

# Power ARC 420

# GeKaMac®

## GEDIK WELDING MACHINES

### **INVERTER MMA WELDING MACHINE USER'S GUIDE**



#### **GEDIK WELDING**

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This machine is for internal use only.

It complies with the WEEE Directive.

This machine has been designed in accordance with the EN 60974-1 and EN 60974-10 standards.

The machine is safe when installation, operation, and maintenance are performed in accordance with the user manual and regulations. The operator and machine owner are responsible for adhering to safety rules.

Gedik Kaynak San. Ve Tic. A.Ş. assumes no responsibility for safety or CE compliance if any modifications are made to the machine or if safety rules are not followed.



**This Class A equipment is not suitable for use in homes and similar residential areas where the power supply is provided by the low-voltage public electricity network.**



This machine is not household waste and cannot be disposed of in the trash.

When the machine reaches the end of its service life or becomes obsolete, it must be disposed of in accordance with regulations.

**COMPLIES WITH THE WEEE DIRECTIVE.**

### **Eco Design Statement**

This machine has been designed and manufactured in accordance with the requirements of the 2009/125/EC Eco Design Directive concerning the environmentally friendly design of energy-related products.

Accordingly, machines with an idle mode are as follows.

	<b>Idle Mode</b>
<b>MMA</b>	<b>X</b>
<b>MIG</b>	√
<b>TIG</b>	√
<b>Plazma</b>	√
<b>SAW</b>	<b>Out of Scope</b>

**Efficiency measurements should be conducted only on the power unit. The water cooling system should be disabled. For more information on measurements and machine settings, Gedik Kaynak Sanayi ve Ticaret A.Ş. should be consulted.**

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## Introduction

Thank you for purchasing one of our products. Please read instructions on use in this manual **as well as the safety rules given in the attached booklet** and follow them carefully to get the best performance from the plant and be sure that the parts have the longest service life possible. In the interest of customers, you are recommended to have maintenance and, where necessary, repairs carried out by the workshops of our service organisation, since they have suitable equipment and specially trained personnel available. All our machinery and systems are subject to continual development. We must therefore reserve the right to modify their construction and properties.

## Description

Powerful, compact, and light-weight - thanks to the innovative digital welding control the **PoWer ARC 420** units are the highest performance and most technically advanced electrode welding generators you can find.

Built according to the very latest IGBT based inverter technology, these DC power sources thanks to their excellent arc characteristics, are recommended for highest standard applications with any electrode.

**PoWer ARC 420** units guarantee absolute stability of welding parameters and thanks to their "characteristic dynamic speed" they are ideal for quality welding particularly difficult jobs using basic and cellulosic electrodes. The **PoWer ARC 420** units can also be used for TIG welding with a "Lift" type ignition.

### FEATURES

- Innovative and compact design.
- Reduced weight and size, easy-to-carry.
- Metallic main structure with shock-proof plastic front panel.
- Controls protected against accidental blows.
- Robust handle integrated into the chassis.
- Slanting front panel with wide range of visibility from all angles to facilitate reading and adjusting parameters.
- Digital ammeters and voltmeters are standard fittings, with pre-setting of welding current and saving of the latest value.
- Digital control of all welding parameters.
- Possibility of saving the welding parameters (99 automatic welding points - JOBS).
- Self-diagnosis device.
- Exceptional welding characteristics for all types of electrode, including cellulosic.
- MMA welding:
  - "Arc Force" adjustable to select the best dynamic characteristics for the welding arc.
  - "Hot Start" adjustable to improve ignition with particularly difficult electrodes.
  - Anti-sticking function to avoid the electrodes sticking.
- TIG welding:
  - TIG welding with thermal controlled (TCS) "Lift" type striking reducing tungsten inclusions to a minimum and allowing to also strike on sharp edges.
  - Exclusive SWS "Smart Welding Stop" system to finish TIG welding. Lifting up the torch without turning off the arc will achieve a slope down and it automatically switches off.
- Overheating thermostatic protection.
- Automatic compensation for mains voltage fluctuations within  $\pm 20\%$ .
- Safety barrier against excess voltage from mains.
- Possibility of activating a VRD (Voltage Reduction Device) that makes it possible to use the machine in environments in which the risk of electric shock or electrocution caused by arc welding is much higher due to the presence of water, damp, or heat, particularly where the ambient temperature is higher than  $32^{\circ}\text{C}$ .
- "Energy Saving" function activating generator ventilation and torch cooling only when necessary.
- IP 23 S protection class and dust-proof electronic components, thanks to the innovative "Tunnel" fan cooling system, allow operation in the toughest work environments.
- Can be connected to motor-powered generators of adequate capacity (30 kVA) providing high dependability.
- Useable with power supply cables more than 100 m long.
- Reduced energy consumption.
- This generator also conforms to all the standards and directives in force in the European Community.

## Technical data

The general technical data of the system are summarized in table 1.

## Usage limits (IEC 60974-1)

The use of a welder is typically discontinuous, in that it is made up of effective work periods (welding) and rest periods (for the positioning of parts, the replacement of wire and underflushing operations etc. This welder is dimensioned to supply a  $I_2$  max nominal current in complete safety for a period of work of 40% of the total usage time. The regulations in force establish the total usage time to be 10 minutes. The work cycle is considered to be 40% of this period of time. If the permitted work cycle time is exceeded, an overheat cut-off occurs to protect the components around the welder from dangerous overheating. Activation of thermal protection is signaled by "t° C" flashing on control panel display (for further information see the "Fault conditions" paragraph in the manual for the MX control panel). After several minutes the overheat cut-off rearms automatically and the welder is ready for use again.

## How to lift up the machine

Strap the hoisting belts around the machine and lift it up carefully and safely, slinging it from the bottom up.

The weld machine has a strong handle all in one with the frame, used for transporting the machine manually only.

**NOTE:** These hoisting and transportation devices conform to European standards. Do not use other hoisting and transportation systems.

## Open the packaging

The system essentially consists of:

- PoWer ARC 420 weld unit.
- Welding cables or RTA TIG torch (optional).
- CT10 trolley for transportation (optional).
- Protective roll bar (optional).

Upon receiving the system:

- Remove the welding generator and all relevant accessories-components from their packaging.
- Check that the weld machine is in good condition, if not report any problems immediately to the seller-distributor.
- Make sure all ventilation grilles are open and that no foreign bodies are blocking the air circulation.

## Installation

The installation site for the system must be carefully chosen in order to ensure its satisfactory and safe use. The user is responsible for the installation and use of the system in accordance with the producer's instructions contained in this manual. Before installing the system the user must take into consideration the potential electromagnetic problems in the work area. In particular, we suggest that you should avoid installing the system close to:






- Signalling, control and telephone cables.
- Radio and television transmitters and receivers.
- Computers and control and measurement instruments.
- Security and protection instruments.

Persons fitted with pace-makers, hearing aids and similar equipment must consult their doctor before going near a machine in operation. The equipment's installation environment must comply to the protection level of the frame i.e. IP 23 S (IEC 60529 publication). This system is cooled by means of the forced circulation of air, and must therefore be placed in such a way that the air may be easily sucked in and expelled through the apertures made in the frame.

This generator is constructed in compliance with the IP 23 S protection level, meaning:

- That it is protected against the penetration of solid foreign bodies with diameters in excess of  $\varnothing$  12 mm.

Table 1

Model		PoWer ARC 420
Three-phase power supply 50/60 Hz	V	400 ± 20%
Power supply: $Z_{max}$	$\Omega$	0,034
Power input @ $I_2$ Max	kVA	17,4
Delayed fuse ( $I_2$ @ 100%)	A	16
Power factor / $\cos\phi$		0,95 / 0,99
Maximum efficiency degree	$\eta$	0,88
Open circuit voltage	V	100
Current range	A	5 ÷ 420
Duty cycle @ 100% (40°C)	A	270
Duty cycle @ 60% (40°C)	A	340
Duty cycle @ 40% (40°C)	A	420
Usable electrodes	mm	1,6 ÷ 6,0
Standards		EN 60974-1 EN 60974-10  
Insulation class		IP 23
Protection class		H
Dimensions   	mm	500 - 425 - 220
Weight	kg	20

**WARNING:** This equipment complies with EN/IEC 61000-3-12 provided that the maximum permissible system impedance  $Z_{max}$  is less than or equal to 0,034 at the interface point between the user's supply and the public system. It is the responsibility of the installer or user of the equipment to ensure, by consultation with the distribution network operator if necessary, that the equipment is connected only to a supply with maximum permissible system impedance  $Z_{max}$  less than or equal to 0,034.

This system, tested according to EN/IEC 61000-3-3, meets the requirements of EN/IEC 61000-3-11.

Table 2

Model		PoWer ARC 420
Power absorption @ $I_2$ Max	kVA	17,4
Slow-blow fuse ( $I_2$ @ 100%)	A	16
Duty cycle @ 40% (40°C)	A	420
Supply connection cable		
Length	m	4
Section	mm <sup>2</sup>	2,5
Earth cable		
Section	mm <sup>2</sup>	50

- That it is protected against water spray hitting the surface with an angle of incidence up to 60°.
- That the welding machine has been tested for withstanding harmful effects due to water getting in when the moving parts on the equipment are moving.

The welding unit is characterised by the following levels:

- Use class "S" means that the plant can be used in conditions subject to heightened electrical shock.

## Connection to the electrical supply

**Before connecting the welder to the electrical supply, check that the machine's plate rating corresponds to the supply voltage and frequency and that the line switch of the welder is in the "O" position.**

Use the welder's own plug to connect it up to the main power supply. Proceed as follows if you have to replace the plug:

- 3 conducting wires are needed for connecting the machine to the supply
- The fourth, which is YELLOW GREEN in colour is used for making the "EARTH" connection.

**Connect a suitable load of normalised plug (3p+t) to the power cable and provide for an electrical socket complete with fuses or an automatic switch. The earth terminal must be connected to the earth conducting wire (YELLOW-GREEN) of the supply.**

Table 2 shows the recommended load values for retardant supply fuses chosen according to the maximum nominal current supplied to the welder and the nominal supply voltage.

**NOTE:** Any extensions to the power cable must be of a suitable diameter, and absolutely not of a smaller diameter than the special cable supplied with the machine.

## Instructions for use

### COMMAND AND CONTROL UNITS (Fig. A)

- Pos. 1 MX 42 command and control panel. For detailed information on the control panel, see the instruction manual enclosed.
- Pos. 2 6 pole remote control connector.
- Pos. 3 Positive pole quick connection.
- Pos. 4 Negative pole quick connection.
- Pos. 5 Supply switch. In the "O" position the welder is off.
- Pos. 6 Cable clamp for housing the welding machine's power supply cable.

### MMA electrode welding

Electrode welding is used for welding most metals (various types of steels, etc.) using rutilic, basic, and cellulosic electrodes with diameters from 1.6 mm to 6.0 mm.

- 1) Connecting the welding cables (Fig. B):  
Disconnect the machine from the mains power supply and connect the welding cables to the output terminals (Positive and Negative) of the welding machine, attaching them to the clamp and earth with the polarity specified for the type of electrode being used (Fig. B). Always follow the electrode manufacturer's instructions. The welding cables must be as short as possible, they must be near to one another, positioned at or near floor level. Do not touch the electrode clamp and the earth clamp simultaneously.
- 2) Start the welding machine by selecting position 1 on the line switch (Pos. 5, Fig. A).
- 3) Make the adjustments and select the parameters on the MX 42 control panel (read the enclosed manual carefully).
- 4) Carry out welding by moving the torch to the workpiece. Strike the arc (press the electrode quickly against the metal and then lift it) to melt the electrode, the coating of which forms a protective residue. Then continue welding by moving the electrode from left to right, inclining it by about 60° compared with the metal in relation to the direction of welding.

