ewm®
WE ARE WELDING

Professional
TIG welding – everywhere

Tetrix 230 / 300 DC and AC/DC

Professional TIG welding – everywhere. Flexible application.

The modular machine design provides ideal solutions for every application.

Whether in the food or chemicals industry, in pipe construction, mechanical engineering or metalworking – the new, mobile Tetrix generation is as equally at home in industry as it is in trade. Not least due to the ideally coordinated welding procedures and functions. They are the result of our continuous further development and research.

Compact, light, robust

The quality has to be right, both when working on site and when prefabricating parts in the factory. The high-performance Tetrix welding machines are also designed for mobile use. With their compact dimensions, low weight and robust housing they are optimised for mobile use.

- Robust aluminium housing with impact-resistant plastic cover
- Temperature overload protection and dust-proof electronics
- Splash-proof to IP23
- Practical carrying strap for easy transportation
- Perfectly suited for construction site use thanks to high mains voltage tolerance. Designed for problem-free operation with generators and long mains leads

Tetrix 230 DC
Tetrix 300 DC

Perfect DC welding of CrNi, titanium and much more

COMPACT LIGHT R

With unrivalled EWM quality warranty

- 3-year guarantee for welding machines and 5-year guarantee for transformers and rectifiers
- No restriction to the number of operating hours – even when used in 3-shift operation 24 hours a day, 7 days a week

For the highest quality demands

Smart or Comfort – select the control type that suits you best.

Easy handling, a clear layout and intuitive operation form the basis for efficient, high-quality welding machines. The Smart 2.0 puls and Comfort 2.0 puls control options provide you with EWM solutions for any job specifications.

Tetrix 230 AC/DC
Tetrix 300 AC/DC

Flexible AC welding of aluminium

ROBUST

Energy cost-saving inverter technology

- Low power consumption thanks to high efficiency and activatable power-saving mode
- Electricity costs fall, so production costs do too

The major sustainability initiative from EWM

Blue Evolution®

Perfect DC welding – of CrNi, titanium and much more.

Tetrix 230/300 DC and AC/DC

EWM activArc® for full control over the weld pool – automatic arc stabilisation for reliable sidewall fusion and focused and concentrated heat input

The new user-friendly average value pulse function allows users to implement, for example, WPS requirements extremely easily, even in pulsed mode

kHz pulses – high welding speeds with minimised heat input thanks to the precisely constricted arc with high energy density

spotmatic – saves up to 50% of work when tack welding

Everything under control – clear, intuitive controls and easy-to-understand displays for optimum control

Tetrix 230 DC Comfort 2.0 puls

Industry 4.0 networking with ewm Xnet software via LAN, WiFi and USB, even for mobile use (for Tetrix 300)

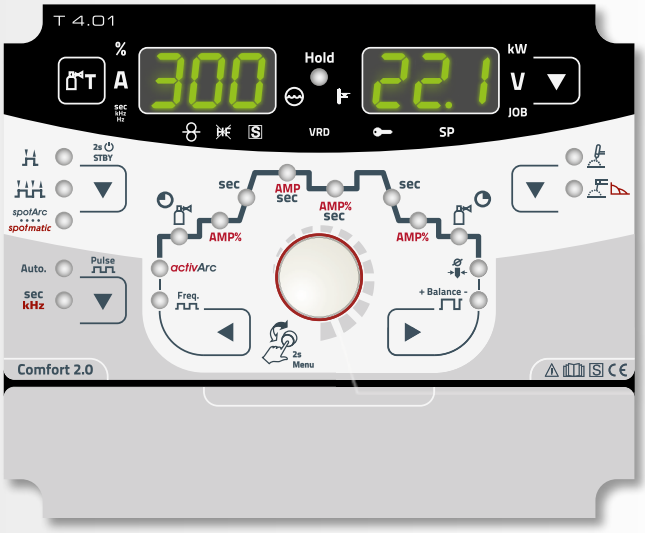
Tetrix 300 DC Comfort 2.0 puls

Control options

Smart or Comfort – select the control type that best suits your requirements.

