



## ***Induction heating unit TTH2t/TTH3t/TTH5t***

***Power 2kW/3kW/5kW***

***Frequency 70kHz-450kHz***

***Stationary design with one output for cyclic operation***

The induction heating unit TTH2t/TTH3t/TTH5t consists of two components, the high frequency Generator and the stationary heating station with the corresponding inductor.

The TTH2t/TTH3t/TTH5t 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.

## Unit design TTH2t/TTH3t/TTH5t

### 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
- 1.5m connection cable between generator and heating station

### Heating station:

- matching transformer with electrical insulation
- replaceable condenser bridges
- inductor connection
- inductor rapid fastener

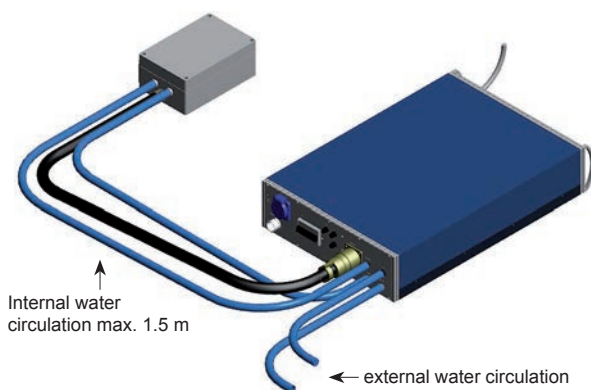
### Remote control inputs:

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

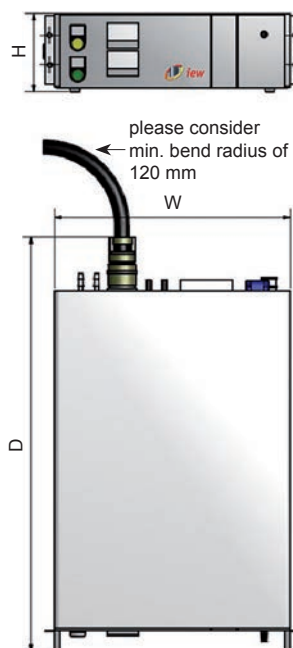
### Remote control outputs:

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

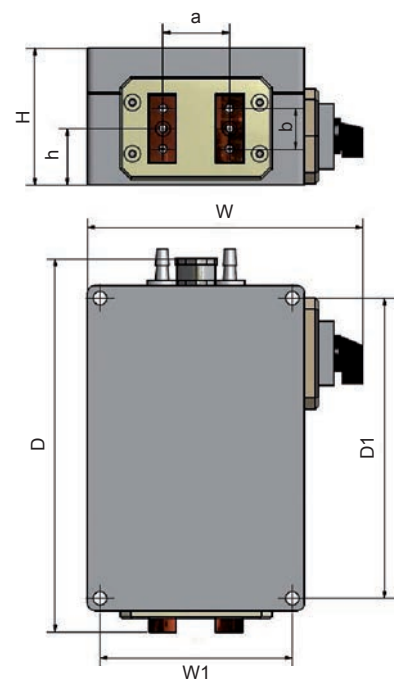
### COOLING CIRCUIT CONNECTORS



### GENERATOR



### HEATING STATION



## Technical Data TTH2t/TTH3t/TTH5t

### Generator

TTH2t	HF-output:	2 kW
	Total input power:	2,5 kVA
TTH3t	HF-output:	3 kW
	Total input power:	4 kVA
TTH5t	HF-output:	5 kW
	Total input power:	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		70% (= continuous operation)
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]		160 x 100 x 240 mm
Mounting holes [W1 x D1]		142 x 222 mm
Inductor level h		41 +/-5mm
Connecting system inductor [a x b]		4 x M6, 50 x 30 mm
Weight		approx. 8 kg

### Remote control

Power supply		24V/100mA and 12V/100mA DC
Inputs:		
Digital input coil energy transfer		24V DC
Digital input external reset		24V DC
External performance settings		0-10V or 0-20mA DC
Outputs (alternatively):		
Potential free relay contacts or		24V/1,25A (AC/DC)
Photomos outputs (high switching operation amounts)		24V/0,25A (AC/DC)
Outputs for generator conditions		<ul style="list-style-type: none"> <li>• standby state</li> <li>• power transmission to inductor</li> <li>• error state</li> </ul>

### Water demand

Water quality		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=12mm
Pressure difference		4 – 6 bar
Supply temperature		18°C – 25°C (max. 30°C)
TTH2t	Rate of flow	approx. 2 l/min (including coil cooling)
	Switchpoint of waterflow	approx. 1,5 l/min
TTH3t	Rate of flow	approx. 3 l/min (including coil cooling)
	Switchpoint of waterflow	approx. 2 l/min
TTH5t	Rate of flow	approx. 4 l/min (including coil cooling)
	Switchpoint of waterflow	approx. 3 l/min

## Article numbers and accessory list

ORDER NUMBER	ARTICLE DESCRIPTION	DESCRIPTION
<b>Induction heating unit - stationary design</b>		
IND0000	TTH2t	cyclic operation 70% with output power 2kW
IND0001	TTH3t	cyclic operation 70% with output power 3kW
IND0003	TTH5t	cyclic operation 70% with output power 5kW
<b>Accessories</b>		
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 0...100%
IND0205	10turn potentiometer	fixed adjustment of the output power with interlock
IND0251m	lifting device TTH2-TTH5 320mm m	manual lifting device for heating stations TTH2 / TTH3 / TTH5
IND0251e	lifting device TTH2-TTH5 a	automatic lifting device for heating stations TTH2 / TTH3 / TTH5
<b>Inductor</b>		
IND0300	inductor	customer specific inductors
<b>Optional: temperature control</b>		
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°C...1300°C
S-Metis	infrared pyrometer	infrared pyrometer 75°C...550°C
S-xxx	accessories	accessories, mounts, air purge for pyrometer
<b>Optional: cooling system</b>		
RKA-Chilly 15	cooling system CHILLY15-Sonder 1.425kW	cooling system for induction heating unit and inductor
RKA-Chilly 35	cooling system CHILLY35-Sonder 3.5kW	cooling system for induction heating unit and inductor



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