

# GYS 036635 MMA Welding Machine Instruction Manual

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## 036635 MMA Welding Machine

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## GYSMI 80P – 130P 160P – 200P

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### Product Information

The GYSMI 80P – 130P 160P – 200P is a MMA welding device. It is made in France and is suitable for various welding operations. The product manual is available in multiple languages on our website [www.gys.fr](http://www.gys.fr).

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### Product Usage Instructions

#### Warning – Safety Rules

Before using or servicing the unit, it is important to read and understand the following safety recommendations:

- Any change or servicing not specified in the instruction manual must not be undertaken.
- The manufacturer is not liable for any injury or damage caused due to non-compliance with the instructions in the manual.
- In case of problems or uncertainties, consult a qualified person for proper installation.

#### Environment

This equipment must only be used for welding operations within the limits indicated on the descriptive panel and/or user manual. The operator must respect the safety precautions applicable to this type of welding. Failure to do so may result in damage or injury.

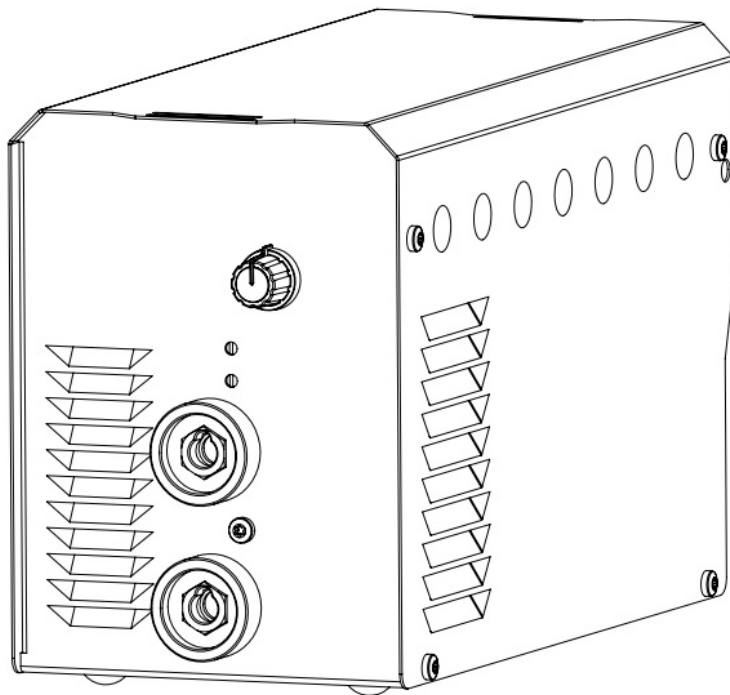
The equipment should be used and stored in a place protected from dust, acid, or any other corrosive agent. Operate the machine in an open or well-ventilated area.

## **Individual Protections and Others**

Arc welding can be dangerous and can cause serious and even fatal injuries. To protect yourself and others, please follow these safety precautions:

- Wear clothing without cuffs, which must be insulated, dry, fireproof, and in good condition, covering the whole body to protect against burns and radiations.
- Use protective gloves that guarantee electrical and thermal insulation.
- Wear sufficient welding protective gear for the whole body, including a hood, gloves, jacket, and trousers. Protect the eyes during cleaning operations and avoid operating with contact lenses.
- Consider installing fireproof welding curtains to protect the area against arc rays, weld spatters, and sparks. Inform people around the working area to never look at the arc or molten metal and to wear protective clothes.
- Ensure ear protection is worn if the work exceeds the authorized noise limit.
- Avoid contact with moving parts and never remove the safety covers from the cooling unit when the machine is plugged in.





GYSMI 80P – 130P  
160P – 200P

MMA welding machine

73505\_V18\_10/01/2022 Find more languages of user manuals on our website [www.gys.fr](http://www.gys.fr)



GYSMI 80P 130P 160P 200P



WARNING – SAFETY RULES

## GENERAL INSTRUCTIONS



Read and understand the following safety recommendations before using or servicing the unit.

Any change or servicing that is not specified in the instruction manual must not be undertaken.

The manufacturer is not liable for any injury or damage caused due to non-compliance with the instructions featured in this manual.

In the event of problems or uncertainties, please consult a qualified person to handle the installation properly.