Smart 2.0 puls

Direct access to all vital functions for easy and quick operation.



Comfort 2.0 puls

Fine-tuning for experts. Full control of all parameters.

EWM DC welding procedures and functions – for when good is not good enough.

Pulsing
Difficult welding applications can be realised easily

Pulsed TIG welding
- Safe weld pool backing for positional, thin metal sheet and root welding
- Minimum distortion thanks to reduced heat input
- Reduced energy per unit length is ideal for CrNi welding and heat-sensitive materials
- Perfect for visible seams thanks to the uniform ripples

Automatic Puls

MMA pulse welding
- Simplified positional welding
- Better gap bridging

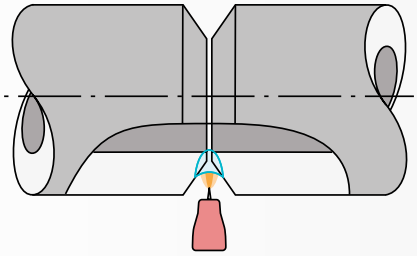
Pulsed average value TIG welding
- The user-friendly average value pulse function enables users to implement, for example, WPS requirementsextremely easily, even in pulsed mode

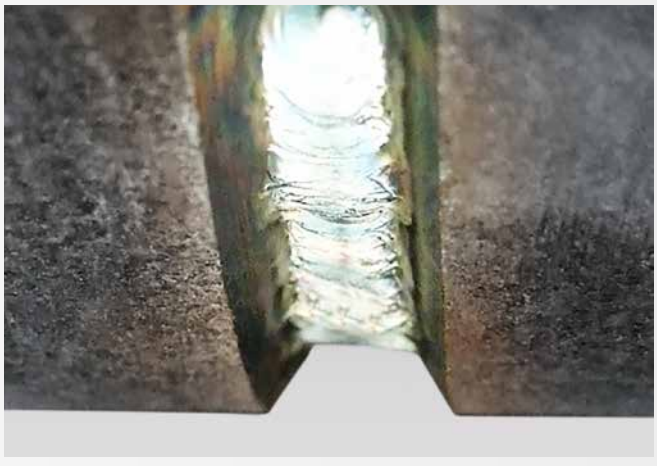
Pulsed TIG kHz welding
- High weldingspeed thanks to stable arc

TIG pulsing – fillet weld, PB position

activArc®
Dynamic TIG arc with automatic arc stabilisation

- Constant sufficient power and high arc force for reliable sidewall fusion and focused and uniform heat input – for full weld pool control across the entire weave area
- Particularly beneficial when welding fillet welds and root passes





activArc® – ideal for positional welding

For more information refer to the EWM welding dictionary or visit www.ewm-group.com

Spot welding

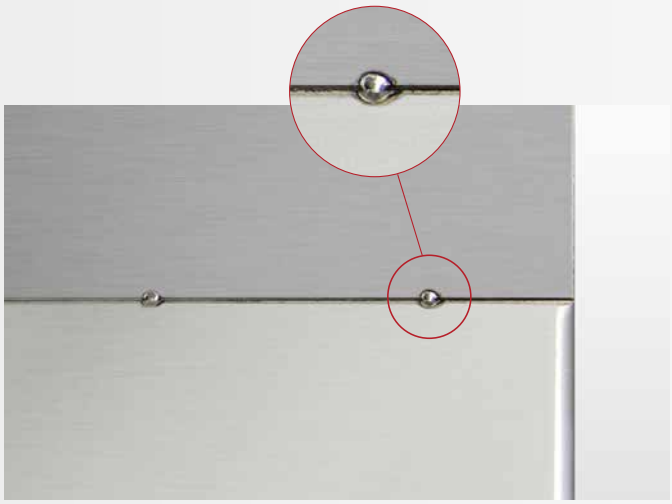
Perfection in tack welding and spot welding

