

DC TIG 250A - 600A – water cooled

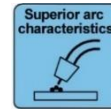
TECARC Ti DC models provide exceptional welding performance.

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, construction sites.



Key features

- ✓ Precision control of weld power from 5A.
- ✓ Instant HF arc starting on TIG.
- ✓ Automation strength HF fitted standard.
- ✓ MMA welding of all electrodes including cellulosic.
- ✓ Arc air gouging capability for 603 model.
- ✓ Hot start lights up MMA electrodes with ease.
- ✓ 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.
- ✓ Pulsar with variable current & extended frequency control.
- ✓ Remote socket for foot pedal or other remote control.
- ✓ Generator friendly & compensation for cables up to 100M.
- ✓ Protection from over/under input volts, over temp.
- ✓ High efficiency, 18W standby power = low running costs.
- ✓ High duty cycles to keep you welding all day long.
- ✓ Rugged case design on a 3mm galv chassis.
- ✓ Cooling chamber keeps dirty airflow away from controls.
- ✓ Fan on demand to minimise noise & wear.
- ✓ Auto shut down if left energised on TIG.
- ✓ Undercarriage c/w H duty wheels, gas bot carrier & lifting points.
- ✓ Low noise water cooling - runs only as needed.
- ✓ Industrial machines built to work hard for 25+ years.



Specifications	Ti 253 or 251	Ti 353 DC	Ti 503 DC	Ti 603 DC
Input fuse (D) slow – 400V 3ph	16A	16A	25/32A	32A
Input fuse (D) slow – 230V 1ph model (251)	25A*			
Amperage range	5A-250A	5-350A	5-500A	10A-600A
Duty cycle 60% on TIG	250A	350A	470A	570A
100% rating on TIG	195A	271A	365A	430A
No load volts (OCV)	88V	88V	88V	88V
Minimum generator size for ¾ output	4KVA	7KVA	11KVA	15KVA
Net weight approx.	42kg	44kg	46kg	58kg

Power source overall incl wheels & bottle carrier, approx 460Wx900Lx720mm H (total height above floor).

Power source case size without undercarriage, approx. 300Wx650Lx590mm H

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.

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

Efficiency = 86%

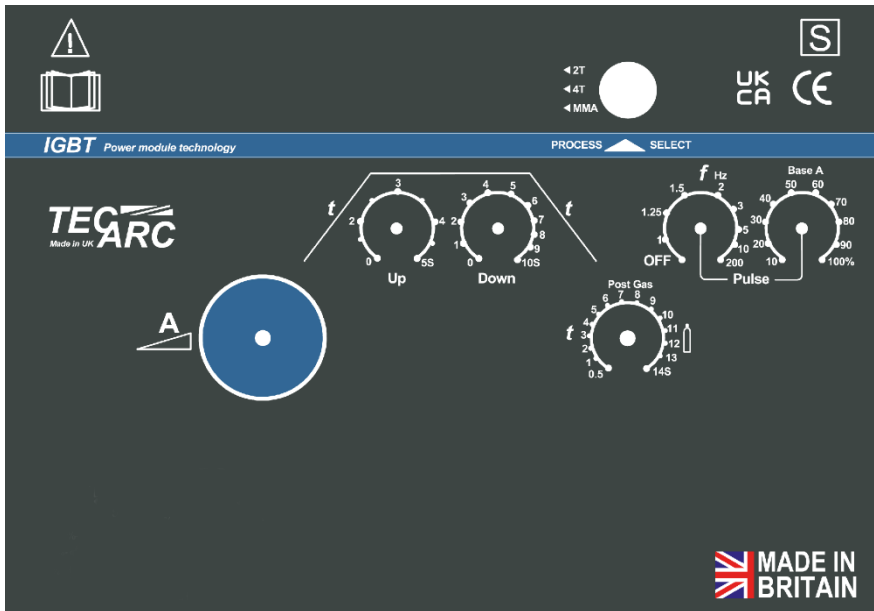
Compliance with BS IEC60974-1, WEE/HD0071UZ, EU2019/1784. Protection - IP23S (suitable for use outside with cover).

Note; Ti 351 DC & Ti501 DC 230V single phase version on request.

PTO for further information

High output & high duty cycle makes these machines well suited for both heavy manual applications & automated welding. All industrial applications such as oil & gas flanges, copper vessel welding, cladding & overlay, heavy castings. Exceptional welding performance is guaranteed, instant arc starting and super smooth welding from 5A/0.5mm material. Automation strength HF is standard; this provides increased HF power for all TIG welding & is particularly beneficial for automated applications where the electrode is often a little further from the work at the start. High OCV (88V) also assists TIG arc starting & allows all MMA electrodes to be run with ease as well as arc air gouging on the 603 model. 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. Digital display shows set values & precise real time values. Optional calibration to BS IEC60974-14 with precision grade capability. In standby these models are completely silent & draw almost zero power. Water cooling starts instantly when TIG welding & has a post run time depending on how long you're welding. Even when running audible noise is very low. A built in water flow switch is fitted to protect the torch in event of a flow problem. Water cooling does not run in MMA mode & can be easily disabled in TIG mode if required.

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 industry or stored in a barn for years & rolled out for occasional jobs. We design & build all our own PCBs, transformers, coils, power assemblies etc. There are NO microprocessors or programable 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 = no programming or menus to scroll through. BUT provides control over all parameters with absolute precision.

Ti DC TIG models are a joy to use. Guaranteed!

Options available at time of order

Input voltage 230V/ 440V/480V/550V	Longer cables	Adjustable pre flow gas control on front panel.	No water cooling fitted.	No undercarriage fitted.
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Accessories available anytime

<p>Foot pedal -super smooth control of welding power.</p> 	<p>TIG torches in 4M & 8M Ergonomic design. WP9/WP17/WP26,WP20/WP18</p> 	<p>SYNCROFEED expert Cold wire & hot wire feeders</p> 
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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