

MATRIX 2200 AC / DC AC/DC TIG INVERTER WELDING EQUIPMENT

Powerful, compact and lightweight MATRIX 2200 AC/DC is the most innovative and technologically ahead single phase power source ever developed. The user-friendly and advanced function digital control ensures an extraordinary perfect stability of the welding parameters thus granting very high quality welding both in TIG and MMA. The ideal choice for all qualified welding applications and maintenance jobs, whenever power and portability are needed. It allows TIG DC welding of mild and stainless steel, copper and its alloys, and TIG AC welding of aluminium and its alloys included.

Main Features

coldTACK

Innovative spot welding device to achieve precise and safe joining with a minimal thermal input. "Multi-cold-TACK" function grants cold spotting in a rapid sequence, thus further widening the benefits of the single spot. Thanks to "Perfect-Point" function, coldTACK allows to obtain the most precise spot positioning.

COLD TIG – Triangular wave: low heat transfer with reduced deformation, ideal for small thickness.

BALANCE PLUS

Possibility of independently adjust both current time and its amplitude while staying in either positive or negative polarity, by offering a perfect control of penetration and arc cleaning with a drastic reduction in lateral undercuts.

SPEED TIG – Mixed wave: optimal penetration at high welding speed and low consumption of the electrode.

Features

- ◆ High duty cycle (40°C) 150 A @ 60% in MMA, 140 A @ 100% in TIG
- ◆ High reliability when used with generator sets
- ◆ 4 Pulse mode TIG: standard equipped with Slow, Fast and ULTRA FAST pulse mode (500 – 2000 Hz) and Synergic "SYN PULSE".
- ◆ ENERGY SAVING function to operate the power source cooling fan and the torch water cooling only when necessary



WAVE SHAPE CONTROL IN AC

DYNAMIC TIG – Square wave: high arc dynamics for all applications.

SOFT TIG – Sinusoidal wave: smoother and softer with reduced noise, ideal for medium thickness.

VRD Voltage Reduction Device

VRD device reduces the open circuit voltage to values below 12 V, by enabling the use of the machine in highly hazardous environments for the operator's maximum safety.



PFC – Power Factor Correction (Cos f=1)

The wave shape of the current drawn from the mains is made sinusoidal by the PFC device with a consequent total lack of harmonic disturbances in the mains and consumption optimization, which enables to utilize the power source at full range on a 16 A fuse.

- ◆ Excellent welding characteristics in TIG and MMA with any type of electrodes, cellulosic included
- ◆ Digital Ammeter and Voltmeter and Hold Function of the last read value
- ◆ Suitable to be used with mains cable lengths over 100 m
- ◆ Use of up/down TIG torches will enable to adjust directly from the torch both welding parameters and memorized JOBS.

- ◆ Automatic compensation for mains voltage fluctuations within $\pm 20\%$
- ◆ Low energy consumption (-30%)
- ◆ Possibility of memorizing welding parameters (9 JOBS/programs)

Accessories (Included)

- ◆ Welding cable including earth clip
- ◆ TIG torch

Optional Accessories

- ◆ Electrode holder and welding cable
- ◆ Argon regulator
- ◆ Auto-Darkening Welding Helmet

TECHNICAL DATA	MATRIX 2200 AC/DC			
	TIG DC	MMA		
Single Phase Input Voltage 50/60 Hz	V	+20% -20%	230	
Input Power @ I^2 Max	kVA		6,5	7,0
Delayed Fuse (I^2 @ 60%)	A		16	
Power Factor / cos			0,99	
Efficiency Degree			0,77	
Open Circuit Voltage	V		100	
Current Range	A		5 - 220	5 - 180
Duty Cycle at (40°C)	A 100%		140	120
	A 60%		180	150
	A 30%		220	180
Standards			EN 60974-1 EN 60974-3 EN 60974-10	
			S	
Protection Class	IP		23 S	
Insulation Class			F	
Weight (kg)			15.5	
Dimensions (mm) W x L x H			465 x 185 x 390	