

The versatile **PROTIG 221 DC FV (220 A)** is a compact, portable, dual-process appliance for DC TIG and MMA welding processes. This machine is fitted with PFC technology which has numerous advantages; it is very energy efficient and can work reliably with very long power cables, even ones over 100 metres long.

## OPTIMISED DC WELDING

- Its secondary regulation system ensures optimal arc stability as well as a constant current in all welding positions.
- The DC TIG-welding mode ensures high-quality welding on all ferrous materials, such as steel, stainless steel, copper and its alloys.
- DC Pulsed TIG welding up to 2 kHz means users can control the temperature of the weld pool, limit deformations and join sheet metal as thin as 0.3 mm.
- Its spot-welding feature can be set anywhere between 0.1 - 25 sec offering fast and precise spot-welding on thin sheet metal.
- The machine is equipped with two different ignition types: contactless HF (high-frequency) ignition or Arc-Lift ignition with contact for electro-sensitive environments.
- Users can also enjoy three separate trigger managements systems: 2T, 4T and 4T LOG.
- An automatic torch-detection feature means that this device is compatible with trigger, double-button and potentiometer torches.

## MMA WELDING

- MMA welding uses basic and rutile electrodes (up to Ø 5 mm).
- Pulsed MMA welding enables users to weld in a vertical-up position (ideal for tubing and pipelines, etc.).
- The PROTIG 221 DC FV has three integrated welding aids:
  - Anti-Stick minimises the risk of the electrode sticking to the workpiece
  - Hot Start facilitates ignition and can be quickly adjusted depending on the type of metal
  - Arc Force automatically increases the current in difficult welding situations

## MAXIMUM PRODUCTIVITY

- Stores up to 10 welding programs per process.
- The advanced menu settings offer optimal welding control.
- PFC (Power Factor Correction) technology means that this machine is compatible with power cables up to 100 metres long.
- FV (Flexible Voltage) technology guarantees a stable electric arc, even in the event of a mains-voltage variation (85 - 265 V) or when powered supply by a battery-based power source.
- The current and voltage are displayed during and after the welding process (DMOS/QMOS).
- Remote control connections (manual or pedal)
- Reinforced bodywork and anti-shock pads.
- Compact and easy to move around the work site.
- Protected against over-voltages up to 400 V (PROTEC 400).



Delivered without accessories



- Pre-gas / Post-gas
- Rise time (UpSlope)
- Welding current
- Hot / cold current
- Pulse frequency
- Fading time (DownSlope)

## ACCESSORIES (Optional Extras)

Cooling unit:



WCU 0.5kW A  
039490

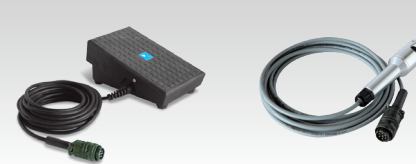
Torches 8 m :



SR26 L  
046184

SR20 DB  
046146

Remote controls:



RC-FA1 - 4 m  
045682

RC-HA1 - 8 m  
045675



WELD 910 - 4 m<sup>3</sup>  
070967



Sack truck - 10 m<sup>3</sup>  
076341

	50/60Hz	A	I <sub>2</sub> TIG A	I <sub>2</sub> MMA A	INTEGRATED TECHNOLOGY			TIG			MMA			U <sub>0</sub> V	mm <sup>2</sup>	cm	kg	IP	Protected & compatible power generator (+/-15%)	
					PULSE	AIP	SR	EN 60974-1 (40°C)			EN 60974-1 (40°C)									
								IA (60%)	X% (I <sub>2</sub> max)	100%	IA (60%)	X% (I <sub>2</sub> max)	100%							
	230 V - 1~	16	5 → 220	10 → 200	0.1 → 2 kHz	▪	▪	165 A	35 %	150 A	135 A	25 %	120 A	78	35/50	23 x 42.5 x 29.5	11	IP 21	7 kW	7 kVA
	110 V - 1~	32	5 → 180	10 → 140				125 A	25 %	110 A	110 A	19 %	90 A	69						