### PART TO BE WELDED

The part to be welded must always be connected to earth in order to reduce electromagnetic emission. Much attention must be afforded so that the earth connection of the part to be welded does not increase the risk of accident to the user or the risk of damage to other electric equipment. When it is necessary to connect the part to be welded to earth, you should make a direct connection between the part and the earth shaft. In those countries in which such a connection is not allowed, connect the part to be welded to earth using suitable capacitors, in compliance with the national regulations.

### WELDING PARAMETERS

Table 3 shows some general indications for the choice of electrode, based on the thickness of the parts to be welded. The values of current to use are shown in the table with the respective electrodes for the welding of common steels and low-grade alloys. These data have no absolute value and are indicative data only. For a precise choice follow the instructions provided by the electrode manufacturer.

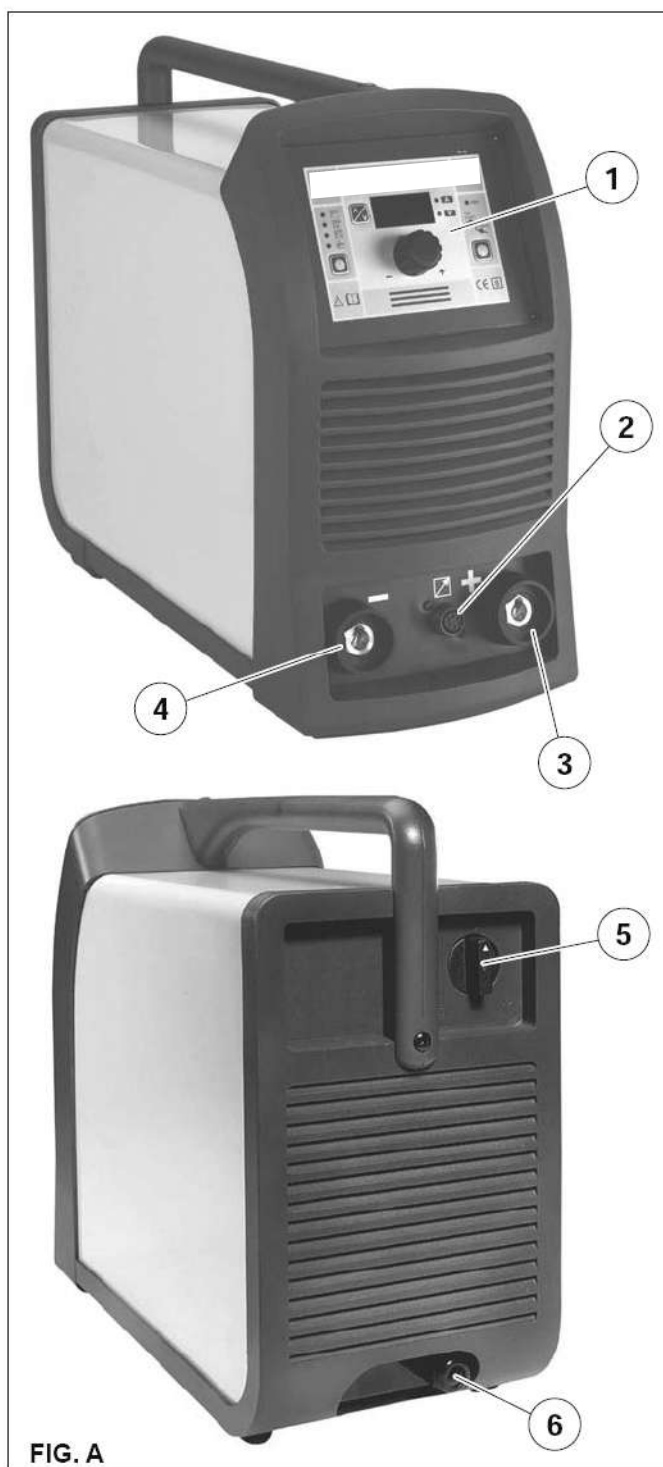


FIG. A

Table 3

WELDING THICKNESS (mm)	Ø ELECTRODE (mm)
1,5 + 3	2
3 + 5	2,5
5 + 12	3,2
≥ 12	4

Table 4

Ø ELECTRODE (mm)	CURRENT (A)
1,6	30 + 60
2	40 + 75
2,5	60 + 110
3,2	95 + 140
4	140 + 190
5	190 + 240
6	220 + 330

The current to be used depends on the welding positions and the type of joint, and it increases according to the thickness and dimensions of the part.

The current intensity to be used for the different types of welding, within the field of regulation shown in table 4 is:

- High for plane, frontal plane and vertical upwards welding.
- Medium for overhead welding.
- Low for vertical downwards welding and for joining small pre-heated pieces.

A fairly approximate indication of the average current to use in the welding of electrodes for ordinary steel is given by the following formula:

$$I = 50 \times (\varnothing e - 1)$$

Where:

I = intensity of the welding current

$\varnothing e$  = electrode diameter

Example:

For electrode diameter 4 mm

$$I = 50 \times (4 - 1) = 50 \times 3 = 150A$$

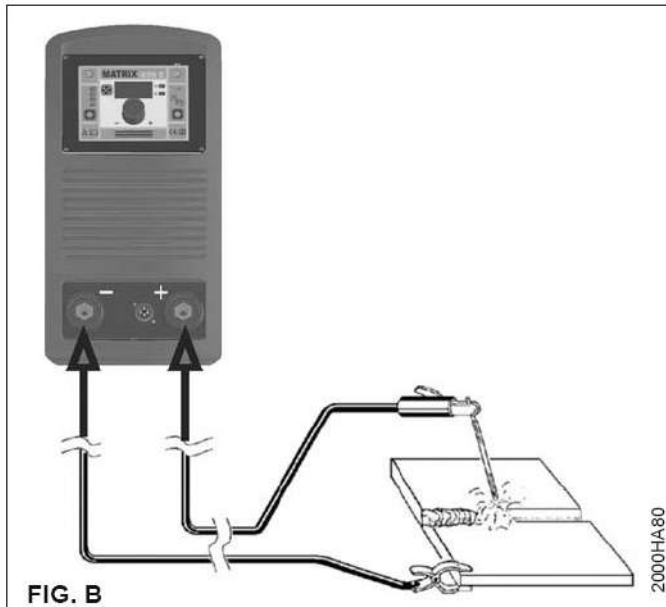


FIG. B

2000HA80

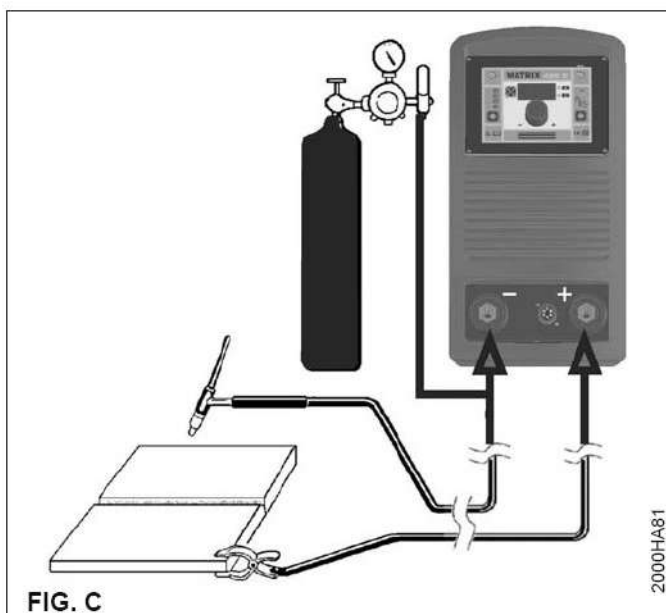


FIG. C

2000HA81

## TIG welding

TIG welding melts the metal of the workpiece, using an arc struck by a tungsten electrode. The fusion bath and the electrode are protected by gas (Argon). This type of welding is used to weld thin sheet metal or when elevated quality is required.

- 1) Connecting the welding cables (Fig. C):
  - Connect one end of the gas hose to the gas connector on the TIG torch and the other end to the Argon cylinder and open it.
  - With the machine switched off:
    - Connect the earth cable to the snap-on connector marked + (positive).
    - Connect the relative earth clamp to the workpiece or to the workpiece support in an area free of rust, paint, grease, etc..
    - Connect the TIG torch power cable to the snap-on connector marked - (negative).
- 2) Start the welding machine by selecting Pos. 1 on the line switch (Pos. 5, Fig. A).
- 3) Make the adjustments and select the parameters on the MX 42 control panel (read the enclosed manual carefully).
- 4) Open the gas cylinder and regulate the flow by adjusting the valve on the TIG torch by hand.
- 5) Ignite the electric arc by contact, using a decisive, quick movement at the welding current set ("Lift" type ignition - Fig. D).
  - To end welding:
    - Lift the torch slowly, at a certain point the welding current decreases, and then stop.
    - The welding machine follows an automatic down slope along with extinguishing of the arc.
- 6) When you have finished welding remember to shut the valve on the torch and the gas cylinder.

## Maintenance

**ATTENTION:** Before carrying out any inspection of the inside of the generator, disconnect the system from the supply.

### SPARE PARTS

Original spare parts have been specially designed for our equipment. The use of non-original spare parts may cause variations in performance or reduce the foreseen level of safety. We decline all responsibility for the use of non-original spare parts.

### GENERATOR

As these systems are completely static, proceed as follow:

- Periodic removal of accumulated dirt and dust from the inside of the generator, using compressed air. Do not aim the air jet directly onto the electrical components, in order to avoid damaging them.
- Make periodical inspections in order to individuate worn cables or loose connections that are the cause of overheating.

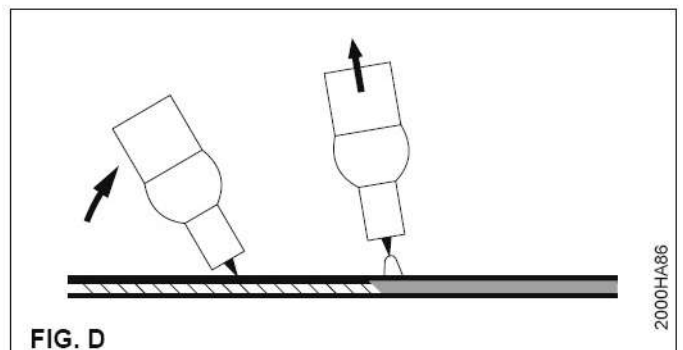


FIG. D

2000HA86



## Remote controls and accessories

PoWer ARC 420 generators can be fitted with various remote control devices and accessories, including:

- CD 6 manual remote control.

When this accessory is activated the welding current can only be remote controlled (value adjustable from 5 to 420A), and this value will be shown on the welding machine's display.

The digital control unit of the generator is fitted with a control recognition device which allows it to identify which device is connected and take action accordingly.

The remote control can be connected whether the welding machine is on or off.

**NOTE:** The MX control panel has a *STAND-BY* function that, when the remote control is on, switches off the inverter when the minimum welding current value is reached (to reinstate normal, correct functioning of the machine, increase the welding current value by rotating the remote control knob).

## The pointing out of any difficulties and their elimination

The supply line is attributed with the cause of the most common difficulties. In the case of breakdown, proceed as follows:

- 1) Check the value of the supply voltage
- 2) Check that the power cable is perfectly connected to the plug and the supply switch
- 3) Check that the power fuses are not burned out or loose
- 4) Check whether the following are defective:
  - The switch that supplies the machine.
  - The plug socket in the wall.
  - The generator switch.

