



# FUSION 230V DC Output Professional Inverter Welder

## Fusion 180MA / 200HF / 200PHF



Made in Britain

### 2 Year Parts & Labour Warranty

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## Fusion 180MA / 200HF / 200PHF

### FUSION 180MA 230 Volt 180 Amp DC Inverter

The 180MA is the perfect choice when heavy duty welding is required. The high duty cycle units are designed for continuous welding with all types of electrodes including celulosic up to 4mm.

Welding performance is enhanced by the specially developed MSD automatic arc force, the hot start and anti stick down programmes being digitally controlled by our own exclusive software. This precise control ensures easy electrode ignition even with the most difficult of electrodes. Large 360° encoder knobs allow precise adjustment even when wearing heavy welding gloves.

A clear digital display allows the required welding current to be selected prior to arc ignition, and then whilst welding displays the actual current employed during the welding process.

The LED panel display provides quick and simple selection of the MMA and TIG welding modes.

The Fusion 180MA, in common with the HF and PHF models, incorporates a forced fan wind tunnel design. This ensures highly efficient cooling and also prevents dust and dirt contaminating the electronics within the units, leading to high reliability and a long and trouble free working life.

### FUSION 200HF 230 Volt 200 Amp DC Inverter

The Fusion HF was developed to provide a portable practical solution to carry out quality TIG welding not only in the workshop but also on site. These machines are the ideal choice for the professional TIG welding engineer.

The digitally controlled welder incorporates a LCD display. Each function is displayed clearly in the LCD window, and a simple turn of the 360° encoder scrolls through the parameters allowing for the selection of the required settings.

Post flow gas time, HF, Lift arc start, slope out time, 2/4 touch switching options, and the remote current control functions are standard features in the multi choice menu.

The digital welding meter clearly shows both the selected welding current prior to welding and the actual current used during the welding process. TIG or MMA mode is displayed at all times on the LED function display. As well as the advanced TIG welding facility the HF machine has full MMA (Stick) capability, incorporating all the facilities that are available in the specialist MMA range. An additional MMA feature available only in the HF and PHF range is the ability to use a remote current control device for the adjustment of the welding current in difficult to access areas.

### FUSION 200PHF 230 Volt 200 Amp DC Inverter

Additional menu options are incorporated in the Fusion PHF range, providing a full pulse TIG welding capability. Complete adjustment of both high and low level welding currents together with full adjustment of the high and low pulse times is easily achieved.

To allow for a complete welding sequence programme to be established for both manual and automatic processes, the menu option on PHF models also allows individual adjustment of the arc start, current level, up-slope time, final current level and crater current time. The PHF model also has a SPOT mode to allow for repeat tack welding functions and TIG spot welding applications.

To comply with global safety standards, the HF & PHF range are fitted with an automatic dead man sensor, ensuring if the TIG arc is accidentally broken or if the arc fails to start and establish itself within 3 seconds the machine will automatically shut down.

Technical Specifications	180MA	200HF	200PHF
Input Voltage AC 50/60Hz +/- 15%	230	230	230
Typical Input Fuse Rating Amps	22 SB	22 SB	22 SB
Recommended Generator Rating KVA	7	7	7
MMA Power Output Amps	20-180	20-180	20-180
TIG Power Output Amps	10-180	5-200	5-200
100% Duty Cycle @ MMA Amps	160	160	160
100% Duty Cycle @ TIG Amps	180	180	180
Max Open Circuit Volts	97	97	97
Power Factor @ 100%	0.71	0.71	0.71
Efficiency @ 100%	0.94	0.94	0.94
Enclosure Class	IP 23	IP 23	IP 23
Ambient Temperature	-10 <math>\leftrightarrow</math> +40 Degrees Centigrade		
Cooling Method	Forced Fan	Forced Fan	Forced Fan
Standard	IEC 60974 CE Marked		
Warranty	24 Months	24 Months	24 Months
Weight	8Kg	9Kg	9Kg
Dimensions	L365mm x H360mm x W220mm		

Product Features	180MA	200HF	200PHF
Mains Power Indicator	Yes	Yes	Yes
Mode Function Indicator	Yes	Yes	Yes
Over Temperature Indicator	Yes	Yes	Yes
Digital Power Output Meter	Yes	Yes	Yes
LED Function Display	Yes	Yes	Yes
LCD Menu Display	-	Yes	Yes
High Frequency Start	-	Yes	Yes
Automatic Arc Force	Yes	Yes	Yes
Pre-Gas Timer	-	-	0-25 Sec
Start Current Control	-	Pre Set	0-25 Sec
Up-Slope Timer	-	-	0-15 Sec
Pulse Current Control	-	-	5-200 Amp
High Pulse Timer	-	-	0-5 Sec
Base Pulse Timer	-	-	0-5 Sec
Down-Slope Timer	-	0-15 Sec	0-15 Sec
Final Current Control	-	-	5-75 Amp
Final Current Timer	-	-	0-5 Sec
Post Gas Timer	-	0-25 Sec	0-25 Sec
Torch 2T & 4T Switch Control	-	Yes	Yes
Remote Current Control	-	Yes	Yes
Spot Welding Timer	-	-	0-10 Sec
Dead Man Safety Cut Out	-	Yes	Yes

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