



Bidirectional Power Supply Device with Regeneration Capability

Digital PWM Control Power Supply

2kW to up to 120kW

KP series





The unit type facilitates extension!

www.matsusada.com

KP series

Bidirectional Power Supply Enables Power Running and Regenerating Operation

- Wide Lineup
- High Reliability
- Redundancy



Summary

KP series is the sophisticated bidirectional power supply device with the regeneration capability*, optimal for evaluating not only in-car inverters for hybrid and electric vehicles but motors, generators, high-capacity vehicle batteries and capacitors as well as wind or solar power generation.

We make available the extensive lineup ranging from 2kW to 120kW so you can choose the optimal model according to various applications including development and production.

*The device is designed on the assumption that all regenerated power is consumed on the premises.

Features

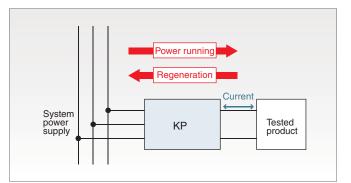
- Extensive lineup of over 20 different models ranging from 2kW to 120kW.
- The regeneration capability achieves effective power use.
- Cooperation operation is also possible.
- KP also has the redundancy which can be operated without stopping the whole even if it stops one power supply unit. (Please consult for detail.)
- The unit configuration facilitates extension after introduction. (up to 120kW)
- Smooth switching between power running and regeneration.
- Reduced power consumption helps mitigate rise in ambient temperature.

Applications

The device is available as the regenerating electronic load and power supply device for:

- Evaluating the charge-discharge test on secondary cells or capacitors (optional)
- Evaluating in-car inverters or convertors
- Evaluating motors and generators

The model that may be used as a battery simulator will be available soon. Contact our sales staff for details.



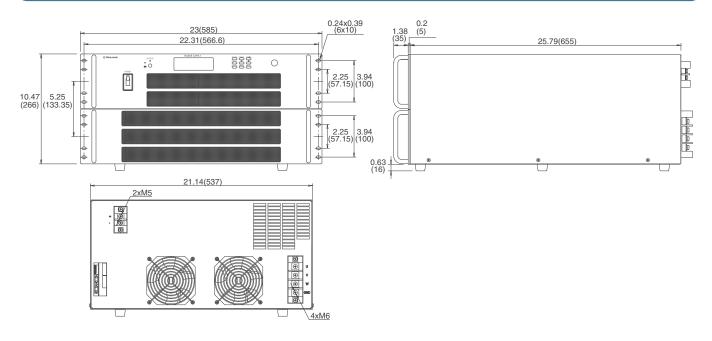
Lineup

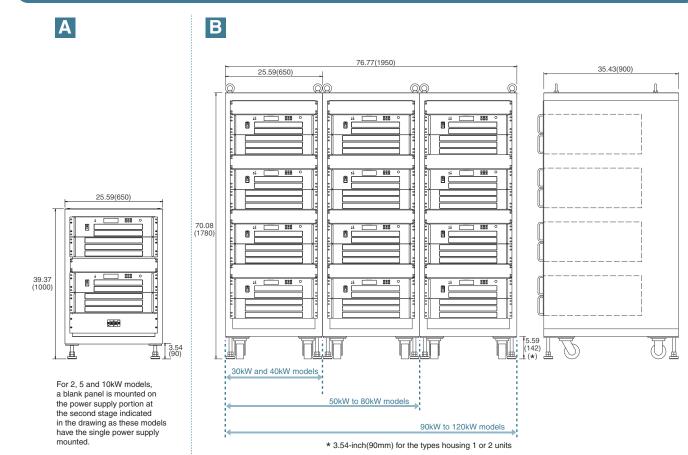
Model	I/O power	Power supply mode (power running mode)		Load mode (regeneration mode)		Outline
		DC output voltage	DC output current	DC input voltage	DC input current	drawing (P.4)
KP80-32(2kW) ^{*1} NEW	2kW	0 to 80V	32A	0 to 80V	-32A	Α
KP80-80(5kW) ^{*1} NEW	5kW		80A		-80A	Α
KP80-160(10kW) ^{*1} NEW	10kW		160A		-160A	*2
KP80-320(20kW) NEW	20kW		320A		-320A	*2
KP400-50(10kW) ^{*1}	10kW	0 to 400V	50A	40 to 400V	-50A	Α
KP650-5(2kW) ^{*1} NEW	2kW	0 to 650V	5A	65 to 650V	-5A	Α
KP650-12(5kW) ^{*1} NEW	5kW		12A		-12A	Α
KP650-25(10kW) ^{*1}	10kW		25A		-25A	Α
KP650-50(20kW)	20kW		50A		-50A	Α
KP650-75(30kW)	30kW		75A		-75A	В
KP650-100(40kW)	40kW		100A		-100A	в
KP650-125(50kW)	50kW		125A		-125A	в
KP650-150(60kW)	60kW		150A		-150A	В
KP650-175(70kW)	70kW		175A		-175A	В
KP650-200(80kW)	80kW		200A		-200A	в
KP650-225(90kW)	90kW		225A		-225A	В
KP650-250(100kW)	100kW		250A		-250A	В
KP650-275(110kW)	110kW		275A		-275A	В
KP650-300(120kW)	120kW		300A		-300A	В
KP750-4(2kW) ^{*1} Coming soon	2kW		4.5A		-4.5A	Α
KP750-10(5kW) ^{*1} Coming soon	5kW	0 to 750V	11A	200 to 750V	-11A	Α
KP750-20(10kW) ^{*1} Coming soon	10kW		22A	1	-22A	*2

*1 : The models with no rack are followed by "A". <e.g.> KP80-32 (2kW) A *2 : For the external dimensions of these models, ask our sales staff.

