



MobiTIG 304 DC

Powerful welding at a compact size!



PORTABLE AND



The welding unit MobiTIG 304 DC is designed and built on inverter technology; this is the guarantee for optimum welding characteristics and a low weight.

The compact and portable machine is suitable for TIG DC and MMA/stick electrode welding.

The machine can be characterized by numerous features:

- Continuous setting of the welding current up to 300 A
- Low weight, portable
- 2-stroke/4-stroke operation
- High frequency (HF) and LiftTIG ignition
- 2 welding currents with activation at the welding torch
- DC pulsation and high frequency pulsation up to 12 kHz
- Adjustable start/final current and downslope time
- Socket for remote control
- Digital display for all parameters, with pre-display and hold function for welding current
- Memory for 15 programmable jobs



Water cooling unit WK 210, optional



Optional with water cooling and Trolley

TROLLEY TW 112

The trolley TW 112 is designed for easy transportation of the welding unit in the workshop or on site.

- Extra large wheels (200 mm)
- Gas bottle holder for a 10 or 20 l cylinder (if machine is fixed to the trolley)
- Drawer for tools, accessories, spare parts and consumables (option)
- Suspension possibilities for cables and torch heads.
- Torch holders for various welding torchs on left and right side

POWERFUL



1. Steel / stainless steel welding in DC



2. MMA / stick electrode welding

The MERKLE MobiTIG 304 DC combines all advantages needed for a flexible usage at the job site or workshop.

The BiPowerPLUS option opens new areas of flexibility for welding. In the workshop with 400 V three phase, or on the job site with 230 V single phase, you are prepared wherever you find yourself in a few seconds via one pluggable electrical connection (option) placed on the rear side of the unit.



Another highly efficient advantage is offered by the optional water cooling unit WK 210. Different applications are possible: welding with a water cooled torch in the workshop or using a gas cooled torch on site.

Easy mounting and dismounting in a few seconds via one pluggable electrical connection (option) placed on the rear side of the unit.

HIGH FREQUENCY DC PULSE

The MobiTIG 304 DC is equipped with the function high frequency DC pulse. The arc can be pulsed with a frequency up to 12 kHz.

With this technology the arc characteristics provide outstanding opportunities in TIG DC welding that are not available in the standard TIG arc.



Standard TIG weld



High frequency DC pulse weld

PERFORMANCE FEATURES

- Extreme arc constriction
- Arc similar to plasma welding
- Less heat input
- Higher welding speed
- Extremely stable arc
- Perfect for corner welds





MobiTIG 304 DC

THE PORTABLE POWERHOUSE



PRODUCT RANGE

- MIG/MAG Welding Units
- Synergic Pulse Welding Units
- TIG Welding Units
- MMA / Stick Electrode Welding Units
- Weldingtorches
- Turntables and Roller Drive Units
- Automation Components and Solutions
- Complete Solutions and Robotics
- Specialized Machinery Construction
- MERKLE WeldFACTORY - Industry 4.0

Technical details

MobiTIG 304 DC

Primary:

Power supply	3 x 400 V	1 x 230* V
Frequency	50/60 Hz	50/60 Hz
Cont. power (TIG/MMA)	8.3 / 9.7 kVA	3.2 / 3.7 kVA
Cont. current (TIG/MMA)	12 / 14 A	14 / 16 A

TIG operation mode:

No load voltage	90 V	90 V
Working voltage	10 - 22 V	10 - 17.2 V
Welding current (TIG) DC	5 - 300 A	5 - 180 A
HSB 30 % ED (10 min.)	300 A (40 °C)	180 A (40 °C)
HSB 60 % ED (10 min.)	265 A (40 °C)	110 A (40 °C)
DB 100 % ED	250 A (40 °C)	90 A (40 °C)

MMA/stick electrode mode:

Electrode diameter	1.5 - 5.0 mm	1.5 - 3.25 mm
No load voltage	90 V	90 V
Welding current	20 - 280 A	20 - 160 A

Protection class	IP 23
Ignition	HF-/LiftTIG
Adjustment	current 1, current 2; time 1, time 2; gas post flow, start / final current
LED display	current, voltage, time, frequency with pre-display and hold function
Job program	15 Jobs
Operation modes	2 stroke / 4 stroke / 4 stroke with current 2
TIG Pulse	0,2 Hz - 12 kHz
MMA/stick electrode welding	Hotstart, Anti-Stick, Arc Force
Torch connection	MERKLE TCG with 5-pol. plug
Sockets	50 mm ²
Norm	EN 60974-1, S ⁺ / CE
Weight	20 kg
Dimensions (l x w x h)	495 x 210 x 450 mm

*option BiPowerPlus.

Technical changes present.

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