spotArc® with TIG standard welding torch

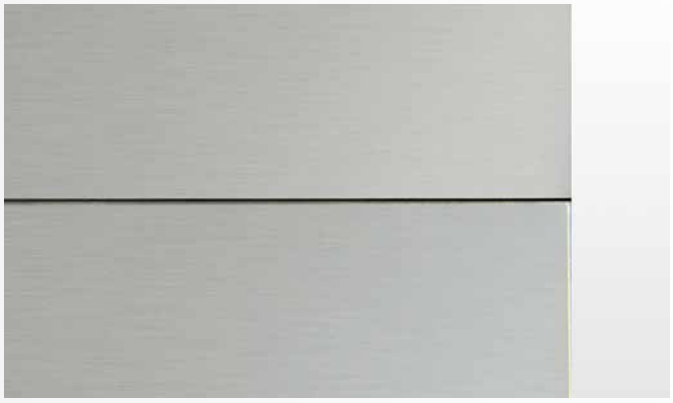
- Automatic pulsing for oscillating weld pool – ideal for tack welding and joint welding without welding consumables

spotmatic with TIG standard welding torch

- Simple operation and configuration
- Saves up to 50% of work when tack welding
- 100% reproducibility of results
- DC TIG spot welding with constant, minimal heat input



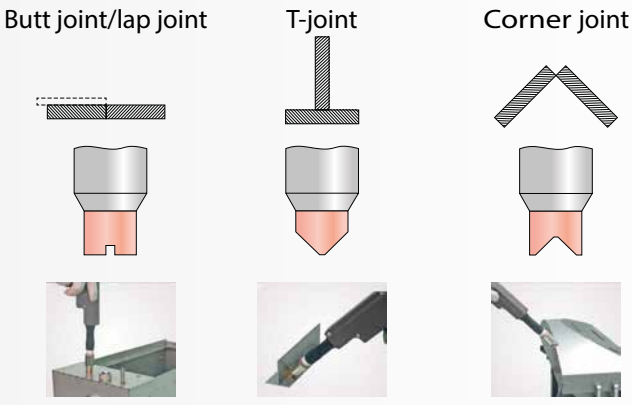
spotmatic – smallest tack points
(0.8 mm sheet metal, front view)



spotmatic – no discolouration
(0.8 mm sheet metal, rear view)

spotArc® with spotArc® welding torch

- Simple, time-saving tack welding for butt welds, fillet welds, edge welds as well as pipes
- Single-side use for welding metal sheets to hollow profiles, for example
- Spot welding through up to 2 mm thickness with CrNi



TIG Antistick

Less wear on tungsten electrodes

- Prevents the tungsten electrode from sticking to the weld pool
- Particularly beneficial for positional welding

Flexible AC welding – for aluminium.

Tetrix 230 AC/DC/Tetrix 300 AC/DC

AC special – ideal for joining metal sheets of different thicknesses

AC frequency – adjustment of the arc width – ideal for thin metal sheets and fillet welds

AC waveforms – sine, trapezoidal or square – always the right waveform for optimum arc stability

Balling – individual and multiple tungsten balling without having to activate the function on the welding machine again

Everything under control – clear, intuitive controls and easy-to-understand displays for optimum control

Tetrix 230 DC Comfort 2.0 puls

Industry 4.0 networking with ewm Xnet software via LAN, WiFi and USB, even for mobile use (for Tetrix 300)