## ENVIRONMENT

This equipment must only be used for welding operations in accordance with the limits indicated on the descriptive panel and/or in the user manual. The operator must respect the safety precautions that apply to this type of welding. In case of inadequate or unsafe use, the manufacturer cannot be held liable for damage or injury.

This equipment must be used and stored in a place protected from dust, acid or any other corrosive agent. Operate the machine in an open, or well-ventilated area.

Operating temperature:

Use between -10 and +40°C (+14 and +104°F).

Store between -20 and +55°C (-4 and 131°F).

Air humidity:

Lower or equal to 50% at 40°C (104°F).

Lower or equal to 90% at 20°C (68°F).

Altitude:

Up to 1000 meters above sea level (3280 feet).

## INDIVIDUAL PROTECTIONS AND OTHERS

Arc welding can be dangerous and can cause serious and even fatal injuries.

Welding exposes the user to dangerous heat, arc rays, electromagnetic fields, noise, gas fumes, and electrical shocks.

People wearing pacemakers are advised to consult with their doctor before using this device.

To protect oneself as well as the other, ensure the following safety precautions are taken:



In order to protect you from burns and radiations, wear clothing without cuffs. These clothes must be insulated, dry, fireproof and in good condition, and cover the whole body.



Wear protective gloves which guarantee electrical and thermal insulation.



Use sufficient welding protective gear for the whole body: hood, gloves, jacket, trousers... (varies depending on the application/operation). Protect the eyes during cleaning operations. Do not operate whilst wearing contact lenses.

It may be necessary to install fireproof welding curtains to protect the area against arc rays, weld spatters and sparks.

Inform the people around the working area to never look at the arc nor the molten metal, and to wear protective clothes.



Ensure ear protection is worn by the operator if the work exceeds the authorised noise limit (the same applies to any person in the welding area).

Stay away from moving parts (e.g. engine, fan...) with hands, hair, clothes etc...

Never remove the safety covers from the cooling unit when the machine is plugged in – The manufacturer is not responsible for any accident or injury that happens as a result of not following these safety precautions.



The pieces that have just been welded are hot and may cause burns when manipulated. During maintenance work on the torch or the electrode holder, you should make sure it's cold enough and wait at least 10 minutes before any intervention. The cooling unit must be on when using a water cooled torch in order to ensure that the liquid does not cause any burns.

ALWAYS ensure the working area is left as safe and secure as possible to prevent damage or accidents.

## WELDING FUMES AND GAS



The fumes, gases and dust produced during welding are hazardous. It is mandatory to ensure adequate ventilation and/or extraction to keep fumes and gases away from the work area. An air fed helmet is recommended in cases of insufficient air supply in the workplace. Check that the air intake is in compliance with safety standards.

Care must be taken when welding in small areas, and the operator will need supervision

from a safe distance. Welding certain pieces of metal containing lead, cadmium, zinc, mercury or beryllium can be extremely toxic. The user will also need to degrease the workpiece before welding.

Gas cylinders must be stored in an open or ventilated area. The cylinders must be in a vertical position secured to a support or trolley.

Do not weld in areas where grease or paint are stored.

## FIRE AND EXPLOSIONS RISKS



Protect the entire welding area. Compressed gas containers and other inflammable material must be moved to a minimum safe distance of 11 meters.

A fire extinguisher must be readily available.

Be careful of spatter and sparks, even through cracks. It can be the source of a fire or an explosion.

Keep people, flammable objects and containers under pressure at a safe distance.

Welding of sealed containers or closed pipes should not be undertaken, and if opened, the operator must remove any inflammable or explosive materials (oil, petrol, gas...).

Grinding operations should not be directed towards the device itself, the power supply or any flammable materials.

## GAS BOTTLE



Gas leaking from the cylinder can lead to suffocation if present in high concentrations around the work area.

Transport must be done safely: Cylinders closed and product off. Always keep cylinders in an upright position securely chained to a fixed support or trolley.

Close the bottle after any welding operation. Be wary of temperature changes or exposure to

sunlight.

Cylinders should be located away from areas where they may be struck or subjected to physical damage.

Always keep gas bottles at a safe distance from arc welding or cutting operations, and any source of heat, sparks or flames.

Be careful when opening the valve on the gas bottle, it is necessary to remove the tip of the valve and make sure the gas meets your welding requirements.

## ELECTRIC SAFETY



The machine must be connected to an earthed electrical supply. Use the recommended fuse size.

