

User Manual

Inverter MMA Welding Machine

DL-MMA200-E1 DL-MMA400-E1 DL-MMA800-E1
DL-MMA400-E2 DL-MMA200-E2



DL-MMA200-E2



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1. SAFETY
 Welding is dangerous, and may cause damage to you and others, so take good protection when working. For details, please refer to the operator safety guidelines in conformity with the applicable prevention requirements of the manufacturer.
Professional training is needed before operating the machine.
 Also basic protection welding supplies authorized by national safety welding equipment supplier.
 • The operator must be qualified personnel with a valid "metal welding (MIG) operations" operation certificate.
 • Out of power before maintenance or repair.
Electric shock—may lead to serious injury or even death.
 • Attach earth device according to the application criteria.
 • Never touch the live parts when skin bare or wearing wet gloves/clothes.
 • Always make sure that you are insulated from the ground and work piece.
Smokes gas—may be harmful to health.
 • Keep the head away from smoke and gas to avoid irritation of exhaust gas from welding.
 • Make the working environment is good ventilation with exhaust or ventilation equipment when welding.

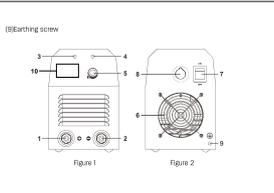
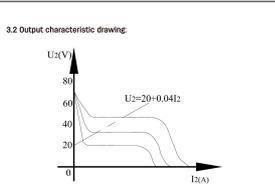
An radiation—may damage eyes or burn skin.
 • Wear suitable welding mask and protective clothing to protect your eyes and body.
 • Use suitable masks or screens to protect operators from harm.
Impover operation may cause fire or explosion.
 • Working sparks may result, in a fire, so please make sure no combustible materials nearby and pay attention to the hazard.
 • Have a fire extinguisher nearby and have a trained person to use it.
 • Always ensure welding is finished.
 • Make not use the machines for other purposes except welding, such as power drawing, battery charging, heating.
Hot work place may cause severe scalding.
 • Do not contact hot work piece with bare hands.
 • Working is needed during continuous use of the working torch.
Magnetic fields affect cardiac pacemaker.
 • Pacemaker users should be away from the welding spot before magnetic combination.
Moving parts may lead to personal injury.
 • Move yourself away from moving parts such as fan.
 • All doors, panels, covers and other protective devices should be closed during operation.

Please seek professional help when encountering machine failure.
 • Consult the relevant contents of this manual if you encounter any difficulties in installation and operation.
 • Contact the service center of your supplier to seek professional help if you still can not fix it. Customers after reading the manual or still can not solve the problem according to the manual closed during operation.
2. GENERAL DESCRIPTION
Advanced IGBT inverter technology
 • High inverter frequency greatly reduces the volume and weight of the welder.
 • Great reduction in magnetic and resistance loss obviously enhances the welding efficiency and energy saving effect.
 • Switching frequency is beyond audio range, which almost eliminates noise pollution.
Leading control mode
 • Advanced control technology meets various welding applications and greatly improves the welding performance.
 • It can be widely used in air and basic electrode welding.
 • Easy arc starting, less spatters, stable current, and good shaping.
Features of MMA series
 • Efficiency energy saving, portable, stable arc, high non-load voltage, and with good compensation of arc force, can meet various welding requirements in field work.

3. MAIN PARAMETERS

3.1 Technical parameters table:

MODEL	DL-MMA200-E1	DL-MMA400-E1	DL-MMA800-E1	DL-MMA400-E2	DL-MMA200-E2
Power output (VA)	220V	220V	220V	220V	220V
Frequency	50/50Hz	50/50Hz	50/50Hz	50/50Hz	50/50Hz
Rated input (VA)	51	53	6.8	7.7	220V/50/50/50
Peak input (current, A)	23	27	38	35	41
Rated current (range, A)	10-60	10-60	10-80	20-60	20-60
Ip (Rated current)	65	65	80	73	73
Rated duty cycle (%)	30%	40%	40%	40%	40%
Working method	16A-200A	16A-200A	16A-200A	16A-200A	16A-200A
Efficiency (%)	85	85	85	85	85
Over-factor	0.9	0.7	0.7	0.7	0.7
Protection type	P08	P08	P08	P08	P08
Insulation class	F	F	F	F	F



The connection as mentioned above in (B)(A) and (B)(3) is DGP connection. Operator can choose DGP connection according to work piece and electrode application requirements. Dimpled DGP connection is recommended for basic electrode, while no special requirement for acid electrode.
5.2 Operation method
 (D)After being installed according to the above method, and the power switch being switched on, the machine is started with the power LED on and the fan working.
 Turn off the power switch before any electric connection operation.
 The protection class of this machine is IP20, so avoid using it in rain.
5.3 Installation method
 (D)A primary power supply cable is available for this welding machine. Connect the power supply cable to the rated input power.
 (D)The primary cable should be tightly connected to the correct socket to avoid oxidation.
 (D)Check whether the voltage value varies in acceptable range with a multimeter.
 (D)Insert the cable plug with electrocution hazard into the "N" socket on the front panel of the welding machine and tighten it clockwise.
 (D)Insert the cable plug with work clamp into the "—" socket on the front panel of the welding machine, and tighten it clockwise.
 (D)Ground connection is needed for safety purpose.