**NOTE:** Given the required technical skills necessary for the repair of the generator, in case of breakdown we advise you to contact skilled personnel or our technical service department.

## Procedure for cover assembly and disassembly

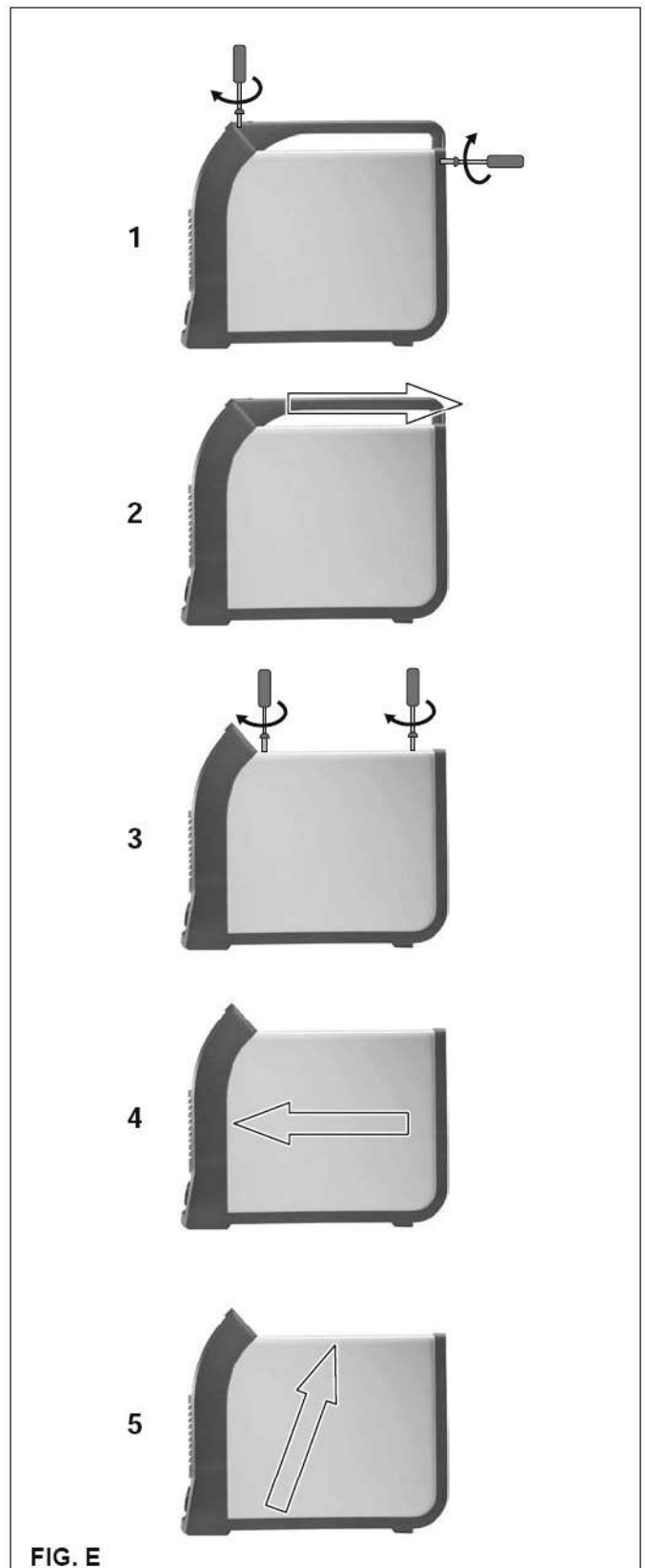
Proceed as follows (Fig. E):

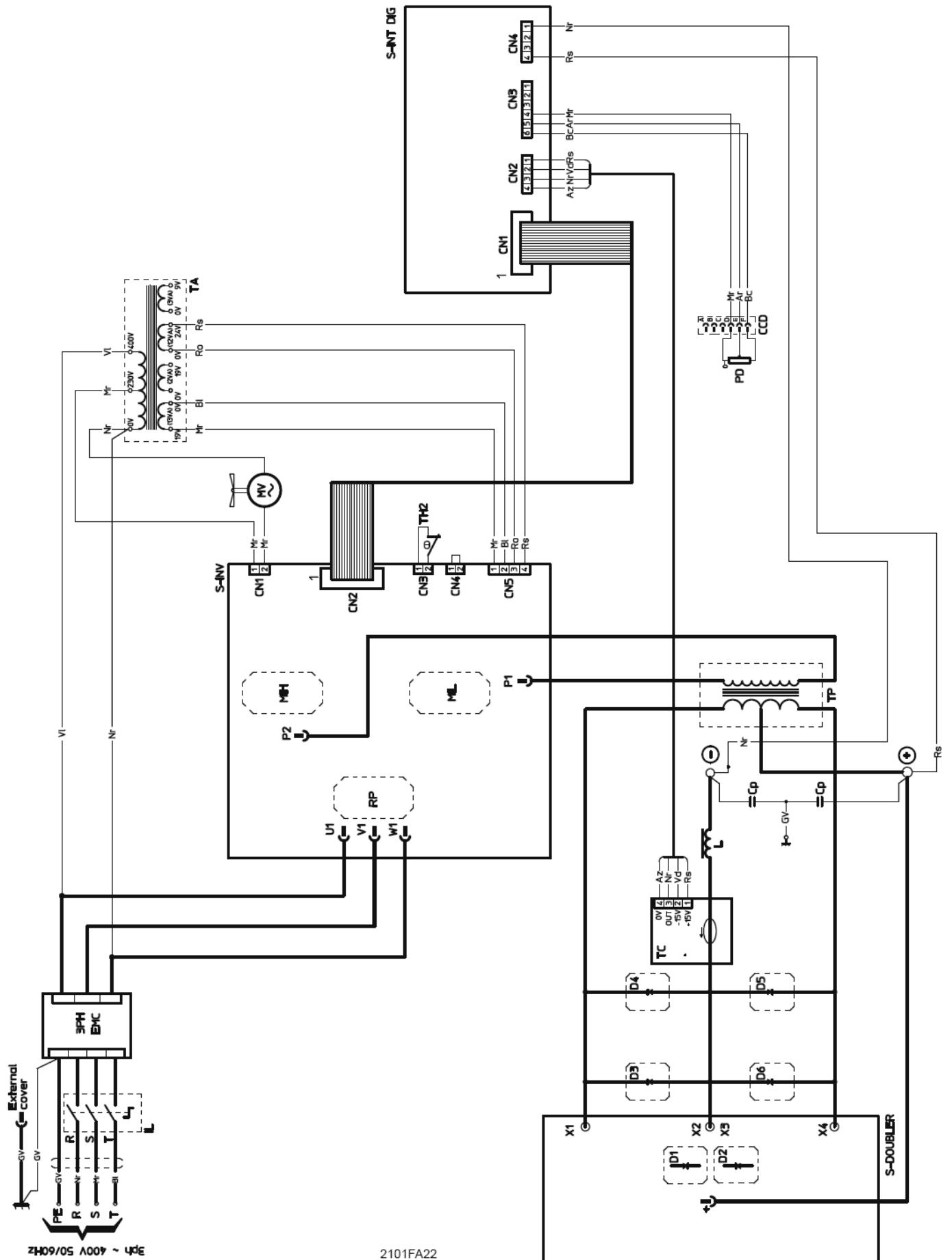
- 1) Unscrew the two screws fastening the handle.
- 2) Take off handle pulling it backwards.
- 3) Take off covering lid and unscrew the 3 screws fastening the top.
- 4) Use both hands to push the top towards the front part freeing the back part.
- 5) Remove top by lifting with both hands.

Proceed vice versa for assembly.

## Digital interface board replacement

- Unscrew the 4 screws fastening the front rack panel.
- Remove control dials.
- Extract wiring connectors from electronic control board.
- Unscrew small supporting columns.
- Remove electronic control board by lifting it out of its supports.
- Proceed vice versa to assemble new electronic control board.





3P ~ 400V 50/60Hz

2101FA22



*1 3PH-EMC	*2 CCD	*3 Cp	*4 D1-2-3-4-5-6	*5 IL	*6 L	*7 MIH	*8 MIL	*9 MV	*10 P1
*11 P2	*12 PD	*13 RP	*14 S-DOUBLER	*15 S-INT DIG	*16 S-INV	*17 TA	*18 TC	*19 TH2	*20 TP

### IT Legenda schema elettrico

•1 Filtro di rete •2 Connettore comando a distanza •3 Condensatore di protezione •4 Diodi secondari •5 Interruttore di linea •6 Induttore secondario •7 Modulo IGBT primario superiore •8 Modulo IGBT primario inferiore •9 Motore ventilatore •10 Primario trasformatore principale (inizio) •11 Primario trasformatore principale (fine) •12 Potenziometro comando a distanza •13 Raddrizzatore primario •14 Scheda survoltore •15 Scheda interfaccia digitale •16 Scheda INVERTER •17 Trasformatore ausiliario •18 Trasduttore di corrente •19 Termostato su dissipatore secondario •20 Trasformatore principale

### EN Key to the electrical diagram

•1 Electrical supply filter •2 Remote control connector •3 Exit protection capacitor •4 Secondary diodes •5 Supply switch •6 Secondary inductor •7 Primary upper IGBT module •8 Lower primary IGBT module •9 Fan motor •10 Main primary transformer (start) •11 Main primary transformer (end) •12 Remote current potentiometer •13 Primary rectifier •14 Booster board •15 Digital interface board •16 INVERTER control card •17 Auxiliary transformer •18 Current transducer •19 Thermostat on the secondary heatsink •20 Main transformer

### FR Légende schéma électrique

•1 Filtre de réseau alimentation •2 Connecteur commandé à distance •3 Condensateurs de protection de sortie •4 Diodes secondaires •5 Interrupteur de lignes •6 Inducteur secondaire •7 Module IGBT primaire supérieur •8 Module IGBT primaire inférieur •9 Monté ventilé •10 Primaire transformateur principal (début) •11 Primaire transformateur principal (fin) •12 Potentiomètre courant à distance •13 Redresseur primaire •14 Carte survoltteur •15 Carte interface numérique •16 Carte de contrôle du CONVERTISSEUR •17 Transformateur auxiliaire •18 Transducteur de courant •19 Thermostat sur dissipateur secondaire •20 Transformateur principal

### DE Schaltplan-Legende

•1 Filter Speisungsnetz •2 Steckvorrichtung Fernantrieb •3 Schutzkondensatoren Ausgang •4 Sekundäre Dioden •5 Leitungsschalter •6 Sekundärdrossel •7 Oberprimär modul IGBT •8 Unterprimär modul IGBT •9 Belüfteter Motor •10 Primärer Haupttransformator (Anfang) •11 Primärer Haupttransformator (Ende) •12 Fernstrompotentiometer •13 Primärer Gleichrichter •14 Karte Spannungsverstärker •15 Digitale Schnittstellenkarte •16 INVERTER-Steuerkarte •17 Hilfstransformator •18 Stromwandler •19 Thermostat am zweiten Kühlkörper •20 Haupttransformator

### ES Leyenda esquema eléctrico

•1 Filtro de la red de alimentación •2 Conexión control remoto •3 Condensadores de protección de salida •4 Diodos secundarios •5 Interruptor de línea •6 Inductor secundario •7 Módulo IGBT primario superior •8 Módulo IGBT primario inferior •9 Motor ventilador •10 Primario transformador principal (inicio) •11 Primario transformador principal (final) •12 Potenciometro corriente a distancia •13 Enderezador primario •14 Tarjeta del transformador regulable •15 Tarjeta interfaz digital •16 Tarjeta control INVERTER •17 Transformador auxiliar •18 Transductor de corriente •19 Termostato en el disipador secundario •20 Transformador principal