An electrical discharge can directly or indirectly cause serious or deadly accidents.

Do not touch any live part of the machine (inside or outside) when it is plugged in (Torches, earth cable, cables, electrodes) because they are connected to the welding circuit.

Before opening the device, it is imperative to disconnect it from the mains and wait 2

minutes, so that all the capacitors are discharged.

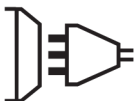
Do not touch the torch or electrode holder and earth clamp at the same time.

Damaged cables and torches must be changed by a qualified and skilled professional. Make sure that the cable cross section is adequate with the usage (extensions and welding cables). Always wear dry clothes in good condition, in order to be insulated from the electrical circuit. Wear insulating shoes, regardless of the environment in which you work in.

## EMC CLASSIFICATION



These Class A devices are not intended to be used on a residential site where the electric current is supplied by the public network, with a low voltage power supply. There may be potential difficulties in ensuring electromagnetic compatibility on these sites, because of the interferences, as well as radio frequencies.



This equipment does not comply with IEC 61000-3-12 and is intended to be connected to private low-voltage systems interfacing with the public supply only at the medium- or high-voltage level. On a public low-voltage power grid, it is the responsibility of the installer or user of the device to ensure, by checking with the operator of the distribution network, which device can be connected.



- GYSMI 80P :

This equipment complies with the IEC 61000-3-11 standard.

- GYSMI 130P :

This equipment complies with the IEC 61000-3-11 standard.

- GYSMI 160P :

This equipment complies with IEC 61000-3-11 if the power supply network's impedance at the electrical installation's connection point is inferior to the network's maximum admissible impedance

$Z_{max} = 0.368 \text{ Ohms}$ .

- GYSMI 200P :

This equipment complies with IEC 61000-3-11 if the power supply network's impedance at the electrical installation's connection point is inferior to the network's maximum admissible impedance

$Z_{max} = 0.276 \text{ Ohms}$ .

## ELECTROMAGNETIC INTERFERENCES



The electric currents flowing through a conductor cause electrical and magnetic fields (EMF). The welding current generates an EMF field around the welding circuit and the welding equipment.

The EMF fields may disrupt some medical implants, such as pacemakers. Protection measures should be taken for people wearing medical implants. For example, access restrictions for passers-by or an individual risk evaluation for the welders.

All welders should take the following precautions in order to minimise exposure to the electromagnetic fields (EMF) generated by the welding circuit::

- position the welding cables together – if possible, attach them;
- keep your head and torso as far as possible from the welding circuit;
- never enroll the cables around your body;
- never position your body between the welding cables. Hold both welding cables on the same side of your body;
- connect the earth clamp as close as possible to the area being welded;
- do not work too close to, do not lean and do not sit on the welding machine
- do not weld when you're carrying the welding machine or its wire feeder



People wearing pacemakers are advised to consult their doctor before using this device. Exposure to electromagnetic fields while welding may have other health effects which are not yet known.

## RECOMMENDATIONS TO ASSESS THE WELDING AREA AND WELDING INSTALLATION

### Overview

The user is responsible for installing and using the arc welding equipment in accordance with the manufacturer's instructions. If electromagnetic disturbances are detected, it is the responsibility of the user of the arc welding equipment to resolve the situation with the manufacturer's technical assistance. In some cases, this remedial action may be as simple as earthing the welding circuit. In other cases, it may be necessary to construct an electromagnetic shield around the welding power source and around the entire piece by fitting input filters. In all cases, electromagnetic interferences must be reduced until they are no longer bothersome.

### Welding area assessment

Before installing the machine, the user must evaluate the possible electromagnetic problems that may arise in the area where the installation is planned.

. In particular, it should consider the following:

- a) the presence of other power cables (power supply cables, telephone cables, command cable, etc...) above, below and on the sides of the arc welding machine.
- b) television transmitters and receivers;
- c) computers and other hardware;
- d) critical safety equipment such as industrial machine protections;
- e) the health and safety of the people in the area such as people with pacemakers or hearing aids;
- f) calibration and measuring equipment
- g) The isolation of the equipment from other machinery.

The user will have to make sure that the devices and equipments that are in the same room are compatible with each other. This may require extra precautions;

- h) make sure of the exact hour when the welding and/or other operations will take place.

