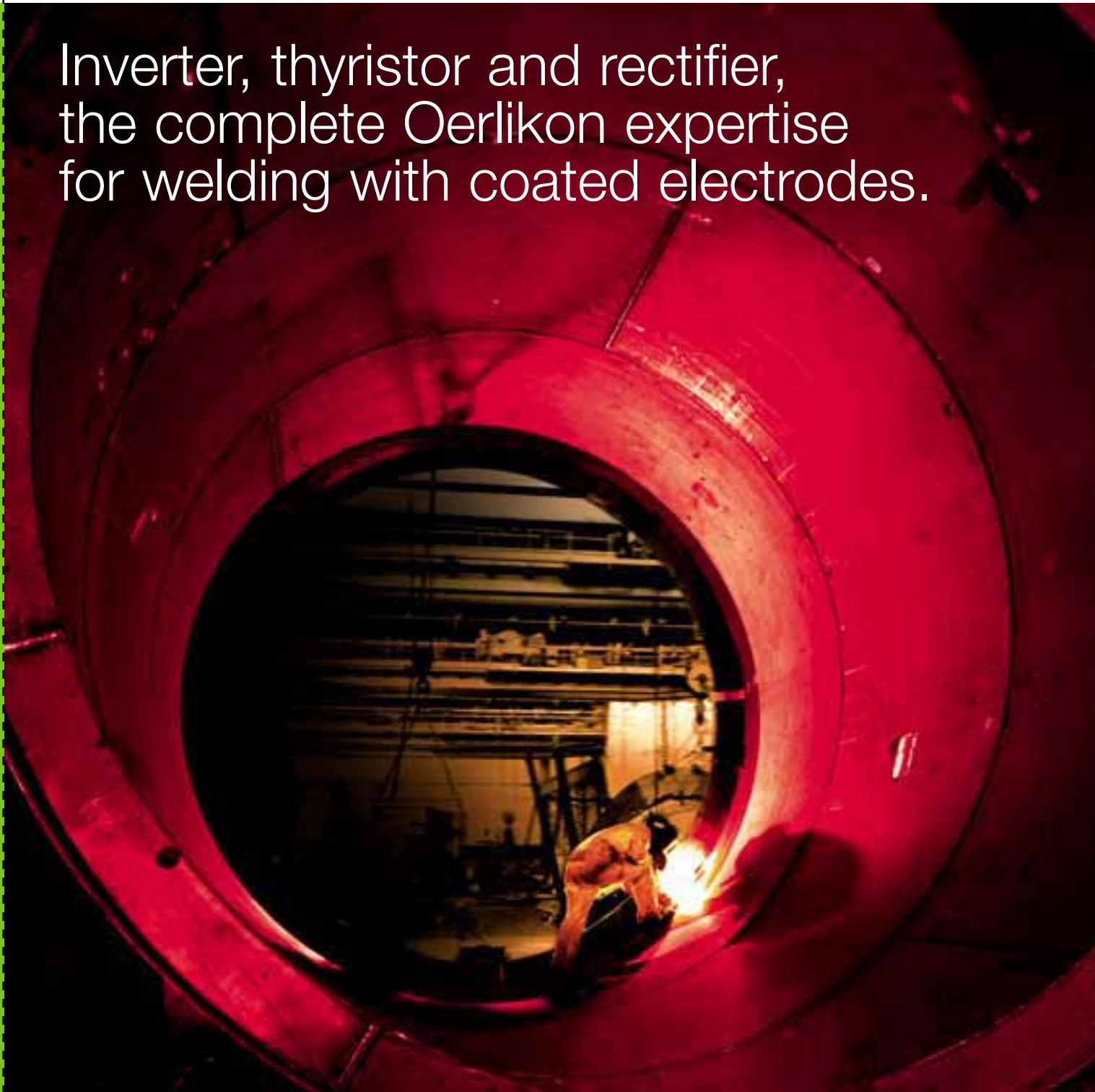


MMA Welding Range

Inverter, thyristor and rectifier,
the complete Oerlikon expertise
for welding with coated electrodes.



MMA Welding



In MMA welding, the Hot-Start function results in a positive arc strike of the electrode. It can be regulated automatically or manually on the front panel. The Arc Force function prevents short circuiting effects during welding. This is achieved by an electronic system detecting when the metallic core is too close to the work piece and automatically providing additional power to restore the optimum welding conditions.

