MATRIX 2200 HF

1~ CC Inverter DC + - DIGITAL 888 PULSED GOES GREEN

TIG INVERTER WELDING EQUIPMENT

Powerful, handy, compact and lightweight MATRIX 2200 HF's are the most innovative, high-performing and technologically ahead single phase power sources ever developed for TIG welding.
Their PFC Power Factor Correction device optimizes the amount of energy consumption by allowing the use of these powerful power sources, without problems, with 16 A fuse mains and with power generator sets.
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 with any electrodes.
MATRIX 2200 HF's are the ideal choice for all qualified welding applications and maintenance jobs, whenever power and portability are needed.
MATRIX 2200 HF's allow TIG DC welding of mild and stainless steel, copper and its alloys.

- Built-in innovative PFC Power Factor Correction
- Digital adjustment of all the welding parameters
- High duty cycle (40°C) 220 A @ 30%
- Low current consumption (-30%)
- High reliability when used with generator sets
- Suitable to be used with mains cable lengths over 100 m
- Automatic compensation for mains voltage fluctuations within +/- 20%
- Excellent welding characteristics in TIG and MMA with any type of electrodes, cellulosic included
- High frequency arc striking, precise and efficient even from long distance
- Energy Saving function to operate the power source cooling fan and the torch water cooling only when necessary
- Possibility of activating the VRD function
- Possibility of memorizing welding parameters (7 JOBS)
- Use of up/down TIG torches will enable to adjust directly from the torch both welding parameters and memorized JOBS
- Auto-diagnostic feature for trouble shooting
- Control rack protection cover
- IP 23 protection class and dust-proof electronic components, thanks to the innovative “tunnel” fan cooling system, allow operation in the toughest work environments
- Compact water cooling equipment integrable with the power source (optional)

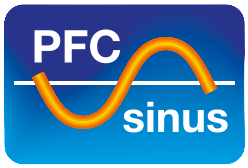
- Digital control of all the welding parameters
- Digital Ammeter and Voltmeter with welding current presetting and Hold Function of the last read value
- Digital display for the presetting of the welding parameters
- Full monitoring of the welding parameters
- Welding process selector: TIG DC • TIG DC “Lift” • MMA
- Welding mode selector: 2 Stroke / 4 Stroke • Cycle • Spot Timer
- Personalised welding program storing and recalling
- Pulse TIG welding adjustable from 0,5 up to 2000 Hz with available “SYN PULSE” facility

MMA FUNCTIONS

- Adjustable Arc Force for choosing the best welding arc dynamics
- Adjustable Hot Start to improve the arc striking with difficult electrodes
- Electrode Antisticking function

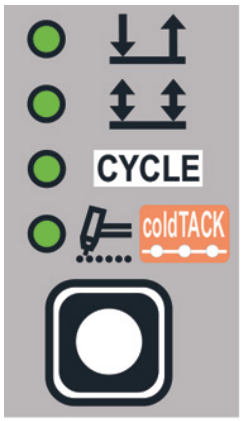
PFC POWER FACTOR CORRECTION

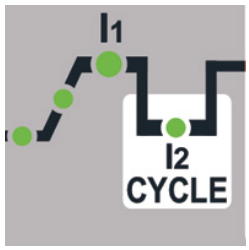
The wave shape of the current drawn from the mains is made sinusoidal by the PFC device with a consequent total lack of harmonic disturbances in the mains and consumption optimization, which enables to utilize the power source at full range on a 16A fuse.
The PFC circuit gives the machine a wider protection against mains voltage fluctuations, by also making it safer whenever being operated by power generator sets.



"CYCLE" FUNCTION

"CYCLE" function allows, by simply pressing the torch trigger, to continuously switch between two current values, previously preselected. This function is most suitable for welding different thickness profiles, requiring a continuous current adjustment change.



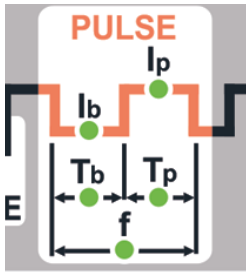


"SYN PULSE"

"SYN PULSE" facility, in function of the chosen peak current, in a simple and automatic way will synergically generate both an adequate pulse frequency and a base current, both readjustable in a synergic way. Pulse parameter values, preselected in the control, will save setting time, by ensuring the best possible pulse parameter combinations, ideal for less skilled welders.

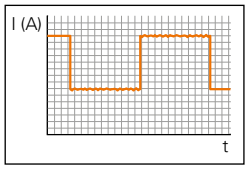
SLOW

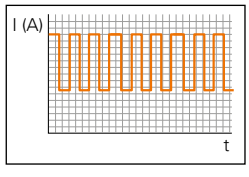
To have both peak and base current time individual adjustments for an optimal filler deposition and good finishing!



ULTRA FAST - HIGH PULSE FREQUENCY IN DC

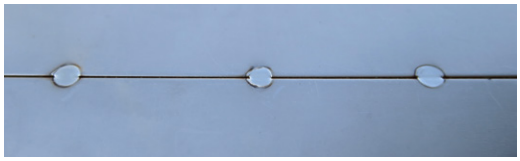
Pulse TIG welding grants better control of the arc and less material deformation.
Possibility of utilizing high pulse frequency, up to 2000 Hz ideal for thin thickness, allows greater reduction of both arc cone and thermally altered area with an arc more stable and concentrated, thus favoring an increase in welding penetration and speed.





coldTACK

Innovative spot welding device to achieve precise and safe joining with a minimal thermal input.
"Multi-coldTACK" 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.



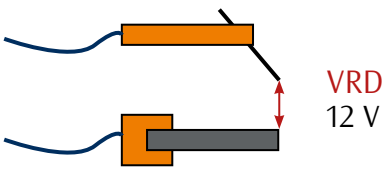
ACCESSORIES

- CD 6 remote control
- Carrying belt
- VT 100 trolley for lodging gas cylinder and water cooling equipment
- Up/Down torches
- PSR 7 foot remote control
- HR 22 water cooling equipment

PSR 7

CD 6

TECHNICAL DATA		MATRIX 2200 HF	
		TIG	MMA
Single phase input 50/60 Hz	V +20% -20%	230	
Input Power @ I_2 Max	kVA	6,0	6,6
Delayed Fuse (I_{eff})	A	16	
Power Factor / cos φ		0,99	0,99
Efficiency Degree		0,77	0,80
Open circuit voltage	V	100	100
Current range	A	5 - 220	5 - 180
Duty cycle at (40°C)	A 100%	160	120
	A 60%	190	150
	A 30%	220	180
Standards		EN 60974-1 • EN 60974-3 • EN 60974-10	
		S	
Protection Class	IP	23 S	
Insulation Class		F	
Dimensions	↗ mm	465	
	→ mm	185	
	↑ mm	390	
Weight	kg	14	



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.

Other voltages available on request

These power sources are built for industrial environment use. EMC (CISPR 11): class A

ISO 9001: 2008

Technical features might change without notice