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# **Induction** heating unit TTH2/TTH3/TTH5 RU-E

Power 2kW / 3kW / 5kW Frequency 70kHz–450kHz Stationary design with one output for continuous operation The induction heating unit TTH2/ TTH3/TTH5 consists of two components, the high frequency Generator and the stationary heating station with the corresponding inductor.

The TTH2/TTH3/TTH5 has been designed with state of the art semiconductor technology and therefore enables an optimal overall efficiency of the unit. The generator automatically selects the resonance frequency for any inductor and thereby always achieves maximum output.

This continuous operation facility can be operated continously 24 hours, 7 days a week, 365 days a year.

## Unit design TTH2/TTH3/TTH5

### Generator:

- on/off switch
- internal power supply
- automatic resonance recognition
- inductor short-circuit proof
- with measuring device for output power and frequency
- display of generator status with LEDs
- continuous target value regulation with potentiometer 0-100 %
- remote control socket for PLC controller
- connection option for foot switch
- 1.5 m connection cable between generator and heating station

### Heating station:

- · matching transformator with electrical insulation
- replaceable condenser bridges
- inductor connection

### **Remote control inputs:**

- · digital input for induction unit start
- analogue input 0–10 V or 0–20 mA for target value

### **Remote control outputs:**

- · digital output for standby
- digital output for power transmission at the inductor
- digital output for induction unit error state
- analogue output 0-5 V for power transmission at the inductor



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### COOLING CIRCUIT CONNECTORS

# Technical Data TTH2/TTH3/TTH5

Generator				
TTH2	HF-output:	2 kW		
	Total input power:	2,5 kVA		
TTH3	HF-output: Total input power:	3 kW 4 kVA		
TTH5	HF-output: Total input power:	5 kW 7 kVA		
Power supply		3 x 400 V/N+PE 16A, 50–60 Hz		
Internal control voltage		230 V/N AC 50–60 Hz		
Amount of heating stations		1 (stationary)		
Power-on time		100 % (= continuous operation), 24h		
Frequency		70 kHz bis 450 kHz		
Housing		Table housing 3HE, 84TE HF-design		
Dimensions [W x H x D]		450 x 150 x 650 mm		
Dimensions [W x H x D] with handles		450 x 150 x 690 mm		
Weight		approx. 20 kg		
Heating station				
Dimensions [W x H x D]		230 x 180 x 330 mm		
Mounting holes [W1 x D1]		180 x 310 mm, 4 x M6		
Inductor level h		110 mm (± 1 mm)		
Inductor mounting (see hole pattern) [a x b]		30 x 30 mm		
Weight		approx. 20 kg		
Remote	e control			
		24 V / 100 mA and 12 V / 100 mA DC		
Inputs:	бирру			
Digital input coil energy transfer		24 V DC		
Digital input external reset		24 V DC 0-10 V or 0-20 mA DC		
Potential free relay contacts or		24 V / 1,25 A (AC/DC)		
Photom	nos outputs (high switching operation amounts)	24 V / 0,25 A (AC/DC)		
Outputs for generator conditions		standby state power transmission to inductor		
		• error state		
Watar	domand			
Water		Drinking water or cleaned filtered industrial water (no deionised		
		or distilled water)		
Water hardness		max. 8 German degrees of hardness		
Water connection		1x flow & 1x return		
Water connection flow & return		1/2" hose clip, tube di=12 mm		
Pressure difference		max. 8 bar		
Supply	temperature	18 °C – 25 °C (max. 30 °C)		
TTH2	Rate of flow Switchpoint of waterflow	approx. 2 l/min (including coil cooling) approx. 1,5 l/min		
TTH3	Rate of flow Switchpoint of waterflow	approx. 3 l/min (including coil cooling) approx. 2 l/min		
TTH5	Rate of flow Switchpoint of waterflow	approx. 4 l/min (including coil cooling) approx. 3 l/min		

# Article numbers and accessory list

ORDER NUMBER	ARTICLE DESCRIPTION	DESCRIPTION
Induction heating	g unit - stationary design	
IND0020	TTH2	continuous operation 100 % with output power 2 kW
IND0021	TTH3	continuous operation 100 % with output power 3 kW
IND0022	TTH5	continuous operation 100 % with output power 5 kW
Accessories		
IND0200	industry foot switch	foot switch to turn on and off the induction power
IND0203	industry foot switch with output power control	foot switch to turn the induction unit on and off and also to control the power output $0100\ \%$
IND0205	10turn potentiometer	fixed adjustment of the output power with interlock
IND0251m	lifting device TTH2-TTH5 m	manual lifting device for heating stations TTH2/TTH3/TTH5
IND0251e	lifting device TTH2-TTH5 e	automatic lifting device for heating stations TTH2/TTH3/TTH5
Inductor		
IND0300	inductor	customer specific inductors
Optional: temper	ature control	
S-REGULUSxxx	Regulus	temperature control or programm control
IND0850	SPS	automatic sequence control & temperature control prepared for small devices
IND0850small	SPS-Small	automatic sequence control & temperature control
S-Sirius	infrared pyrometer	infrared pyrometer 300 °C1300 °C
S-Sirius	infrared pyrometer	infrared pyrometer 50 °C400 °C
S-xxx	accessories	accessories, mounts, air purge for pyrometer
Optional: cooling	g system	
RKA-eChilly 02	cooling system eCHILLY02- Sonder	cooling system for induction heating unit and inductor TTH2/TTH3
RKA-eChilly 04	cooling system eCHILLY04- Sonder	cooling system for induction heating unit and inductor TTH5



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