General



Primary power supply cable connection:

- **Single-phase :**
230 V = connection between phase and neutral
400 V = connection between 2 phases
- **Three-phase :**
400 V = connection between 3 phases
230 V = connection between 3 phases

**Always connect the earth cable.
Refer to technical instructions.**

NB : Generally, with a DC power source, the electrode holder is connected to the pole **-** for rutile coated electrodes and to the pole **+** for special or basic coated electrodes.

ROKCY						2006-867 3.2	2006-867 4.0	
MINIARC	2006-592 3.2i		2006-595 4.0i					
CITOARC		2006-907 1400i		2006-907 1600i	2007-267 1800i	2006-912 1900i		
CITOROD								
	125 A	140 A	150 A		160 A		195 A	

ROKCY single phase transformers



The ROKCY range of power sources comprises AC portable single phase welding transformers with input voltages 230V or 400V. For workshop and craftsmen, welding with rutile coated and special electrodes, including cellulosic (for the ROKCY 5.0) from diameter 2.0 to 5.0 mm.

ROKCY 3.2 / ROKCY 4.0 ROKCY 5.0

SHUNT TECHNOLOGY

Magnetic shunt single phase transformer.

Advantages :

- Simple
- Robust
- Economical



Product advantages.

- Apply 60974-6 standard.
- Continuous current setting.
- Efficient fan cooling.
- Thermal protection.
- Dual voltage 230/400V.
- Copper winding (except ROKCY 4.0)
- Smooth welding.

APPLICATIONS :
rutile and special
electrodes from
2.0 to 4.0 mm.

Product advantages.

- High output current 230 A max.
- Dual output voltage for welding all type of electrodes, excepting cellulosic.
- Wheel kit included for easy transportation.
- Efficient fan cooling.
- Thermal protection.
- Dual voltage possibility 230/400V.



Technical data and ordering information		ROKCY 3.2	ROKCY 4.0	ROKCY 5.0
Primary	Single phase input voltage	230 / 400 V 50 Hz	230 / 400 V 50 Hz	230 / 400 V 50 Hz
	Maximum primary current	33 A / 19 A	39 A / 23 A	62 A (73 V) / 36 A (73 V)
Output	Open circuit voltage	48 V	48 V	52 V / 73V
	Welding current	55 - 160 A	40 - 195 A	50 - 230 A (52 V) / 45 - 210 A (73 V)
	Electrode / hour or duty cycle	14 (3.2 mm) /hour	22 (3.2 mm) /hour	215 A at 10 % 40°C
Maximum electrode diameter		4.0 mm	4.0 mm	5.0 mm
Dimensions (l x w x h)		560 x 240 x 445	641 x 240 x 445 mm	360 x 300 x 460 mm
Net weight		15 kg	19 kg	29 kg
Protection index		IP 21		
Insulation class		H	H	H
Standards		EN 60974-6	EN 60974-6	EN 60974-1
Ordering information				
Power source only		W 000 236 626	W 000 236 627	W 000 236 628
Wheels kit		-	W 000 305 049	included
Package*		W 000 266 676	W 000 266 677	W 000 266 678
Welding accessories kit (optional) 1 earth cable 2 m with clamp 1 welding cable 3 m with electrode holder		W 000 260 680	W 000 260 680	W 000 011 138
Autodarkening liquid cristal welding mask (optional)				
CITOLUXE 3000		W 000 335 132		
CITOLUXE 4000		W 000 335 133		

* Power source + welding accessories kit.

MINIARC single phase portable inverters



3670-29

A complete high performance light weight welding package ideal for repair and maintenance. The 230V single-phase input is perfect for quick and high quality welding. Welding with all type of electrodes is possible : rutile, basic, stainless and special electrodes (surfacing, cast iron, repair), from 1.6 mm to 4.0 mm.

MINIARC 3.2i

MINIARC 4.0i

INVERTER TECHNOLOGY

Advantages:

- High efficiency and low power consumption.
- Light and small units.
- DC welding current.



Product advantages.

- Delivered in a suitcase ready to use.
- Extra light (3.8 kg).
- Arc force, Hot start, Antistick fully integrated for high quality and easy welding.
- Robust and suitable for outdoor use (IP 23).



2006-805

Product advantages.

- Welding of rutile, basic, stainless steel and special electrodes up to 4.0 mm diameter.
- Light (7 kg).
- Arc force, Hot start, Antistick fully integrated for high quality and easy welding.
- Robust and suitable for outdoor use (IP 23).



