

NEW

Bidirectional Power Supply Device with Regeneration Capability

Digital PWM Control Power Supply

2kW to up to 120kW

KP series



The unit type
facilitates extension!

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

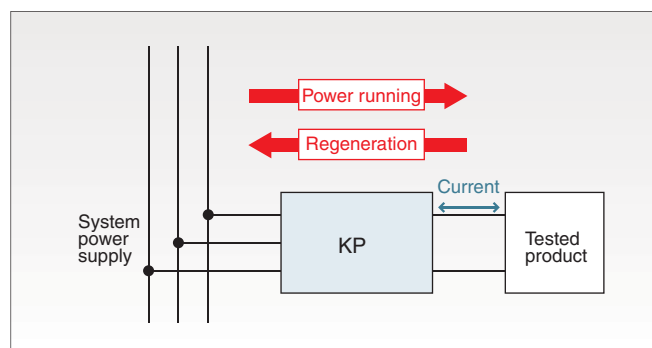
- Extensive lineup of over 20 different models ranging from 2kW to 120kW.
- The regeneration capability achieves effective power use.
- Cooperation operation is also possible.
- KP also has the redundancy which can be operated without stopping the whole even if it stops one power supply unit. (Please 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.



* No model is designed to enable self-sustained operation. They stop when the system power supply is disconnected.

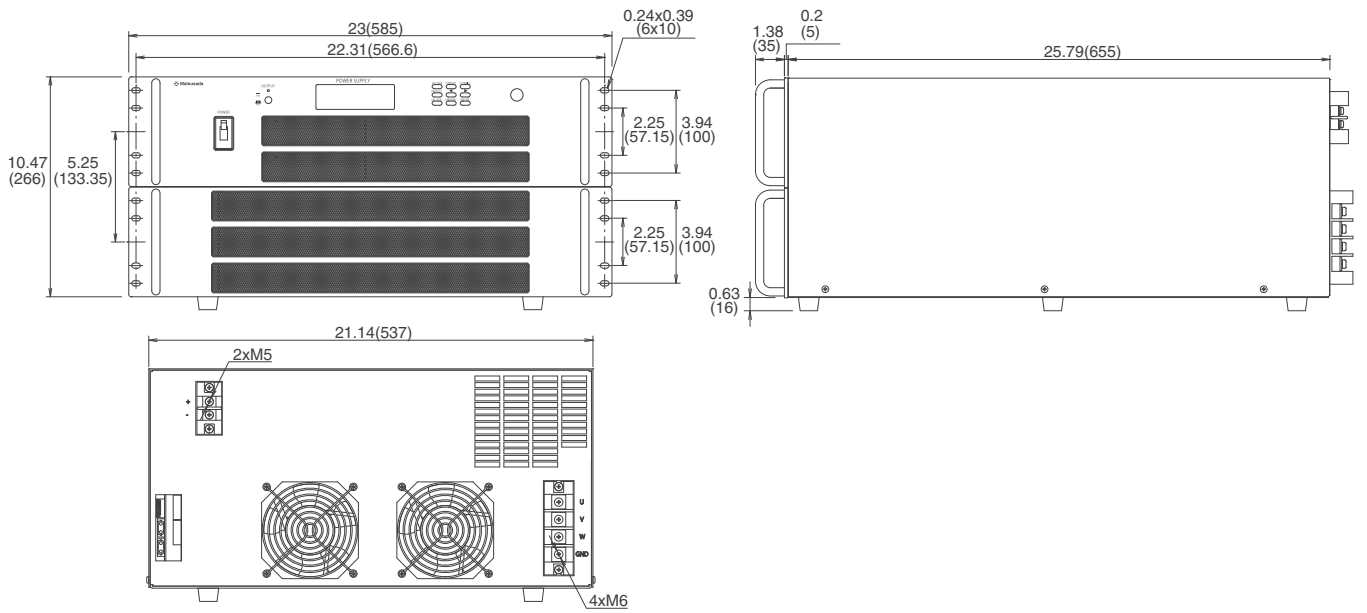
Lineup

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

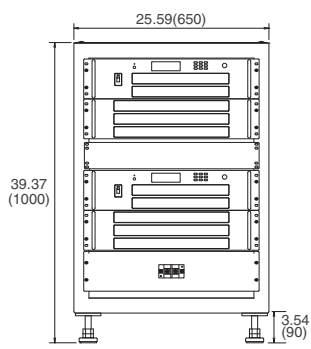
Dimensions inch(mm)