Dimensions inch(mm)







When the 23-inch rack is put away :

Specifications Additional specifications are required for battery applications. Contact our sales staff for details.

System power supply voltage	e 200V ± 10%, 60 / 50Hz must be designated, 3-phase	
Load mode	Controlled by CV	
Power supply mode	Controlled by CV	
Protection circuit	Over voltage protection, overcurrent protection, overpower protection and over temperature protection Breaking with the emergency stop switch	
Efficiency	Approx. 80%	
Display	LCD display Input voltage and input current (accuracy 3% FS \pm 1 dgt) Load operation mode, setting value	
Operating temperature	0 to +40 °C	
Storage temperature	-20 to +60 °C	
Storage humidity	0 to 80% RH (no condensation)	

When multiple KP units are used, we recommend that you use the earth leakage detector that may be used for inverters.

Options

-LA1	Enables the following remote control and monitor output : External control of output voltage : Controls output voltage with the external control voltage (Vcon-in) between 0 and 10V.
	External control of output current : Controls output current with the external control voltage (Vcon-in) between 0 and 10V.
	Output voltage monitor : 0 to +10V (±3% FS.), output impedance of 1kΩ
	Output current monitor : 0 to +10V (max. negative current to max. positive current) (\pm 3% FS.), output impedance of 1k Ω
	Remote switch ON/OFF (TTL or external relay)
-LBt	This option is required if the load is comprised of a battery. Contact our sales staff for details.

(This option is available only for the 80V I/O model.)

Other Products

Contact the nearest sales office for details of the products.

High-Capacity Charge-Discharge Power Supply

ECPU series

I/O voltage : 0 to 5V I/O current : 0 to 250A I/O power : 0 to 1250W

Equipped with the convenient function that facilitates the single cell evaluation of large secondary batteries



The ECPU series is the DC charge-discharge power supply that enables charge-discharge as high in capacity as 1250 W on its own. Equipped with the function that facilitates the single cell evaluation testing on large secondary batteries for HEVs, PHVs, EVs and PEV, the device is optimal for the charge-discharge evaluation testing on secondary batteries including Li-ion batteries or electric double layer capacitors.

Features

- The single unit enables charge-discharge as high in capacity as 1250 W
- The function to detect battery temperature by a thermistor comes as a standard function
- The dedicated software can collectively control charge-discharge operation and various

measurements

High-Capacity DC Power Supply REM series

Output voltage : 0 to 1000V Output current : 0 to 6000A Output power : 0 to 120kW

The high power device with the maximum 120 kW is suitable for the evaluation testing on power conditioners



Features

Contains the high-power DC power supply unit and the power supply controller in a single 19-inch rack

The PRM series is the DC variable power supply that may safely and stably output power as high as 120kW. The power supply extendable to the maximum 360kW is sufficient for cases requiring larger output.

- Equipped with the LCD display that can display the sum of output current
- Various interfaces including the USB and LAN may also be installed (optional)

X-ray inspection systems for non-destructive inspection on the inner batteries or capacitors!

Horizontally Irradiating X-Ray Microview Microscope

Capable of mounting the CT and suitable µB3500 for taking the images of wprkpieces that cannot be laid

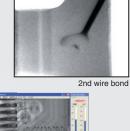


X-Ray Micro Nanoview Microscope µnRay 7600

Achieves the highest 700-power images of the class

Highest power images of the class





Super sophisticated and simple operation



Both models above may be equipped with the CT functions.

Display arbitrary cross sections of 3D images



Displays an arbitrary cross section of the volume rendered 3D image.



Separate arbitrary object

Extracts an arbitrary portion in the image to color or separate the portion.

Output CAD data



Outputs the surface shape of a 3D image polygonally approximated as a point-group file (STL format)



Customer Inquiry Sheet (KP series)

Please copy this page and above fax number after filling out form below.

I would like

A quotation	An explanation of product	A demonstration	To purchase
Other ()	

Give us your requirement / comment

Please fill in below.

Address:	
Address.	
Company:	
Dept.:	Title:
Dept	nue.
Name:	
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Tel:	Fax:
E-mail:	

We warrant that products contained in this catalog (hereinafter, the "Products") are free from defects in material and workmanship under normal use for a period of one (1) year from the date of shipment thereof. However, the warranty period for X-ray detectors and X-ray source shall be either one (1) year from the date of shipment or 1,000 hours, whichever shorter. The above warranty shall not apply to any Product which, at our sole judgment, has been:i)Repaired or altered by persons unauthorized by us; or ii)Connected, installed, adjusted or used otherwise than in accordance with the instructions furnished by us (including being used in an inappropriate installation environment, such as in corrosive gas, high temperature and humidity). We are not liable for any loss, damage or failure of the Products after the shipment thereof caused by external factors such as disasters. If any Product is showed to be defective as satisfactory to us, we, at our sole discretion, repair or replace such defective Products at no cost to the purchaser. We assume no liability to the purchaser or any third party for special, incidental, consequential, or other damages resulting from a breach of the foregoing warranty. This warranty excludes any and all other warranties not set forth herein, express or implied, including without limitation the implied warranties of merchantability or fitness for a particular purpose. The Products are not designed and produced for such applications as requiring extremely high reliability and safety, or involving human lives (such as nuclear power, aerospace, social infrastructure facility, medical equipment, etc.). The use under such environment is not covered by this warranty and may require additional design and manufacturing processes. Regarding RoHS compliance, Matsusada Precision Inc. does not intentionally use objectionable substances in the products listed within this catalog. Matsusada Precision Inc. manufactures products using components which, according to our suppliers, are "RoHS compliant parts". However, Matsusada Precision does not analyze each and every unit to confirm. Therefore, there may be some customized products which do not comply to RoHS. Please contact your nearby sales office for confirmation.

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