2006-595

Technical data and ordering information		MINIARC 3.2i	MINIARC 4.0i
Primary	Single phase input voltage	230 V 50 - 60 Hz	230 V 50 - 60 Hz
	Effective consumption	10:00 am	16 A
Output	Open circuit voltage	82 V	85 V
	Welding current	5 - 125 A	5 - 150 A
	Duty cycle at 40 °C	125 A at 15 %	150 A at 25 %
Maximum electrode diameter		3.2 mm	4.0 mm
Dimensions (l x w x h)		300 x 110 x 190 mm	365 x 145 x 230 mm
Net weight		3.8 kg	7 kg
Protection index		IP 23	
Insulation class		H	
Standards		EN 60974-1 / EN 60974-10	
Ordering information			
Power source with welding cables		W 000 260 939*	W 000 260 940
Autodarkening liquid cristal welding mask (optional)			
CITOLUXE 3000		W 000 335 132	
CITOLUXE 4000		W 000 335 133	

* Delivered in plastic case with accessories.

CITOARC single phase inverter machines



The CITOARC are single-phase inverters arc compatible with generators. The welding current range is 5 A to 160 A. With Hot-Start and Arc Force integrated functions, they can weld with all types MMA electrode up to 4.0 mm diameter. They are recommended for all industrial maintenance work, for intensive welding in workshops and for all outdoor activities.

CITOARC 1400i / CITOARC 1600i

Product advantages.

- Compatible with generators.
- High duty cycle for intensive applications.
- Arc force, Hot start, Antistick fully integrated for high quality welding.
- Thermal protection.
- High OCV for welding all types of electrodes.



CITOARC 1800i

Product advantages.

- Voltage Reduction Device switches the inverter off for maximum safety.
- Regulation of slope up and down for TIG welding. TIG lift start.
- Digital display for easy setting.
- Arc Force and Hot start setting for ideal welding conditions.
- Compatible with generators.



Technical data and ordering information		CITOARC 1400i	CITOARC 1600i	CITOARC 1800i
Primary	Single phase input voltage	230 V 50 - 60 Hz	230 V 50 - 60 Hz	230 V 50 - 60 Hz
	Effective consumption	16 A	19 A	12 A (TIG) - 19 A (MMA)
Output	Open circuit voltage	85 V	85 V	108 V
	Ur (VRD)	-	-	14?V
	Welding current	5 - 140 A	5 - 160 A	5 - 160 A
	Duty cycle at 40 °C	140 A at 35 %	160 A at 30 %	160 A at 30 %
Maximum electrode diameter		3.2 mm	4.0 mm	4.0 mm
TIG LIFT start		NO	NO	YES
Dimensions (l x w x h)		415 x 186 x 315 mm	415 x 186 x 315 mm	400 x 180 x 300 mm
Net weight		7 kg	7 kg	9 kg
Protection index		IP 23		
Insulation class		H		
Standards		EN 60974-1 / EN 60974-10		
Ordering information				
Power source only		W 000 263 681	W 000 263 683	W 000 263 850
Remote control		-	-	-
Welding accessories kit (optional)		Included	Included	W 000 260 684
Welding mask autodarkening liquid cristal (optional)				
CITOLUXE 3000		W 000 335 132		
CITOLUXE 4000		W 000 335 133		

* Power source + accessories in rugged case (lifetime warranty).

for industrial applications

The CITOARC 1800i and 1900i are units for demanding welders looking for top quality machines. The possibility to regulate "Arc Force" provides ideal welding conditions in all positions and applications. While the high open circuit voltage is suitable for welding with cellulosic electrodes.

CITOARC 1900i

Product advantages.

- Highest duty cycle in its class on the market : 60% for intensive applications.
- Remote control possibility.
- Arc Force setting for ideal welding conditions.
- Compatible with long primary cables.
- TIG / MMA selector, TIG lift start.
- Suitable for cellulosic electrodes.



2006-912

CITOARC 1900i - Front panel



2006-914

1. Remote connector
2. Current output indicator
3. Alarm indicator
4. Welding process selection key
5. Arc force indicator
6. Adjustment knob
7. On/off switch

CITOARC 1900i

230 V 50 - 60 Hz

16 A (TIG) - 24 A (MMA)

86 V

-

5 - 160 A

160 A at 60 %

4.0 mm

YES

400 x 180 x 300 mm

11.5 kg

Welding mask autodarkening
liquid cristal - CITOLUXE



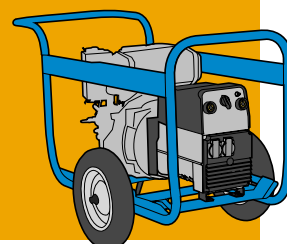
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INVERTER TECHNOLOGY

The electronic boards of the CITOARC family accept variations in the input voltage.

