Matsusada Precision

High Voltage Bi-polar Power Supplies
DOC Series

NEW

High Voltage of 1 kV, Fast Response of 10 kHz

High Voltage Bi-polar Power Supply

DOC500-0.1	±500 V, 0.1 A
DOC500-0.2	±500 V, 0.2 A
DOC1000-0.05	±1 kV, 0.05 A
DOC1000-0.1	±1 kV, 0.1 A

DOC series

- **Maximum output voltage 1 kV**
- **Switchable the operating mode “CV” and “CC”**
- **Available for a wide range of AC input voltage of 85 V to 256 V.**

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DOC series

High Voltage / Fast Response Four-quadrant bi-polar power supply

Features

- Compact, high voltage, and high power
- Four-quadrant output(Source and Sink are available.)
- CV / CC operation is selectable
- Voltage limit, Current limit setting feature
- High-speed response, 10 kHz

Summary

DOC series is ±500 V / ±1000 V high voltage four-quadrant bi-polar power supplies.With its feature of voltage limit and current limit setting at will. It will drastically reduce the risk of applying excessive stress on your load. The output terminal is available on the front panel for excellent operability.

Lineup

Output Voltage	Output Current	MODEL	Frequency bandwidth(-3 dB)	
			CV	CC
0 to ±500 V	0 to 100 mA	DOC500-0.1	DC to 10 kHz	DC to 5 kHz
	0 to 200 mA	DOC500-0.2		
0 to ±1000 V	0 to 50 mA	DOC1000-0.05		
	0 to100 mA	DOC1000-0.1		

Specifications

Input voltage	85 VAC to 256 VAC 50 / 60 Hz single phase 2 A typ.@100 V
Output control	External control voltage -10 Vdc to +10 Vdc(Input imp ≧10 kΩ)
DC Bias	10-turn potentiometer enables setting between -100 % and +100 %
Voltage regulation	Line : ±0.01 % (for ±10 % input change) Load : ±0.05 % (for 10 % to 100 % load change)
Current regulation	Line : ±0.01 % (for ±10 % input change) Load : ±0.05 % (for 10 % to 100 % load change)
Ripple	CV mode : 0.02 %rms CC mode : 0.2 %rms
Stability	0.01 % / Hr
Temperature coef.	0.01 % / ºC
Output display (DC value)	Output voltage : 3.5-digit digital meter ±1999 Output current : 3.5-digit digital meter ±1999
Monitors	Voltage monitor : -10 Vdc to +10 Vdc (Output imp : 1 kΩ) Current monitor : -10 Vdc to +10 Vdc (Output imp : 1 kΩ)
Protection	Over voltage protection Output is cut off at a set value. (setting range : 0 % to 110 % approx. of rated output) Over current protection Limit output current with dropping output voltage. (setting range : 0 % to 110 % approx. of rated output) Blackout protection(can be canceled with -LN option) Output short circuit protection Door switch(interlock)
Other functions	Remote switch(Output ON/OFF)

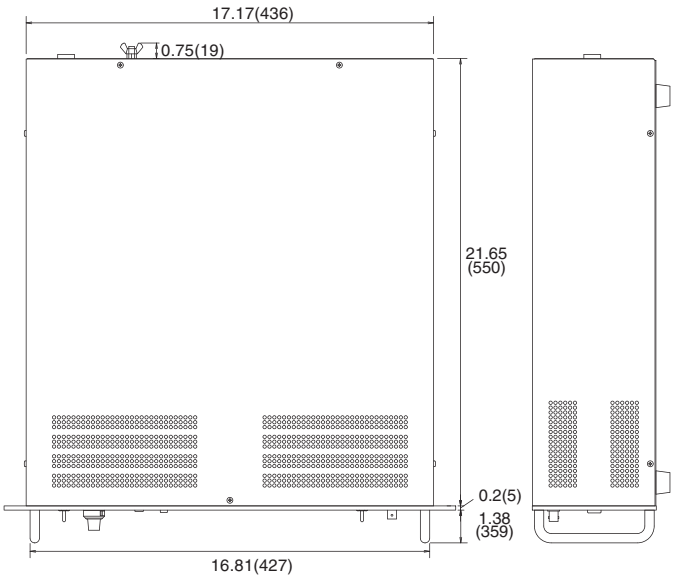
Output	Relay	Open collector
ON	SHORT	V_{CE} ≦ 0.4 V
OFF	OPEN	V_{CE} ≧ 2 V

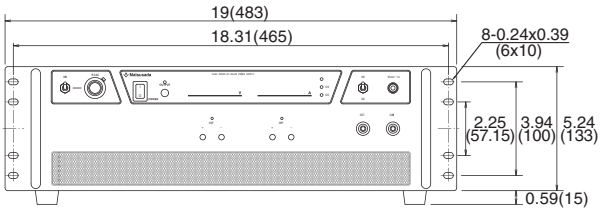
Sink Current 1 mA

Operating temperature	0 ºC to +40 ºC
Storage temperature	-20 ºC to 70 ºC
Humidity	20 % to 80 % RH (no condensation)
Accesories	AC input cable 2.5 m (1) Instruction manual (1)

Dimensions inch(mm)

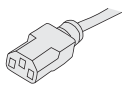
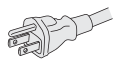
Weight : approx. 12 kg



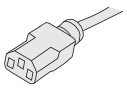


Input cable

CABLE TYPE 1（standard）

Power supply input terminal	Input terminal type	Note
		· 3 pin plug(Type-A) · Inlet type · 115 V input · Single phase(3 pin) · Black color

When using DOC series under the environment that input voltage is 200 VAC, please purchase this CABLE TYPE3 separately.

Power supply input terminal	Input terminal type	Note
		· Open terminal · Inlet type · 220 V input · Single phase(3 pin) · Black color

Option

-LN No protection against blackout

When ordering, suffix the following option mark to the model number.

FAX

USA/Canada : +1-888-652-8651

other countries : +81-6-6150-5089

Customer Inquiry Sheet (DOC 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:	
Company:	
Dept.:	Title:
Name:	
Tel:	Fax:
E-mail:	

Manufacturer warranty

We warrant the specification, unless otherwise specified, at max. rated output after warm up, and scope of application is between 10 % and 100 % of max. rated output. 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. We will not inspect, adjust or repair any of our power supply products in the field or at any customer site. If you suspect that there has been a power supply failure in the field, please inspect your whole unit by yourself in an effort to determine that the problem is, in fact, arising out of our power supply products. If it is found that the problem is arising out of such power supply product after inspection, please contact your local sales office for additional troubleshooting. A “Return Merchandise Authorization” is required in case the power supply must be sent back to the factory in Japan for inspection and repair. 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. No modification or supplement of this warranty shall be binding unless in writing and signed by a duly authorized officer of Matsusada. Matsusada reserves the right to make any changes in the contents of catalogs or specifications at any time without advance notice. Due to compelling reason such as unavailability of components used, products might be un available or unable to repair. The products specified in catalogs or specifications are designed for use by the person who has enough expertise or under the control of such person, and not for general consumers. Schematics of products shall not be submitted to users. Test result or test data for the products shall be available upon request with charge.
Make sure you read the specification in the latest catalog before you order. Contact nearby sales office for the latest catalog.
PLEASE SEE THE LINK BELOW FOR THE COMPLETE WARRANTY TERMS
http://www.matsusada.com/site/warranty.html

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