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Datasheet
TTH20/TTH25 EN

Induction heating unit TTH20/TTH25

Power 20kW/25kW

Frequency 70kHz-450kHz

Stationary design with one output for continuous operation

Unit design TTH20/TTH25

The induction heating unit TTH20/TTH25 consists of two components, the high frequency Generator and the stationary heating station with the corresponding inductor.

The TTH20/TTH25 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.

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 transformator with electrical insulation
- replaceable condenser bridges
- inductor connection
- inductor rapid fastener

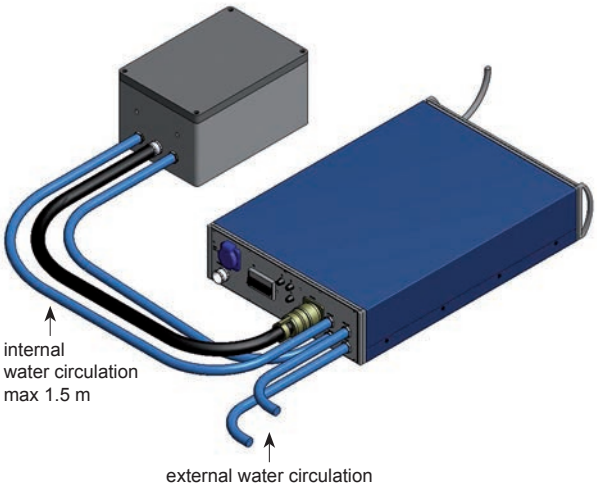
Remote control inputs

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

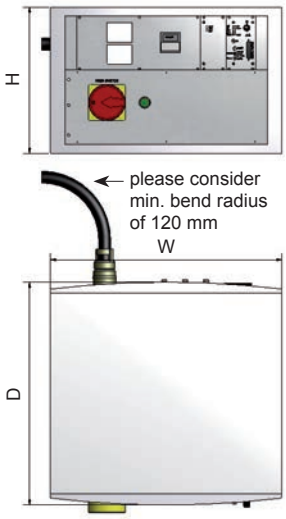
Remote control outputs

- 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

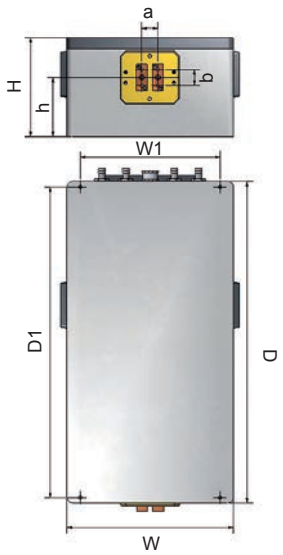
COOLING CIRCUIT CONNECTORS



GENERATOR



HEATING STATION



Technical data TTH20/TTH25

Generator	
TTH20 HF-output total input power	20 kW 23 kVA
TTH25 HF-output total input power	25 kW 28 kVA
Power supply	3 x 400 V/N+PE 63A, 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)
Frequency	70 kHz bis 450 kHz
Housing	Tischgehäuse 7HE, 84TE HF-Ausführung
Dimensions (W x H x D) with handles	550 x 350 x 530 mm
Weight	approx. 45 kg

Heating station	
Dimensions (W x H x D) without fan	310 x 180 x 600 mm
Dimensions (W x H x D) with fan	330 x 180 x 610 mm
Mounting holes (W1 x D1)	260 x 580 mm
Connecting system induktor (a x b)	4 x M6, 50 x 30 mm
Weight	approx. 48 kg

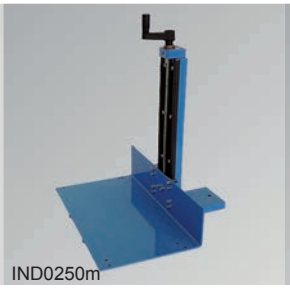
Remote control	
Power supply	24V/100mA und 12V/100mA DC
Inputs: Digital input coil energy transfers Digital input external reset External performance settings	 24V DC 24V DC 0-10V bzw. 0-20mA DC
Outputs (alternatively): Potential fee relay contacts OR Photomos-outputs (high switching operation amounts) Outputs for generator conditions	 24V/1,25A AC/DC 24V/0,25A AC/DC • standby-state • power transmission to inductor • error state

Water demand	
Water quality	Drinking water or cleaned filtered industrial water (no deionised or destilled water)
Water hardness	max. 8 German degrees of hardness
Water connection	1 x flow, 1 x return
Water connection flow & return	1/2“ hose clip, tube di = 12 mm
Pressure difference	4 – 6 bar
Supply temperature	18°C – 25°C (max. 30°C)
TTH20 rate of flow generator switchpoint of waterflow generator rate of flow inductor switchpoint of waterflow inductor	approx. 5 l/min approx. 4 l/min approx. 6 l/min approx. 4 l/min
TTH25 rate of flow generator switchpoint of waterflow generator rate of flow inductor switchpoint of waterflow inductor	approx. 6 l/min approx. 4 l/min approx. 7 l/min approx. 4 l/min

Article numbers and accessory list

ORDER NUMBER	ARTICLE DESCRIPTION	DESCRIPTION
Induction heating unit – stationary design		
IND0028	TTH20	contiuous operation 100% with output power 20kW
IND0029	TTH25	contiuous operation 100% with output power 25kW
Accesories		
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
IND0253e	HUB TTH20-TTH25 e	automatic lifting device for heating station TTH20 / TTH25 electric powerd version
Inductor		
IND0300	Inductors	customer specific inductors
Optional: temperature 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°C...1300°C
S-Metis	infrared pyrometer	infrared pyrometer 75°C…550°C
S-xxx	accessories	accessories, mounts, air purge for pyrometer
Optional: cooling systems		
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


IND0200
IND0203


IND0250m


IND0300


IND0850small


IND0850

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