

State of the art IGBT Converter Technology for all induction applications



Converter Type TIV

The product line of EMA Indutec comprises a broad assortment of cutting-edge IGBT converters. The products are known across sectors for their reliability and high efficiency. EMA Indutec delivers power supplies for a wide variety of applications.

Every IGBT converter has its own digital controller. This controller's numerous integrated interfaces allow connection to current bus systems, controllers and further components.

Thanks to their user-friendly activation and operation as well as their modular construction, EMA Indutec converters are very easy to adapt to any requirement.

Applications:

Heating:

Shrinking, bonding and soldering, coating and drying, strip, wire and glass bath heating

Channel furnaces:

Copper and copper base alloys, aluminum and aluminum base alloys, steels

Melting:

Crucible melting furnaces, laboratory furnaces, vacuum furnaces

Forging and forming:

Blocks, billets, tubes and tube ends, rails

Hardening, annealing and tempering:

Tooth systems, bar steels, axles and shafts

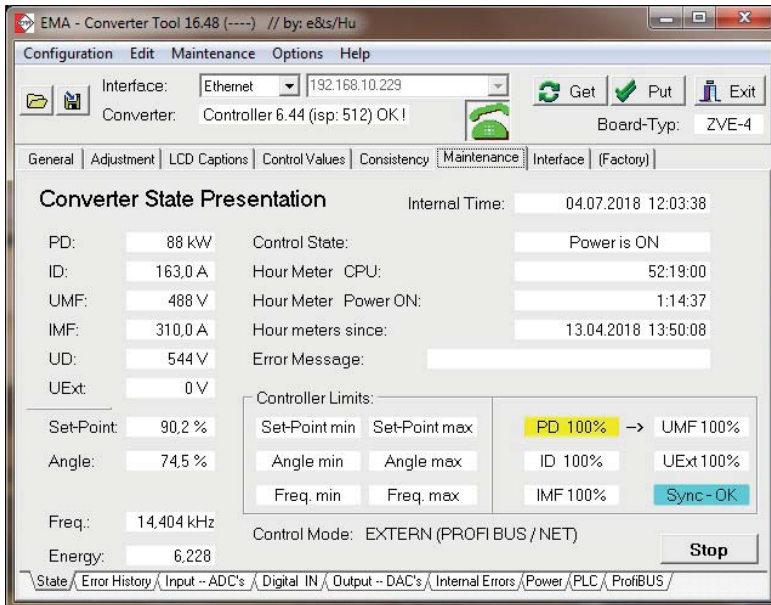
New converter technology that convinces

- Power range from 10 kW up to several Megawatt
- Frequencies from 5 Hz to 400 kHz
- Several individually controllable outlets possible, also with different frequencies and power ranges
- Synchronization of the frequency for converter groups in parallel operation
- Cos phi nearly 1 on the net with full and part load
- Fully digital converter controller, as a central component, with processor-controlled inverter unit with highly integrated, programmable digital electronics in one housing
- Visualization and display of the operational data on a display unit
- Profinet-/Profibus connection for communication with higher level controllers
- ready for industry 4.0
- Indirect semiconductor cooling
- Precise and reproducible energy dosage



