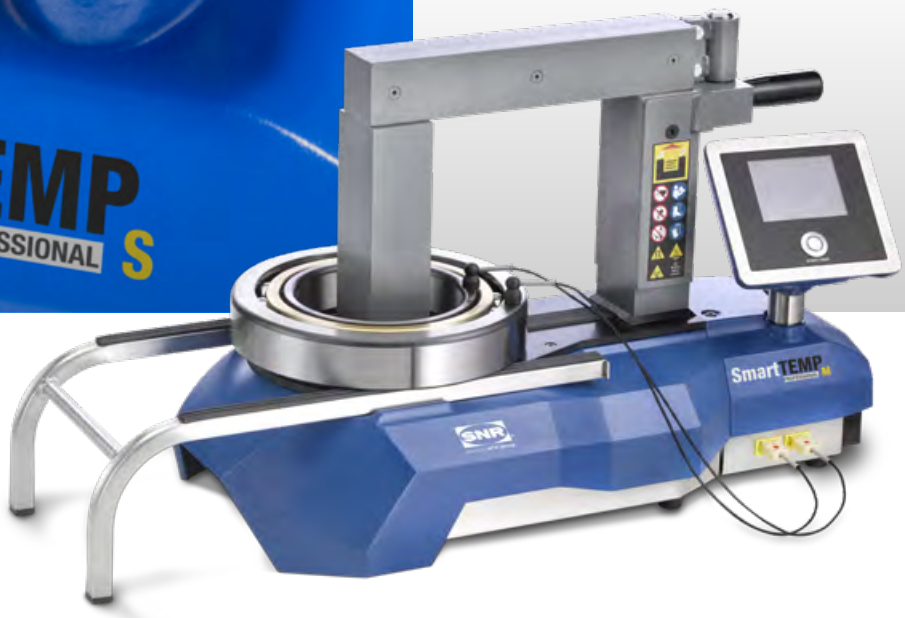
Brand of **NTN Group**

SmartTEMP

User manual

S - M - L - XL Pivot - XXL - XXXL



Manual available
in other language

Check delivery for possible damage caused by transport without delay. Should damage be detected, please inform carriers immediately. As our products are subject to continuous improvement, we reserve the right to make changes.

During unboxing, check if parts are missing (see chapter INSTALLATION - Scope of delivery). If so, please contact your local distributor.

CONTENTS


ATTENTION
LUBRICATE
CONTACT
SURFACES
90°C
100%
/STOP
SmartTEMP
PROFESSIONAL

Induction heating

SmartTEMP™ induction heaters are used to heat rolling bearings. Other metal components forming a closed circuit such as bushings, shrink rings, pulleys and gears can also be heated. This will facilitate mounting where an interference fit is required.

Our range of standard heaters are designed to heat the workpiece to a maximum temperature of 240°C (464°F). Always place the temperature sensor on the workpiece to check the heating cycle. When heating an object using Time Mode, the heating cycle must be checked using an external temperature meter.

Operating conditions

The heater is designed to be used in an industrial environment with an ambient temperature of 0°C to 40°C (32°F to 104°F) and an atmospheric humidity between 5% and 90%, non-condensing. The induction heater is intended for indoor use only.

CAUTION!

Bearings generally should only be heated to a maximum temperature of 110°C (230°F). Do not use induction heaters for bearings or workpieces with dimensions outside the ranges specified in this manual. Do not switch off the heater with the main switch while heating cycle is running

Safety guidelines

The operating instructions should always be followed when using an induction heater.

NTN Europe shall not be held liable for damages caused by improper handling or by use which does not comply with the designated purpose. Prerequisites for the operator: He/she must be authorised for use of the heater and must be familiar with the safety precautions.

In order to prevent danger or damage to the induction heater or workpiece, follow these guidelines:

- All repairs must be carried out by an official repair center
- Use original spare parts only
- Protect the heater from water or very high humidity during storage
- Protect the heater core and yokes against corrosion, damage and deformation
- Only preheat bearings to max. 110°C (230°F)
- To ensure proper operation of the device, it is important to provide the device with the latest software updates. A description can be found in chapter "**OPERATION - USER MENU**"

Safety precautions

- Since a magnetic field[4&5] is generated by the induction heater, people wearing a pacemaker[1] or other implant device[2] should not work or be in the immediate vicinity of the device. Other sensitive equipment such as wrist watches, magnetic carriers, electronic circuits, etc.[3] might also be affected. The safety distance is 1 metre (38")
- Use safety gloves as protection against burns to hands. The gloves[7] delivered are suitable for use up to temperatures of 240°C (464°F) (resistant to contact heat only)
- Hot surface, avoid contact[6]
- Do not operate an induction heater in areas where there is risk of explosion
- Wear safety shoes[8]

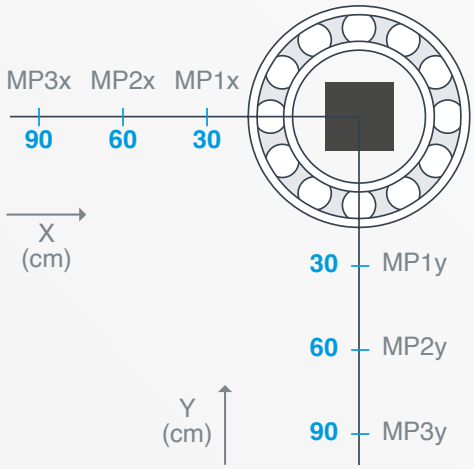
Safety instructions

- The user should have an appreciation of the contents of this user manual, and be familiar with safe workshop practices
- Follow the user manual at all times
- Ensure that the induction heater operates at the correct supply voltage. If the heater is not supplied with a plug, changes should only be made by a suitably qualified electrician
- Do not use or store the heater in humid environments. The heater is designed for indoor use only
- Use proper handling equipment, appropriate for the weight of the workpiece and/or yoke. Never support components with a metal cable or have any hanging in the proximity of the magnetic field. Extremely high currents can flow through the cable causing it to heat up quickly, resulting in a risk of burning.
- Do not place any metal objects near the yokes and poles
- Place heater on a stable, horizontal surface
- Keep a minimum distance of 1 metre (38”) to surrounding objects
- Use only in well ventilated areas
- Do not heat objects containing oil, grease or similar substances. Prevent possible generation of fumes and smoke
- Do not inhale fumes or smoke from heated parts
- Do not move or lift heater when warm after heating cycle
- Do not touch the heater core during heating cycle

When using the smallest yokes on a SmartTEMP XL, XL Pivot, XXL or XXXL, make sure to reduce the maximum power output. An overview of the maximum power output per yoke size can be found on page 12.

Safety features

Should an error occur during the heating process, the induction heater will automatically stop. The corresponding error will be displayed on screen. In the case of user error, the display indicates what steps are to be taken to correct the problem. More information about the types of errors can be found in chapter **"ERRORS".**



An induction heater produces an electromagnetic field within a coil to transfer energy to a workpiece. The table below shows values of the flux density in microTesla (µT).

These measurements can be used as a guide conforming to local regulations regarding the maximum time exposure to magnetic fields. Different configurations may give different values. It is impossible to provide values for all combinations as the variety of bearing types in combination with the different yokes is large.

SmartTEMP™	S	M	L	XL	XXL	XXXL
Measurement position (cm)				B-field$_{total}$ (µT)		
MP1x	81	249	283	454	864	868
MP2x	16	34	74	189	272	370
MP3x	1	11	28	51	143	201
MP1y	156	181	185	458	874	983
MP2y	27	24	78	191	314	416
MP3y	9	9	41	80	156	196

Total 50Hz RMS field for magnetic measurement results. Max. magnetic flux in safe exposure area, according to the German BG 11 Regulations is 423 µT.

Installation

Scope of delivery

❶ **SmartTEMP™ S / M / L / XL / XL Pivot / XXL / XXXL**

❷ **Yoke different according to the heater**

❸ **Temperature probe** (the second probe is optional according to the model)

❹ **Heat-resistant gloves**

❺ **User manual**

❻ **Quickstart guide**

Note

Every **SmartTEMP™** in the range comes with a yoke. **SmartTEMP™ L, XL, XL Pivot, XXL, XXXL** are delivered with two magnetic temperature probes included. The heat-resistant gloves may differ from the picture above.