The surface of the area to be considered around the device depends on the the building's structure and other activities that take place there. The area taken in consideration can be larger than the limits determined by the companies.

### Welding area assessment

Besides the welding area, the assessment of the arc welding systems installation itself can be used to identify and resolve cases of disturbances. The assessment of emissions must include in situ measurements as specified in Article 10 of CISPR 11. In situ measurements can also be used to confirm the effectiveness of mitigation measures.

## RECOMMENDATION ON METHODS OF ELECTROMAGNETIC EMISSIONS REDUCTION

**a. National power grid:** The arc welding machine must be connected to the national power grid in accordance with the manufacturer's recommendation. If interferences occur, it may be necessary to take additional preventive measures such as the filtering of the power supply network. Consideration should be given to shielding the power supply cable in a metal conduit. It is necessary to ensure the shielding's electrical continuity along the cable's entire length. The shielding should be connected to the welding current's source to ensure good electrical contact between the conduct and the casing of the welding current source.

**b. Maintenance of the arc welding equipment:** The arc welding machine should be submitted to a routine maintenance check according to the manufacturer's recommendations. All accesses, service doors and covers should be closed and properly locked when the arc welding equipment is on.. The arc welding equipment must not be modified in any way, except for the changes and settings outlined in the manufacturer's instructions. The spark gap of the arc start and arc stabilization devices must be adjusted and maintained according to the manufacturer's recommendations.

**c. Welding cables:** Cables must be as short as possible, close to each other and close to the ground, if not on the ground.

- d. Electrical bonding** : consideration should be given to bonding all metal objects in the surrounding area. However, metal objects connected to the workpiece increase the risk of electric shock if the operator touches both these metal elements and the electrode. It is necessary to insulate the operator from such metal objects.
- e. Earthing of the welded part** : When the part is not earthed – due to electrical safety reasons or because of its size and its location (which is the case with ship hulls or metallic building structures), the earthing of the part can, in some cases but not systematically, reduce emissions. It is preferable to avoid the earthing of parts that could increase the risk of injury to the users or damage other electrical equipment. If necessary, it is appropriate that the earthing of the part is done directly, but in some countries that do not allow such a direct connection, it is appropriate that the connection is made with a capacitor selected according to national regulations.
- f. Protection and plating** : The selective protection and plating of other cables and devices in the area can reduce perturbation issues. The protection of the entire welding area can be considered for specific situations.

## TRANSPORT AND TRANSIT OF THE WELDING MACHINE



Do not use the cables or torch to move the machine. The welding equipment must be moved in an upright position.  
Do not place/carry the unit over people or objects.

## EQUIPMENT INSTALLATION

- Put the machine on the floor (maximum incline of 10°.)
- Ensure the work area has sufficient ventilation for welding, and that there is easy access to the control panel.
- The machine must not be used in an area with conductive metal dusts.
- The machine must be placed in a sheltered area away from rain or direct sunlight.
- The machine protection level is IP21, which means :
  - Protection against access to dangerous parts from solid bodies of a  $\geq 12.5\text{mm}$  diameter and,
  - Protection against vertically falling drops.
- The machine protection level is IP21S, which means :
  - Protection against access to dangerous parts from solid bodies of a  $\geq 12.5\text{mm}$  diameter and,
  - A protection against vertical rainfall when its moving parts (fan) are not in motion.

It is recommended to use the welding cables supplied with the unit in order to obtain the optimum settings of the product.

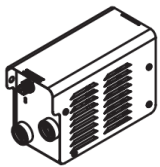


The manufacturer does not incur any responsibility regarding damages to both objects and persons that result from an incorrect and/or dangerous use of the machine.

## MAINTENANCE / RECOMMENDATIONS



- Maintenance should only be carried out by a qualified person. Annual maintenance is recommended.
- Ensure the machine is unplugged from the mains, and wait for two minutes before carrying out maintenance work. DANGER High Voltage and Currents inside the machine.
- Remove the casing 2 or 3 times a year to remove any excess dust. Take this opportunity to have the electrical connections checked by a qualified person, with an insulated tool.
- Regularly check the condition of the power supply cable. If the power cable is damaged, it must be replaced by the manufacturer, its after sales service or an equally qualified person.
- Ensure the ventilation holes of the device are not blocked to allow adequate air circulation.
- Do not use this equipment to thaw pipes, to charge batteries, or to start any engine.