Advantages of the converter controller

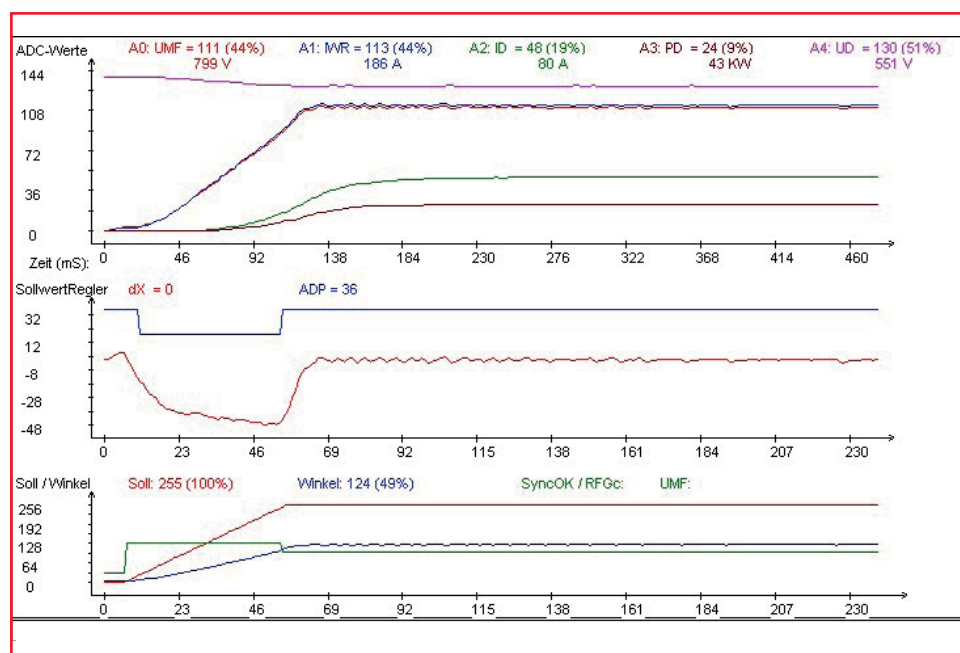
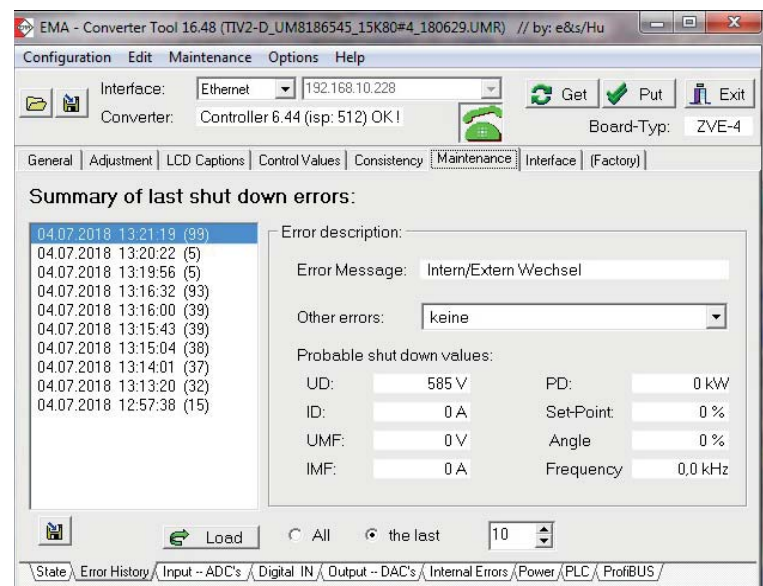
- One uniform controller component for all frequency and output ranges
- Parameterization by software
- Profinet-/Profibus-interface, Ethernet, USB and RS232 present
- Remote maintenance via Internet integrated
- Changing the operating parameters via remote access
- Error memory with 200 memory capacities
- Actual value memory with integrated continuous line recorder
- Glass bath-specific secondary measurement integrable



Converter Show software

Converter Show software for maintenance is optionally available: Display of all relevant operations data, printouts and sending error messages, graphical display of the operations data and sequences.

The software for Windows operating systems is provided in the framework of a chargeable training. Updates, if any, are provided free of cost.



Example of the integrated line recorder

Ideal Solutions for Heat Treatment

Induction heating and hardening systems

- Economical and highly reliable systems
- Low energy consumption per workpiece
- Accurately reproducible hardening results
- High throughputs
- Heating zones and times can be determined precisely
- Heat treatment processes with low distortion
- Scale-free hardness zones due to heat treatment with protective gas
- Simple to integrate into production lines
- Lower expenses for production parts
- Tailor-made induction systems from a single source
- User-friendly adjustment, retrofitting and maintenance
- Modern engineering supported by FEM simulation
- Areas of application: surface hardening, annealing and tempering, heat shrinking, fixture hardening

IGBT converters

- Digital converter control
- Power range from 10 kW up to several Megawatt
- Frequencies from 5 Hz to 400 kHz
- Heating and melting
- Hardening, annealing and tempering
- Forging and forming
- High energy efficiency
- Easy integration into production lines
- Customized solutions and special systems
- Replacement of old and external devices

After Sales Service

- Qualified and knowledgeable Service Centre
- Service hotline for troubleshooting
- Preventive maintenance
- Smart remote control solutions
- Efficient spare part concepts
- Customized plant-retrofit
- Inductor development, construction and repair service
- Training for operators, maintenance personnel and induction experts (also on site)

Top quality from one source

- More than 70 years of experience in heat treatment
- Over 10,000 induction systems in long-term operation worldwide
- Development and manufacture from a single source
- DIN EN ISO 9001:2015 certified
- Efficient project and quality management from the first question to subsequent service



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