Unboxing

Follow the specific instructions for the heater on the supplied Quickstart guide. If the Quickstart guide is not included in this box, please contact your distributor.

Note

Check delivery for possible damage caused by transport without delay. Should damage be detected, please inform carriers immediately. As our products are subject to continuous improvement, we reserve the right to make changes.

Installation process

Ensure that supply voltage and current meet the specifications. These can be found on the type plate at the back of the induction heater.

Not all of our induction heaters are provided with a plug, mainly because there are a large number of plug types. A suitable plug must be affixed by a qualified electrician. Voltage may differ for customized heaters.

Electrical connection for SmartTEMP S, M, L. The plug is provided for these induction heaters.

Electrical connection for SmartTEMP XL, XL Pivot, XXL, XXXL.

SmartTEMP™ S/M

Voltage	Phase	Neutral	Ground
110-230 V	Brown	Blue	Green/Yellow

SmartTEMP™ L

Voltage	Phase X / L1	Phase Y / L2	Ground
400-440 V	Brown	Black	Green/Yellow
460-575 V	Brown	Black	Green/Yellow

SmartTEMP™ XL - XL Pivot XXL - XXXL

Voltage	Phase	Neutral	Ground
400-440 V	Brown	Black	Green/Yellow
460-575 V	Brown	Black	Green/Yellow

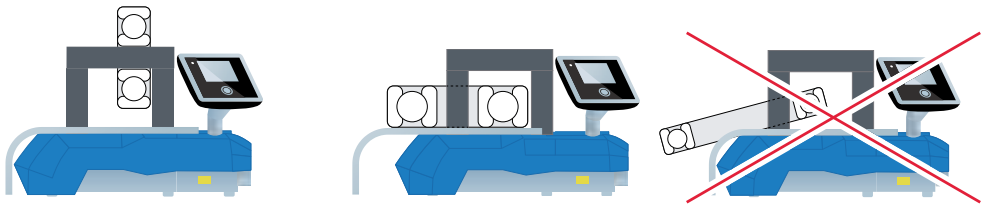
Insert the plug into a shockproof wall socket and then connect the heater to mains electricity.

Turn main switch from 0 to 1. The heater will emit a short beep and the touchscreen displays the main menu. The induction heater is now ready for use.

Setting up the workpiece

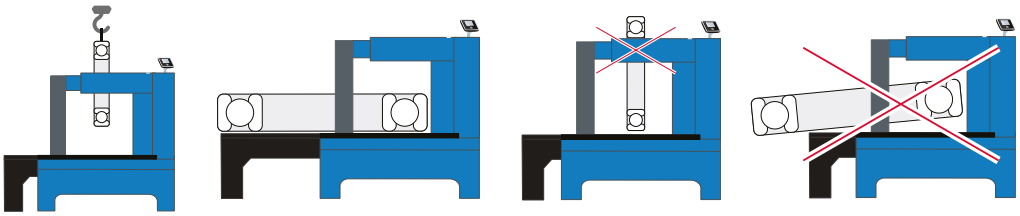
The workpiece can be set up in two different ways and must never touch the housing. Small objects are to be heated in a vertical position.

SmartTEMP™ S / M / L XL PIVOT



vertical horizontal

SmartTEMP™ XL / XXL XXXL

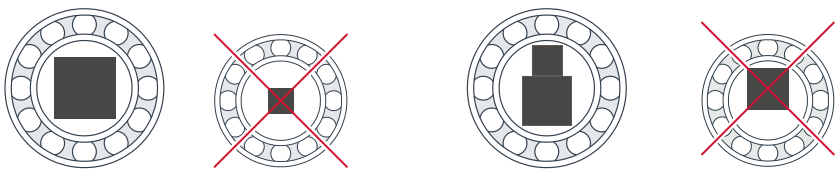


vertical horizontal

- Use appropriate hoisting equipment for heavy components and yokes. Manual lifting of heavy objects is a common cause of injury
- Wear safety shoes during these procedures
- The weight of the work-piece should not exceed the maximum weight as shown in chapter **"WORKPIECE DIMENSIONS"**. Exceeding these limits may result in catastrophic equipment failure and may also lead to personal injury
- Ensure there is no contact between the mains cable and the workpiece. Damage to the cable may result in electrocution
- Never support components with a metal cable and avoid metal cables hanging in the proximity of the magnetic field. Extremely high currents can flow through the cable causing it to heat quickly, resulting in risk of burning

Choosing the yoke

- Choose largest possible yoke which fits the diameter of the workpiece. Position the workpiece onto the yoke and place the yoke with the machine milled surface on the poles of the heater core
- Always make sure that the workpiece avoids direct contact with the housing of the heate



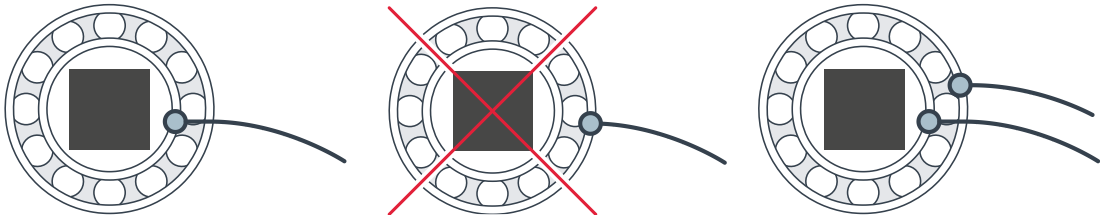
- When a heating cycle is completed, always wear heat-resistant gloves. The maximum temperature of the workpiece on a standard induction heater is 240°C (464°F)
- Always treat yokes carefully. Falling, bumping, etc. can damage the yoke and/or cause personal injury Always store the yoke safely immediately after use

When using smaller yoke sizes on XL / XXL / XXXL, make sure to reduce the maximum power output according to the following rule:
When using RAMP MODE or TEMP. TWO SENSOR MODE, the effective power will be constantly regulated during the heating cycle. This is done fully automatic.
When using TIME MODE or TEMP. ONE SENSOR MODE, the standard power setting is 100% effective output. To prevent the hardware and electronics from overheating make sure to reduce the maximum power output manually according to the table:

YOKES	XL	XXL	XXXL
20 x 20	40%	N/A	N/A
30 x 26	50%	40%	N/A
40 x 38	60%	40%	N/A
50 x 48	80%	50%	N/A
60 x 60	100%	50%	50%
70 x 70	100%	50%	N/A
80 x 80	100%	60%	60%
90 x 90	N/A	80%	N/A
100 x 100	N/A	100%	80%
150 x 150	N/A	N/A	100%

Positioning the magnetic temperature probe(S)

- Always use the magnetic temperature probe (hereafter referred to as the 'probe') for heating in Temperature Mode or Ramp Mode.
- Place the probe on the workpiece, close to the bore. Make sure that the surface used for the probe is free of grease and/or oil.
- If the induction heater has two probes: place one close to the bore and the other on the outer ring.



- Our standard probes are suitable for operation up to a maximum temperature of 240°C (464°F). The connection between magnet and probe will break above the maximum temperature. If this occurs when operating in Temperature Mode, the heater will turn itself off as the probe will fail to register any increase in the temperature over a set period of time. Probes for higher temperatures are optional.
- Connect the probe by inserting the plug into the socket at the front of the heater, with the red dot facing upwards.

CAUTION

Treat the probe with care. It is a valuable part of the heater and can easily be damaged through careless handling. After use, we suggest that it be placed on the side of the vertical pole.

Operation

When the induction heater is turned on, the homescreen can show up to four buttons with different modes; Time Mode is always available. Temperature Mode (with 1 sensor) and Ramp Mode will be enabled when one sensor is inserted. An extra Temperature Mode (with 2 sensors) will be enabled when a second sensor is inserted.

The start/stop button is used for starting heating cycles in one of the modes, or to stop a heating cycle at any time.

Every mode has three stages:

1. **Preparation** - The user can change the temperature and/or time.
2. **Heating process** - The induction heater starts the heating cycle.
3. **Completion** - The heating cycle has ended.

