V to 38.5 V to 110 % to 110 urns the output of 0.3 A to 3.3 A	ng used, the PRE iff, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) iff, displays OCP, 0.100 A to 1.100 A	and lights ALAR 11 V to 121.0 V Itput voltage and lights ALAR 0.060 A to 0.660 A	M 25 V to 275.0 V M 0.025 A to	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p	orotection (OVP)	Operation Setting range Setting accuracy Operation *12 Setting range	19.8 V	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to	urns the output of 3.5 V to 38.5 V to 110 % to 110 urns the output of 0.3 A to 3.3 A	ng used, the PRE iff, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) iff, displays OCP, 0.100 A to 1.100 A % of the rated ou	and lights ALAR 11 V to 121.0 V Itput voltage and lights ALAR 0.060 A to 0.660 A	M 25 V to 275.0 V M 0.025 A to	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p	orotection (OVP)	Operation Setting range Setting accuracy Operation *12 Setting range Setting range	19.8 V	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 0.3 A to 3.3 A 10 % to 110	ng used, the PRE off, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) off, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating)	and lights ALAR 11 V to 121.0 V tput voltage and lights ALAR 0.060 A to 0.660 A utput current	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p Overcurrent p	orotection (OVP) rotection (OCP)	Operation Setting range Setting accuracy Operation *12 Setting range	19.8 V	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 0.3 A to 3.3 A 10 % to 110	ng used, the PRE iff, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) iff, displays OCP, 0.100 A to 1.100 A % of the rated ou	and lights ALAR 11 V to 121.0 V tput voltage and lights ALAR 0.060 A to 0.660 A utput current	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p Overcurrent p	orotection (OVP) rotection (OCP) ection (OHP) rol • Signal output	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation	19.8 V 0.2 A to 2.2 A	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 0.3 A to 3.3 A 10 % to 110	ng used, the PRE off, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) off, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) ff, displays OHP, ff, displays OHP,	and lights ALAR 11 V to 121.0 V tput voltage and lights ALAR 0.060 A to 0.660 A utput current	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p Overcurrent po Overheat protesternal Cont	rotection (OVP) rotection (OCP) ection (OHP) rol • Signal output Voltage monitor	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation At rated voltage output	19.8 V 0.2 A to 2.2 A	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 0.3 A to 3.3 A 10 % to 110	ong used, the PRE off, displays OVP, T V to T7.00 V % of the rated ou ± (1 % of rating) off, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) off, displays OHP, 10.00 V ±0.1 V	and lights ALAR 11 V to 121.0 V tput voltage and lights ALAR 0.060 A to 0.660 A utput current	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
Overcurrent poverheat protesternal Cont	orotection (OVP) rotection (OCP) ection (OHP) rol • Signal output	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation At rated voltage output At 0 V output	0.2 A to 2.2 A	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 0.3 A to 3.3 A 10 % to 110	of the rated ou to (1% of rating) ff, displays OVP, 7 V to 77.00 V % of the rated ou to (1% of rating) ff, displays OCP, 0.100 A to 1.100 A % of the rated ou to (1% of rating) ff, displays OHP, 10.00 V ±0.1 V 0.00 V ±0.1 V	and lights ALAR 11 V to 121.0 V tput voltage and lights ALAR 0.060 A to 0.660 A utput current	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p Overcurrent pi Overheat prote External Conti	rotection (OVP) rotection (OCP) rection (OHP) rol • Signal output Voltage monitor (VMON) Current monitor	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation At rated voltage output	0.2 A to 2.2 A	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 0.3 A to 3.3 A 10 % to 110	ong used, the PRE off, displays OVP, T V to T7.00 V % of the rated ou ± (1 % of rating) off, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) off, displays OHP, 10.00 V ±0.1 V	and lights ALAR 11 V to 121.0 V tput voltage and lights ALAR 0.060 A to 0.660 A utput current	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
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Overvoltage p Overcurrent pi Overheat prote External Conti	rotection (OVP) rotection (OCP) rection (OHP) rol • Signal output Voltage monitor (VMON) Current monitor	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation At rated voltage output At 0 V output At 10 A output At 0 A output	0.2 A to 2.2 A	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V to 10 % to 110 urns the output of 0.3 A to 3.3 A 10 % to 110 urns the output of 0.3 to 110 wrns the 0	ng used, the PRE iff, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) iff, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) iff, displays OHP, 10.00 V ±0.1 V 10.00 V ±0.1 V	and lights ALAR 11 V to 121.0 V tput voltage and lights ALAR 0.060 A to 0.660 A utput current and lights ALAR	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p Overcurrent pi Overheat prote External Cont Monitor signal output 113, *14	rotection (OVP) rotection (OCP) ection (OHP) rol • Signal output Voltage monitor (VMON) Current monitor (IMON)	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation At rated voltage output At 0 V output At 10 A output At 0 A output	0.2 A to 2.2 A	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 3.3 A 10 % to 110 urns the output of 3.3 A 10 % to 110 urns the output of 