

AC-DC TIG & MMA 230A & 300A

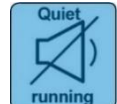
TECARC Ti AC-DC models provide exceptional welding performance on both TIG & MMA. Rugged reliable inverter built using only two IGBT power modules keeps these units welding reliably year after year. Equally happy in any environment, industrial workshops, off shore, oil & gas, aerospace engineering, mobile welding, construction sites.

400V 3 phase or 230V single phase



Key features

- ✓ Precision control of weld power from 5A.
- ✓ Instant arc starting on both TIG & MMA.
- ✓ AC-DC infinite balance control – unique to our machines
- ✓ AC frequency control from 20-200Hz
- ✓ Advanced squarewave output for optimised AC arc.
- ✓ Low noise AC TIG thanks to advanced squarewave.
- ✓ Multi-process – AC-DC TIG & MMA arc welding.
- ✓ MMA on both DC & AC with frequency & balance control.
- ✓ MMA welding of all electrodes including cellulosic.
- ✓ Digi display shows precise values before & during welding.
- ✓ TIG 2T/4T torch trigger normal/latch function.
- ✓ Slope up & down controls.
- ✓ Gas preflow circuit built in & adjustable postflow gas time.
- ✓ Pulser with variable current & extended frequency control.
- ✓ Remote socket for foot pedal or other remote control.
- ✓ MMA welding of all rods including cellulotics.
- ✓ 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 controls.
- ✓ Fan on demand to minimise noise & wear.
- ✓ Auto shut down if left energised on TIG.
- ✓ Low weight & compact size for great portability.
- ✓ Industrial machines built to work hard for 25+ years.



Specifications	230A AC-DC model Ti233 AC-DC (400V 3ph) Ti231 AC-DC (230V 1ph)	300A AC-DC model Ti303 AC-DC (400V 3ph) Ti301 AC-DC (230V 1ph)
Input fuse (D) slow – 400V 3ph Ti233/303	16A	16A
Input fuse (D) slow – 230V 1ph Ti231/301	16/20A*	32A*
Amperage range	5A-230A	5A-300A
Duty cycle 60% on TIG	200A	300A
100% rating on TIG	155A	230A
No load volts (OCV)	88V	88V
Minimum generator size for ¾ output	4KVA	5.5KVA
Net weight approx.	21kg	24kg

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 = 83% for single phase & 84% 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 from 5A & 0.5mm material. On DC TIG the arc is perfectly stable & near silent. AC TIG benefits from our advanced square wave design, this gives a substantial reduction in arc noise & provides an optimal stable arc condition on all aluminium & alloys. Furthermore, our unique balance control allows complete output control from DC negative through all AC combinations to DC positive. This allows extreme AC balances to be run, to either optimise the heat to the job or optimise the cleaning effect for specialist metals. Variable AC frequency from 20-200Hz provides further potential to optimise the arc to suit your job. A low AC frequency such as 20Hz give a soft wide arc with minimal noise, ideal for heavier materials. At high AC frequency the arc constricts & can focus the heat more precisely, ideal for thinner precision welding.

Variable pulsing functions provide further 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, ideal for difficult to weld thin metals.

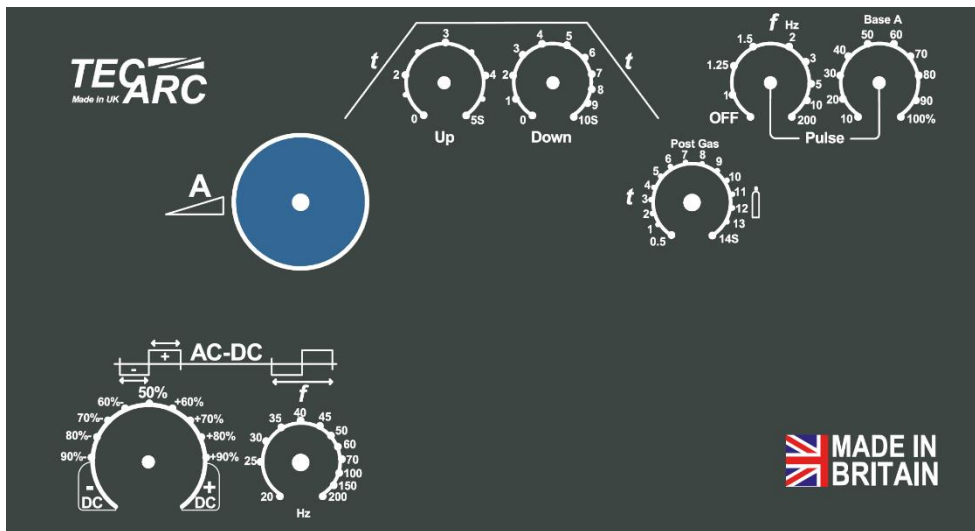
All AC-DC & pulse functions also work on MMA electrode welding. In addition, the high OCV (88V) combined with built in hot start lights up all rods fast!

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 front panel controls - Simple intuitive controls mean no programming or menus to scroll through. BUT provides control over all parameters with absolute precision.

Ti AC DC TIG models are 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
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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



**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**