When a heating cycle is complete, or stopped prematurely, the program will return to the main screen of the heating mode. A graph can be requested with the graph button 

.

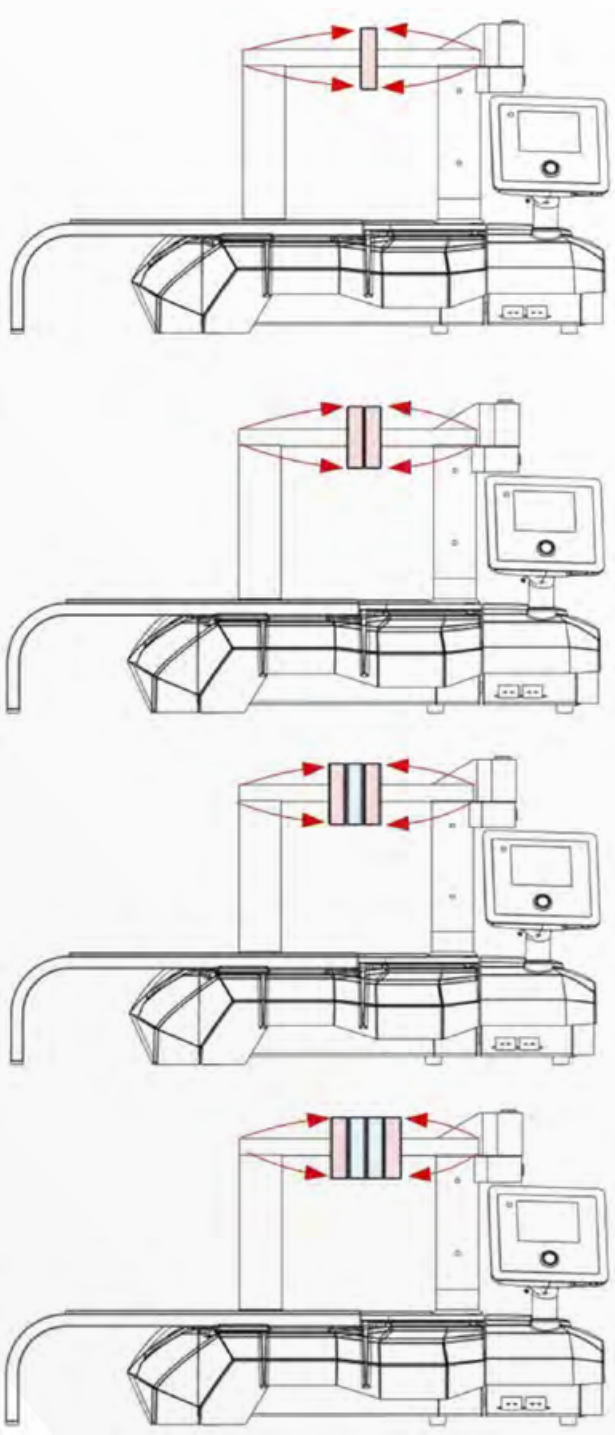
Maximum recommended heating time for heating a part with the SmartTEMP:

- SmartTEMP S: 30 minutes
- SmartTEMP M: 30 minutes
- SmartTEMP L: 40 minutes
- SmartTEMP XL: 60 minutes
- SmartTEMP XXL: 90 minutes
- SmartTEMP XXXL: 120 minutes

After heating a part, it is recommended to let the heater cool down for a period equal to half of the heating time.

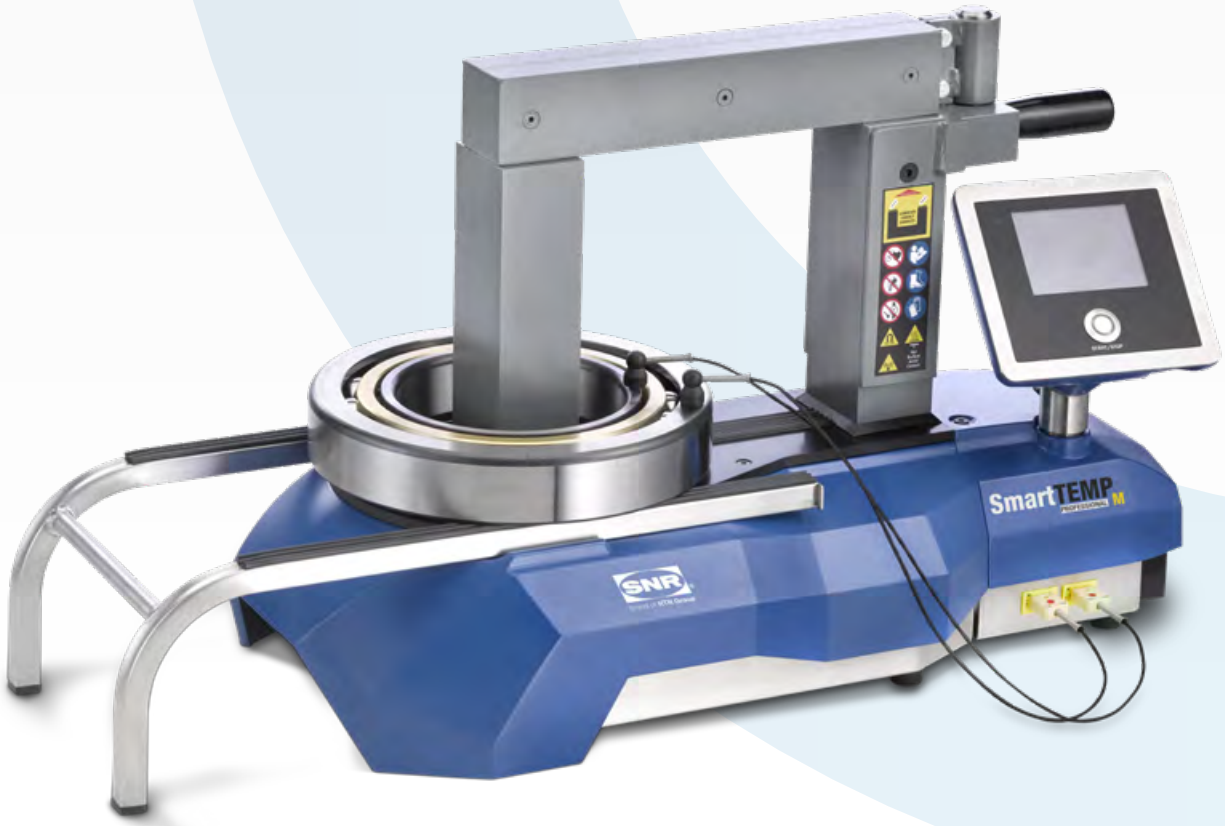
Optimal Heating Performance: Maximum of Two Parts

For optimal and even heating performance, no more than two parts should be placed on the induction heater at the same time. This limitation is due to the way induction heating works: the alternating magnetic field generated by the induction coil is most effective at the outer edges of the heating zone. When more than two parts are placed on the heater, especially if they are positioned side by side, the magnetic field cannot effectively penetrate to the inner components.



Reduced Heating Efficiency Between Parts

Any parts located between outer components will experience significantly reduced heating efficiency. The magnetic field weakens toward the center, resulting in much lower energy transfer to these inner parts. Consequently, they will heat more slowly—or in some cases, not at all. This will lead to inconsistent temperatures across the set of components and may compromise the heating process and the quality of the end result.

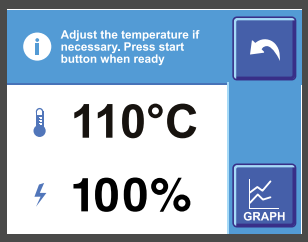

SmartTEMP
M
SNR

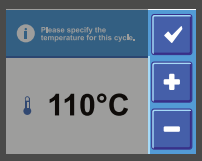
Temperature Mode, one sensor

1. PREPARATION

To change the temperature, press 110°C.

Otherwise, proceed to step 2.





Press ➕ or ➖ to change the temperature (max. 240°C).

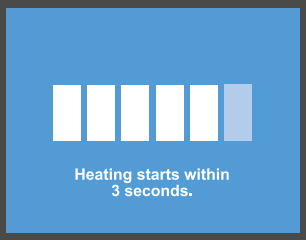
Press ✔ when the temperature is set.