5.3 A 10 wrns the output of 5.3 A 1	ng used, the PRE off, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) iff, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) iff, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) iff, displays OHP, 10.00 V ±0.1 V 10.00 V ±0.1 V 0.00 V ±0.1 V	and lights ALAR 11 V to 121.0 V Intput voltage and lights ALAR 0.060 A to 0.660 A Intput current and lights ALAR	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p Overcurrent pi Overheat prote External Cont Monitor ignal output 13, *14 Status signal	rotection (OVP) rotection (OCP) ection (OHP) rol • Signal output Voltage monitor (VMON) Current monitor (IMON) OUTON STATUS	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation At rated voltage output At 0 V output At 10 A output At 0 A output	0.2 A to 2.2 A	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 0.3 A to 3.3 A 10 % to 110 urns the output of 0.5 Turns the 0.5 Turns th	ong used, the PRE off, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) off, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) off, displays OCP, 1.00 V ± 0.1 V 0.00 V ± 0.1 V 0.00 V ± 0.1 V on when the outp on during CV ope	and lights ALAR 11 V to 121.0 V Intput voltage and lights ALAR 0.060 A to 0.660 A Intput current and lights ALAR ut is on pration	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
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Overvoltage p Overcurrent pi Overheat prote External Cont Monitor signal output 13, *14 Status signal output	rotection (OVP) rotection (OCP) ection (OHP) rol - Signal output Voltage monitor (VMON) Current monitor (IMON) OUTON STATUS CV STATUS ALM STATUS	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation At rated voltage output At 0 V output At 0 A output	0.2 A to 2.2 A	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 3.3 A 10 % to 110 urns the output of 3.3 and 10 % to 110 urns the output of 5 urns the output of 5 urns the output of 5 urns 10 wrns the output of 5 urns 10 wrns the output of 5 urns 10 urns 10 urns the output of 5 urns 10 urns 10 urns the output of 5 urns 10 ur	ong used, the PRE off, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) off, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) off, displays OHP, 10.00 V ±0.1 V 0.00 V ±0.1 V 10.00 V ±0.1 V 0.00 V ±0.1 V on when the outp on during CC open an alarm has b	and lights ALAR 11 V to 121.0 V Intput voltage and lights ALAR 0.060 A to 0.660 A Intput current and lights ALAR ut is on eration eration een activated	M 25 V to 275.0 V M 0.025 A to 0.275 A	35 V to 385.0 V	50 V to 550.0 V	
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Overvoltage p Overcurrent pi Overheat prote External Cont Monitor Signal output 13, *14 Status signal output 14, *15	rotection (OVP) rotection (OVP) rection (OCP) rection (OHP) rol • Signal output Voltage monitor (VMON) OUTON STATUS CV STATUS CV STATUS ALM STATUS PWR ON STATU EXT-V CV CONT (CV external voltage EXT-R CV CONT (CV external resistan	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation At rated voltage output At 0 V output At 10 A output At 0 A output At 0 A output At 0 A output At 0 A output At 0 A output At 0 A output At 0 A output At 0 A output At 0 A output At 0 A output At 0 A output At 0 A output	0.2 A to 2.2 A	1.8 V to 19.8 V	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A T 0 % to 10 mg +10 mV 0 % to 10 mg +10 mV 0 % to 10	urns the output of 3.5 V to 38.5 V 10 % to 110 urns the output of 3.3 A 10 % to 110 urns the output of 3.3 A 10 % to 110 urns the output of 10 % to 110 urns the output of 10 % to 110 urns the output of 10 % of the rated 10 % of	ong used, the PRE off, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) off, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) off, displays OHP, 10.00 V ±0.1 V 0.00 V ±0.1 V 10.00 V ±0.1 V 10	and lights ALAR 11 V to 121.0 V Intput voltage and lights ALAR 0.060 A to 0.660 A Intput current and lights ALAR ut is on eration eration een activated is turned on the range of 0 N the range of 0 Ω	M 25 V to 275.0 V M 0.025 A to 0.275 A M 1 1% of rating to 10 kΩ. 1 % of rating	35 V to 385.0 V	50 V to 550.0 V	
Overvoltage p Overcurrent pi Overheat prote External Cont Monitor Signal output 13, *14 Status signal output 14, *15	rotection (OVP) rotection (OVP) rection (OHP) rol • Signal output Voltage monitor (VMON) OUTON STATUS CV STATUS CC STATUS ALM STATUS PWR ON STATU EXT-V CV CONT (CV external voltage EXT-R CV CONT	Operation Setting range Setting accuracy Operation *12 Setting range Setting range Operation At rated voltage output At 0 V output At 0 A output At 0 A output Secontrol) Accuracy Coe control) Accuracy	0.2 A to 2.2 A	1.8 V to 19.8 V 0.5 A to 5.5 A	/hen a preset me T 3.5 V to 38.5 V T 0.1 A to 1.1 A T 0 % to 1 ng +10 mV 0 % to 10 ng +10 mV 0 % to 10 ng +5 mV	urns the output of 3.5 V to 3.6 V to 100 urns the output of 3.3 A to 4.0 % to 110 urns the output of 5.0 Urns the output of 5.0 Urns the output of 5.0 Urns on whe 5.0 Urns on whe 5.0 Urns on whe 6.0 Urns on whe 6.0 Urns on whe 7.0	ong used, the PRE off, displays OVP, 7 V to 77.00 V % of the rated ou ± (1 % of rating) off, displays OCP, 0.100 A to 1.100 A % of the rated ou ± (1 % of rating) off, displays OHP, 10.00 V ±0.1 V 0.00 V ±0.1 V 10.00 V ±0.1 V 10	and lights ALAR 11 V to 121.0 V Itput voltage and lights ALAR 0.060 A to 0.660 A Itput current and lights ALAR ut is on eration een activated turned on the range of 0 V the range of 0 V	M 25 V to 275.0 V M 0.025 A to 0.275 A M 10 V. 1 % of rating to 10 kΩ. 1 % of rating / to 10 V. 1 % of rating	35 V to 385.0 V	50 V to 550.0 V	
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Specifications

