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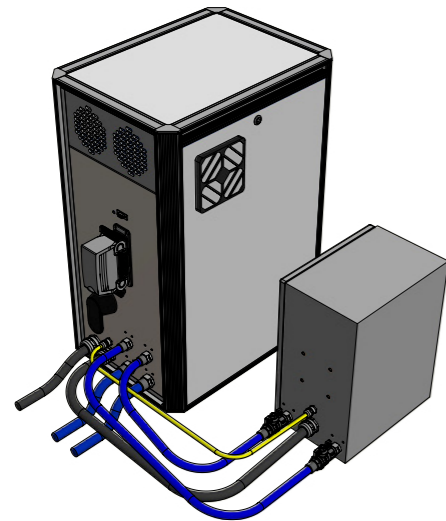
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# TNX10/15/20/30 INDUCTION HEATING UNIT

Frequency 10kHz–100kHz

The **induction heating units** consist of two components, the medium frequency generator and the stationary heating station.

The **TNX10/15/20/30** 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.



Connectors cooling cycle

### Unit design TNX10/15/20/30

#### Generator

- + on/off switch
- + internal power supply
- + automatic resonance recognition
- + inductor short-circuit proof
- + User panel
- + controlled target value regulation with potentiometer 0–100
- + remote control socket for PLC controller
- + connection option for foot switch
- + 3m – max. 5m connection cable between generator and heating station

#### Heating station

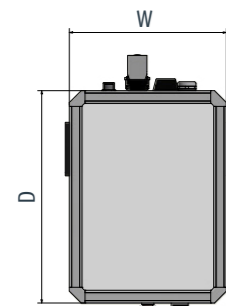
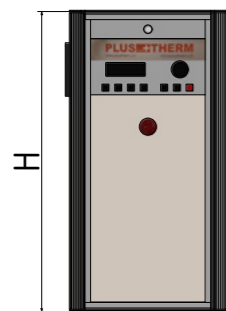
- + Interchangeable condenser bridges
- + inductor connection

#### Remote control inputs

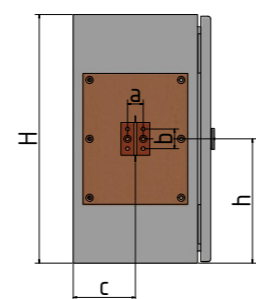
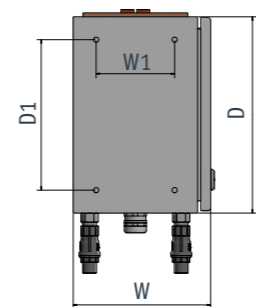
- + digital input for induction unit start
- + analogue input 0–10 V or 4–20 mA for target value

#### Remote control outputs

- + digital output for standby
- + digital output for power transmission at the inductor
- + digital output for induction unit error state
- + analogue output for power transmission at the inductor, for frequency or water flow rate and more
- + Error memory with 200 storage spaces
- + Integrated temperature controller (e.g. for external pyrometer)



Generator



C-Box

Technical data	TNX10	TNX15	TNX20	TNX30
MF power at the inductor connectors at the nominal operating point for continuous operation	10 kW	15 kW	20 kW	30 kW
Frequency at maximum load	10 - 100 kHz (150 kHz upon request)			
MF-Voltage (rms.)	< 600 V			
Power supply	3 x 400V + N +PE			
Frequency	50 Hz			
Allowed voltage fluctuations	+5/-10 %			
Power consumption during stand by	< 200 W			
Power consumption at nominal load	11 kVA	17 kVA	22 kVA	35 kVA
Power factor cosφ at nominal load	approx. 0,94			
Current per phase (400 V) at nominal load	approx. 15 A	approx. 25 A	approx. 32 A	approx. 51 A
Required fuse protection	25A / 500V gl	32A / 500V gl	40A / 500V gl	63A / 500V gl
Supply voltage - Remote Control	24 VDC			
External allowed power	Target value ref. input 0 – 10VDC / 0–20 mA			
Feedback power output	Power ref. output 0 – 10VDC / 0–20 mA			

#### Dimensions generator

Dimension (W x D x H)	370 x 500 x 710 mm (15 HE)			
Weight	Approx. 40 kg	Approx. 50 kg	Approx. 55 kg	Approx. 70 kg

#### Dimensionen Erwärmungsstation (C-Box)

Dimensions (W x D x H)	300 x 210 x 380 mm 300 x 210 x 300 mm			
Drill holes (W1 / D1)	120 mm / 230 mm (hole diameter: 8 mm)			
Induction coil connection position (c / h)	95 mm / 190 mm			
Induction coil connector (a / b)	24 mm / 30 mm			
Weight	17 kg	17 kg	17 kg	17 kg

#### Cooling

Water amount	8 l / min.	12 l / min.	15 l / min.	20 l / min.
with a pressure of	5 bar dyn.			
Max. allowed pressure	7 bar			
Water outlet temperature for open cooling system	18 °C < T < 28 °C Temperature may not go below the dew point			
Water connections	3/4" external thread			
Water quality	Drinking water or cleaned filtered industrial water (distilled water is also possible) Filter min. 500µm conductivity 50-300µS/cm PH-Range 7.0-8.5			