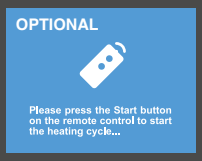
2. HEATING PROCESS

Press ◯ to start the heating cycle and stand at a safe distance.

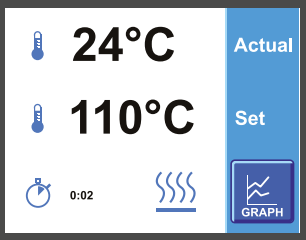
There is a 5 second countdown before the cycle starts.

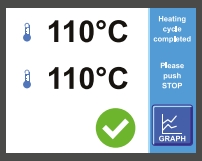
When the preset temperature has been reached, the heater will hold that temperature.





Alternatively, to start the heating process, press the start button on the remote.



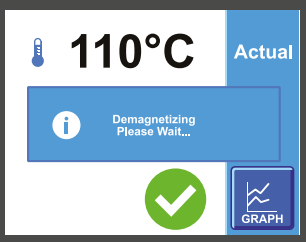


3. COMPLETION

Press ◯ to stop the heating cycle.

The induction heater will now demagnetize.

After it will return to the first screen.

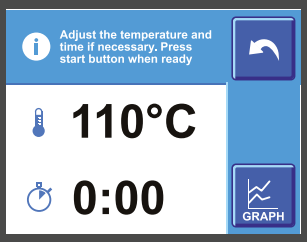


RAMP Mode

1. PREPARATION

To change the temperature, press 110°C.
To change the heating time, press 0:00.

Otherwise, proceed to step 2.



Press + or − to change the temperature (max. 240°C).

Press ✓ when the temperature is set.

Press + or − to change the time.

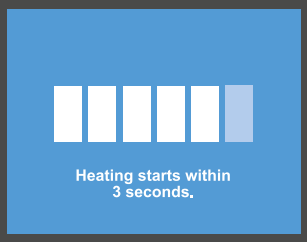
Press ✓ when the time is set.

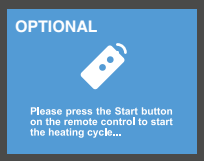
2. HEATING PROCESS

Press ○ to start the heating cycle and stand at a safe distance.

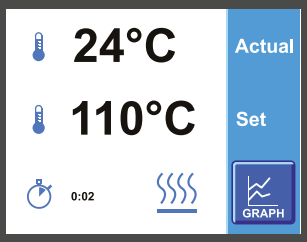
There is a 5 second countdown before the cycle starts.

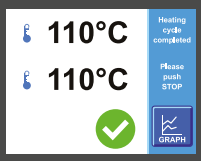
When the preset temperature has been reached, the heater will hold that temperature.





Alternatively, to start the heating process, press the start button on the remote.



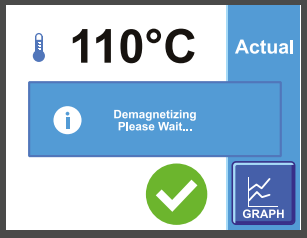


3. COMPLETION

Press ○ to stop the heating cycle.

The induction heater will now demagnetize.

After it will return to the first screen.

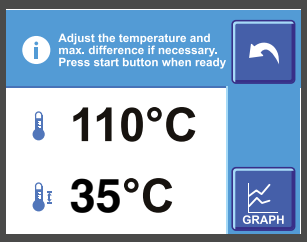


Temperature Mode, two sensors

1. PREPARATION

To change the temperature, press 110°C.

To change the Δ temperature, press 35°C. Otherwise, proceed to step 2.



Press ✚ or ▬ to change the temperature (max. 240°C).

Press ✓ when the temperature is set.

Press ✚ or ▬ to change the Δ temperature (min. 20°C).

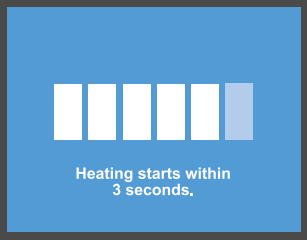
Press ✓ when the temperature is set.

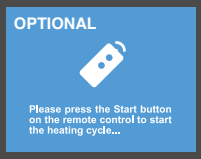
2. HEATING PROCESS

Press ○ to start the heating cycle and stand at a safe distance.

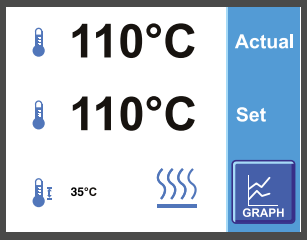
There is a 5 second countdown before the cycle starts.

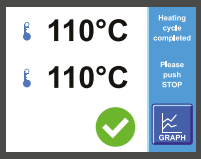
When the preset temperature has been reached, the heater will hold that temperature.





Alternatively, to start the heating process, press the start button on the remote.



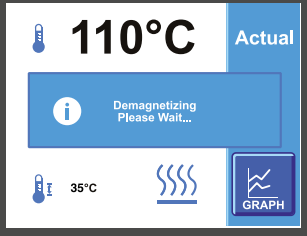


3. COMPLETION

Press ○ to stop the heating cycle.

The induction heater will now demagnetize.

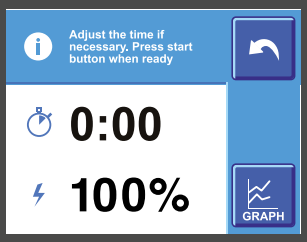
After it will return to the first screen.

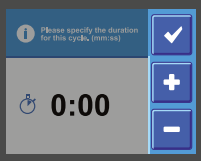


Time Mode

1. PREPARATION

To change the heating time, press 0:00. Otherwise, proceed to step 2.





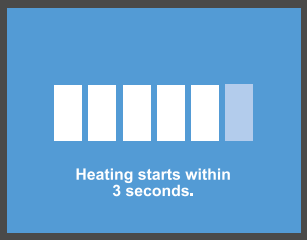
Press + or − to change the time ( ).

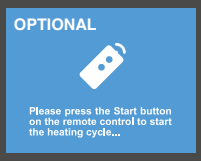
Press ✓ when the time is set.

2. HEATING PROCESS

Press ○ to start the heating cycle and stand at a safe distance.

There is a 5 second countdown before the cycle starts.





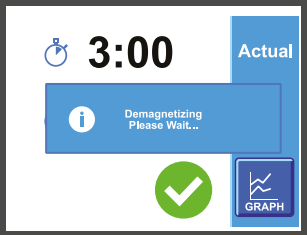
Alternatively, to start the heating process, press the start button on the remote.

3. COMPLETION

Press ○ to stop the heating cycle.

The induction heater will now demagnetize.

After it will return to the first screen.



User menu

The user menu can be accessed by pressing the start/stop button for 8 seconds. Within this menu, the user can view and/or change the following settings:

U0 Reset to Factory Settings
Each user setting will be reset to its original factory values.

U1 Languages
The languages of the heater can be changed to English, Spanish, German, and French, Italian, Japanese, Russian.

U2 Default Temperature (110°C)
The default temperature can be set. The factory set temperature is 110°C (230°F).

U3 Temp. Hold (On)
Temperature hold can be turned on or off. During pendulation the heater will heat to the set temperature and cools down by 3°C, then heats again to the set temperature, etc.

U4 Temp. Hold Duration (5:00)
The duration of the temperature hold can be set. With the factory set duration of 5:00 min the heater pendulates indefinitely.

U5 Completion Signal (On)
The buzzer can be turned on or off. When on the heater will buzz when it reaches the set temperature. The factory set value is 'on'.

U6 Temperature Unit (°C)
The temperature unit can be changed to Celsius or Fahrenheit. The factory set temperature unit is Celsius, Fahrenheit in the USA.

U7 Maximum Temp. Delta (35°C)
The max. temperature difference between the two sensors can be set. The factory set temperature difference is 35°C (122°F).

U8 Remote Control (Optional)
The remote control function can be turned on or off. This setting is shown only when the remote has been included.

U9 Calibration Sensor 1
The temperature of sensor 1 can be set if it is calibrated incorrectly.

U10 Calibration Sensor 2
The temperature of sensor 2 can be set if it is calibrated incorrectly.