According to the model, even with +/- 10% up to +/- 20% the machine will still weld without problems.

The microprocessor control allows working with suitable motor generators and protects the machine from overvoltage.



CITOARC three phase inverter units for on-site



CITOARC 2200i is a transistor inverter with a welding current range from 5 to 220 A. It is specially designed for : boiler making - piping - shipyards. With high duty cycle, digital meter display as standard, Hot-Start device and adjustable Arc Force, it can be used for intensive welding applications.

CITOARC 2200i

Product advantages.

- High duty cycle.
- Exceptional starting quality and smooth fusion.
- Parameters pre-adjustment for TIG welding with potentiometer torch and Lift Arc starting.
- Arc interruptions avoided with the adjustable Arc Force system.
- Powerful cooling ventilator.
- Compatible with generators.
- Voltage Reduction Device switches off the inverter for maximum safety.
- All types of electrodes, including cellulosic.



CITOARC 2200i - Front panel



1. Remote connector
2. Current output indicator
3. Alarm indicator
4. Digital display
5. Hot start/Arc force indicator
6. Up/downslope time indicator
7. Welding current indicator
8. MMA process indicator
9. TIG lift process indicator
10. Welding process selection key
11. Welding parameter selection key
12. Adjustment knob

Technical data and ordering information		CITOARC 2200i	
Primary	3-phase input power	400 V (± 15 %) - 50 - 60 Hz	
	Effective consumption	9:00 am	
Output	Open circuit voltage (Vr)	105 V (Vr = 14 V)	
	Welding current	5 to 220 A	
	Duty cycle at 40 °C		220 A at 40 %
			190 A at 60 %
		150 A at 100 %	
Dimensions (l x w x h)		470 x 250 x 450 mm	
Net weight		19 kg	
Protection index		IP 23	
Standards		EN 60974-1 / EN 60974-10	
Ordering information			
Power source only		W 000 263 689	
Package*		W 000 261 752	
Remote control		W 000 242 069	
Accessories kit 35C50		W 000 011 139	

* Power source + welding accessories kit.

applications



CITOARC 3500i CC/CV is an inverter with a welding current range from 5 to 350 A, specially designed for : boiler making - piping - shipyards and structural construction. With high duty cycle, digital meter display as standard, Hot Start device and adjustable Arc Force, it can be used for intensive welding applications. Gouging is also possible with electrodes up to 6.3 mm diameter.

CITOARC 3500i CC/CV

Product advantages.

- Perfect network balance (+/-10%) with high duty cycle.
- Exceptional starting quality and smooth fusion.
- It can be used with very long primary cables.
- Output tested at 40°C.
- Primary current low consumption.
- Hot Start adjustable for instantaneous starting.
- Integrated anti-sticking device.
- Easy to use.
- Suitable for all types of MMA electrodes : rutile, basic, cast iron, and stainless steel.
- TIG DC welding possible with TIG-Lift starting.
- Arc dynamism can be changed from 0 to 100% for improved weld pool fluidity.
- Remote control optional.
- Gouging with electrodes up to 6.3 mm diameter.
- MIG welding available with DV 4004.



Technical data and ordering information		CITOARC 3500i CC/CV
Primary	3-phase input power	400 V
	Effective consumption	28.5 A
Output	Open circuit voltage (Vr)	91 V
	Welding current	5 to 350 A
	Duty cycle at 40 °C	350 A at 35 %
		270 A at 60 %
240 A at 100 %		
Maximum electrode diameter	6.3 mm	
Dimensions (l x w x h)	525 x 300 x 390 mm	
Net weight	29 kg	
Protection class	IP 23	
Standard	EN 60974-1	
Ordering information		
Power source only	W 000 263 469	
Package*	W 000 261 753	
Remote control 10 m	W 000 305 048	
Devidarc MIG / MAG	W 000 305 090	
TIG box	W 000 305 050	
Accessories kit 50C50+	W 000 260 682	

CITOARC 3500i CC/CV - Front panel



1. On/off selector switch
2. Process selector switch
3. Arc force setting potentiometer
4. Current or voltage setting potentiometer
5. Display unit
6. Remote control plug

* Power source + welding accessories kit.

CITOROD 4000 T and 4500 T : versatility



Easy to use, robust and durable, the CITOROD 4000 T and 4500 T are three-phase rectifiers, providing DC current with progressive and precise adjustment by magnetic shunt. They can weld with all types of coated electrodes up to 6.3 mm (for cellulosic type 4.0 mm only).