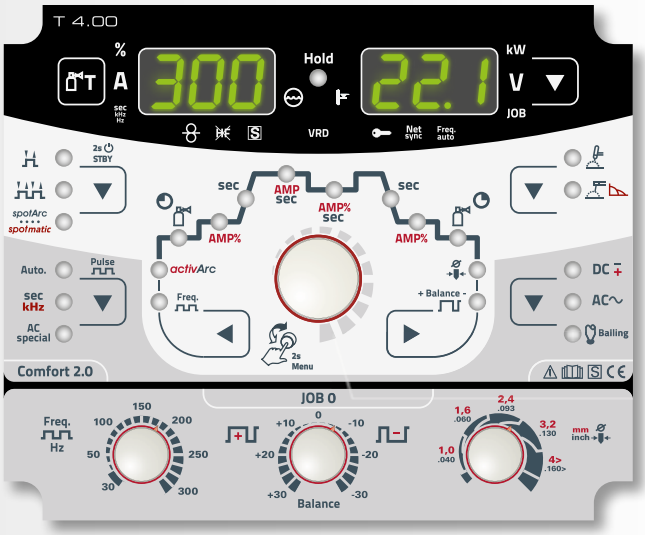
Tetrix 300 AC/DC Smart 2.0 puls

Control options

Smart or Comfort – select the control type that best suits your requirements.

Smart 2.0 puls

Direct access to all vital functions for easy and quick operation.



Comfort 2.0 puls

Fine-tuning for experts. Full control of all parameters and of AC parameters even during the welding process.

AC functions that perfect alternating current welding.

AC frequency

- Adjustment of the arc width – perfect for thin metal sheets and fillet welds

AC waveforms

- Sine, trapezoidal or square – always the right waveform for the various areas of application

AC balance

- The perfect balance between the penetration profile and the achievable cleaning effect

AC balance – cleaning effect

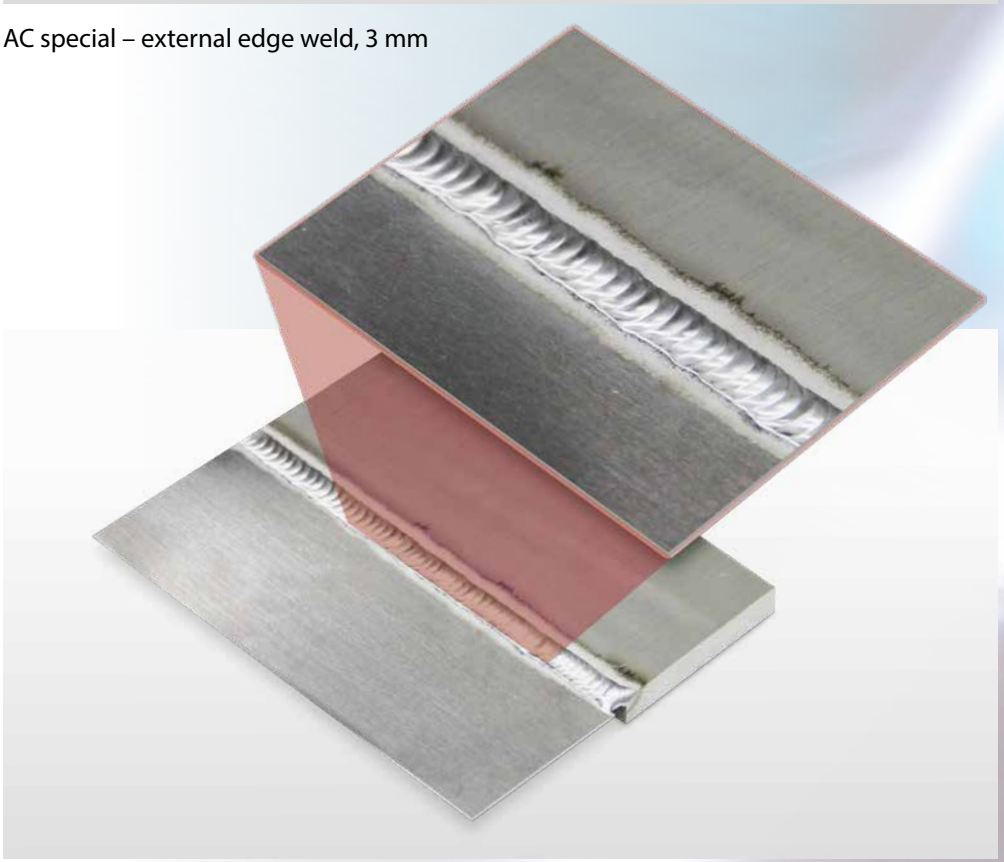
AC balance – penetration profile

For more information refer to the EWM welding dictionary or visit www.ewm-group.com