U12 Start Delay (5)
A delay can be set for the start of the heating process. When the user starts the heating process there will be a delay so to enable removal to a safe distance. The factory set delay is 5 seconds.

U13 Date Format (DD/MM)
The Date Format can be set to Day/Month or Month/Day.

U14 Screensaver (Off)
The settings for the screen saver can be set here, ranging from off to a certain number of seconds.

U15 Time (0:00)
The current time can be set here. This information will be used when datalogging the heating cycle.

U16 Date (0/0)
The current date can be set here. This information will be used when datalogging the heating cycle.

U17 Year (2000)
The current year can be set here. This information will be used when datalogging the heating cycle.

U18 Time Format (24:00)
The Time format can be set to 24:00 or AM/PM.

U19 Temp. Hold Hysteresis (3°C)
The max. temperature difference before the heater starts heating again can be set here.

U20 Auto Sensor Select (On)
When this setting is turned on the heater can recognize the difference between Sensor 1 and Sensor 2 and assign the order automatically.

U22 Time Range (MM:SS)
The Time Range can be switched between MM:SS (minutes and seconds) and HH:MM (hours and minutes). This Time Range setting will be applied to the available range when using Time Mode.

U24 Exit (Discard Changes)
Any recent adjustments will be discarded and the user returns to the homescreen.

U26 Update Firmware GUI
When a USB drive (containing an update for the User Interface) is inserted this option will show. Press and follow the on-screen instructions to update the heater.

U27 Update Firmware PWR
When a USB drive (containing an update for the Powerboard) is inserted this option will show. Press and follow the on-screen instructions to update the heater.

U28 Update Languages
When a USB drive (containing an update for texts) is inserted this option will show. Press and follow the on-screen instructions to update the Fonts and Texts.

U29 Cur. Version GUI
The current version of the User Interface is shown here.

U30 Cur. Version PWR
The current version of the Powerboard is shown here.

U31 Number of Cycles
The Number of Cycles shows the amount of heating cycles for the induction heater.

U32 Heating Timer
The Service Counter shows the total time (all heating cycles added together) for the induction heater.

Maintenance

- Store in a dry, frost-proof area, free from humidity.
- Keep clean with a soft, dry cloth.
- Keep the display clean for optimal responsiveness and to avoid any scratches.
- Keep the contact parts of the heater core poles greased. Grease regularly with an acid-free grease for optimal contact and to avoid corrosion (in the case of heaters with a pivoting yoke, also grease the vertical pin regularly).
- CRITICAL SPARE PART - Magnetic probe. Always use original spare parts, we cannot guarantee a proper functioning using other parts.

CAUTION

Proper maintenance and handling practices are critical. Failure to follow installation and maintenance instructions can result in equipment failure, creating a risk of serious bodily harm.

Malfunction

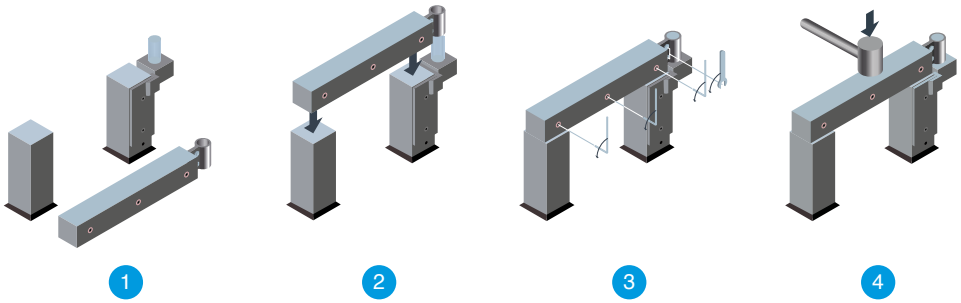
If a loud vibrating noise is heard:

- Stop the heating cycle by pressing the start/stop button.
- Are the contact surfaces clean and greased sufficiently?
- Are the yokes 100% in contact with the surface? If this is not the case adjust the yoke with instructions below.

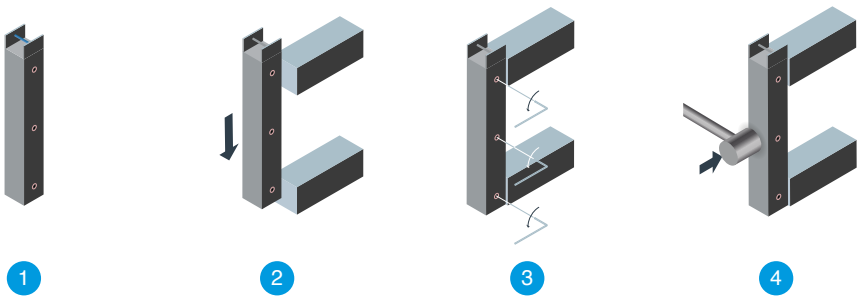
Adjusting the yoke

1. Check if the machine milled surface is smooth.
2. Place yoke or pivoting yoke on the heater.
3. Unscrew the screws in the yoke and pivoting point a quarter turn.
4. Turn on the heater and the yoke will set itself or use a nylon hammer.

SmartTEMP M L XL Pivot



SmartTEMP XL XXL XXXL



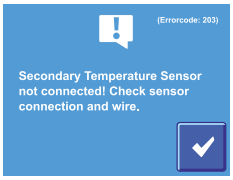
5. Fasten screws, turn off heater and the yokes are now adjusted.

CAUTION

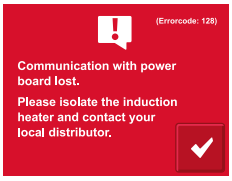
If in any doubt, isolate the induction heater and contact your local distributor.

Errors

The induction heater can display two different kinds of errors: User errors (indicated by blue background) and Fatal errors (indicated by red background). The type of error message determines the difficulty of the action needed to make the induction heater function properly.



Most of the User errors are easy to solve, as the user interface will provide a suggestion for troubleshooting. The user should always end the troubleshooting by restarting the heater. If the error persists after troubleshooting the user can contact the local distributor.



Fatal errors cannot be resolved without contacting the local distributor, as the problem is caused by an internal hardware or software error. When encountering a Fatal error the user must note the Error-code (found in the top righthand corner) and the operating conditions. Operating conditions may contain a description of the part that has been heated, the heating mode that has been used, and any other relevant information.