Model		PMX18-2A	PMX18-5A	PMX35-1A	PMX35-3A	PMX70-1A	PMX110-0.6A	PMX250-0.25A	PMX350-0.2A	PMX500-0.1A	
Interface											
Common	Software protocol	IEEE Std 488.2-1992									
specifications	Command language	Complies with SCPI Specification 1999.0									
Hardware RS232C		Complies with the EIA232D specifications D-SUB9 pin connector (male) *17 Baud rate: 19200 bps fixed, Data length: 8 bits, Stop bits: 1 bit, Parity bit: None, No flow control.									
1102020	Program message terminator	LF during reception, LF during transmission									
	Hardware		Complie	es with the USB	2.0 specification	s. Baud rate:12 N	Abps (full speed)	. Standard Type E	3 socket		
USB	Program message terminator			LF o	r EOM during re	ception, LF + EO	M during transm	ssion			
	Device class			Compli	es with the USB	TMC-USB488 de	evice class speci	fications			
	Hardware		IEEE 802.3	3 100Base-TX /	10Base-T Etherr	net Complies with	LXI Device Cor	e Specification 20	11 Rev 1.4		
	Hardware				IPv4	I, RJ-45 connect	or *18				
LAN	Communication protocol		VXI-11, HISLIP, or SCPI-RAW								
	Program message terminator	VXI-11 and HiSLIP: LF or END during reception, LF + END during transmission SCPI-RAW: LF during reception, LF during transmission									
General speci	fications										
Weight (main unit only)		Approximately 5 kg (11.02 lbs)	Approximately 6 kg (13.23 lbs)					Approximately 6 kg (13.23 lbs)	Approximately 6 kg (13.23 lbs)	Approximately 6 kg (13.23 lbs	
Dimensions (mm(inch))(maximum dimensions)		107 (4.21") W×124 (4.88")(150 (5.91")) H×315 (12.40")(355 (13.98")) Dmm									
	Operating environment	Indoor use, overvoltage category II									
Environmental	Operating temperature / Operating humidity	0 °C to +40 °C / 20 %rh to 85 %rh (no condensation) (32 °F to +104 °F)									
conditions	Storage temperature / Storage humidity		-25 °C to +70 °C / 90 %rh or less (no condensation) (-13 °F to +158 °F)								
	Altitude	Up to 2000 m									
Cooling metho	od	Forced air cooling using fan									
Grounding pol	arity	Negative grounding or positive grounding possible									
Isolation voltage		±70 Vdc ±550 Vdc									
	Between input and FG	No abnormalities at 1500 Vac for 1 minute									
Withstand voltage	Between input and output	No abnormalities at 2100 Vac for 1 minute									
voltage	Between output and FG		bnormalities at 1	1600 Vac for 1 m	inute		No abnorma	alities at 2000 Vac	for 1 minute		
Landa Carta	Between input and FG										
Insulation resistance	Between input and output	500 Vdc, 30 MΩ or more 1000 Vdc, 30 MΩ or more									
100/010/100	Between output and FG										
Safety *19		Complies with the requirements of the following directive and standard. Low Voltage Directive 2014/35/EU EN 61010-1 (Class I *2						1 (Class I *20, Po	Ilution degree 2		
Electromagnetic compatibility *19		Complies with the requirements of the following directive and standards. EMC Directive 2014/30/EU EN 61326-1 (Class A *21), EN 55011 (Class A *21, Group 1 *22), EN 61000-3-2, EN 61000-3-3 Applicable under the following conditions The maximum length of all cabling and wiring connected to the PMX-A must be less than 3 m.									
Accessories		Power cord: 1 pc (Approximately 2.5 m). Packing list: 1 copy. Quick reference: Japanese:1 copy, English: 1 copy, Chinese: 1 copy. Safety precautions: 1 copy. CD-ROM: 1 disc.									