AC special

- Ideal for joining metal sheets of different thicknesses
- Allows for constant welding speeds when welding aluminium
- Also suitable for automated applications

AC special – external edge weld, 3 mm



AC special – joining materials of different thicknesses

Perfectly equipped for any application with versatile options.

The new high-performance Tetrix generation demonstrates its strengths in every area of application – whether in continuous daily use or in mobile applications at customer premises. Versatile options such as the remote control, cooling unit and transport trolley mean you are **perfectly equipped for any application wherever you are.**

Perfect control in every location

From setting the welding current by hand or foot to full access to all the functions: the EWM remote controls enable the user to control the welding machine directly at the welding site.

RT50

RTP1, RTP2

RT1

RTAC1

RTF1

Cool 41 U31,
Cool 40 U31
high-performance cooling unit

Cooling unit for continuous use

- Light, modular design for tool-free assembly
- Powerful centrifugal pump for unlimited cooling capacity, even with long hose packages
- External coolant water filling nozzle with filling level indicator
- Quiet running noises thanks to high-grade components
- Quick assembly/disassembly
  - · No need for tools
  - · No need to intervene on the machine
  - · No need for specialist staff

Simple connection of the power source and the cooling unit

Transport trolley for maximum mobility

- Particularly stable design with robust steel pipe construction
- Large wheels for easy transportation on stairs and on difficult terrain
- Low loading edge for easy replacement of the shielding gas cylinder
- Secure mount with holding plate and two pull straps
- For shielding gas cylinders from 10 l to 50 l (200 and 300 bar)
- Mounting bracket to protect the machine and the connections whilst accommodating the hose package and grounding cable
- Simple connection of modules without tools
- Total width of only 75 cm, suitable for standard doors
- Compartment for small parts and tools
- Optional crane suspension equipment available for retrofitting

Trolly 35.2-2

EWM welding torches and accessories. For constant, excellent quality.

The EWM TIG welding torches

Weight-optimised and ergonomic in design, gas- or water-cooled EWM welding torches are comfortable to hold and thus ensure fatigue-free work. Extreme robustness and durability also reduce wear and the costs for spare parts.

From the simple control of the push-button welding torches to the comprehensive operating options of the functional welding torches – the EWM welding torch range provides the perfect solution for every requirement.

Welding consumables and accessories for the perfect welding results

One contact for the entire welding process. From welding machines to welding torches, welding consumables and welding accessories, EWM supplies all the necessary components for manual and automated welding applications.

For cold or hot wire welding: tigSpeed 45 TIG wire feeder

The optional tigSpeed 45 TIG wire feeder can be used to feed the wire continuously or dynamically. Dynamic wire feeding is particularly beneficial because it reproduces TIG welding with manual wire feeding. As a result, the welding consumable is repeatedly drawn out of the weld pool and passes over drop by drop. In the case of hot wire welding, the welding consumable is preheated. This increases the deposition rate further, and the material flows better. The result is a very even seam pattern.

Thanks to the automatic wire feeding, the welder can concentrate totally on the welding process. Their second hand remains free and can support the guide hand. This is a significant relief when working on long seams as a workpiece can be welded in a single working step – without contact points due to welding rod changes.

Industry 4.0 networking

The new TIG generation meets all requirements made of modern machines in the 4.0 age. The intuitive, self-explanatory control is the interface for interaction between man and machine. Digital process characteristics make sure that the optimum operating point is set at all times – for process-optimised and speedy working.

The digitalisation of machines thanks to highly intelligent microprocessors, memory interfaces and network connection facilities provides all the prerequisites which are needed for capturing process data, machine efficiency analyses and preventive maintenance.