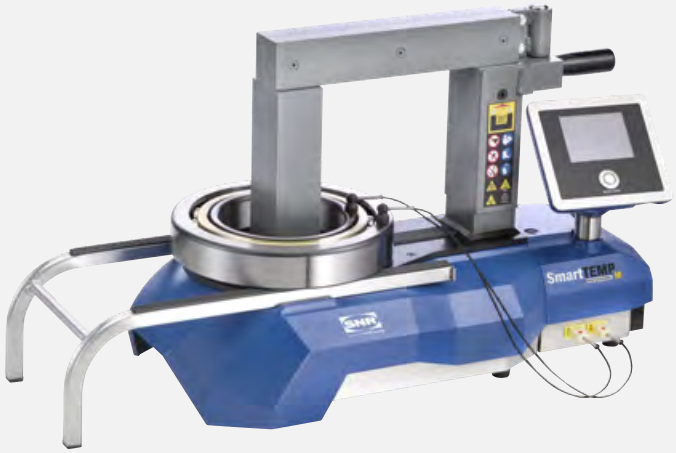
Specifications

SmartTEMP™ S

Base dimensions: 450 x 210 x 275 mm

SmartTEMP™ M

Base dimensions: 540 x 275 x 365 mm
Pivoting yoke



SmartTEMP™ L

Base dimensions: 695 x 330 x 435 mm
Pivoting yoke

SmartTEMP™ XL XL Pivot

Base dimensions: 850 x 410 x 1050 mm

SmartTEMP™ XXL

Base dimensions: 1080 x 500 x 1350 mm

SmartTEMP™ XXXL

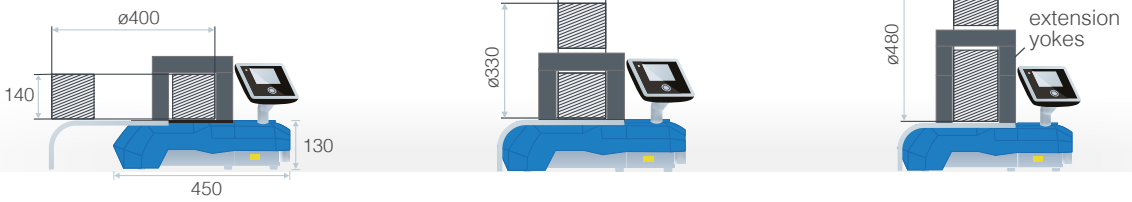
Base dimensions: 1500 x 800 x 1600 mm

Dimensions

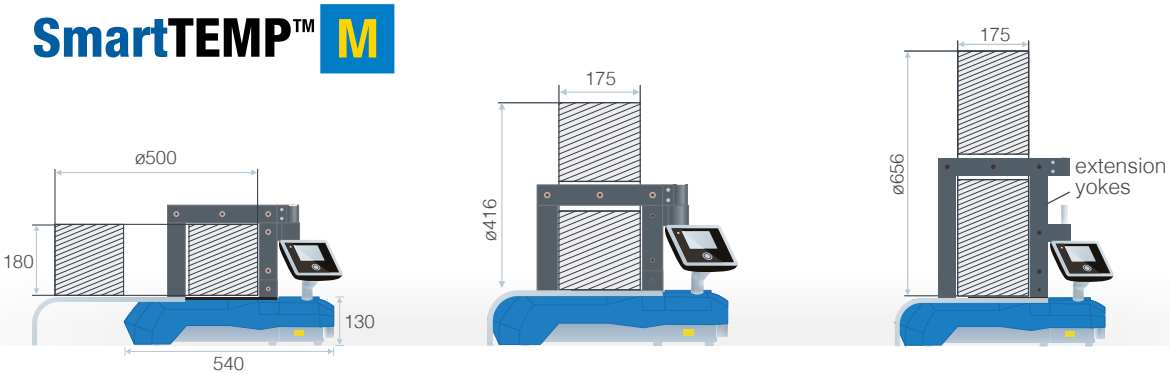
SmartTEMP has an adjustable rack which gives it a larger surface area to hold larger workpieces.

The heater core itself is non-adjustable. With a set of extension yokes the height can be extended.

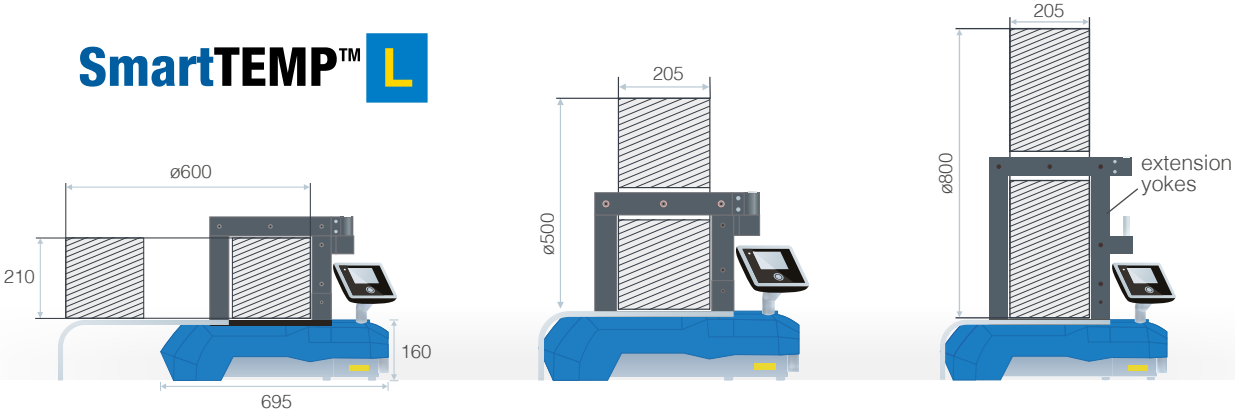
SmartTEMP™ S



SmartTEMP™ M



SmartTEMP™ L



Workpiece dimensions shown here are extremes and depend on the yoke size used. See the table on the next page for an extensive overview.

Workpiece dimensions

Horizontal (in millimeters)

SmartTEMP™	S	M	L	
Min. bore	ø 66	ø 80	ø 108	
Max. outer diameter	ø 400	ø 500	ø 600	
Max. width	140	180	210	
Max. width incl. ext. yokes	215	300	360	

Vertical (in millimeters)

SmartTEMP™	S	M	L	
Max. outer diameter	ø 330	ø 416	ø 500	
Max. width	115	175	205	
Max. outer diameter incl. ext. yokes	ø 480	ø 656	ø 800	

Horizontal (in millimeters)

SmartTEMP™	XL	XL Pivot	XXL	XXXL
Min. bore	ø 30	ø 125	ø 40	ø 85
Max. outer diameter	ø 1000	ø 1000	ø 1500	ø 2000
Max. width	315	290	485	695
Max. width incl. ext. yokes	n/a	490	n/a	n/a

Vertical (in millimeters)

SmartTEMP™	XL	XL Pivot	XXL	XXXL
Min. bore	ø 150	ø 30	ø 300	ø 400
Max. outer diameter	ø 728	ø 680	ø 1140	ø 1640
Max. width	290	320	425	675
Max. outer diameter incl. ext. yokes	n/a	ø 1080	n/a	n/a

The dimensions shown above are theoretical. In practice there are multiple factors (e.g. workpiece weight, material and placement) that influence the possibility and/or the time needed to heat the workpiece properly.

Technical data

SmartTEMP™		S	M	L
Electricity	Power rating	3 kVA	3.7 kVA	8 kVA
	Voltage	110 - 230 V	110 - 230 V	400 - 575 V
	Current max.	13 A	16 A	20 A
	Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Controls for tension-free heatingW	Max. Temp. (1 sensor)	240°C	240°C	240°C
	Max. Temp. (2 sensor)	240°C Δ T 20 - 50°C	240°C Δ T 20 - 50°C	240°C Δ T 20 - 50°C
	Time	0 min - 99 hours	0 min - 99 hours	0 min - 99 hours
	Time / Temp. Ramp	5 min - 99 hours 5 - 240°C	5 min - 99 hours 5 - 240°C	5 min - 99 hours 5 - 240°C
Yokes (mm)	* = Standard P = Pivoting	7x7x200	7x7x280	
		10x10x200	10x10x280	14x14x350
		14x14x200	14x14x280	20x20x350 P
		25x24x200	25x24x280 P	30x26x350 P
		30x26x200	30x26x280 P	40x38x350 P
		40x38x200 *	40x38x280 P	50x48x350 P
		n/a	50x48x280 P *	60x60x350 P
		n/a	n/a	70x70x350 P *
	Extension yokes (lxwxh)	40x50x75	50x62x120	70x82x150
Weight		21 kg	40 kg	85 kg
Max. weight workpiece		50 kg	100 kg	200 kg