Unless specified otherwise, the specifications are for the following settings and conditions

- · Loads are pure resistive loads.
- The warm-up time is 30 minutes (with current flowing).
- Negative output is connected to the chassis terminal using the short bar.

 Values indicated by "TYP" are typical values. They are not guaranteed performance values.
- Values indicated by "rating" are rated values.
- Values indicated by "setting" are setting values.
 Values indicated by "reading" are readout values.
- Rated load and no load are defined as follows:
- In constant-voltage mode (when the output current is set to a value greater than or equal to the maximum output current with rated output voltage)

Rated load: Refers to a resistive load that, when the rated output voltage is applied,

makes the flowing current 95 % to 100 % of the maximum output current with rated output voltage No load: Refers to a load through which no output current flows. In other words,

refers to an open load (no load being connected).

In constant-current mode (when the output voltage is set to a value greater than or equal to the maximum output voltage with rated output current)

Rated load: Refers to a resistive load that, when the rated output current flows, makes the voltage drop to 95 % to 100 % of the maximum output voltage with rated output current.

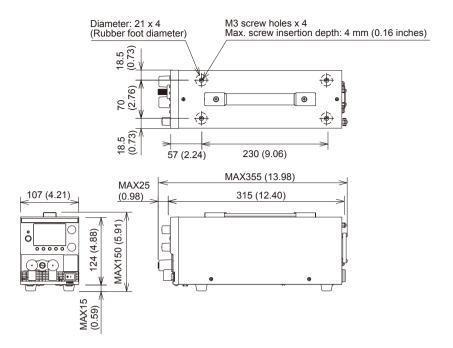
Including the voltage drop in the load cables, the PMX-A output voltage must not exceed the maximum output voltage with rated output current.