### NL Legenda elektrisch schema

•1 Filter voedingsnet •2 Afstandsbedieningsconnector •3 Protectie condensatoren bij uitgang •4 Secundaire diodes •5 Lijnonderbreker •6 Hulpshakelaar •7 Bovenste Module IGBT •8 Onderste Module IGBT •9 Motor ventilator •10 Hoofd transformator (begin) •11 Hoofd transformator (einde) •12 Vermogensmeter stroom op afstand •13 Primaire gelijkrichter •14 Transformatorkaart •15 Digitale interfacekaart •16 Kaart controle INVERTER •17 Hulptransformator •18 Stroom omzetter •19 Thermostaat op secundaire energievernietiger •20 Hoofd-transformator

### IT Legenda colori

Ar Arancio  
Az Azzurro  
Bc Bianco  
Bl Blu  
GV Giallo Verde  
Mr Marrone  
Nr Nero  
Ro Rosa  
Rs Rosso  
Vd Verde  
VI Viola

### FR Légende couleurs

Ar Orange  
Az Bleu Clair  
Bc Blanc  
Bl Bleu  
GV Jaune Vert  
Mr Marron  
Nr Noir  
Ro Rose  
Rs Rouge  
Vd Vert  
VI Violet

### ES Leyenda colores

Ar Anaranjado  
Az Azul  
Bc Blanco  
Bl Azul  
GV Amarillo Verde  
Mr Marrón  
Nr Negro  
Ro Rosa  
Rs Rojo  
Vd Verde  
VI Violeta

### EN Colour key

Ar Orange  
Az Sky Blue  
Bc White  
Bl Blue  
GV Yellow Green  
Mr Brown  
Nr Black  
Ro Pink  
Rs Red  
Vd Green  
VI Violet

### DE Farbenlegende

Ar Orange  
Az Hellblau  
Bc Weiß  
Bl Blau  
GV Gelb Grün  
Mr Braun  
Nr Schwarz  
Ro Rosa  
Rs Rot  
Vd Grün  
VI Violett

### NL Kleurenlegenda

Ar Oranje  
Az Blauw  
Bc Wit  
Bl Donkerblauw  
GV Geel Groen  
Mr Bruin  
Nr Zwart  
Ro Roze  
Rs Rood  
Vd Groen  
VI Paars

PT Esquema eléctrico

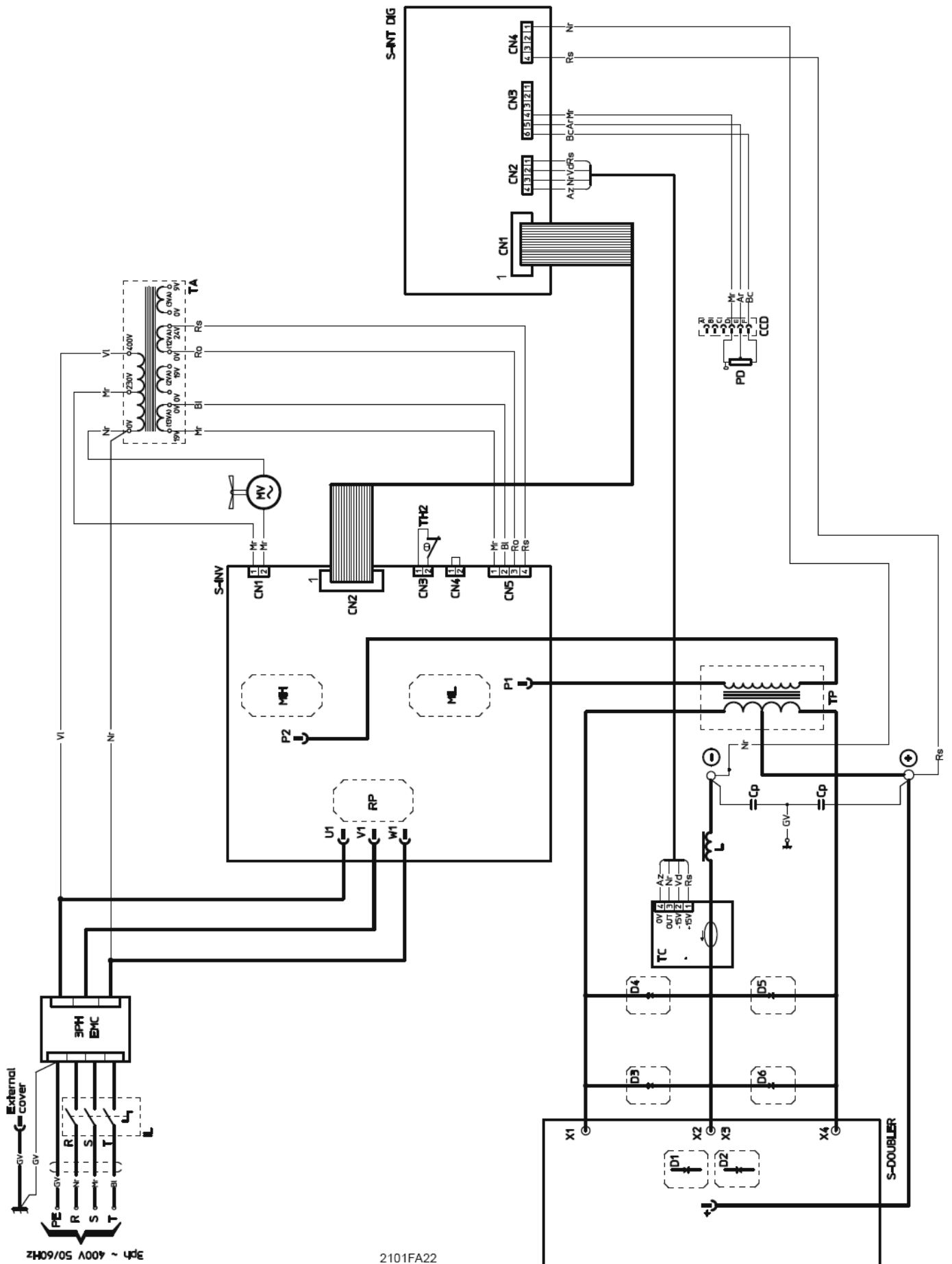
FI Sähkökaavio

EL Ηλεκτρικών Ιαγραμμάτων

SV Elektiska schema

N Elektriske skjema

RU Схема электрическая



ZH09/05 A009 ~ 42E

2101FA22

•1 3PH-EMC	•2 CCD	•3 Cp	•4 D1-2-3-4-5-6	•5 IL	•6 L	•7 MIH	•8 MIL	•9 MV	•10 P1
•11 P2	•12 PD	•13 RP	•14 S-DOUBLER	•15 S-INT DIG	•16 S-INV	•17 TA	•18 TA-HALL	•19 TH2	•20 TP

### PT Legenda do esquema eléctrico

•1 Filtro de rede da alimentação •2 Conector de comando a distância •3 Condensador de proteção da saída •4 Diodos secundários •5 Interruptor de linha •6 Indutor secundário •7 Módulo IGBT primário superior •8 Módulo IGBT primário inferior •9 Motor ventilado •10 Transformador principal (início) •11 Transformador principal (fim) •12 Potenciômetro corrente a distância •13 Rectificador primário •14 Ficha transformador •15 Ficha interface digital •16 Cartão controlo INVERTER [INVERSOR] •17 Transformador auxiliar •18 Transdutor de corrente •19 Termóstato no dissipador secundário •20 Transformador principal

### SV Förklaring av elektriskt schema

•1 Nätfiler för strömtillförsel •2 Kontaktdona till fjärrkontroll •3 Skyddskondensator utgång •4 Sekundärdioder •5 Linjeströmbrytare •6 Sekundär brytare •7 Övre huvudsaklig modul IGBT •8 Undre huvudsaklig modul IGBT •9 Ventilert motor •10 Huvudtransformator (början) •11 Huvudtransformator (slut) •12 Potensmeter distanstryck •13 Primär likriktare •14 Boosterkopplingens kort •15 Digitalt gränssnittskort •16 Kort för INVERTER kontroll •17 Reservtransformator •18 Strömtransduktor •19 Termostat på sekundärt kylelement •20 Huvudtransformator

### FI Sähkökaavion merkinnät

•1 Syöttöverkon suodatin •2 Kaukosäätöinen •3 Suojauksen kondensaattori •4 Sekundaaridiodit •5 Pääkatkaisija •6 Induktori toisio •7 IGBT moduuli ylempi •8 IGBT moduuli alempi •9 Ventilationsmotor •10 Päämuuntaja (alku) •11 Päämuuntaja (loppu) •12 Virran kaukosäädön potentiometri •13 Ensiötasasuuntin •14 Lisäkoneen taulu •15 Digitaalinen liitäntäkortti •16 MUUNTIMEN kontrollin kortti •17 Varamuuntaja •18 Jännitteen muunnin •19 Toissijaisen vaimentimen termostaatti •20 Päämuuntaja

### N Tegnforklaring av elektrisk skjema

•1 Filter for matenettet •2 Kontaktkobling fjærrkontroll •3 Vernekondensator utgang •4 Sekundærdioder •5 Linjebryter •6 Sekundær forleder •7 Øvre modul IGBT •8 Nedre modul IGBT •9 Motor ventilator •10 Hovedtransformator (begynnelse) •11 Hovedtransformator (end) •12 Potensiometer strøm til fjærrkontroll •13 Primær ensretter •14 Kort for spenningsøkning •15 Digitalt grensesnittkort •16 Kort for INVERTER-kontroll •17 Hjelpetransformator •18 Transduktor for strøm •19 Termostat på sekundært kjølelegeme •20 Hovedtransformator

### EL Υόμνημα ηλεκτρικού διαγράμματος

•1 Φίλτρο δικτύου τροφοδότησης •2 Σύνεσμος έλγχος από απόσταση •3 Συμπυκνωτές προστασίας εξόδου •4 Δευτερεύοντα διαόδα •5 Διακόπτης γραμμής •6 Δευτερεύων επαγωγέας •7 Άνω ενότητα IGBT •8 Κάτω ενότητα IGBT •9 Εξαερισμός κινητήρα •10 Κύριος μετασχηματιστής (αρχώ) •11 Κύριος μετασχηματιστής (τύλος) •12 Ποτενσιόμετρο ρεύματος από απόσταση •13 Δευτερεύων ανορθωτής •14 Πλακέτα σταθεροποιητή •15 Ψηφιακό κάρτα •16 Κάρτα έλεγχου ΜΕΤΑΤΡΟΠΕΑ •17 Βοηθητικός μετασχηματιστής •18 Μετατροπέας ρεύματος •19 Θερμοστάτης στον δευτερεύοντα απαγωγέα θερμότητας •20 Κύριος μετασχηματιστής

### RU Обозначения электрической схемы

•1 Фильтровая сборка •2 Разъем дистанционного управления •3 Защитный конденсатор •4 Вторичные диоды •5 Выключатель •6 Вторичный индуктор •7 Верхний модуль IGBT первичной обмотки •8 Нижний модуль IGBT первичной обмотки •9 Вентилятор •10 Первичная обмотка главного трансформатора (начало) •11 Первичная обмотка главного трансформатора (конец) •12 Потенциометр дистанционного управления •13 Выпрямитель первичной обмотки •14 Вольтодобавочная плата •15 Плата цифрового интерфейса •16 Инвертор •17 Вспомогательный трансформатор •18 Датчик тока •19 Термостат на рассеивателе вторичной обмотки •20 Главный трансформатор