Technical data

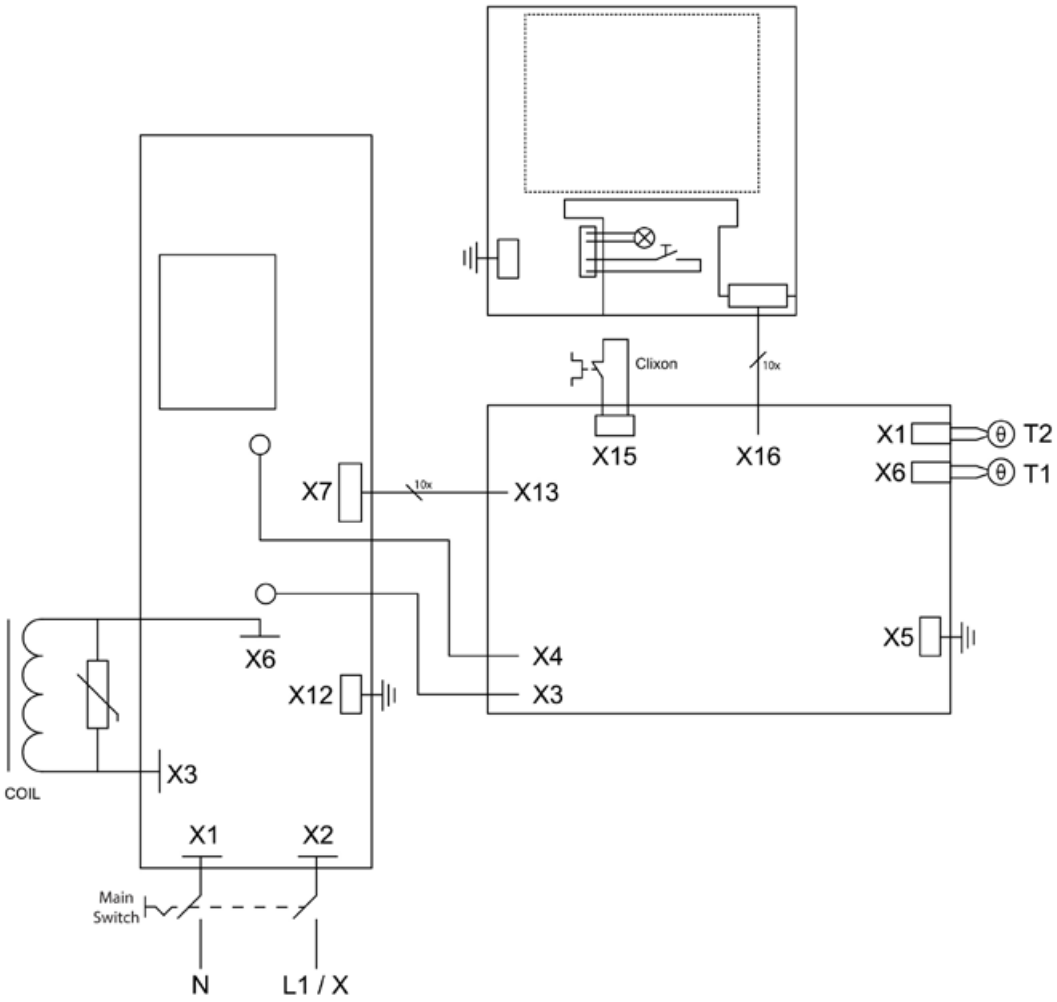
SmartTEMP™		XL	XL Pivot	XXL	XXXL
Electricity	**Power rating**	12.8 kVA	12.8 kVA	25.2 kVA	40 kVA
	Voltage	400 - 480 - 575 V	400 - 480 - 575 V	400 - 480 - 575 V	400 - 480 - 575 V
	Current max.	32 A	32 A	63 A	100 A
	Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
Controls for tension-free heating	**Max. Temp. (1 sensor)**	240°C Optional: 400°C	240°C Optional: 400°C	240°C Optional: 400°C	240°C Optional: 400°C
	Max. Temp. (2 sensor)	240°C Δ T 20 - 50°C	240°C Δ T 20 - 50°C	240°C Δ T 20 - 50°C	240°C Δ T 20 - 50°C
	Time	0 min - 99 hours	0 min - 99 hours	0 min - 99 hours	0 min - 99 hours
	Time / Temp. Ramp	5 min - 99 hours 5 - 240°C	5 min - 99 hours 5 - 240°C	5 min - 99 hours 5 - 240°C	5 min - 99 hours 5 - 240°C
Yokes (mm)	*** = Standard P = Pivoting**	20x20x490	20x20x490 P	n/a	n/a
		30x26x490	30x26x490 P	30x26x750	n/a
		40x38x490	40x38x490 P	40x38x750	n/a
		50x48x490	50x48x490 P	50x48x750	n/a
		60x60x490	60x60x490 P	60x60x750	60x60x1080
		70x70x490	70x70x490 P	70x70x750	n/a
		80x80x490 *	80x80x490 P *	80x80x750	80x80x1080
		n/a	n/a	90x90x750	n/a
		n/a	n/a	100X100X750 *	100x100x1080
		n/a	n/a	n/a	150x150x1080 *
	Extension yokes (lxwxh)	n/a	80x80x150 P 80x80x200 P	n/a	n/a
Weight		157 kg	157 kg	280 kg	650 kg
Max. weight workpiece		400 kg	400 kg	800 kg	1600 kg

Further information

Error report	Shown in display
Heating graph	Shown in display
Heating temperature (1 sensor)	Set and actual temperature, time and power
Heating time	Set and actual time
Heating time / temp. ramp	Set and actual temperature, time and power
External interface 1	USB 2.0 Port
External interface 2	Network Connection (on demand)
Sound signal	Buzzer
Demagnetizing	<2A/cm
Magnetic probe	One piece
Temperature hold	Yes
Thermal safety guard coil	Yes
Languages	English, French, German, Spanish, Italian, Japanese, Russian
Warranty	24 months
Extended Warranty	+ 12 months

