SHORT-INFO

V 40

The digital TIG inverter welding system.

- TipTronic
- Powerful
- pulse and fast pulse up to 20 kHz
- LorchNet connection
- Low energy consumption



At a glance

Outstanding TIG welding characteristics thanks to inverter technology
Distinguished by their high efficiency and superb welding characteristics, inverters utilise digital software control technology that has a significant influence on the outcome of the welding process.

In a robust, completely transportable industrial housing
The tough metal housing safely protects the high-end technological innards of your system. Completely transportable at the handles, the machine is also suitable for crane transport.

remote control
Welders often experience that the conditions on site do not allow them to place their welding machine right beside them. When faced with this type of situation, they find the use of a remote control helpful as it allows them to intervene and adjust the welding current if necessary. This is why Lorch has included a large variety of different hand and foot remote controls in their V series, which are ready for use right away thanks to their plug&play support.

LorchNET connection
All machines of Lorch's V series come with a LorchNet connection. This digital data interface provides standardised communication and ensures that all components located in a Lorch automation system understand each other perfectly thanks to Plug&Weld technology.

Aluminium welding (AC/DC variant)
Positive polarity ignition and automatic cap shape produce a perfectly shaped arc during aluminium welding. The special amplitude of the alternating current combined with an optimised current balance yields an excellent cleaning effect and a manageable weld pool.

Powerful

Working in the background, cutting-edge processor technology ensures that the gas pre-flow, the shaping of the arc and the control of the welding current work together seamlessly during welding. The result of this smooth interaction are superior duty cycle levels and increased productivity.

Benefits

The SmartBase expert database provides for optimum arc conditions

SmartBase is the name of the expert database devised by Lorch to control the arc. This database lets you adjust the parameter settings yourself, giving you the freedom you need to tweak and correct even the finest details of the process you are applying.

Low energy consumption

The included on-demand function automatically turns the components of your Lorch V 40 on and off as needed, while the thermal control sensors monitor the temperature of the components and regulate the speed of the fan accordingly. This smart technology reduces fan noise and dust levels in the machine compartment and helps conserve energy.

Pulse and fast pulse up to 20 kHz

The standard pulse function with up to 20 kHz that is built into every machine offers you additional benefits when welding thin plates.

Plain text display with language selection and TipTronic

Thanks to the clearly structured user interface and the slanted operating panel, the device control remains well visible throughout operation and affords the user an ergonomic operating position. You select the AC or DC function, the electrode diameter and the welding current based on the machine you are using. When working in TipTronic mode, you can then save your ideal setting for each weld.

Automatic final current reduction

Lorch's automatic final current reduction produces perfectly clean weld ends by filling the end crater.

Controlconcept

Standard

- "3 steps to weld" operating concept
- Infinitely variable current setting
- Can be operated by remote control
- TipTronic



Technical Data: V series

	V 24	V 24 mobile	V 27	V 30	V 30 mobile	V 40	V 50
TIG							
welding range (in Amps)	3-240	3-240	3-270	3-300	3-300	3-400	3-500
current setting	infinitely variable	infinitely variable	infinitely variable	infinitely variable	infinitely variable	infinitely variable	infinitely variable
Electrode							
weldable electrodes (mm)	1,5-4,0	1,5-4,0	1,5-4,0	1,5-6,0	1,5-6,0	1,5-6,0	1,5-6,0
Duty cycle TIG DC							
duty cycle 100% (in Amps) - DC	220	220	250	250	270	360	380
duty cycle 60% (in Amps) - DC	240	240	270	300	300	400	500
duty cycle at max. current (in %) - DC	60%	60%	60%	60%	60%	60%	60%
Duty cycle TIG AC (only AC systems)							
duty cycle 100% (in Amps) - AC	210	190	250	250	240	360	380
duty cycle 60% (in Amps) - AC	230	220	270	300	280	400	500
duty cycle at max. current (in %) - AC	50%	50%	60%	60%	50%	60%	60%
Mains							
mains voltage (in V)	400	400	400	400	400	400	400
phases (50/60 Hz)	3~	3~	3~	3~	3~	3~	3~
positive mains tolerance (in %)	15%	15%	15%	15%	15%	15%	15%
negative mains tolerance (in %)	15%	15%	15%	15%	15%	15%	15%

mains fuse (in Amps)	16	16	16	32	16	32	32
mains plug	CEE 16	CEE 16	CEE 16	CEE 32	CEE 16	CEE 32	CEE 32

Dimensions and weights

dimensions (LxWxH) (in mm)	1130x450x815	812x283x518	1130x450x815	1130x450x815	812x283x518	1130x450x860	1130x450x860
weight (in kg)	84,6/90,5	29,4/35,1	85,0/92,0	86,4/93,6	31,0/37,0	107,6/121,5	108,7/123,2
weight, water cooling (filled) (in kg)	14,7	---	14,7	14,7	---	14,7	14,7

Standards and approvals

standard	EN 60974-01	EN 60974-01	EN 60974-01	EN 60974-01	EN 60974-01	EN 60974-01	EN 60974-01
protection class (EN 60529)	IP23S	IP23S	IP23S	IP23S	IP23S	IP23S	IP23S
insulation class	F	F	F	F	F	F	F
designation	CE, S	CE, S	CE, S	CE, S	CE, S	CE, S	CE, S