### PT Legenda cores

Ar Laranja  
Az Azul  
Bc Branco  
Bl Azul-marinho  
Gv Amarelo Verde  
Mr Castanho  
Nr Preto  
Ro Cor-de-rosa  
Rs Vermelho  
Vd Verde  
Vi Roxo

### FI Väriselitykset

Ar Oranssi  
Az Vaaleansininen  
Bc Valkoinen  
Bl Sininen  
Gv Keltainen Vihreä  
Mr Ruskea  
Nr Musta  
Ro Vaaleanpunainen  
Rs Punainen  
Vd Vihreä  
Vi Violetti

### EL Υπόμνημα χρωμάτων

Ar Πορτοκαλί  
Az Γαλάζιο Κόκκινο  
Bc Σππρω  
Bl Μπλε  
Gv Κίτρινο Μοβ  
Mr Καφε  
Nr Μαύρο  
Ro Ροζ  
Rs Κόκκινο  
Vd Μοβ  
Vi Πράσινο

### SV Färgförklaring

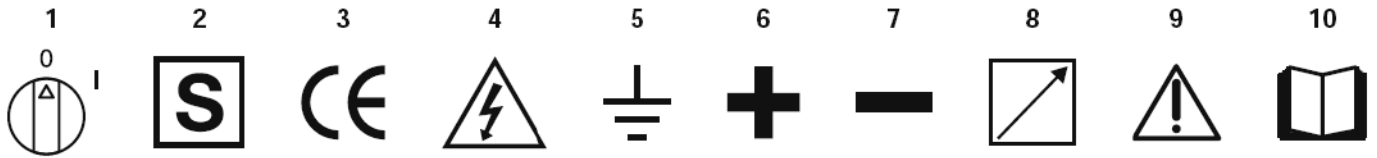
Ar Oransje  
Az Nyseblå  
Bc Hvit  
Bl Blå  
Gv Gul Grønn  
Mr Brun  
Nr Svart  
Ro Rosa  
Rs Rød  
Vd Grønn  
Vi Lilla

### N Färgforklaring

Ar Orange  
Az Ljusblå  
Bc Vit  
Bl Blå  
Gv Gul Grön  
Mr Brun  
Nr Svart  
Ro Rosa  
Rs Röd  
Vd Grön  
Vi Lila

### RU Цветовая маркировка

Ar Оранжевый  
Az Голубой  
Bc Белый  
Bl Синий  
Gv Желто Зеленый  
Mr Коричневый  
Nr Черный  
Ro Розовый  
Rs Красный  
Vd Зеленый  
Vi Фиолетовый



### IT Significato dei simboli grafici riportati sulla macchina

•1 Interruttore acceso/spento •2 Impianto che può essere utilizzato in ambienti con rischio accresciuto di scosse elettriche •3 Prodotto atto a circolare liberamente nella Comunità Europea •4 Tensione pericolosa •5 Terra •6 Atacco rapido polo positivo •7 Attacco rapido polo negativo •8 Connettore per comando a distanza •9 Attenzione! •10 Prima di utilizzare l'impianto è necessario leggere attentamente le istruzioni contenute in questo manuale

### EN Meaning of graphic symbols on machine

•1 On/off switch •2 System for use in environments with increased risk of electroshock •3 Product suitable for free circulation in the European Community •4 Danger! High voltage •5 Grounding •6 Positive pole snap-in connector •7 Negative pole snap-in connector •8 Connector for the remote control •9 Warning! •10 Before using the equipment you should carefully read the instructions included in this manual

### FR Interprétation des symboles graphiques reportés sur la machine

•1 Interrupteur allumé/éteint •2 Installation pouvant être utilisée dans des milieux avec augmentation du risque de secousses électriques •3 Produit pouvant circuler librement dans la Communauté Européenne •4 Tension dangereuse •5 Terre •6 Prise rapide pôle positif •7 Prise rapide pôle négatif •8 Connecteur pour dispositif de contrôle à distance •9 Attention! •10 Avant d'utiliser l'installation il est nécessaire de lire avec attention les instructions qui se trouvent dans ce manuel

### DE Bedeutung der grafischen Symbole auf der Maschine

•1 Schalter EIN/AUS •2 Möglicher Gebrauch der Anlage in Umgebung mit erhöhter Gefahr elektrischer Schläge •3 Für den freien Warenverkehr in der EU zugelassenes Produkt •4 Gefährliche Spannung •5 Erdung •6 Schnellanschluß Pluspol •7 Schnellanschluß Minuspol •8 Verbinder für Fernbedienung •9 Achtung! •10 Vor der Anwendung der Anlage sind die Gebrauchsanweisungen des vorliegenden Handbuchs sorgfältig zu lesen

### ES Significado de los símbolos gráficos referidos en la máquina

•1 Interruptor conectado/apagado •2 Instalación que puede ser utilizada en ambientes con grande riesgo de descargas eléctricas •3 Producto apto para circular libremente en la Comunidad Europea •4 Tensión peligrosa •5 Tierra •6 Toma rápida polo positivo •7 Toma rápida polo negativo •8 Conector de mando a distancia •9 Atención! •10 Antes de utilizar la instalación, es necesario leer atentamente las instrucciones contenidas en este manual

### NL Betekenis grafische symbolen op het apparaat weergeven

•1 Onderbreker aan-uit •2 Apparaat bruikbaar in ruimte met verhoogd risico voor elektrische schokken •3 Produkt mag overal binnen de EEG gebruikt worden •4 Gevaarlijke spanning •5 Aarding •6 Snelkoppeling positieve pool •7 Snelkoppeling negatieve pool •8 Verbindingsklem voor afstandsbediening •9 Let op! •10 Voordat de aansluiting in gebruik genomen wordt is het noodzakelijk om aandachtig de gebruiksaanwijzing in deze handleiding te lezen

### PT Significado dos símbolos gráficos existentes na máquina

•1 Interruptor ligado/desligado •2 Equipamento que pode ser utilizado em ambientes com risco acrescentado de choques eléctricos •3 Produto apto a circular livremente na Comunidade Europeia •4 Tensão perigosa •5 Terra •6 Encaixe rápido polo positivo •7 Encaixe rápido polo negativo •8 Conector para o comando a distância •9 Atenção! •10 Antes de usar a Instalação é necessário ler atentamente as instruções contidas neste manual

### SV Förklaring av grafiska symboler på apparaten

•1 Strömbrytare på/avkopplad •2 Apparat som kan användas i lokaler med förhöjd risk för elstötar •3 Produkt som får cirkulera fritt i EU •4 Farlig spänning •5 Jord •6 Snabbkoppling pluspol •7 Snabbkoppling minuspol •8 Omkopplare för fjärrstyrning •9 Observera! •10 Innan inbruktagandet av anläggningen är det viktigt att uppmärksamt läsa instruktionerna i denna manual

### FI Laitteessa olevien symbolien selitykset

•1 Käynnissä/sammutettu -katkaisija •2 Laitetta voidaan käyttää tiloissa, joissa on korkea sähköiskujen vaara •3 Tuotetta voidaan myydä vapaasti EU-maissa •4 Vaarallinen jännite •5 Maadoitus •6 Pikaliittimen positiivinen •7 Pikaliittimen negatiivinen •8 KytKentä kaukokytkimelle •9 Huomio! •10 Ennen laitteen käyttöönottoa on tärkeää lukea huolellisesti tämän käyttöoppaan sisältämät ohjeet

### N Tegnforklaring av de grafiske symbolene på maskinen

•1 Bryter av/på •2 Anlegg som kan brukes i lokaler hvor der er stor risiko for elektrisk støt •3 Produkt som kan sirkulere fritt i den Europeiske Unionen •4 Farlig spenning •5 Jording •6 Hurtigkopling med positiv pol •7 Hurtigkopling med negativ pol •8 Kontakt for fjernstyring •9 Merk! •10 For du tar sveisemaskinen i bruk, skal du lese nøye igjennom instruksene i denne håndboken

### EL Επεξηγήσεις των συμβόλων που υπάρχουν στη μηχανή

•1 Διακόπτης αναμένο/ σβηστό •2 Μηχανή μπορεί να χρησιμοποιηθεί σε χώρο με υψηλό βαθμό κινδύνου ηλεκτροπληξίας •3 Προϊόν το οποίο μπορεί να κυκλοφορεί ελεύθερα στην Ευρωπαϊκή Ένωση •4 Κόκκινη λυχνία επισήμανσης ανωμαλίας εγκατάστασης •5 Γείωση λειτουργίας •6 Θετικός πόλος ταχυσυνδέσμου •7 Θετικός πόλος ταχυσυνδέσμου •8 Σύνδεση για χειρισμό εξ'αποστάσεως •9 Προσοχή! •10 Πριν να χρησιμοποιήσετε την εγκατάσταση πρέπει, απαραίτητα, να διαβάσετε με προσοχή τις οδηγίες που περιέχει το παρόν εγχειρίδιο

### RU Значение графических символов на сварочном аппарате

•1 Двухпозиционный выключатель •2 Агрегат, пригодный для использования в средах с повышенной опасностью ударов током •3 Изделие, предназначенное для свободного перемещения в Европейском Сообществе •4 Опасное напряжение •5 Заземление •6 Быстрый соединитель положительного полюса •7 Быстрый соединитель отрицательного полюса •8 Разъем дистанционного управления •9 Внимание! •10 Перед использованием агрегата необходимо внимательно прочитать инструкции, приведенные в данном руководстве

## IT Significato dei simboli grafici riportati sulla targa dati

•1 Nome e indirizzo costruttore •2 Denominazione impianto •3 Generatore ad inverter trifase •4 Saldatura TIG •5 Alimentazione di rete, numero delle fasi, frequenza nominale di rete •6 Corrente continua di saldatura •7 Impianto saldatura elettrodo •8 Tensione a vuoto secondaria •9 Tensione nominale di alimentazione •10 Grado di protezione dell'involucro •11 Raffreddamento ad aria forzata •12 Classe di isolamento •13 Massimo valore della corrente nominale di alimentazione •14 Saldatrice utilizzabile in ambienti con rischio accresciuto di scosse elettriche •15 Prodotto atto a circolare liberamente nella Comunità Europea •16 Smaltimento speciale •17 Massimo valore della corrente effettiva di alimentazione •18 Corrente nominale di saldatura •19 Minima e massima corrente e tensione di saldatura •20 Tensione nominale del carico •21 Rapporto di intermittenza •22 Normativa di riferimento •23 Numero di matricola

## EN Meaning of graphic symbols on rating plate

•1 Name and address of manufacturer •2 Name of system •3 Three-phase INVERTER generator •4 TIG welding •5 Mains power supply, number of phases, nominal supply frequency •6 Continuous welding current •7 Electrode welding equipment •8 Secondary no-load voltage •9 Nominal value of supply voltage •10 Degree of protection of casing •11 Forced air cooling •12 Insulation class •13 Maximum value of rated supply current •14 Welder usable in environments with enhanced risk of electroshock •15 Product suitable for free circulation in the European Community •16 Special disposal of saldatura •17 Maximum value of effective input current •18 Nominal welding current •19 Minimum and maximum current and welding voltage •20 Nominal load voltage •21 Duty cycle •22 Reference standards •23 Serial number