Data recording with the optional ewm Xnet software via LAN, WiFi and USB, even for mobile use (for Tetrix 300)

	Tetrix 230 DC		Tetrix 300 DC	
	Comfort 2.0	Smart 2.0	Comfort 2.0	Smart 2.0
Operating mode	**DC**	**DC**	**DC**	**DC**
Welding procedure				
TIG	●	●	●	●
MMA	●	●	●	●
activArc®	●	●	●	●
Functions				
TIG				
HF start and lift arc	●	●	●	●
Selection of TIG ignition type	Control menu	Control menu	Control menu	Control menu
Operating modes: Non-latched, latched	●	●	●	●
TIG antistick	●	●	●	●
Settable start and end current	●	●	●	●
Foot-operated remote control function with logarithmic characteristics	–	–	●	●
TIG pulse variants				
Pulses (times)	0.01–10 sec	–	0.01–20 sec	–
kHz pulses (frequency)	50 Hz–15 kHz	–	5 Hz–15 kHz	–
Average value pulses (frequency)	0.2 Hz–2 kHz	0.2 Hz–2 kHz	0.2 Hz–2.5 Hz	0.2 Hz–2.5 kHz
Automated pulsing	●	–	●	–
TIG spot variants				
spotArc®	●	●	●	●
spotArc® with spotArc® welding torch	●	●	●	●
spotmatic®	●	●	●	●
TIG AC				
AC frequency	–	–	–	–
AC balance	–	–	–	–
AC amplitude balance	–	–	–	–
AC net sync	–	–	–	–
AC tungsten balling	–	–	–	–
MMA				
Average value pulses (frequency)	0.2–50 Hz	0.2–50 Hz	0.2-500 Hz	0.2-500 Hz
Arcforce, adjustable	–	–	●	●
Hot start, antistick	●	●	●	●
Actual value display (RCD)	–	–	●	●
AC frequency	–	–	–	–
Accessories/options				
ewm Xnet	–	–	●	●
PC 300	–	–	●	●
RT50 remote control	–	–	●	●
RT1, RTG1 remote control	●	●	●	●
RTP1, 2, 3 pulse remote control	●	●	●	●
RTAC1 AC remote control	–	–	●	●
RTF1 foot-operated remote control	●	●	●	●
cool 40 U31 cooling unit	●	●	–	–
cool 41 U31 cooling unit	–	–	●	●
Trolly 35.2-2	●	●	●	●

Technical data	Tetrix 230 DC Comfort 2.0 TIG	Tetrix 230 DC Smart 2.0 MMA	Tetrix 300 DC Comfort 2.0 TIG	Tetrix 300 DC Smart 2.0 MMA
Current setting range DC AC	3 A–230 A –	5 A–180 A –	5 A–300 A –	5 A–300 A –
Voltage setting range	10.1 V–19.2 V	20.2 V–27.2 V	10.2 V–22.0 V	20.2 V–32.0 V
Duty cycle at ambient temperature	40 °C	40 °C	40 °C	40 °C
30%	–	–	–	300 A
35%	–	–	300 A	–
40%	230 A	180 A	–	–
60%	200 A	150 A	260 A	260 A
100%	170 A	120 A	210 A	210 A
Open circuit voltage DC AC	90 V –		63 V –	
Mains voltage (tolerances)	1 x 230 V (+15% to –40%)		3 x 400 V (+20% to –25%)	
Frequency	50/60 Hz		50/60 Hz	
Mains fuse (safety fuse, slow-blow)	1 x 16 A		3 x 16 A	
Max. connected load	5.5 kVA	6 kVA	11.7 kVA	16.6 kVA
Recommended generator rating	8.1 kVA		23 kVA	
Noise level	< 70 dB(A)		< 70 dB(A)	
cosφ/efficiency	1.0/85.0%		0.99/84.0%	
Insulation class/protection classification	H/IP 23		H/IP 23	
EMC class	A		A	
Ambient temperature	–25 °C to +40 °C		–25 °C to +40 °C	
Machine cooling/torch cooling	Fan (AF)/gas or water		Fan (AF)/gas or water	
Safety identification	S / CE / EAC		S / CE / EAC	
Harmonised standards used	IEC 60974-1, -3, -10		IEC 60974-1, -3, -10	
Dimensions L/W/H	539 x 210 x 415 mm 21.2 x 8.3 x 16.3 inch		539 x 210 x 415 mm 21.2 x 8.3 x 16.3 inch	
Weight DC / AC/DC	17.0 kg/– 38.6 lb/–		20.0 kg/– 44.0 lb/–	