No load: Refers to a resistive load that, when the rated output current flows, makes the voltage drop to 10 % of the maximum output voltage with rated output current or 1 V whichever is higher.

- 117 Vac, 200 Vac, 217 Vac and 234 Vac are factory options.
- Excludes the charge current component that flows through the capacitor of the internal EMC filter circuit immediately after the POWER switch is turned on (for approximately 1 ms).
- With the rated load.
- When the output is on, hold down SHIFT and turn the VOLTAGE or CURRENT knob to change the value at 1/10th the resolution of the minimum digit.
 - When the output is off, hold down SHIFT and turn the VOLTAGE or CURRENT knob to change the value at increments of 1 in the minimum digit.
 - If you are setting the value through the communication interface, you can set the value at 1/10th the resolution of the minimum digit, regardless of whether the output is on. 100 Vac to 90 Vac or 100 Vac to 110 Vac, rated load.
- The amount of change that occurs when the load is changed from no load to rated load with rated output voltage. The value is measured at the sensing point.

 The amount of time required for the output voltage to return to a value within "rated output
- $voltage \pm (0.05~\% + 10~mV)." \label{eq:voltage} \begin{tabular}{ll} \begin{tabular}{$ current
- When the measurement frequency bandwidth is 5 Hz to 1 MHz.
- The time it takes for the output voltage to rise from 10 % to 90 % of the rating when the output is turned on.
- The time it takes for the output voltage to fall from 90 % to 10 % of the rating when the output is turned off.
- Ambient temperature at 23 °C +5 °C.
- This does not protect against the discharge current peak that is generated from the capacitors inside the PMX-A output section when the load is changed suddenly.
- When remote sensing is used, connect the monitor signal's common line to the negative S terminal of the sensing terminal. When remote sensing is not used, connect it to the negative output terminal
- *14. J1 connector on the rear panel.
- *15. Photocoupler open collector output;
 - maximum voltage 30 V, maximum current (sink) 8 mA; isolated from the output and control circuits; status commons are floating (isolation voltage or less); and status signals are not mutually isolated.
- *16. J1 connector on the rear panel
- *17. Use a cross cable (null modem cable).
- Category 5; use a straight cable
- *19. Limited to products that have the CE mark on their panels. Does not apply to specially ordered or modified PMX-As.
- *20. This is a Class I equipment. Be sure to ground this product's protective conductor terminal. The safety of this product is only guaranteed when the product is properly grounded.
- *21. This is a Class A equipment. This product is intended for use in an industrial environment. This product may cause interference if used in residential areas. Such use must be avoided unless the user takes special measures to reduce electromagnetic emissions to prevent interference to the reception of radio and television broadcasts.
- *22. This is a Group 1 equipment. This product does not generate and/or use intentionally radio-frequency energy, in the from of electromagnetic radiation, inductive and/or capacitive coupling, for the treatment of material or inspection/analysis purpose.

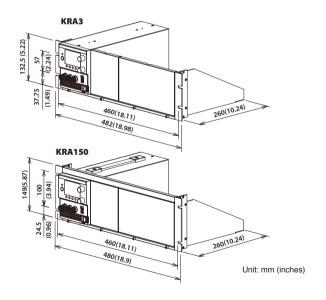
Dimensions



Option

Name	Model	Note		
De els secont e de etce	KRA3	For EIA inch racks		
Rack mount adapter	KRA150	For JIS millimeter racks		
	KBP3-2 (1/2 width)	For both EIA inch racks		
Blank panel	KBP3-4(1/4 width)	and JIS millimeter racks		
Dialik pallel	BP191(-M) *1	For EIA inch racks		
	BP1H(-M) *1	For JIS millimeter racks		

^{*1} The "-M" at the end of the model name indicates a mesh type.



Name	Model	Note
Connector kit	OP01-PMX	A connector kit for connecting to the J1 connector to externally control the PMX.
Terminal unit (for use with the PMC-A series)	TU01-PMX	A terminal unit for converting the J1 connector of this product to the J2 connector of the Kikusui PMC-A Series Regulated DC Power Supply.

& KIKUSUI

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