## FR Interprétation des symboles graphiques sur la plaque de données

•1 Nom et adresse du fabricant •2 Dénomination de l'installation •3 Générateur à CONVERTISSEUR triphasé •4 Soudure TIG •5 Alimentation de réseau, numéro des phases, fréquence nominale d'alimentation •6 Courant de soudure continu •7 Installation soudure électrode •8 Tension secondaire à vide •9 Valeur nominale tension d'alimentation •10 Degré de protection de l'enveloppe •11 Refroidissement à air forcée •12 Classe d'isolation •13 Valeur maximale du courant d'alimentation assigné •14 Soudeuse pouvant être utilisée dans un environnement avec risque croissant de décharges électriques •15 Produit pouvant circuler librement dans la Communauté Européenne •16 Elimination spéciale •17 Valeur maximale du courant effectif d'alimentation •18 Courant nominal de soudure •19 Minimum et maximum courant et tension de soudure •20 Tension nominale de la charge •21 Rapport d'intermittence •22 Réglementation de référence •23 N° de série

## DE Bedeutung der grafischen Symbole auf dem Datenschild

•1 Name und Anschrift des Herstellers •2 Bezeichnung der Anlage •3 Dreiphasiger INVERTER-Generator •4 TIG-Schweißen •5 Netzspeisung, Phasenzahl, Nennwert Versorgungsfrequenz •6 Gleichstrom Schweißen •7 Anlage Elektrodenschweißen •8 Sekundär-Leerlaufspannung •9 Nennwert Versorgungsspannung •10 Gehäuse-Schutzgrad •11 Zwangsluftkühlung •12 Isolationsklasse •13 Höchstwert des zugeführten Nennstromes •14 Möglicher Gebrauch in Umgebung mit erhöhter Gefahr elektrischer Schläge •15 Für den freien Warenverkehr in der EU zugelassenes Produkt •16 Sonderentsorgung •17 Höchstwert des tatsächlich zugeführten Stromes •18 Nennwert Schweißstrom •19 Min. und Max. Schweißstrom und Schweißspannung •20 Nennwert Ladespannung •21 Aussetzungsverhältnis •22 Referenznormen •23 Seriennummer

## ES Significado de los símbolos referido en la chapa datos

•1 Nombre y dirección del constructor •2 Denominación sistema •3 Generador de INVERTER trifásico •4 Soldadura TIG •5 Alimentación de red, número de las fases, frecuencia nominal de alimentación •6 Corriente de soldadura continua •7 Equipo de soldadura con electrodo •8 Tensión secundaria en vacío •9 Valor nominal de la tensión de alimentación •10 Grado de protección de la caja •11 Refrigeración por aire forzado •12 Clase de aislamiento •13 Máximo valor de la corriente nominal de alimentación •14 Soldadora utilizable en lugares con riesgo acrecido de choques eléctricos •15 Producto apto para circular libremente en la Comunidad Europea •16 Eliminación especial •17 Máximo valor de la corriente efectiva de alimentación •18 Corriente nominal de soldadura •19 Corriente y tensión de soldadura mínimas y máximas •20 Tensión nominal de la carga •21 Relación de intermitencia •22 Normas de referencia •23 N° de matrícula

## NL Betekenis van de grafische symbolen op gegevensplaat

•1 Naam en adres van de fabrikant •2 Benaming apparaat •3 Driefasengelijkrichter met INVERTER •4 TIG lassen •5 Netvoeding, aantal fasen, nominale netfrequentie •6 Doorlopende soldeerstroom •7 Aansluiting elektrodensoldeering •8 Secundaire leegloopspanning •9 Nominale waarde voedingsspanning •10 Beschermingsklasse omhulsel •11 Gedwongen luchtafkoeling •12 Isolatieklasse •13 Maximumwaarde van de nominale voedingsstroom •14 lasapparaat bruikbaar in plaatsen met verhoogd risico van elektrische schokken •15 Product mag overal binnen de EEG gebruikt worden •16 Speciale verwerking •17 Maximumwaarde van de effectieve voedingsstroom •18 Nominale lasstroom •19 Minimale en maximale stroom en spanning van het soldeeren •20 Nominale spanning van de lading •21 Intermittentierapport •22 Referentienorm •23 Registratienummer

CEA costruzioni elettromeccaniche annettoni S.p.A. Corso E. Filiberto, 27 - 23900 Lecco - Italia - www.ceaweld.com MADE IN ITALY		IP	
1	PoWer ARC 420	N°	23
2	3~	IEC 60974-1 IEC 60974-10	22
3	3~	5A/10V - 420A/27V	21
4	U <sub>0</sub> = 10V	X 40% 60% 100%	20
5	U <sub>1</sub> = 400V	I <sub>2</sub> 420A 340A 270A	19
6	3 ~ 50/60Hz	I <sub>1 max</sub> = 20,5A I <sub>1 off</sub> = 13A	18
7	U <sub>0</sub> = 100V	5A/20V - 400A/36V	17
8	U <sub>1</sub> = 400V	X 40% 60% 100%	16
9	3 ~ 50/60Hz	I <sub>2</sub> 400A 310A 250A	
	U <sub>2</sub> 36V 32,5V 30V	I <sub>1 max</sub> = 25,5A I <sub>1 off</sub> = 16A	
	IP 23 S	AF I.C.L.H	
		S CE	
	10	11	12
			13
			14
			15

## PT Significado dos símbolos gráficos da placa de dados

•1 Nome e endereço do fabricante •2 Denominação do equipamento •3 Gerador de INVERTER [INVERSOR] trifásico •4 Soldadura TIG •5 Alimentação de rede, número das fases, frequência nominal de alimentação •6 Corrente de solda contínua •7 Equipamento de solda a eletrodo •8 Tensão secundária a vácuo •9 Valor nominal da tensão de alimentação •10 Grau de protecção do invólucro •11 Resfriamento a ar forçado •12 Classe de isolamento •13 Valor máximo da corrente de alimentação nominal •14 Máquina de soldar a utilizar em ambientes com risco acrescentado de choques eléctricos •15 Produto apto a circular livremente na Comunidade Europeia •16 Eliminação especial •17 Valor máximo da corrente de alimentação efectiva •18 Corrente nominal de soldadura •19 Mínima e máxima corrente e tensão de soldadura •20 Tensão nominal da carga •21 Relação de intermitência •22 Normativa de referência •23 Nº de matrícula

## SV Förklaring av grafiska symboler för data på märkplåten

•1 Namn och adress konstruktör •2 Apparatens benämning •3 Trefasig INVERTER generator •4 svetsning TIG •5 Nätmätning, antal faser, märkfrekvens •6 Ström för fortlöpande svetsning •7 Anläggning elektrosvetsning •8 Sekundär tomgångsspänning •9 Matarspänning •10 Skyddsgrad hölje •11 avkylning med forcerat drag •12 Isoleringsklass •13 Maximal nominell energitillförsell •14 svetsapparat som kan användas i lokaler med förhöjd elstötsrisk •15 Produkt som får cirkulera fritt i EU •16 Specialavfall •17 Maximal reell energitillförsell •18 Märkström •19 Minimum-, och maximumström och tryck i svetsning •20 Nominell urladdningsspänning •21 Intermitensförhållande •22 Hänvisningsregler •23 Registreringsnummer

## FI Tietokyltissä olevien symbolien selitykset

•1 Valmistajan nimi ja osoite •2 Laitteen nimi •3 Kolmivaiheinen MUUNNIN-generaattori •4 TIG hitsaus •5 Verkkovirta, vaiheiden määrä, nimellistajuus •6 Hitsauksen tasavirta •7 Elektrodihitsauslaite •8 Toissijainen joutokäyntivirta •9 Syöttöjännite •10 Kuoren suojaluokka •11 Paineilmajähdytys •12 Eristysluokka •13 Syötön nimellisvirran maksimiarvo •14 Hitsauslaitetta voidaan käyttää tiloissa, joissa on kohonnut sähköiskujen vaara •15 Tuotetta voidaan myydä vapaasti EU-maissa •16 Erikoissäännösten mukainen hävittäminen •17 Varsinaisen syöttövirran maksimiarvo •18 Hitsauksen nimellisähkö •19 Hitsauksen minimi ja maksimi virta sekä jännite •20 Kuormituksen nimellisvirta •21 Jaksotussuhde •22 Viitenormit •23 Sarjanumero

## N Tegnforklaring av de grafiske symbolene på merkeplaten

•1 Produsentens navn og adresse •2 Benevnelse av anlegget •3 Trefaset INVERTER-generator •4 TIG-sveising •5 Elnett, antall faser, nominell tilførselsfrekvens •6 Likerettet sveielsestrøm •7 Sveiseanlegg elektrode •8 Sekundær tomgangsspänning •9 Tilførselsspänning •10 Emballasjens beskyttelsesgrad •11 Forsert luftavkjøling •12 Isoleringsklasse •13 Maksimalverdi nominell tilførselsstrøm •14 Sveisemaskinen kan brukes i lokales hvor det er stor risiko for elektrisk støt •15 Produkt som kan sirkulere fritt i den Europeiske Unionen •16 Spesialavsetning •17 Maksimalverdi effektiv tilførselsstrøm •18 Nominell sveielsestrøm •19 Min. og maks sveielsestrøm og –spänning •20 Nominell ladespänning •21 Intermitterende forhold •22 Referansenormer •23 Serienummer

## EL Εξηγήσεις συμβόλων ινακίδας τεχνικών χαρακτηριστικών

•1 1/7νομα και διεύθυνση κατασκευαστή •2 Ονομασία εγκατάστασης •3 Γεννήτρια με Τριφασικό ΜΕΤΑΤΡΟΠΕΑ •4 Συγκόλληση TIG •5 Τροφοδοσία ηλεκτρικού δικτύου, αριθμός φάσεων, ονομαστική συχνότητα τροφοδότησης •6 Συνεχές ρεύμα συγκόλλησης •7 Εγκατάσταση συγκόλλησης ηλεκτροδίου •8 Δευτερεύουσα τάση σε κενό •9 Τάση τροφοδότησης •10 Βαθμός προστασίας του περιβλήματος •11 Ψύξη με κυκλοφορία αέρα •12 Κλάση μόνωσης •13 Μέγιστη τιμή του ονομαστικού ρεύματος τροφοδότησης •14 Μηχανή ηλεκτροσυγκόλλησης ου μ ορεί να χρησιμο οηθεί σε χώρους με υψηλό βαθμό κινδύνου ηλεκτρο ληξίας •15 Προϊόν το οποίο μπορεί να κυκλοφορεί ελεύθερα στην Ευρωπαϊκή Ένωση •16 Ειδική διάθεση •17 Μέγιστη τιμή του πραγματικού ρεύματος τροφοδότησης •18 Ρεύμα συγκόλλησης •19 Ελάχιστο και μέγιστο ρεύμα και τάση συγκόλλησης •20 Ονομαστική τάση φορτίου •21 Αναλογία διάλειψης •22 Κανονισμός αναφοράς •23 Αρ. μητρώου

