

DC TIG & MMA power sources 230A – 400A

TEC ARC Ti DC models provide exceptional welding performance on both TIG & MMA.

Rugged reliable inverter built using only two IGBT power modules keeps these units welding reliably year after year. Equally happy in any environment, industrial workshops, off shore, oil & gas, aerospace engineering, mobile welding, construction sites.



400V 3 phase or 230V single phase

Key features

- ✓ Precision control of weld power from 5A.
- ✓ Multi-process - TIG DC & MMA arc welding.
- ✓ Digital display shows set values & precise welding values.
- ✓ TIG 2T/4T torch trigger normal/latch function.
- ✓ Slope up & down controls.
- ✓ Gas preflow circuit built in & adjustable postflow gas.
- ✓ TIG pulse with variable current & extended frequency adjustment.
- ✓ Remote socket for foot pedal or other remote amps control.
- ✓ MMA welding of all rods including cellulose.
- ✓ Generator friendly & compensation for cables up to 100M.
- ✓ Protection from over/under input volts, over temp.
- ✓ High efficiency & 20W standby power = low running costs.
- ✓ High duty cycles to keep you welding all day long.
- ✓ Rugged case design - drop tests exceed IEC60974-14
- ✓ Cooling chamber keeps dirty airflow away from PCB.
- ✓ Fan on demand to minimise noise, wear & power.
- ✓ Auto shutdown of TIG output & gas if left energised.
- ✓ Low weight & compact size for great portability.
- ✓ Industrial machines built to work hard for 25+ years.



Specifications	230A Ti233 DC (400V3ph) Ti231 DC (230V1ph)	300A Ti303 DC (400V 3ph) Ti301 DC (230V 1ph)	400A Ti403 DC (400V 3ph) Ti401 DC (230V 1ph)
Input fuse (D) slow – 400V 3ph	16A	16A	16/25A
Input fuse (D) slow – 230V 1ph	16A*	32A*	32/45A
Amperage range	5A-230A	5A-300A	10A-400A
Duty cycle 60% on TIG	200A	300A	400A
100% rating on TIG	155A	230A	310A
No load volts (OCV)	88V	88V	88V
Minimum generator size for ¾ output	4KVA	5KVA	8KVA
Approx net weight	14kg	19kg	23kg

Power source case size 230Wx510Lx400H (or 460mm including top handle).

Output amps range on MMA is the same as TIG, duty cycle is reduced up to 6% when using on MMA.

*Recommended fuse is 'D' slow type, a lower size such as 13A is OK up to 200A on TIG.

Duty cycle is tested at 40°C, at 20°C the duty cycle increases by approx. 5%.

Efficiency = 85% for single phase & 86% for 3 phase.

Compliance with BS IEC60974-1, WEE/HD0071UZ, EU2019/1784. Protection - IP23S (suitable for use outside with cover).

PTO for further information



TIG welding performance is exceptional, instant arc starting and super smooth welding, perfectly stable & near silent from 5A & 0.5mm material upwards. Slope in & out for controlled weld starts & crater filling is standard.

Variable pulsing functions provide additional control over the output, low pulse frequency can be used to create the classic TIG 'stack of cards' appearance, high pulse frequency reduces heat input & constricts the arc, ideal for difficult to weld thin metals.

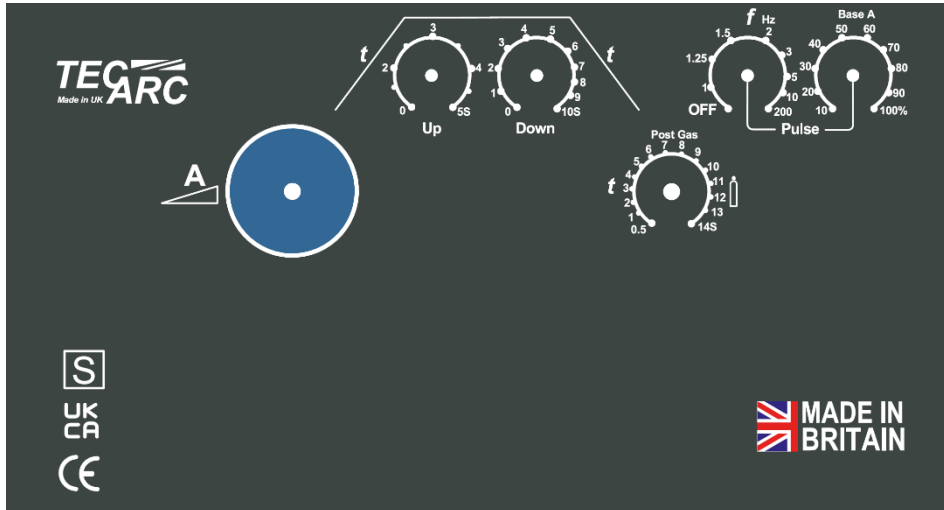
MMA electrode welding is again exceptional, super smooth & quiet. The high OCV (88V) combined with built in hot start lights up all rods fast! Cellulosic & other difficult electrodes also run with ease.

Digital display shows set values & precise real time values. Optional calibration to BS IEC60974-14 with precision grade capability.

Built using our rugged 2 IGBT power module technology & simple electronics – **minimum parts & maximum reliability!** Our reliability is the very best, no matter if welding all day in production or storing in a barn for years for occasional jobs.

We design & build all our own PCBs, transformers, coils, power assemblies etc. There are NO microprocessors or programmable technology used, **GUARANTEED** no software to corrupt!

From a serviceability point our inverter machines are simple, no Electronics degree needed! We include diagnostic LEDs & test points so our machines can be maintained by any competent Technician anywhere in the world.








Left is a close up of the Ti DC front panel controls - Simple intuitive controls mean no programming or menus to scroll through. BUT provides control over all parameters with absolute precision.

Ti DC TIG models - a joy to use, guaranteed!

Options available at time of order

440V/480V/550V or other input	110/115V input for Ti231	Extended input cable	Adjustable pre flow gas
Digital voltage display	3A minimum for output	Extended range of any parameter.	

Accessories available anytime

Foot pedal -super smooth control of welding power. 	TIG torches in 4M & 8M Air cooled or water cooled Ergonomic design. WP9/WP17/WP26, WP20/WP18 	Water cooler – 3 options including, XC1000 stand alone cooler, TC1000 with a trolley to carry the TIG & an ultra compact unit to fix onto TIG side panel 
Hand remote controls 	Torches with adjustable amps pot 	

**Our long term warranty & back up – 2 year warranty + 5 years on main transformer & all coils.
100% spares availability & service support for a minimum of 20 years from purchase.**

'Invest in the best' quality made British welding equipment