2) Ventilation
 High current passes when welding is carried out, thus natural ventilation can't satisfy the machine's cooling requirements. Maximum good ventilation through the covers of the machine. The minimum distance between the machine and any other object in or near the working area should be 30cm. Good ventilation is of critical importance for the normal performance and lifespan of the machine.
 2) Overload protection in fuses
 Remember to observe the main load current at any moment (refer to the corresponding data card). Make sure that the welding current does not exceed the main load current. Overload could obviously shorten the machine's lifespan, or even damage the machine.
 2) Over-voltage protection
 2) A sudden halt may occur while the machine is of overload status. Under this circumstance, it is necessary to restart the machine. Remain the shutdown fan working to lower the temperature inside the machine.

(D)Check periodically whether inner circuit connection is in good condition. Stop. (D)Clean the dust periodically with a moist paper such as the fan to avoid personal injury or machine damage.
 (D)Clean the dust periodically with dry and clean compressed air if welding environment with heavy smoke and pollution, the machine should be cleaned daily. The pressure of compressed air should be at a proper level in order to avoid the small particles inside the machine to be damaged.
 (D)Keep rain water and vapor in fire the machine. If there is dry, dry and check the insulation with equipment (indicating that between the connections and with the connection and the enclosure). Only when there are no abnormal phenomena is approved that the machine can be used.
 (D)Check periodically whether the insulation covers of all cables is in good condition. If there is any deviation, repair it or replace it.
 (D)Use the machine in the original packing in dry condition if it is not to be used for a long time.

8. TROUBLESHOOTING

Common Malfunction Analysis and Solution:

Malfunction Phenomena	Cause and Solution
Turn on the machine, the power LED is off, the fan doesn't work, and no welding output.	(D)Check if the power switch is closed (D)No input power.
Turn on the machine, the fan works, but the output current is unstable and can't be controlled by potentiometer when welding.	(D)The current potentiometer fails. Replace it. (D)Check if any loose contact exists inside the machine. If any contact exists, fix it. (D)Check if any loose contact exists inside the machine. (D)Open circuit or loose contact occurs at the air of output terminal (D)The overvoltage LED is on. The machine is under overvoltage protection status. It can recover automatically after the welding machine is cooled. (D)Check if the thermal switch is ok. Replace it if damaged.
Turn on the machine, the power LED is on, the fan works, but no welding output.	The rated current of the electrode holder is smaller than its actual working current. Reduce it with a larger rated current.
The electrode holder becomes very hot.	The output polarity connection is incorrect. Exchange the polarity.
Excessive spatter in MMA welding.	

We are still continuing improving this welder, therefore, some parts of this welder may be changed in order to achieve the better quality, but the main functions and operations will not be altered and changed. Your understanding would be greatly appreciated.

Product Warranty Card
 Dear users:
 Thank you for buying our products. In order to ensure your profit, users who buy our products can contact local distributor or specified repair stations with invoice and warranty cards if the product failures due to quality problems.
Warranty Notice:
 1)From (Year/Month/Day) to (Year/Month/Day) provided free warranty parts replacement and other services according to the failure situation.
 2)The warranty card and purchase invoice are the voucher of after-sales service provided by our company to customers. The card must be detailed only after filling in the following form and affixing the official seal with the distributor.
 3)In one of the following cases, free warranty service will be invalid, and maintenance fees will be required.
 (1) Exceed the expiration date.
 (2) Failure or damage caused by not following the requirements of the product manual, maintenance or improper storage.
 (3) Failure or damage caused by disassembling, repairing or modification of the product without the permission of our company.
 (4) Machine breakdown or damage caused by force majeure.
 (5) Consumable accessories.
 This card is issued with the product. One card for one machine, to ensure that you can fully enjoy the right to free warranty service provided by the company. Please keep this card properly, lost will not be replaced.

7. MAINTENANCE

WARNING
 The following operation requires sufficient professional knowledge in electric aspect and comprehensive safety knowledge. Operators should be holders of valid qualification certificates which can prove their skills and knowledge. Make

Correct Disposal of this product.

This marking indicates that this product should not be disposed with other household wastes throughout the EU, to prevent possible harm to the environment or human health from uncontrolled waste disposal. It is your responsibility to ensure the sustainable use of material resources. To learn your used devices, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

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Purchase Date: _____ (Year/Month/Day)

Product Certificate

Inspector: 01

Date of manufacture: _____

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