## RU Значение графических символов на пластине

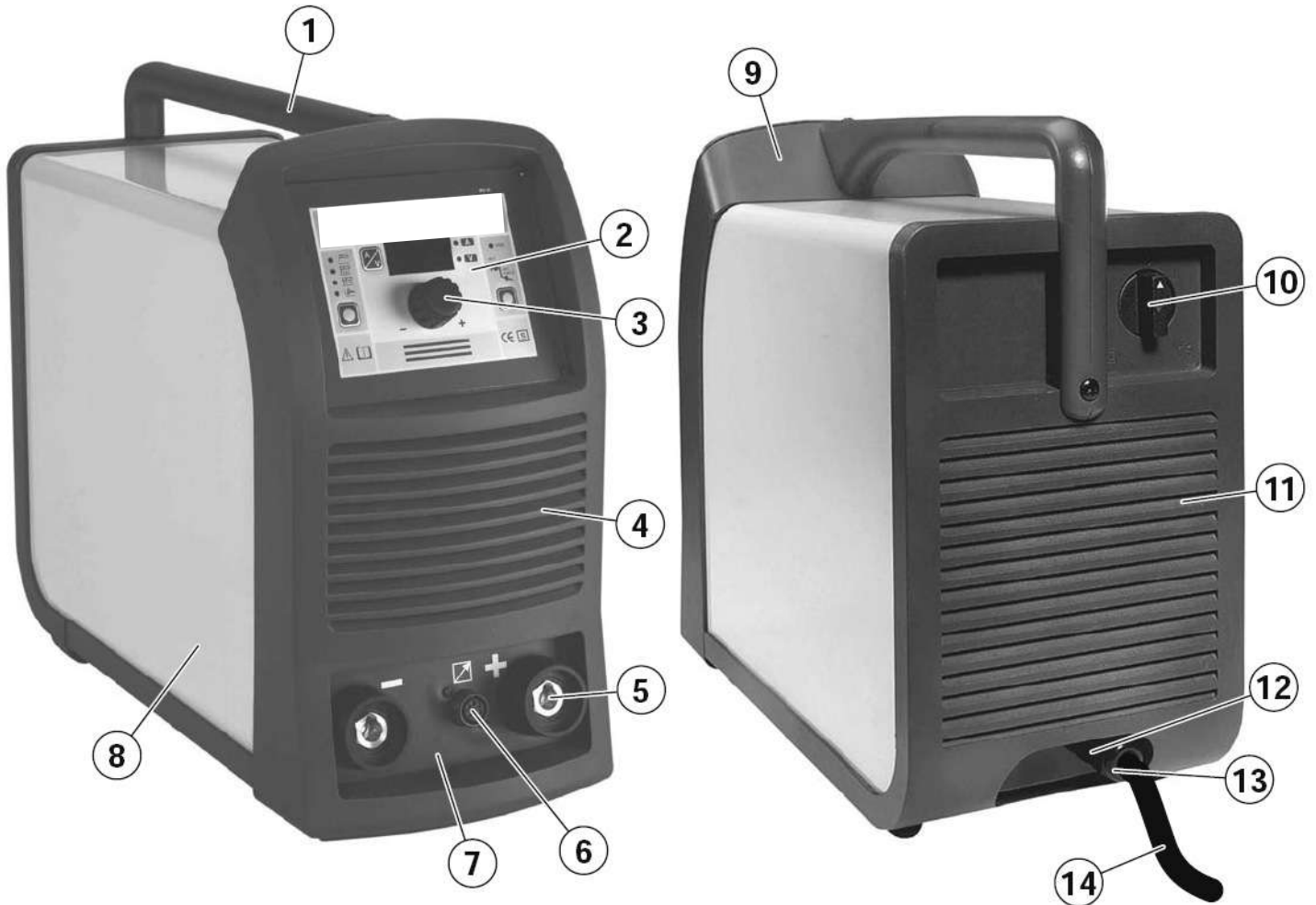
•1 Имя и адрес фирмы-изготовителя •2 Название системы •3 Трёхфазный инверторный генератор •4 Сварка TIG •5 Напряжение питания, число фаз, номинальная частота питания •6 Постоянный сварочный ток •7 Сварка электродом •8 Напряжение холостого хода вторичной обмотки •9 Номинальное напряжение электропитания •10 Класс защиты корпуса •11 Принудительное охлаждение воздухом •12 Класс изоляции •13 Максимальное значение эффективного тока питания •14 Сварочный аппарат, пригодный для использования в средах с повышенной опасностью ударов током •15 Изделие, предназначенное для свободного перемещения в Европейском Сообществе •16 По особому распоряжению •17 Максимальное действующее значение тока электропитания •18 Номинальный сварочный ток •19 Минимальный и максимальный ток и напряжение сварки •20 Номинальное напряжение нагрузки •21 Отношение прерывистости •22 Стандарт для ссылки •23 Серийный номер

CEA costruzioni elettromeccaniche annettoni S.p.A. Corso E. Filiberto, 27 - 23900 Lecco - Italia - www.ceaweld.com MADE IN ITALY		IEC 60974-1 IEC 60974-10	
1	Power ARC 420	23	
2		22	
3	3~	21	
4	U <sub>0</sub> = 10V	20	
5	U <sub>1</sub> = 400V	19	
6	U <sub>0</sub> = 100V	18	
7	U <sub>2</sub> = 36V	17	
8	U <sub>1</sub> = 400V	16	
9	IP 23 S		
	AF		
	I.C.L.H		
	S		
	CE		

<b>IT</b>	Lista ricambi
<b>EN</b>	Spare parts list
<b>FR</b>	Liste pièces de rechange
<b>DE</b>	Ersatzteilliste

<b>ES</b>	Lista repuestos
<b>NL</b>	Onderdelenlijst
<b>PT</b>	Lista de peças de substituição
<b>SV</b>	Reservdelslista

<b>FI</b>	Varaosaluettelo
<b>N</b>	Reservedelliste
<b>EL</b>	Κατάλογος ανταλλακτικών
<b>RU</b>	Список запчастей



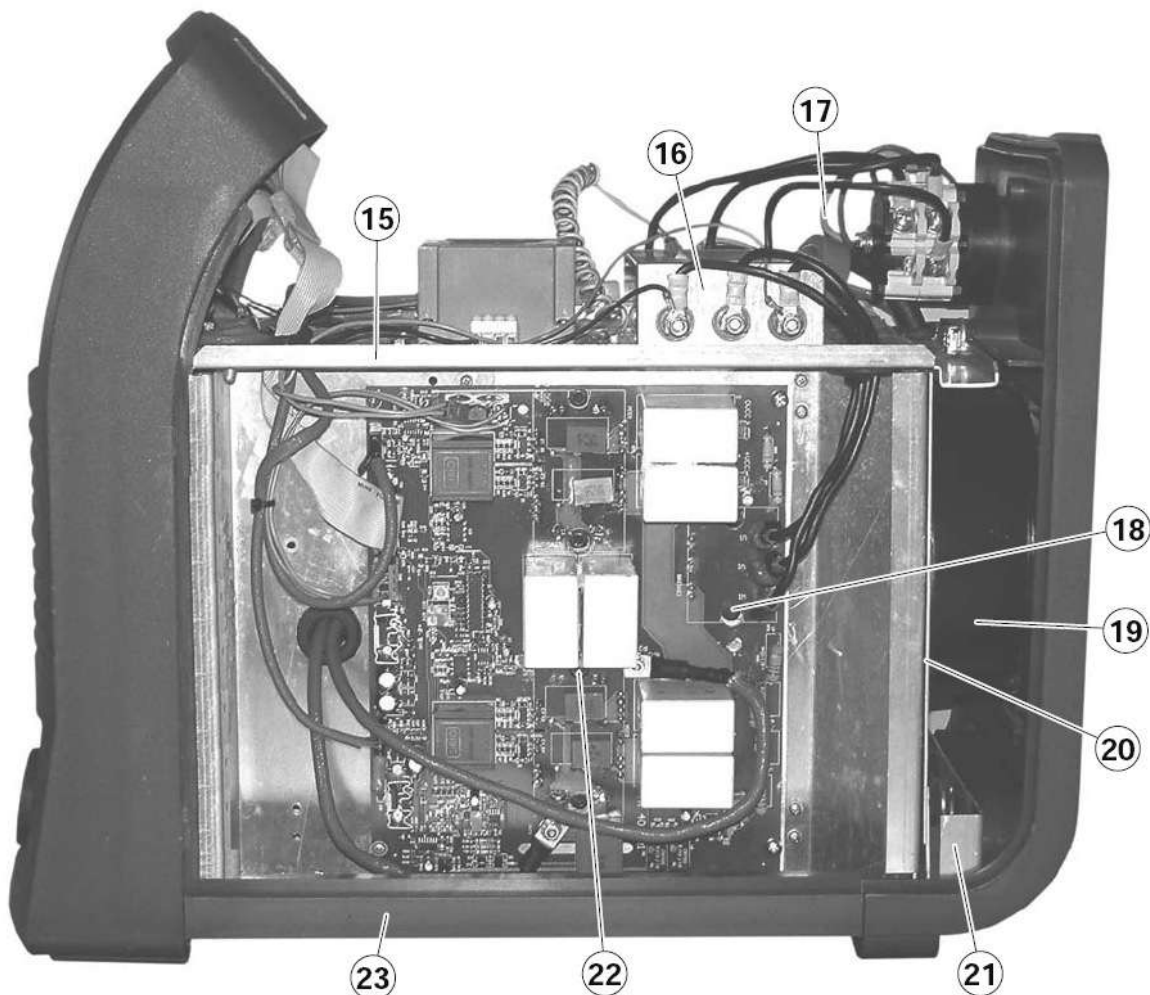
Pos.	Cod.	Descrizione	Description
1	434696	Maniglia	Handle
2	439360	Pannello rack completo di adesivo	Rack panel with sticker
3	438888	Manopola senza indice	Knob without index
4	352415	Pannello frontale	Front panel
5	403614	Attacco rapido	Quick connection
6	419050	Presca comandi a distanza	Remote Control Socket
7	467055	Adesivo frontale	Front sticker
8	420497	Coperchio verniciato	Painted cover
9	352419	Tettuccio di copertura	Cover
10	438710	Manopola interruttore	Switch knob
11	352416	Pannello posteriore	Rear panel
12	427882	Pressacavo	Cable clamp
13	430757	Ghiera pressacavo	Cable clamp lock ring
14	235948	Cavo linea	Mains cable



<b>IT</b>	Lista ricambi
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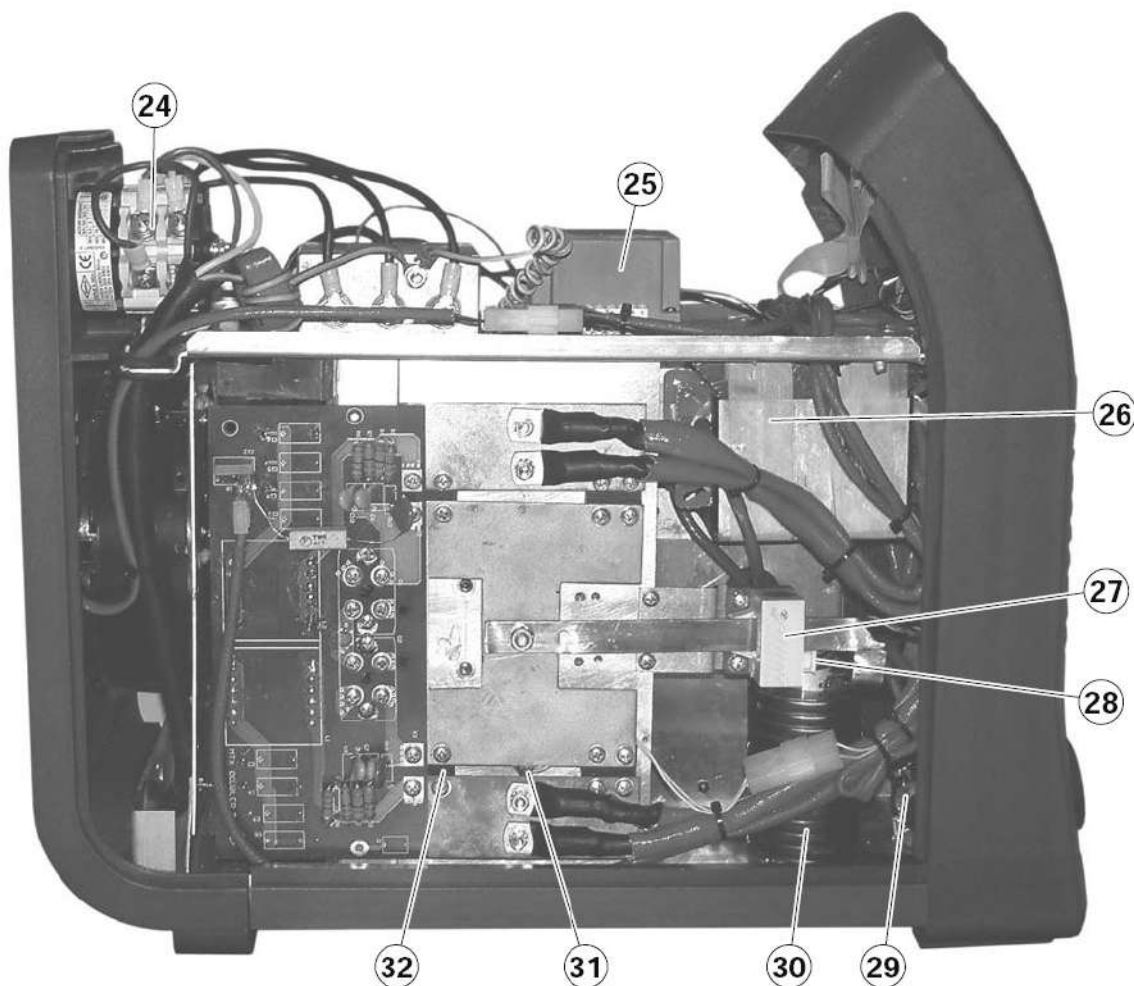