CITOROD 4000 T / 4500 T

Available with 2 different versions 325A or 400A maxi, high performance starting due to the high open circuit voltage. All types of electrodes up to 6.3 mm can be used in all positions (rutile, basic, stainless, maintenance and repair) DC welding current. Maximum diameter for cellulosic electrodes, 4.0 mm.

Product advantages.

- Perfect network balance due to rectifier technology.
- Adjustment crank on the front panel.
- Forced ventilation and thermal protection.
- Easy handling with large wheels and trolley provided.



CITOROD 4500 T Front panel



1. Current output indicator
2. Voltage change over switch - On/off switch
3. Adjustment handle
4. Positive pole output
5. Negative pole output

Technical data and ordering information		CITOROD 4000 T	CITOROD 4500 T
Primary	3-phase input power	230 - 400 V	230 - 400 V
	Maximum consumption	57 - 33 A	78 - 45 A
Output	Open circuit voltage (Vr)	70 V	70 V
	Welding current	50 - 325 A	60 - 400 A
	Duty cycle at 40 °C	325 A at 35 %	400 A at 45 %
		250 A at 60 %	345 A at 60 %
190 A at 100 %		265 A at 100 %	
Maximum electrode diameter		6.3 mm	6.3 mm
Dimensions (l x w x h)		1080 x 560 x 730 mm	1080 x 560 x 730 mm
Net weight		107 kg	123 kg
Protection class		IP 23	
Standard		EN 60974-1	EN 60974-1
Ordering information			
Power source only		W 000 263 692	W 000 263 697
Package*		W 000 267 174	W 000 267 175
Wheels kit		included	included
Devidarc MIG / MAG		W 000 305 090	W 000 305 090
TIG box		W 000 305 050	W 000 305 050
Accessories kit		W 000 260 681 (50C50)	W 000 260 682 (50C50+)

* Power source + welding accessories kit.

and broad extended power.



The CITOROD 6500 TH features thyristor technology in response to the requirements of welders on site in extreme welding conditions.

CITOROD 6500 TH

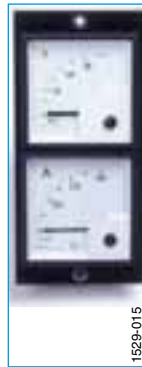
CITOROD power is suitable for intensive welding with electrodes up to 6.3 mm diameter, up to 630A. A variety of options are available to customise the CITOROD 6500 TH, for TIG DC and MIG welding.



OPTIONS



On site trolley
Cat. no. W 000 305 047



Ammeter
Voltmeter
Cat. no.
W 000 305 046



Remote control box
Cat. no. W 000 305 057



Wheels kit
Cat. no. W 000 305 045



TIG box M 200
Cat. no. W 000 305 050

Technical data and ordering information		CITOROD 6500 TH
Primary	3-phase input power	230 - 400 - 440 V
	Maximum consumption	130 - 75 - 68 A
Output	Open circuit voltage (Vr)	74.5 V
	Welding current	30 - 630 A
	Duty cycle at 40 °C	630 A at 35 %
		470 A at 60 %
370 A at 100 %		
Maximum electrode diameter	6.3 mm	
Dimensions (l x w x h)	820 x 510 x 570 mm	
Net weight	190 kg	
Protection class	IP 23	
Standard	EN 60974-1	
Ordering information		
Power source only	W 000 264 241	
Wheels kit	W 000 305 045	
Trolley	W 000 305 047	
Ammeter/Voltmeter	W 000 305 046	
Remote control 10 m	W 000 305 057	
15 m additional cable for remote control	W 000 305 056	
Devidarc MIG / MAG	W 000 305 090	
TIG box	W 000 305 050	
VRD (Voltage Reduction Device)	W 000 305 044	

Product advantages.

- Multivoltage supply.
- Welding power adjustable with potentiometer.
- High network tolerance for working with long primary cables.
- Welding processes : coated electrodes, TIG DC and MIG with respective boxes.
- Gouging.
- Arc dynamism adjustable with potentiometer.
- IP 23 protection class for external working.
- Arc Force adjustment for better starting with most difficult to weld electrodes.
- Trolley system for easy handling.
- Integrated anti-stick electrode system.
- Disengageable ventilation (for use only when necessary).
- VRD (Voltage Reduction Device) in option provide maximum security with low OCV.



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www.airliquide.com

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