## INSTALLATION – PRODUCT OPERATION

Only qualified personnel authorized by the manufacturer should perform the installation of the welding equipment. During set up, the operator must ensure that the machine is unplugged. Connecting generators in a series or a parallel circuit is forbidden.

### HARDWARE DESCRIPTION

The 80P, 130P, 160P, 200P are Inverter technology based welding machines, portable, single phase, fan cooled, for electrode welding (MMA) in direct current output(DC). These machines can weld all types of electrodes : rutile, basic/low hydrogen (except 80P), stainless and cast iron. They're protected to work with generators (230 V +- 15%).

### POWER SUPPLY – STARTING UP

- This hardware is supplied with a 16A plug, type CEE7/7 (Standard 13A UK plug in the United Kingdom). The machine must be connected to a socket WITH earth 230V (50 – 60 Hz). The absorbed effective current ( $I_{1eff}$ ) is displayed on the machine, for optimal use. Check that the power supply and its protection (fuse and/or circuit breaker) are compatible with the current needed by the machine. In some countries, it may be necessary to change the plug to allow the use at maximum settings. Prefer a 20A socket for the 130P, 25 A for the 160P and 32A for the 200P in intensive use. The device must be positioned so that the socket is always accessible.
- Starting the 80P, 130P, 160P et 200P is done by positioning the switch on the desired current value (the sleep mode corresponds to the «» value of the potentiometer).

### CONNECTION ON A GENERATOR

The machine can work with generators as long as the auxiliary power matches these requirements :

- The voltage must be AC, always set as specified, and the peak voltage below 400V,
- The frequency must be between 50 and 60 Hz.

It is imperative to check these requirements as several generators generate high voltage peaks that can damage these machines.

### MMA WELDING (ELECTRODE)

### CONNECTIONS AND RECOMMENDATIONS

- Connect the cables, electrode holder and earth clamp in the connectors,
- Respect the welding polarity and required current indicated on the electrodes boxes,
- Remove the electrode from the electrode holder when the machine is not in use.
- Your machine has 3 features exclusive to Inverters :
  - Hot Start delivers initial overcurrent to facilitate easy arc striking.
  - Arc Force adjusts the arc voltage to compensate for the arc length increasing/decreasing
  - Anti-Sticking technology prevents your electrode sticking to the work piece

### TIG WELDING WITH INERT GAS (TIG MODE DC)

These machines can weld DC TIG with scratch start.

## TROUBLESHOOTING

| Symptoms                                                                                 | Causes                                   | Remedies                                                   |
|------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------|
| The 2 indicators are on, the machine does not deliver any current.                       | The thermal protection has switched on.  | Wait for the end of the cooling cycle.                     |
| The green indicator is on, but the machine does not weld.                                | Fault with earth clamp/cable connection. | Check the connections                                      |
| The product is under voltage, you are feeling tingling when touching the machine's body. | The earth contact is faulty.             | Check the plug and the earth of your installation.         |
| The machine welds poorly.                                                                | Polarity error (+/-).                    | Check the polarity (+/-) recommended on the electrode box. |

## WARRANTY

The warranty covers faulty workmanship for 2 years from the date of purchase (parts and labour).

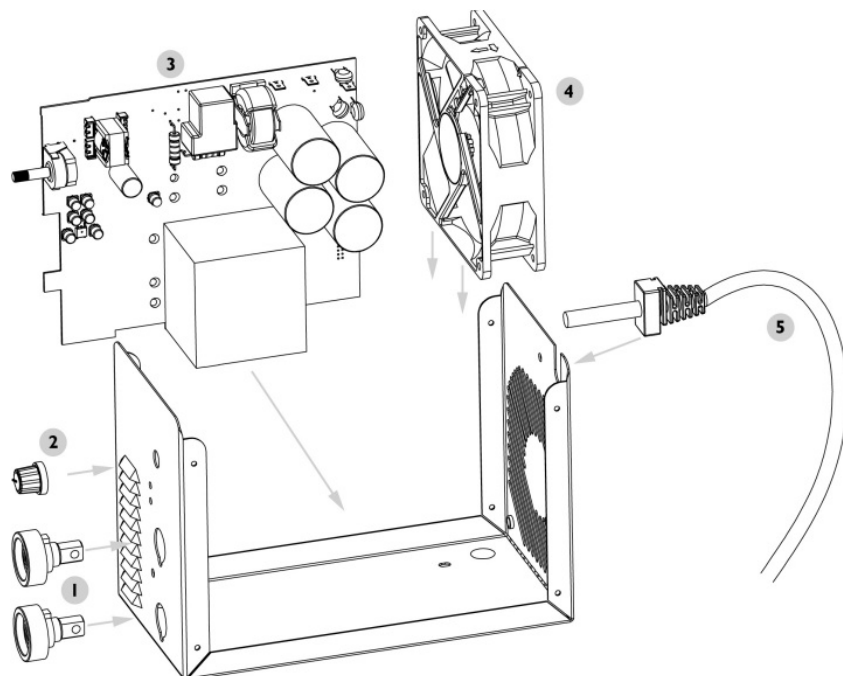
The warranty does not cover:

