Induction heating unit
TTH8/TTH10/TTH12

Power 8kW/10kW/12kW
Frequency 70kHz-450kHz
Stationary design with one output for continuous operation
The induction heating unit TTH8/TTH10/TTH12 consists of two components, the high frequency Generator and the stationary heating station with the corresponding inductor.

The TTH8/TTH10/TTH12 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 TTH8/TTH10/TTH12**

**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

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## Technische Daten TTH8/TTH10/TTH12

### Generator

<table>
<thead>
<tr>
<th>Model</th>
<th>HF-output:</th>
<th>Total input power:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTH8</td>
<td>8 kW</td>
<td>10 kVA</td>
</tr>
<tr>
<td>TTH10</td>
<td>10 kW</td>
<td>12 kVA</td>
</tr>
<tr>
<td>TTH12</td>
<td>12 kW</td>
<td>14 kVA</td>
</tr>
</tbody>
</table>

- **Power supply**: 3 x 400 V/N+PE 32A, 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**: 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 230 x 400 mm
- **Mounting holes [W1 x D1]**: 180 x 380 mm
- **Inductor level h**: 110 +/-5mm
- **Connecting system inductor [a x b]**: 4 x M6, 50 x 30 mm
- **Weight**: approx. 25 kg

### Remote control

- **Power supply**: 24V/100mA and 12V/100mA DC
- **Inputs**:
  - Digital input coil energy transfer: 24 V DC
  - Digital input external reset: 24 V DC
  - External performance settings: 0-10V or 0-20mA DC
- **Outputs (alternatively)**:
  - Potential free relay contacts or Photomos outputs (high switching operation amounts)
    - 24V/1,25A (AC/DC)
  - Outputs for generator conditions
    - 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**: 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)
- **TTH8 Rate of flow Switchpoint of waterflow**: approx. 5 l/min (including coil cooling)
  - approx. 3 l/min
- **TTH10 Rate of flow Switchpoint of waterflow**: approx. 6 l/min (including coil cooling)
  - approx. 4 l/min
- **TTH12 Rate of flow Switchpoint of waterflow**: approx. 6 l/min (including coil cooling)
  - approx. 4 l/min
### Article numbers and accessory list

<table>
<thead>
<tr>
<th>ORDER NUMBER</th>
<th>ARTICLE DESCRIPTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND0024</td>
<td>TTH8</td>
<td>continuous operation 100% with output power 8kW</td>
</tr>
<tr>
<td>IND0025</td>
<td>TTH10</td>
<td>continuous operation 100% with output power 10kW</td>
</tr>
<tr>
<td>IND0026</td>
<td>TTH12</td>
<td>continuous operation 100% with output power 12kW</td>
</tr>
</tbody>
</table>

#### Accessories

<table>
<thead>
<tr>
<th>ORDER NUMBER</th>
<th>ARTICLE DESCRIPTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND0200</td>
<td>industry foot switch</td>
<td>foot switch to turn on and off the induction power</td>
</tr>
<tr>
<td>IND0203</td>
<td>industry foot switch</td>
<td>foot switch to turn the induction unit on and off and also to control the power output 0...100%</td>
</tr>
<tr>
<td>IND0205</td>
<td>10turn potentiometer</td>
<td>fixed adjustment of the output power with interlock</td>
</tr>
<tr>
<td>IND0252m</td>
<td>HUB TTH8-TTH15 320mm</td>
<td>manual lifting device for heating stations TTH8 / TTH10 / TTH12</td>
</tr>
<tr>
<td>IND0252e</td>
<td>HUB TTH8-TTH15 a</td>
<td>automatic lifting device for heating stations TTH8 / TTH10 / TTH12</td>
</tr>
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</table>

#### Inductor

<table>
<thead>
<tr>
<th>ORDER NUMBER</th>
<th>ARTICLE DESCRIPTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>IND0300</td>
<td>inductor</td>
<td>customer specific inductors</td>
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#### Optional: temperature control

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<thead>
<tr>
<th>ORDER NUMBER</th>
<th>ARTICLE DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>S-REGULUSxxx</td>
<td>Regulus</td>
<td>temperature control or program control</td>
</tr>
<tr>
<td>IND0850</td>
<td>SPS</td>
<td>automatic sequence control &amp; temperature control prepared for small devices</td>
</tr>
<tr>
<td>IND0850small</td>
<td>SPS-Small</td>
<td>automatic sequence control &amp; temperature control</td>
</tr>
<tr>
<td>S-Sirius</td>
<td>infrared pyrometer</td>
<td>infrared pyrometer 300°C...1300°C</td>
</tr>
<tr>
<td>S-Metis</td>
<td>infrared pyrometer</td>
<td>infrared pyrometer 75°C...550°C</td>
</tr>
<tr>
<td>S-xxx</td>
<td>accessories</td>
<td>accessories, mounts, air purge for pyrometer</td>
</tr>
</tbody>
</table>

#### Optional: cooling system

<table>
<thead>
<tr>
<th>ORDER NUMBER</th>
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<tbody>
<tr>
<td>RKA-Sigma 07</td>
<td>cooling system Sigma 7</td>
<td>cooling system for induction heating unit and inductor</td>
</tr>
<tr>
<td>RKA-Sigma 09</td>
<td>cooling system Sigma 9</td>
<td>cooling system for induction heating unit and inductor</td>
</tr>
</tbody>
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