Technical data	cool 40 U31 cool 41 U31	Trolly 35.2-2
Cooling capacity	800 W (1/min)	–
Flow rate	5 l/m	–
Tank capacity	4 l	–
Coolant outlet pressure	3.5 bar	–
Dimensions L/W/H	600 x 210 x 340 mm	600 x 580 x 1200 mm
Weight, cool 40/cool 41	14.0 kg/18.4 kg 30.8 lb/40.5 lb	33.0 kg 72.7 lb

	Tetrix 230 AC/DC				Tetrix 300 AC/DC			
	Comfort 2.0		Smart 2.0		Comfort 2.0		Smart 2.0	
Operating mode	**DC**	**AC**	**DC**	**AC**	**DC**	**AC**	**DC**	**AC**
Welding procedure								
TIG	●	●	●	●	●	●	●	●
MMA	●	–	●	–	●	●	●	●
activArc®	●	●	●	●	●	●	●	●
Functions								
TIG								
HF start and lift arc	●	●	●	●	●	●	●	●
Selection of TIG ignition type	Control menu		Control menu		Control menu		Control menu	
Operating modes: Non-latched, latched	●	●	●	●	●	●	●	●
TIG antistick	●	●	●	●	●	●	●	●
Settable start and end current	●	●	●	●	●	●	●	●
Foot-operated remote control function with logarithmic characteristics	–	–	–	–	●	●	●	●
TIG pulse variants								
Pulses (times)	0.01–10 sec		–		0.01–20 sec		–	
kHz pulses (frequency)	50 Hz–15 kHz	–	–		5 Hz–15 kHz	–	–	
Average value pulses (frequency)	0.2 Hz–2 kHz	0.2 Hz–5 Hz	0.2 Hz–2 kHz	0.2–5 Hz	0.2 Hz–2.5 Hz	0.2 Hz–5 Hz	0.2 Hz–2.5 kHz	0.2–5 Hz
Automated pulsing	●	–	–	–	●	–	–	–
TIG spot variants								
spotArc®	●	●	●	●	●	●	●	●
spotArc® with spotArc® welding torch	●	●	●	●	●	●	●	●
spotmatic®	●	–	●	–	●	–	●	–
TIG AC								
AC frequency	–	50–200 Hz	–	50–200 Hz	–	30–300 Hz	–	30–300 Hz
AC balance	–	●	–	●	–	●	–	●
AC amplitude balance	–	–	–	–	–	●	–	–
AC net sync	–	–	–	–	–	●	–	–
AC tungsten balling	–	●	–	–	–	●	–	–
MMA								
Average value pulses (frequency)	0.2–50 Hz	–	0.2–50 Hz	–	0.2–500 Hz	0.2–5Hz	0.2–500 Hz	0.2–5Hz
Arcforce, adjustable	–	–	–	–	●	●	●	●
Hot start, antistick	●	●	●	●	●	●	●	●
Actual value display (RCD)	–	–	–	–	●	●	●	●
AC frequency	–	–	–	–	–	30–300Hz	–	30–300Hz
Accessories/options								
ewm Xnet	–	–	–	–	●	●	●	●
PC 300	–	–	–	–	●	●	●	●
RT50 remote control	–	–	–	–	●	●	●	●
RT1, RTG1 remote control	●	●	●	●	●	●	●	●
RTP1, 2, 3 pulse remote control	●	●	●	●	●	●	●	●
RTAC1 AC remote control	–	–	–	–	●	●	●	●
RTF1 foot-operated remote control	●	●	●	●	●	●	●	●
cool 40 U31 cooling unit	●	●	●	●	–	–	–	–
cool 41 U31 cooling unit	–	–	–	–	●	●	●	●
Trolly 35.2-2	●	●	●	●	●	●	●	●