- Transit damage.
- Normal wear of parts (eg. : cables, clamps, etc..).
- Damages due to misuse (power supply error, dropping of equipment, disassembling).
- Environment related failures (pollution, rust, dust).

In case of failure, return the unit to your distributor together with:

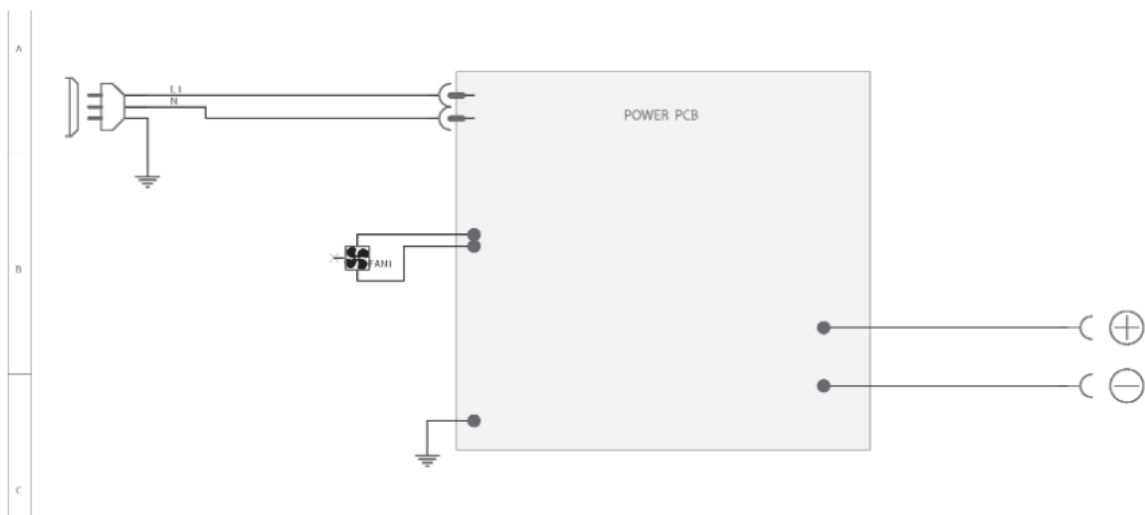
- The proof of purchase (receipt etc ...)
- A description of the fault reported

## SPARE PARTS

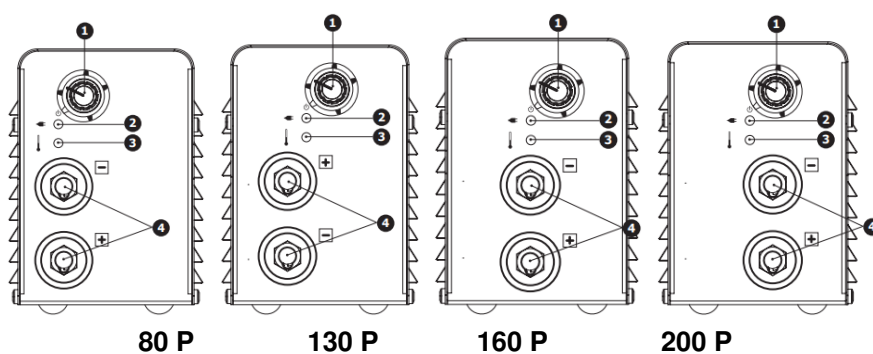


|   | DÉSIGNATION        | 80P    | 130P   | 160P   | 200P   |
|---|--------------------|--------|--------|--------|--------|
| 1 | Connectors         | 51469  | 51469  | 51469  | 51469  |
| 2 | Potentiometer knob | 73099  | 73099  | 73099  | 73099  |
| 3 | Electronic card    | 97751C | 97190C | 97182C | 97773C |
| 4 | Fan                | 51048  | 51048  | 51048  | 51021  |
| 5 | Power cord         | 21487  | 21487  | 21468  | 21480  |

