



MATRIX E



THREE PHASE INVERTER POWER SOURCES FOR ELECTRODE WELDING

Powerful, compact and lightweight MATRIX 2800 E and 420 E thanks to their innovative digital control 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 230 /400 V three phase input voltage.



CC



DC
+ -



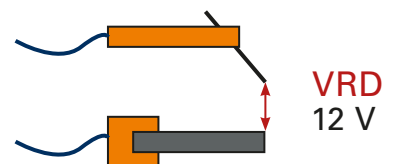
- ▶ Digital control of all the welding parameters
- ▶ Excellent welding characteristics in MMA with any kind of electrodes, including cellulosic, and in TIG with "Lift" mode
- ▶ Low energy consumption
- ▶ High reliability when used with generator sets
- ▶ Suitable to be used with mains cable lengths over 100 m
- ▶ Digital Ammeter and Voltmeter
- ▶ ENERGY SAVING function to operate the power source cooling fan only when necessary
- ▶ Possibility of activating the VRD function.
- ▶ Possibility of memorizing welding parameters (99 JOBS)
- ▶ STAND BY function on the remote control
- ▶ Auto-diagnostic feature for trouble shooting
- ▶ Reduced weight and size, easy-to-carry
- ▶ Control panel protected against accidental impact
- ▶ Control rack protection cover (Matrix 2800 E)
- ▶ IP 23 protection class and dust-proof electronic components, thanks to the innovative "Tunnel" fan cooling system, allow operation in the toughest work environments
- ▶ Electrode Antisticking 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.

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.



CONTROL PANEL

1. Welding current electronic adjustment
2. Digital adjustable ARC FORCE and HOT START
3. Digital Ammeter and Voltmeter with welding current presetting and Hold Function of the last read value
4. Welding process selector switch
 - MMA: welding of coated electrodes: rutile, basic, cast iron and aluminium
 - MMA Cell: for welding of cellulosic electrodes
 - MMA CrNi: for welding of stainless steel
 - TIG: by the innovative "Lift" mode arc striking with thermic control (TCS), quick and precise striking is achieved, by minimising any tungsten inclusion and avoiding any incision onto the workpiece. The SWS (Smart Welding Stop) synergic system reduces the electrode wearing and avoids any oxidation on the welded joint.



ACCESSORIES

- Trolley (MATRIX 420 E)
- Roll bar protection (MATRIX 420 E)
- CD 6 remote control with cable from 8 to 25m
- Polarity changeover



TECHNICAL DATA		MATRIX			
		2800 E	2700 E SV		420 E
Three phase input 50/60 Hz	V ^{+20%} / _{-20%}	400	230	400	400
Input Power @ I ₂ Max	kVA	10,5	8,0	10,5	17,4
Delayed Fuse (I ₂ @ 100%)	A	10	16	10	16
Power Factor / cos φ		0,95/0,99	0,98/0,99		0,95/0,99
Efficiency Degree		0,83	0,82	0,84	0,88
Open circuit voltage	V	100	100		100
Current range	A	5 - 270	5 - 220	5 - 270	5 - 420
Duty cycle at (40°C)	A 100%	190	150	180	270
	A 60%	210	180	220	340
	A X%	270 (30%)	220 (30%)	270 (30%)	420 (40%)
Standards		EN 60974-1 • EN 60974-10			
		S			
Protection Class	IP	23 S	23 S		23 S
Insulation Class		F	F		F
Dimensions	↗ mm	465	465		500
	→ mm	185	185		220
	↑ mm	390	390		425
Weight	kg	15	16,5		20

Other voltages available on request

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

