

High voltage and  
large output of 120kV / 13kW at maximum

**NEW**

# High Power High Voltage Power Supply

AKP Series

1kV to 120 kV  
12kW and 13 kW



# AKP series

The sophisticated high voltage power supply achieves high voltage and high power of 120kV and 13kW at maximum



## Features

- The single unit can output power as high as 13kW.
- Master / slave function further enables extension at maximum 52kW.
- Compatible with digital control by means of various interfaces including Ethernet \*, USB, RS-232C etc. (optional).
- The extensive lineup ranging from 1kV to 120kV allows you to select the most suitable model according to the intended use.
- The full protective circuits, such as output short-circuit and protection from arc discharge, are included as the standard functions.

\*Ethernet is a registered trademark of Fuji Xerox Co., Ltd.

## Summary

AKP series is the high voltage power supply that can output high voltage and high power of 120kV and 13kW at maximum on its own. The extensive lineup ranging from 1 to 120kV allows you to select a model with the necessary output at the minimum expense. Power output as high as 52kW may also be achieved by integration into the system, various remote controls or master/slave connection.

## Lineup

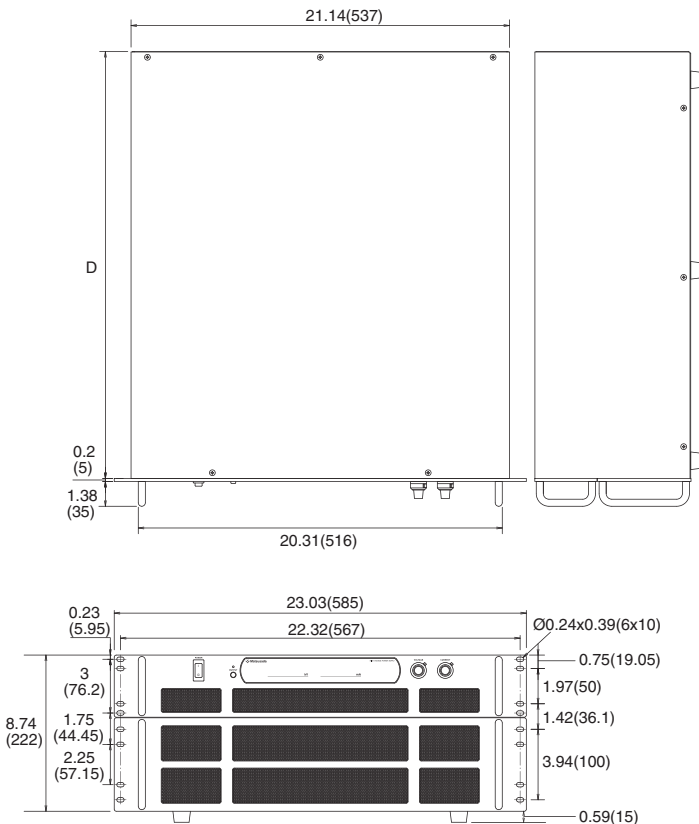
\*Contact our sales staff for delivery dates.

Max. output voltage	Max. output current	Max. output power	Model	
			Positive output type	Negative output type
1kV	13A	13kW	AKP-1P13000	AKP-1N13000
1.5kV	8.6A		AKP-1.5P8600	AKP-1.5N8600
2kV	6.5A		AKP-2P6500	AKP-2N6500
3kV	4.3A		AKP-3P4300	AKP-3N4300
4kV	3.2A		AKP-4P3200	AKP-4N3200
5kV	2.6A		AKP-5P2600	AKP-5N2600
6kV	2.1A		AKP-6P2100	AKP-6N2100
10kV	1.3A		AKP-10P1300	AKP-10N1300
12kV	1.08A		AKP-12P1080	AKP-12N1080
15kV	860mA		AKP-15P860	AKP-15N860
20kV	650mA		AKP-20P650	AKP-20N650
30kV	430mA		AKP-30P430	AKP-30N430
40kV	320mA		AKP-40P320	AKP-40N320
50kV	260mA		AKP-50P260	AKP-50N260
60kV	210mA		AKP-60P210	AKP-60N210
70kV	180mA		AKP-70P180	AKP-70N180
80kV	150mA	12kW	AKP-80P150	AKP-80N150
100kV	120mA		AKP-100P120	AKP-100N120
120kV	100mA		AKP-120P100	AKP-120N100