CIRCUIT DIAGRAM



## INTERFACE



|     |                                                          |
|-----|----------------------------------------------------------|
| (1) | Current setting                                          |
| (2) | Power indicator (green)                                  |
| (3) | Thermal protection indicator (yellow)                    |
| (4) | External connector for electrode holder and ground clamp |

## TECHNICAL SPECIFICATIONS

|                      | 80P           | 130P          | 160P | 200P |
|----------------------|---------------|---------------|------|------|
| Primary              |               |               |      |      |
| Power supply voltage | 230 V +/- 10% | 230 V +/- 15% |      |      |
| Mains frequency      | 50 / 60 Hz    |               |      |      |

|                                            |           |                         |                         |                         |                         |
|--------------------------------------------|-----------|-------------------------|-------------------------|-------------------------|-------------------------|
| Number of phases                           |           | 1                       |                         |                         |                         |
| Fuse                                       |           | 10 A                    | 16 A                    | 16 A                    | 16 A                    |
| Maximum effective supply current $I_{1ef}$ |           | 7 A                     | 12.3                    | 16 A                    | 15.8 A                  |
| Maximum supply current $I_{1max}$          |           | 17.3 A                  | 28.8                    | 33.5 A                  | 42 A                    |
| Mains cable section                        |           | 3 x 1.5 mm <sup>2</sup> | 3 x 1.5 mm <sup>2</sup> | 3 x 1.5 mm <sup>2</sup> | 3 x 2.5 mm <sup>2</sup> |
| Maximum active power consumed              |           | 2.3 kW                  | 4,12 kW                 | 5.0 kW                  | 6.7 kW                  |
| Idle consumption                           |           | 1.74 W                  | 2.15 W                  | 3.00 W                  | 3.47 W                  |
| Efficiency at $I_{2max}$                   |           | 84 %                    | 82 %                    | 84 %                    | 85 %                    |
| Power factor at $I_{2max}$ ( $\lambda$ )   |           | 0.60                    | 0.61                    | 0.62                    | 0.64                    |
| EMC class                                  |           | A                       | A                       | A                       | A                       |
| <b>Secondary</b>                           |           |                         |                         |                         |                         |
| No load voltage                            |           | 82.4 V                  | 72 V                    | 72 V                    | 71.6 V                  |
| Type of welding current                    |           | DC                      | DC                      | DC                      | DC                      |
| Welding modes                              |           | MMA                     | MMA                     | MMA                     | MMA                     |
| Minimum welding current                    |           | 10                      | 10                      | 10                      | 10                      |
| Normal current output ( $I_2$ )            |           | 10 → 80 A               | 10 → 130 A              | 10 → 160 A              | 10 → 200 A              |
| Conventional voltage output ( $U_2$ )      |           | 20.4 → 23.2 V           | 20.4 → 25.2 V           | 20.4 → 26.4 V           | 20.4 → 28 V             |
|                                            | $I_{max}$ | 5 %                     | 5 %                     | 14 %                    | 14 %                    |
|                                            |           |                         |                         |                         |                         |

|                                                     |                 |                 |                 |                 |               |
|-----------------------------------------------------|-----------------|-----------------|-----------------|-----------------|---------------|
| Duty cycle at 40°C (10 min)*<br>Standard EN60974-1. | 60%             | 31 A            | 45 A            | 85 A            | 110 A         |
|                                                     | 100%            | 29 A            | 40 A            | 70 A            | 85 A          |
| Functioning temperature                             | -10°C → +40°C   | -10°C → +40°C   | -10°C → +40°C   | -10°C → +40°C   | -10°C → +40°C |
| Storage temperature                                 | -20°C → +55°C   | -20°C → +55°C   | -20°C → +55°C   | -20°C → +55°C   | -20°C → +55°C |
| Protection level                                    | IP21S           | IP21            | IP21            | IP21            | IP21          |
| Minimum coil insulation class                       | B               | B               | B               | B               | B             |
| Dimensions (LxIxh)                                  | 23 x 14 x 10 cm | 25 x 17 x 10 cm | 27 x 17 x 11 cm | 27 x 18 x 14 cm |               |
| Weight                                              | 2.43 kg         | 2.9 kg          | 3.68 kg         | 4.92 kg         |               |

\*The duty cycles are measured according to standard EN60974-1 à 40°C and on a 10 min cycle.

