# DCD1100/4-192 MAGNETIZING POWER SOURCE

# USER'S MANUAL



YUXIANG MAGNETIC MATERIALS IND.CO,LTD. Feb 2005

Thanks for using this capacitance power source for magnetizing.

# **Important notice:**

This magnetizing power source works under high pressure and great current, the user must act according to the regulations. Any factor from the electric net, incorrect use will damage the equipment and endanger the personnel safety. Read the manual before using the equipment in order to get he best results.

Our company is always applying itself to improve the quality of the products. We hold the right to improve the product standards and technical parameters in this manual without informing in advance. At the same time, we try our best to ensure the exactness of the data without taking on any responsibility to any fault or leak.

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### 1 TECHNICAL PARAMETERS

1.1 Working conditions

Voltage: 220  $\pm$  10% Frequency: 50HZ

Environmental temperature:-10~+40°C

Elevation: ≤1000m 1.2 Technical parameters

Name: capacitance power source for magnetizing

Type: DCD 1100/4-192 Input current(A):  $\leq 30$ A

Voltage to charge (V): 50V-1100V

Maximal work period: 9S

Maximal output current (A): 40000A

Capacitance( µ F):19200 µ F

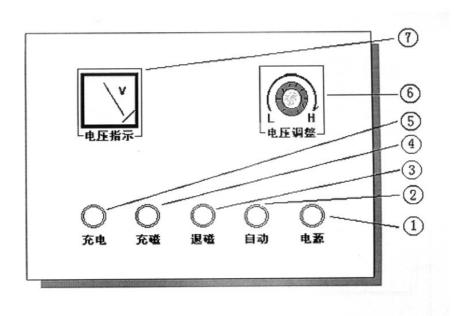
Volume (mm<sup>3</sup>): 600(W) X 800(L) X 1800(H)

Weight (kg): 350

## 2 Name and function of the parts

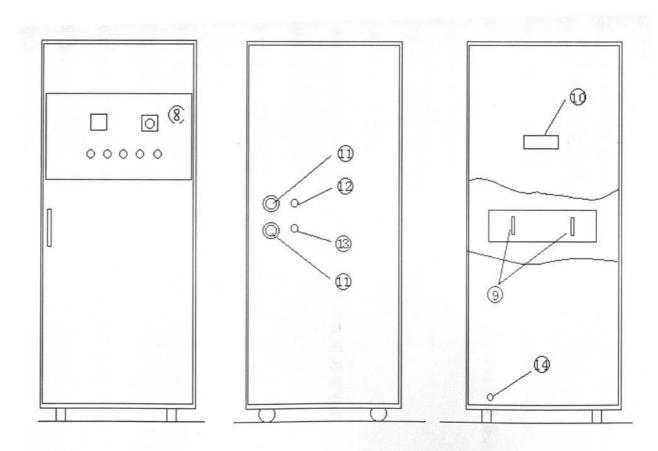
(1) On-Of button of the power source: While pressing the button, it will be locked by itself and the red light on. It means that the power source is turn-on.

- (2) Button with automatic function: While pressing it, the button will be locked by itself and the green light on. It means that the power source is working under the state of charging. It makes the power source be charged automatically after one work period without pressing the button again. This function can improve work efficiency.
- (3) Button with demagnetizing function: While pressing the button, it will be locked by itself and the yellow light on. It means that the power source is working under the state of demagnetizing function (Only for the model which have demagnetizing function)
- (4) Perform-button to magnetize: While pressing button, the green light will be bright. It means that the magnetizing operation begins. When the light turns off, the operation finished.
- (5) Perform-button to charge: While pressing the button, the red light will be bright. It means the charging operation begins. When the lights turns off, the charging operation performed.
- (6) Button to adjust the voltage: It is used to regulate the charging voltage continuously. The regulation of the voltage is only in effect during and after charging. It is not working at any other time. But by next charging, it will be charged at the last regulation voltage.
- (7) Voltage meter: It shows the voltage value of the capacitors.



- (8) Operation panel.
- (9) Copper rows for connection
- (10) Nameplate
- (11) Line hole: For connecting line of the powder source and the fixture.