# Specifications

<b>Input voltage / current</b>	208VAC, 50 / 60Hz, 3-phase / 44A typ.
<b>Output control</b>	Local Voltage : Front panel 10-turn potentiometer Current : Front panel 10-turn potentiometer Remote Voltage : External control voltage of 0 to 10Vdc (input impedance of 1MΩ or higher) or external variable resistance of 5kΩ Current : External control voltage of 0 to 10Vdc (input impedance of 1MΩ or higher) or external variable resistance of 5kΩ
<b>Voltage regulation</b>	Line : 0.05% + 500mV of max. output voltage (against ± 10% input change) Load : 0.05% + 500mV of max. output current (against 10 to 100% load change)
<b>Current regulation</b>	Line : 0.05% of max. output current (against ± 10% input change) Load : 0.05% + 100μA of max. output current (against 10 to 100% load change)
<b>Output display</b>	Output voltage : 3.5-digit digital meter ± 1999 / Output current : 3.5-digit digital meter 1999
<b>Monitor display</b>	Output voltage monitor : 10 V / Max. output voltage (output impedance of 1kΩ) Output current monitor : 10 V / Max. output current (output impedance of 1kΩ)
<b>Ripple</b>	0.3%p-p + 1 Vrms
<b>Stability</b>	0.02%H (after 1-hour warm up)
<b>Temperature coefficient</b>	0.01% / °C
<b>Protections</b>	Overvoltage protection (cut off at 110% of rated voltage, manual recovery), Overcurrent protection (output current limit by voltage drooping characteristics), Protection from output short-circuit and arc discharge, Overheat protection (output cut off, manual recovery)
<b>Other functions</b>	Remote switch ON / OFF (by external relay), Door switch (by external relay), Output status signal output (by internal relay)
<b>Operating temperature</b>	0°C to +40°C
<b>Storage temperature</b>	-20°C to +70°C
<b>Humidity</b>	30% to 80%RH (no condensation)
<b>Accessories</b>	2.5 m long output HV shielded cable (flying lead) 1 Instruction manual 1

## Dimensions inch(mm)



	1kV to 60kV models	70kV to 120kV models
D	21.65(550)	24.02(610)

## Options

- LF** Floating ground (withstand voltage 50Vdc) \*1  
Used to measure current in load  
All equipments that connect to Remote Control Connector (TB1) must be on floating ground in case this feature is intended to use.  
(Cannot be used for allowing a high-voltage power supply to float.)
- LMs** Master / slave control \*1 \*2  
A master device can control up to three slave devices.  
(The sum of the max. rated power must be 52 kW or less.)
- LOc** Cut off output at the time of overcurrent \*2
- LW** Slow start \*1  
Reaches the setting voltage approximately 10 seconds after the OUTPUT and remote switches are ON.
- L(200V)** 200 VAC, ± 10%, 3-phase  
(Input current is around 105% of 3-phase 208V)
- L(220V)** 220 VAC, ± 10%, 3-phase  
(Input current is around 95% of 3-phase 208V)
- L(400V)** 400 VAC, ± 10%, 3-phase  
(Input current 23A typ.)
- L(3m)** The length of HV output shielded cable is changed to 3m.
- L(5m)** The length of HV output shielded cable is changed to 5m.  
(Available only for the models with output voltage of 40 kV or less)
- L(7m)** The length of HV output shielded cable is changed to 7m.  
(Available only for the models with output voltage of 15 kV or less)

\* 1 : In case of selecting -LF or -LW option is selected along with -LMs option, select -LF or -LW option for all AKP series for master/slave connection.  
\* 2 : In case of cutting off overcurrent output at the time of master/slave connection, select -LOc option only for the master device (other options may be combined for use), not for the slave devices (other options may be combined). Any other combination cannot cut off overcurrent output during master/slave connection. The slave device used on its own requires the standard CC/CV operation for output as it cannot mount -LOc option.

### How to place an order

When ordering, suffix above option mark to the model number.  
<e.g.> AKP-15P860-LFOcW (200V) (7m)  
AKP-120N100-LFMsw (220V) (3m)  
(in order of alphabets, input voltage and output cable)