While under intensive use (> to duty cycle) the thermal protection can turn on, in that case, the arc switches off

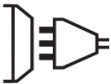
and the indicator  switches on.

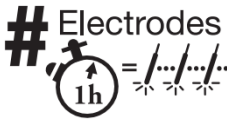
Keep the machine's power supply on to enable cooling until thermal protection cancellation.

The welding power source describes an external drooping characteristic.

## SYMBOLS

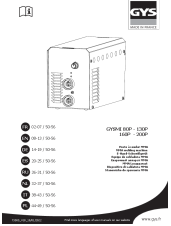
|                                                                                     |                                                                                                                                                  |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|  | – Caution ! Read the user manual.                                                                                                                |
|  | – Single phase inverter, converter-rectifier                                                                                                     |
|  | – Electrode welding (MMA – Manual Metal Arc)                                                                                                     |
|  | – Adapted for welding in environments with increased risk of electrical shock. However, the welding machine should not be placed in such places. |
|  | – Welding direct current                                                                                                                         |
| <b>U<sub>0</sub></b>                                                                | – Rated no-load voltage                                                                                                                          |

|                                                                                                       |                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>X(40°C)</b>                                                                                        | – X : duty cycle at ...%                                                                                                                              |
| <b>I<sub>2</sub></b>                                                                                  | – I <sub>2</sub> : corresponding conventional welding current                                                                                         |
| <b>A</b>                                                                                              | – Amps                                                                                                                                                |
| <b>U<sub>2</sub></b>                                                                                  | – U <sub>2</sub> : conventional voltages in corresponding load                                                                                        |
| <b>V</b>                                                                                              | – Volt                                                                                                                                                |
| <b>Hz</b>                                                                                             | – Hertz                                                                                                                                               |
| <b>1 ~ 50-60 Hz</b>  | – Single phase power supply 50 or 60Hz                                                                                                                |
| <b>U<sub>1</sub></b>                                                                                  | – rated supply voltage                                                                                                                                |
| <b>I<sub>1max</sub></b>                                                                               | – Rated maximum supply current (effective value)                                                                                                      |
| <b>I<sub>1eff</sub></b>                                                                               | – Maximum effective supply current                                                                                                                    |
|                    | – The device complies with European Directive. The certificate of compliance is available on our website.                                             |
|                    | – Equipment in conformity with Moroccan standards. The declaration C <sub>p</sub> ) CMIM) of conformity is available on our website (see cover page). |
|                    | – Material complies with British requirements. The British Declaration of Conformity is available on our website (see cover page).                    |
| <b>EN60974-1</b><br><b>EN60974-10</b><br><b>Class A</b>                                               | – The device complies with EN60974-1, EN60974-10, Class A standard relative to welding units                                                          |
|                    | – Separate collection required – Do not throw in a domestic dustbin                                                                                   |

|                                                                                     |                                                                                                                                                                            |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | – Conformity mark EAC (Eurasian Economic Commission)                                                                                                                       |
|    | – Thermal protection information                                                                                                                                           |
|    | – standby/On                                                                                                                                                               |
|    | – The mains disconnection mean is the mains plug in combination with the house installation. Accessibility of the plug must be guaranteed by user.                         |
|    | – Number of standardized electrodes weldable over 1 hour of continuous work, divided by the number of electrodes weldable in the same conditions without thermal shutdown. |
|    | – Number of standardized electrodes weldable during 1 hour at 20°C, with a delay of 20 s. between each electrode.                                                          |
|   | – Ventilated                                                                                                                                                               |
|  | – This product should be recycled appropriately                                                                                                                            |

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## Documents / Resources

|                                                                                     |                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p><a href="#">GYS 036635 MMA Welding Machine</a> [pdf] Instruction Manual</p> <p>036635 MMA Welding Machine, 036635, MMA Welding Machine, Welding Machine, Machine</p> |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## References

-  [Arc Welding, Battery Chargers & Body Repair | GYS](#)

Manuals+.