Pos.	Cod.	Descrizione	Description
15	449499	Piastra superiore	Upper plate
16	427667	Filtro EMC	EMC Filter
17	413541	Cablaggio ausiliario	Auxiliary wiring
18	455508	Ponte raddrizzatore primario	Primary rectifier
19	486380	Motore ventilatore	Fan motor
20	466144	Piastra supporto motore ventilatore	Fan motor support plate
21	404935	Basamento	Base
22	286034	IGBT primario	Primary IGBT
23	352412	Guida laterale	Side guide

<b>IT</b>	Lista ricambi
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<b>RU</b>	Список запчастей

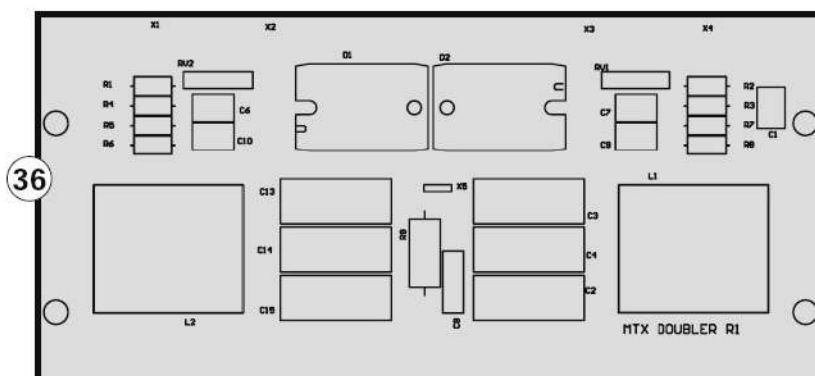
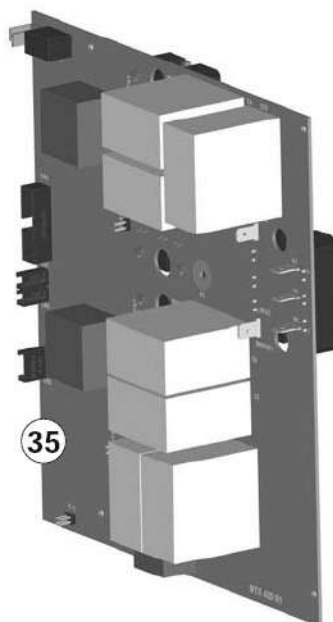
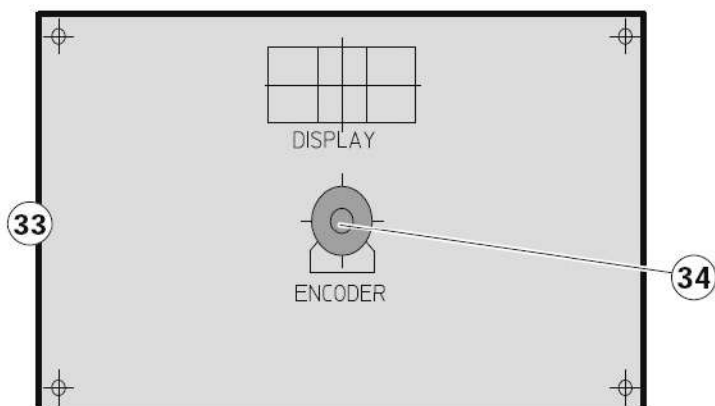


Pos.	Cod.	Descrizione	Description
24	435760	Interruttore alimentazione	Mains switch
25	481919	Trasformatore ausiliario	Auxiliary transformer
26	481407	Trasformatore	Transformer
27	481952	Trasduttore di corrente	Current transducer
28	413619	Cablaggio trasduttore di corrente	Current transducer wiring
29	418872	Complessivo condensatore uscita	Outlet heatsink assembly
30	240231	Induttore	Inductor
31	478846	Termostato su dissipatore secondario	Thermostat on secondary heatsink
32	423236	Diodo secondario di potenza	Power secondary diode

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<b>FI</b>	Varaosaluettelo
<b>N</b>	Reservedelliste
<b>EL</b>	Κατάλογος ανταλλακτικών
<b>RU</b>	Список запчастей



Pos.	Cod.	Descrizione	Description
33	377089	Scheda interfaccia digitale	Digital Interface PCB
34	454150	Encoder	Encoder
35	240470	Complessivo inverter primario	Primary inverter assembly
36	377087	Scheda survolto	Doubler PCB

### **IT** Ordinazione dei pezzi di ricambio

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Per la richiesta di pezzi di ricambio indicare chiaramente:

- 1) Il numero di codice del particolare
- 2) Il tipo di impianto
- 3) La tensione e la frequenza che rileverete dalla targhetta dei dati posta sull'impianto
- 4) Il numero di matricola

#### **ESEMPIO**

N° 2 pezzi, codice n. 435760 - per l'impianto **PoWer ARC 420** - 400 V - 50/60 Hz - Matricola n° .....

### **DE** Bestellung Ersatzteile

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Für die Anforderung von Ersatzteilen geben Sie bitte deutlich an:

- 1) Die Artikelnummer des Teiles
- 2) Den Anlagentyp
- 3) Die Spannung und Frequenz, die Sie auf dem Datenschild der Anlage finden
- 4) Die Seriennummer der Schweißmaschine

#### **BEISPIEL**

2 Stück Artikelnummer 435760 - für Anlage **MATRIX 420 E** - 400 V - 50/60 Hz - Seriennummer .....

### **EN** Ordering spare parts

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To ask for spare parts clearly state:

- 1) The code number of the piece
- 2) The type of device
- 3) The voltage and frequency read on the rating plate
- 4) The serial number of the same

#### **EXAMPLE**

N. 2 pieces code n. 435760 - for **PoWer ARC 420** - 400 V - 50/60 Hz - Serial number .....

### **ES** Pedido de las piezas de repuesto

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Para pedir piezas de repuesto indiquen claramente:

- 1) El número de código del particular
- 2) El tipo de instalación
- 3) La tensión y la frecuencia que se obtien de la chapa datos colocada sobre la instalación
- 4) El número de matrícula de la soldadora misma

#### **EJEMPLO**

N. 2 piezas código 435760 - para instalación **PoWer ARC 420** - 400 V - 50/60 Hz - Matricula N. ....

### **FR** Commande des pièces de rechange

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Pour commander des pièces de rechange indiquer clairement:

- 1) Le numéro de code de la pièce
- 2) Le type d'installation
- 3) La tension et la fréquence que vous trouverez sur la petite plaque de données placée sur l'installation
- 4) Le numéro de matricule de la même

#### **EXEMPLE**

N. 2 pièces code 435760 - pour l'installation **PoWer ARC 420** - 400 V - 50/60 Hz - Matr. Numéro .....

### **NL** Bestelling van reserveonderdelen

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Voor het bestellen van onderdelen duidelijk aangeven:

- 1) Het codenummer van het onderdeel
- 2) Soort apparaat
- 3) Spanning en frequentie op het gegevensplaatje te vinden
- 4) Het serienummer van het lasapparaat

#### **VOORBEELD**

N. 2 stuks code 435760 - voor apparaat **PoWer ARC 420** - 400 V - 50/60 Hz - Serie Nummer .....

## **PT** Requisição de peças sobressalentes

Ao pedir as peças de substituição indique claramente:

- 1) O número de código da peça
- 2) O tipo de equipamento
- 3) A tensão e a frequência indicadas na placa de dados do equipamento
- 4) O número de matrícula da própria máquina de soldar

### **EXEMPLO**

Nº 2 peças código n. 435760 - para o equipamento **PoWer ARC 420 E - 400 V - 50/60 Hz**  
Matrícula n. ....

## **N** Bestilling av reservedeler

Ved bestilling av reservedeler må du oppgi:

- 1) Delenes kodenummer
- 2) Type apparat
- 3) Apparatets spenning og frekvens som finnes på merkeplaten for data på apparatet
- 4) Sveiseapparatets serienummer

### **EKSEMPEL**

2 stk. kode 435760 - for apparat **PoWer ARC 420 - 400 V - 50/60 Hz - Serienummer.....**

## **SV** Beställning af reservdelar

Vid förfrågan av reservdelar ange tydligt:

- 1) Detaljens kodnummer
- 2) Typ av apparat
- 3) Spänning och frekvens - den står bland tekniska data på apparatens märkplåt
- 4) Svetsens serienummer

### **EXEMPEL**

2 st. detaljer kod 435760 - för apparat **PoWer ARC 420 - 400 V - 50/60 Hz - Serienummer .....**

## **EL** Παγγελία των ανταλλακτικών

Όταν ζητάτε ανταλλακτικά παρακαλείσθε να ημειώνετε καθαρά:

- 1) τον κωδικό της λεπτομέρειας
- 2) τον τύπο της μονάδας ψύξης
- 3) την τάση και τη συχνότητα που αναγράφονται στην πινακίδα των τεχνικών χαρακτηριστικών
- 4) τον αριθμό μητρώου της μηχανής

### **Αριθ.**

2 τεμάχια κωδικό 435760 για τη μονάδα ψύξης **PoWer ARC 420 E - 400 V - 50/60 Hz - Αριθ. Μητρώου .....**

## **FI** Varaosien tilaus

Tiedustellessanne varaosia, ilmoittakaa selvästi:

- 1) Osan koodinnumero
- 2) Laitteiston tyyppi
- 3) jännite ja taajuus, jotka on ilmoitettu laitteistolle sijoitetusta tietokyltistä
- 4) Hitsauskoneen sarjanumero

### **ESIMERKKI**

2 osaa, koodi 435760 - laitteistoon **PoWer ARC 420 - 400 V - 50/60 Hz - Sarjanumero .....**

## **RU** Заказ запасных частей

Для запроса запасных частей укажите точно:

- 1) код запчасти,
- 2) модель машины,
- 3) напряжение и частоту, написанные на пластине,
- 4) ее серийный номер.

### **ПРИМЕР**

2 шт., код № 435760, для сварочной машины **PoWer ARC 420 E - 400 В - 50/60 Hz**  
Серийный номер .....



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