2kW and 5kW models, and 10kW (400V and 650V) models with no rack



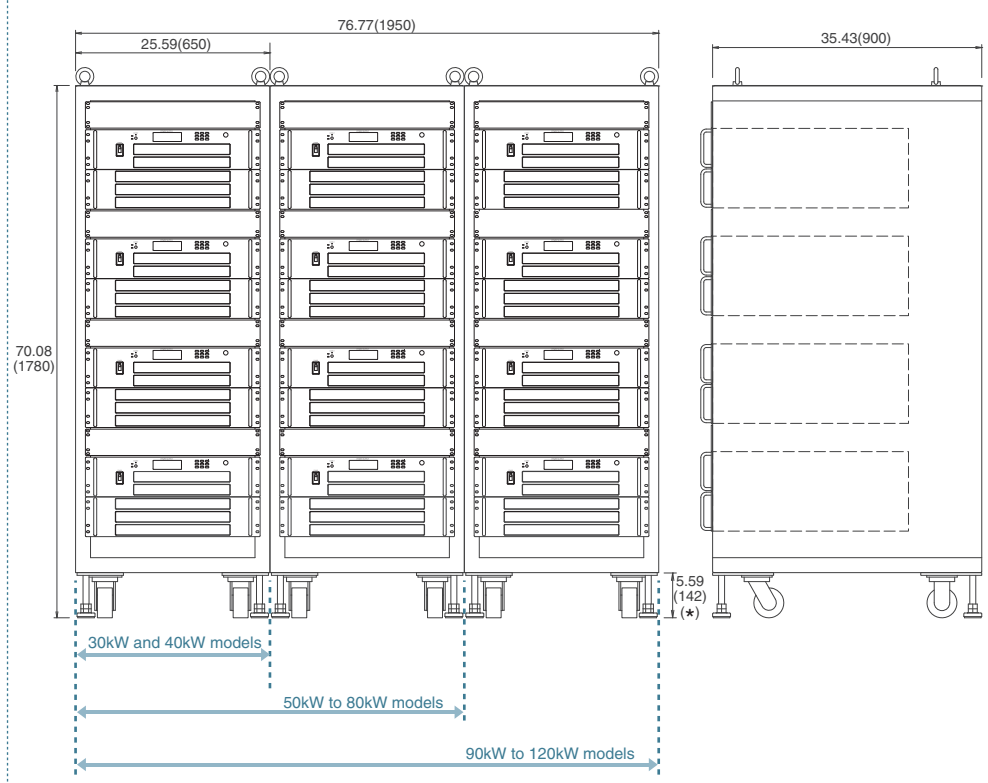
When the 23-inch rack is put away :

A



For 2, 5 and 10kW models, a blank panel is mounted on the power supply portion at the second stage indicated in the drawing as these models have the single power supply mounted.

B



Specifications

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

System power supply voltage	200V \pm 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 (\pm 3% FS.), output impedance of 1k Ω

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

EPCU 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 EPCU 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



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.

Features

- Contains the high-power DC power supply unit and the power supply controller in a single 19-inch rack
- 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 for taking the images of workpieces that cannot be laid

μ B3500

Facilitates inspections on workpieces that cannot be laid



Suitable for wide range of applications

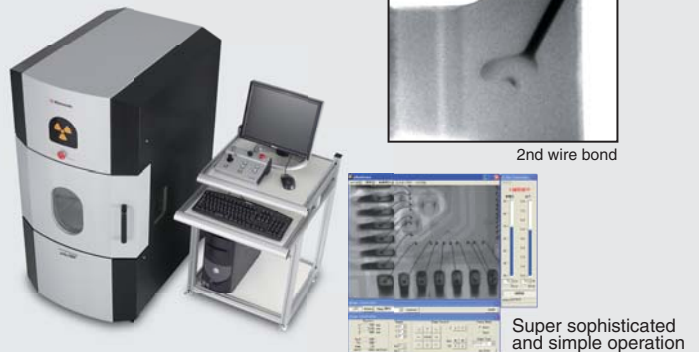
Eye drops cap

X-Ray Micro Nanoview Microscope

Achieves the highest 700-power images of the class

μ nRay 7600

Highest power images of the class



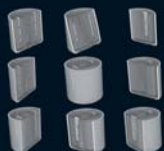
2nd wire bond

Super sophisticated and simple operation

CT functions

Both models above may be equipped with the CT functions.

Display arbitrary cross sections of 3D images



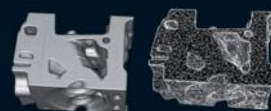
Displays an arbitrary cross section of the volume rendered 3D image.

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).

