

## MATRIX 420 E

### THREE PHASE INVERTER POWER SOURCES FOR ELECTRODE WELDING

Powerful, compact and lightweight MATRIX E's thanks to their innovative digital control of the welding process are the most high performing of the welding process are the most high performing and technologically advanced products ever manufactured. 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.

Suitable to be used in shipyards, steel construction, pipe welding and maintenance, MATRIX E's ensure an extraordinary stability of the welding parameters and their "fast dynamic characteristic" enables to achieve quality results even with the most difficult cellulosic and basic electrodes and also in TIG with "lift" mode arc striking. MATRIX 2700 E SV is standard supplied with 220-240V / 380V-440V three phase input voltage.

### MAIN FEATURES

#### 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.

#### Features

- ◆ Digital control of all the welding parameters
- ◆ Excellent welding characteristics in MMA with any kind of electrodes, including cellulosic, and in TIG with "lift" mode
- ◆ Low energy consumption
- ◆ 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%
- ◆ Digital Ammeter and Voltmeter with welding current presetting and Hold Function of the last read value
- ◆ ENERGY SAVING function to operate the power source cooling fan only when necessary
- ◆ Possibility of activating the VRD function



#### ENERGY SAVING

The built-in "Energy Saving" function activates the machine fan motor only when necessary, not only obtaining a significant energy saving, but also ensuring less maintenance for the power source, thanks to reduced dust and airborne contaminants.

- ◆ Possibility of memorizing welding parameters (99 JOB's/programs)
- ◆ STAND BY function on the remote control
- ◆ Auto-diagnostic feature for trouble shooting
- ◆ Reduced weight and size, easy-to-carry Innovative and compact design
- ◆ Control panel protected against accidental impact
- ◆ Control rack protection cover (Matrix 2800 E / 2700 E SV)
- ◆ Metallic main structure with shock-proof fibre compound front panel
- ◆ IP 23 protection class and dust-proof electronic components, thanks to the innovative "Tunnel" fan cooling system, allow operation in the toughest work environments

- ◆ Adjustable HOT START to improve arc striking with the most difficult electrodes

- ◆ Adjustable ARC FORCE to choose the best arc dynamic characteristics
- ◆ Electrode Antisticking function

### Optional Accessories

- ◆ Auto-Darkening Welding Helmet

TECHNICAL DATA		MATRIX 2700 E SV		MATRIX 420 E
Three Phase Input Voltage 50/60 Hz		230	400	400
Input Power @ I <sup>2</sup> Max	kVA	8,0	10,5	17,4
Delayed Fuse (I <sup>2</sup> @ 100%)	A	16	10	16
Power Factor / cos j		0,98 / 0,99		0,95 / 0,99
Efficiency Degree		0,82	0,84	0,88
Open Circuit Voltage	V	100	100	100
Current Range	A	5 - 220	5 - 270	5 - 420
Duty Cycle at (40°C)	100%	150	180	270
	60%	180	220	340
	X%	220 (30%)	270 (30%)	420 (40%)
Standards		EN 60974-1 ■ EN 60974-10		
Protection Class		23 S		23 S
Insulation Class		F		H
Weight ( kg )		16,5		20
Dimensions (mm) W x D x H		465 x 185 x 390		500 x 220 x 425