Technical data	Tetrix 230 AC/DC Comfort 2.0 TIG	Tetrix 230 AC/DC Smart 2.0 MMA	Tetrix 300 AC/DC Comfort 2.0 TIG	Tetrix 300 AC/DC Smart 2.0 MMA
Current setting range				
DC	3 A–230 A	5 A–180 A	5 A–300 A	5 A–300 A
AC	5 A–230 A	–	5 A–300 A	5 A–300 A
Voltage setting range	10.1 V–19.2 V	20.2 V–27.2 V	10.2 V–22.0 V	20.2 V–32.0 V
Duty cycle at ambient temperature	40 °C	40 °C	40 °C	40 °C
30%	–	–	–	300 A
35%	–	–	300 A	–
40%	230 A	180 A	–	–
60%	200 A	150 A	260 A	260 A
100%	170 A	120 A	210 A	210 A
Open circuit voltage				
DC	90 V		63 V	
AC	45 V		63 V	
Mains voltage (tolerances)	1 x 230 V (+15% to –40%)		3 x 400 V (+20% to –25%)	
Frequency	50/60 Hz		50/60 Hz	
Mains fuse (safety fuse, slow-blow)	1 x 16 A		3 x 16 A	
Max. connected load	5.5 kVA	6 kVA	11.7 kVA	16.6 kVA
Recommended generator rating	8.1 kVA		23 kVA	
Noise level	< 70 dB(A)		< 70 dB(A)	
cosφ/efficiency	1.0/85.0%		0.99/84.0%	
Insulation class/protection classification	H/IP 23		H/IP 23	
EMC class	A		A	
Ambient temperature	–25 °C to +40 °C		–25 °C to +40 °C	
Machine cooling/torch cooling	Fan (AF)/gas or water		Fan (AF)/gas or water	
Safety identification	S / CE / EAC		S / CE / EAC	
Harmonised standards used	IEC 60974-1, -3, -10		IEC 60974-1, -3, -10	
Dimensions L/W/H	539 x 210 x 415 mm 21.2 x 8.3 x 16.3 inch		539 x 210 x 415 mm 21.2 x 8.3 x 16.3 inch	
Weight DC / AC/DC	– /18.8 kg – /48.5 lb		– /22.0 kg – /48.5 lb	

Technical data	cool 40 U31 cool 41 U31	Trolly 35.2-2
Cooling capacity	800 W (1/min)	–
Flow rate	5 l/m	–
Tank capacity	4 l	–
Coolant outlet pressure	3.5 bar	–
Dimensions L/W/H	600 x 210 x 340 mm	600 x 580 x 1200 mm
Weight, cool 40/cool 41	14.0 kg/18.4 kg 30.8 lb/40.5 lb	33.0 kg 72.7 lb

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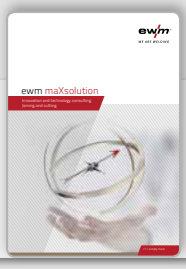
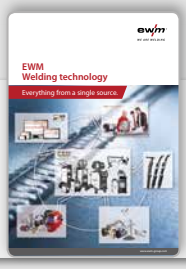


Brochure
maXsolution – Innovation and technology consulting



Brochure
Product range, services

Brochure
Titan XQ puls

Catalogue
Welding machines and accessories

Catalogue
Welding torches and accessories

Catalogue
Welding accessories

Handbook
Welding consumables

Handbook
EWM welding dictionary

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