- (12) Remote-control electrical outlet: used together with remote-control connector plugs, which are computer accessories. Remote-control connector plugs 1 and 2 meet on-off contact, 3 and 4 meet fat-control; LED, 3 meets (+) of the LDD, 4 meets (-) of the LLED.
- (13) Additional power outlet of the power supply: used together with the additional power connector plugs, which are equipment accessories, to offer peripheral equipment the power supply.
- (14) Connecting line of the power supply.



#### 3 Using manual

#### 3.1 Installation

1 Installation of the power supply

Put well the main machine tank and the assistant machine tank of the power source for magnetizing.

When you open the front and back door of the equipment, you will find copper rows for connection. Please connect them according to the color. Notice: The connection must be firm.

2 Installation of the Magnetizer:

The installation of the Magnetizer will influences its work situation directly. Before using this power source for magnetizing please ensure right installation and pay attention to the following

#### points:

- 1) On the power net which is used by the power source for magnetizing, frequency conversion, middle or high frequency, or mix-phase equipments that need high-power supply singly or add filter equipment. Layout must be performed according to the technical parameters.
- 2) The coming-into power wire must be single-phase and three line.
- 3) By installation of the power source, please differentiate live wire, zero wire and terra wire clearly. Their connections must be firm.
- 4) If peripheral equipments need, please use additional power outlet of the power supply or other power source.
- 5) If peripheral equipments need, please use additional power outlet of the power supply other power source.
- 3.2 How to use the Magnetizer

Before using the Magnetizer it must confirm that all the door of the Magnetizer must be closed, otherwise the Magnetizer cannot work.

- 1. Manual Control
- 1) Press button of the power source (1), and the indicator light will be bright.
- 2) Make automatic on-off button (2) off (the indicator light of this button is not bright).
- 3) If one cannot know the magnetizing voltage at the first time please modulate the button to minimal.
- 4) Press the charging button (5), the button will go out after flashing. It shows that charging its finished. Regulate button (6) until the voltage watch (7) shows the magnetizing voltage according to technique require. Loosen the button (6), the value on the voltage watch doesn't go up any more. The Magnetizer is ready to magnetizing.
- 5) Press magnetizing button (4), the indicator light of the button will go out after flashing. The value on the voltage is 0, and is shows that magnetizing is finished.
- 6) When the result is not satisfied, regulate charging voltage until it is suitable for magnetizing.
- 7) After regulating the magnetizing voltage, press the charging button (5) and repeat magnetizing with hand.
- 2. Magnetize automatically
- 1) Act as 1. Control with hand, from 1) to 5) step-by-step.
- 2) Press automatic on-off button (2). The green light will be bight and it means the auto mastic function is in effect. If one has charged before pressing this button, the magnetizing power source will charge at once. If one has not6 charged before pressing this button, he must charge with hand at first, and next the magnetizing power source will charge automatically. Only the operator presses the magnetizing button (4) the magnetizer will magnetite automatically.
- 3) Now the remote-control function can be at work, which is performed by far-control electric outlet (12). If this magnetizer is equipped with magnetizing fixture made by our company,

you can find a remote-control magnetizing button and a indicator light that shows waiting for magnetizing. After charging this light will be bright, it means the operator at the far place can magnetize. The operator presses the remote-control magnetizing button on the magnetizing fixture, and then magnetizing can be performed.

3. Manual and automatic demagnetizing (only for the power source has demagnetizing function)

Press demagnetizing button (3), The green light will be bright and it means the demagnetizing function is in effect. The demagnetizing procedure is the same as show in 1.Manual Control and 2.Mangetize automatically.

#### Important notice;

Because this equipment works under high voltage and great current, there will be strong electromagnetic power and it will make the piece to be magnetized shake. This will influence the effect of magnetizing and demagnetizing. Seriously, the piece to be magnetized will fly out of magnetizing fixture and arise unnecessary damage. So please press out the piece before magnetizing it.

#### 4. Maintenance

This Magnetizer makes use of high voltage and great current. So users must pay attention to maintenance besides performing according to the manual. Maintenance personnel must have professional work experience by operating electrics.

- 1) Because this equipment works under high voltage, please pay especial attention to moisture-proof treatment of the work environment.
- 2) Because this equipment works under high voltage and great current, please pay especial attention to the density of the environmental powder. The equipment should be got rid of dust once half a year.
- 3) Because the equipment works under high voltage and great current, long time work will make fasteners flexible, and it will influence magnetizing results, So examination should be carried through once three months to prevent fasteners from flexible.