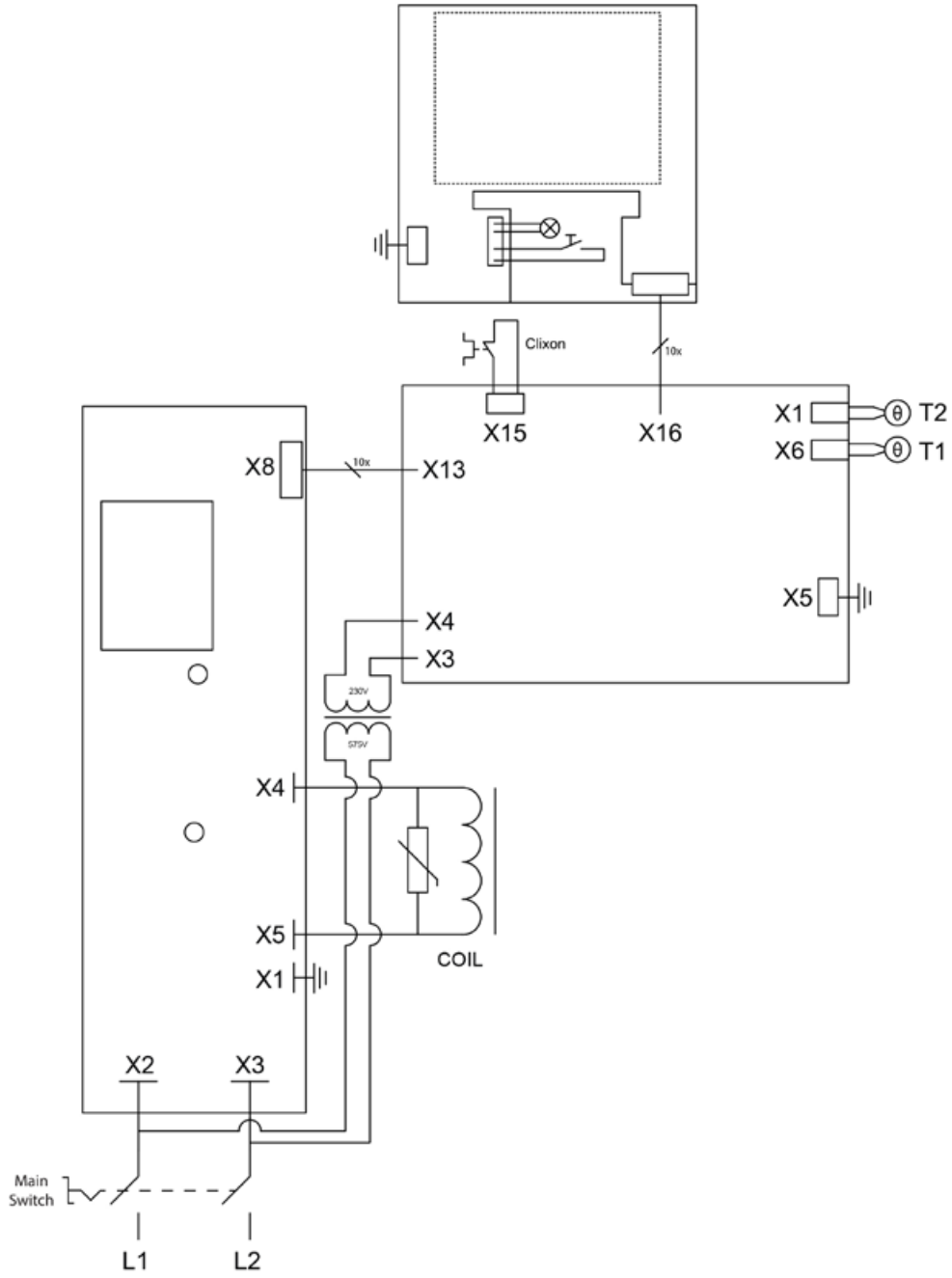
Electrical drawing

SmartTEMP™ S M



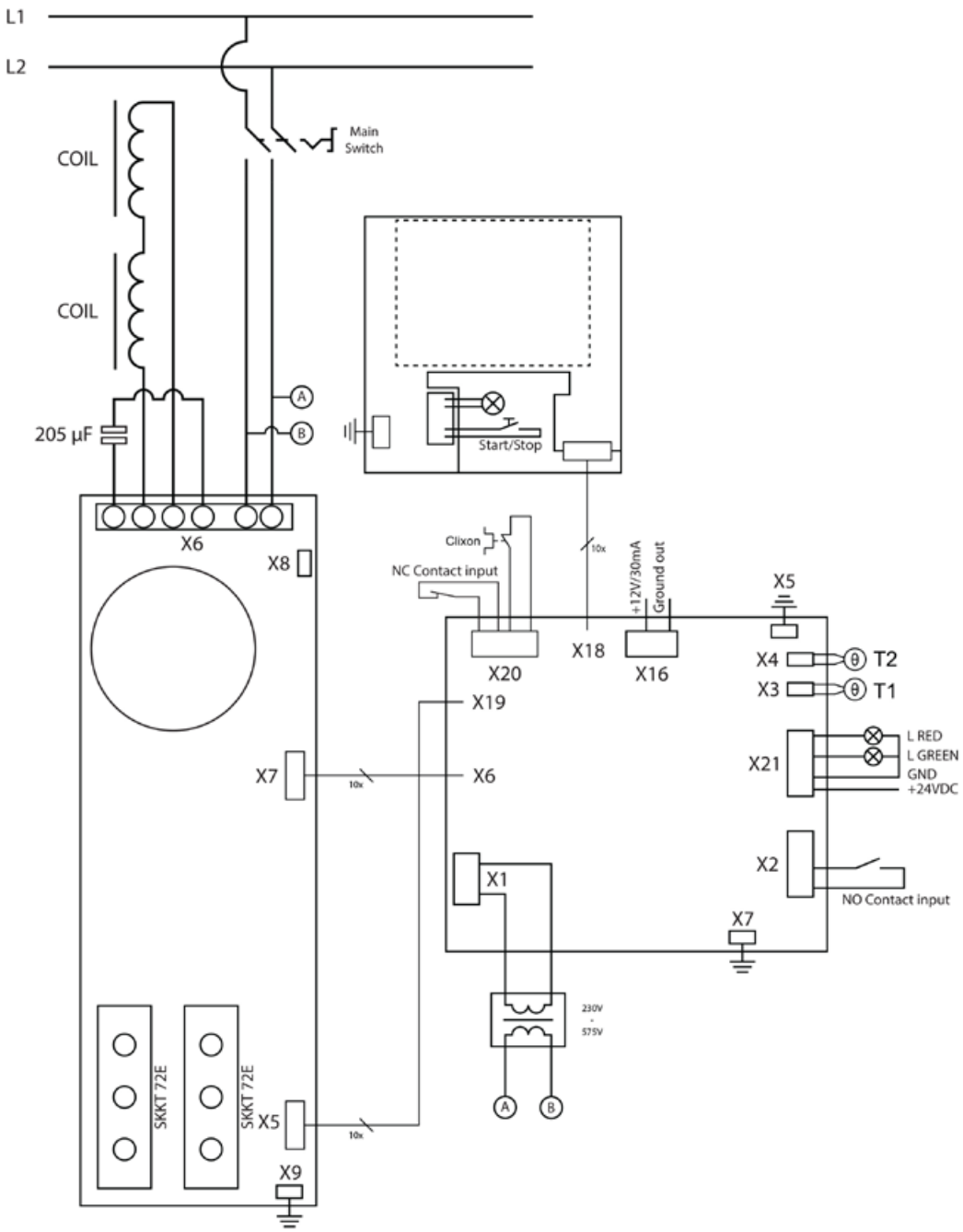
Electrical drawing

SmartTEMP™ L



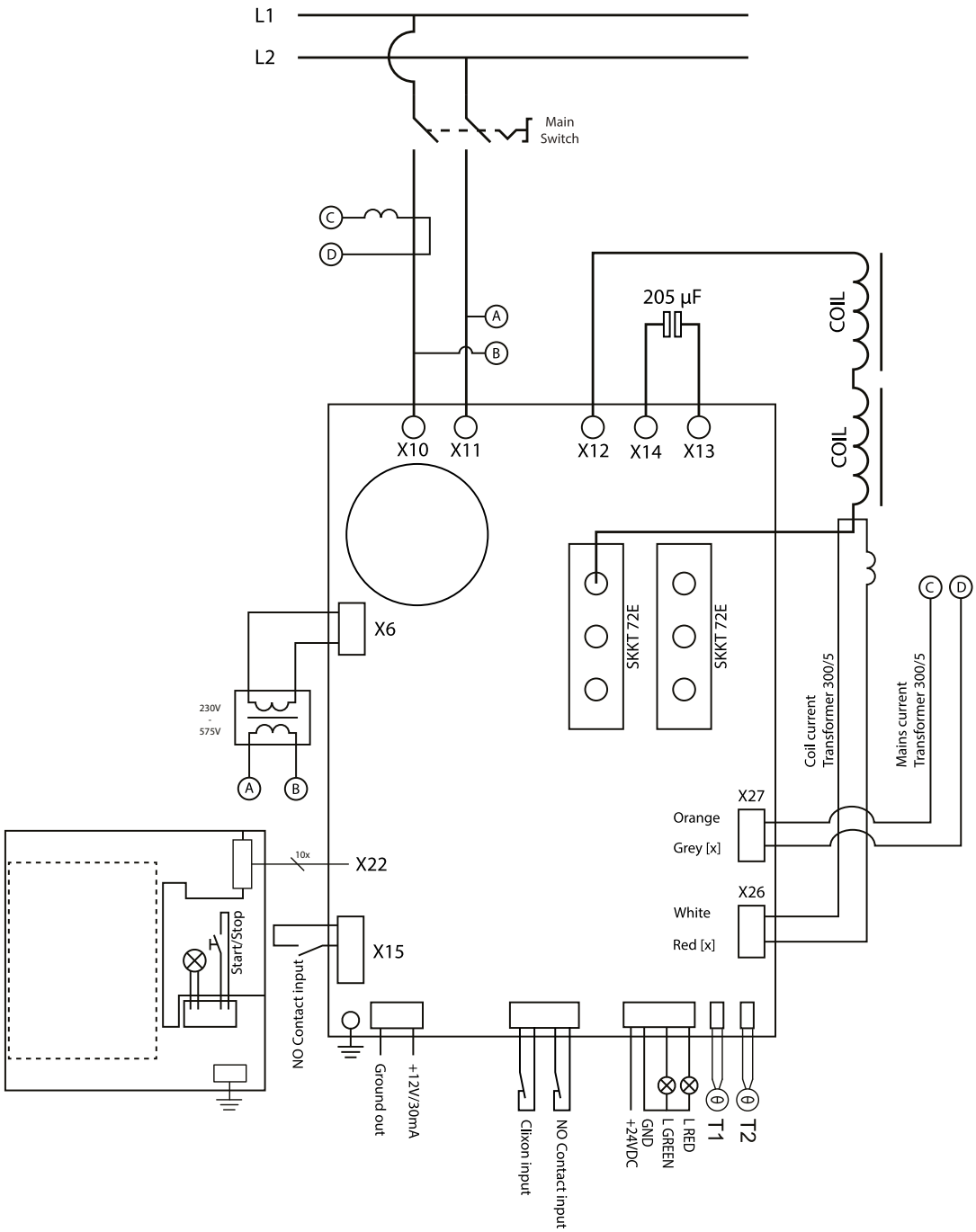
Electrical drawing

SmartTEMP™ XL XL Pivot



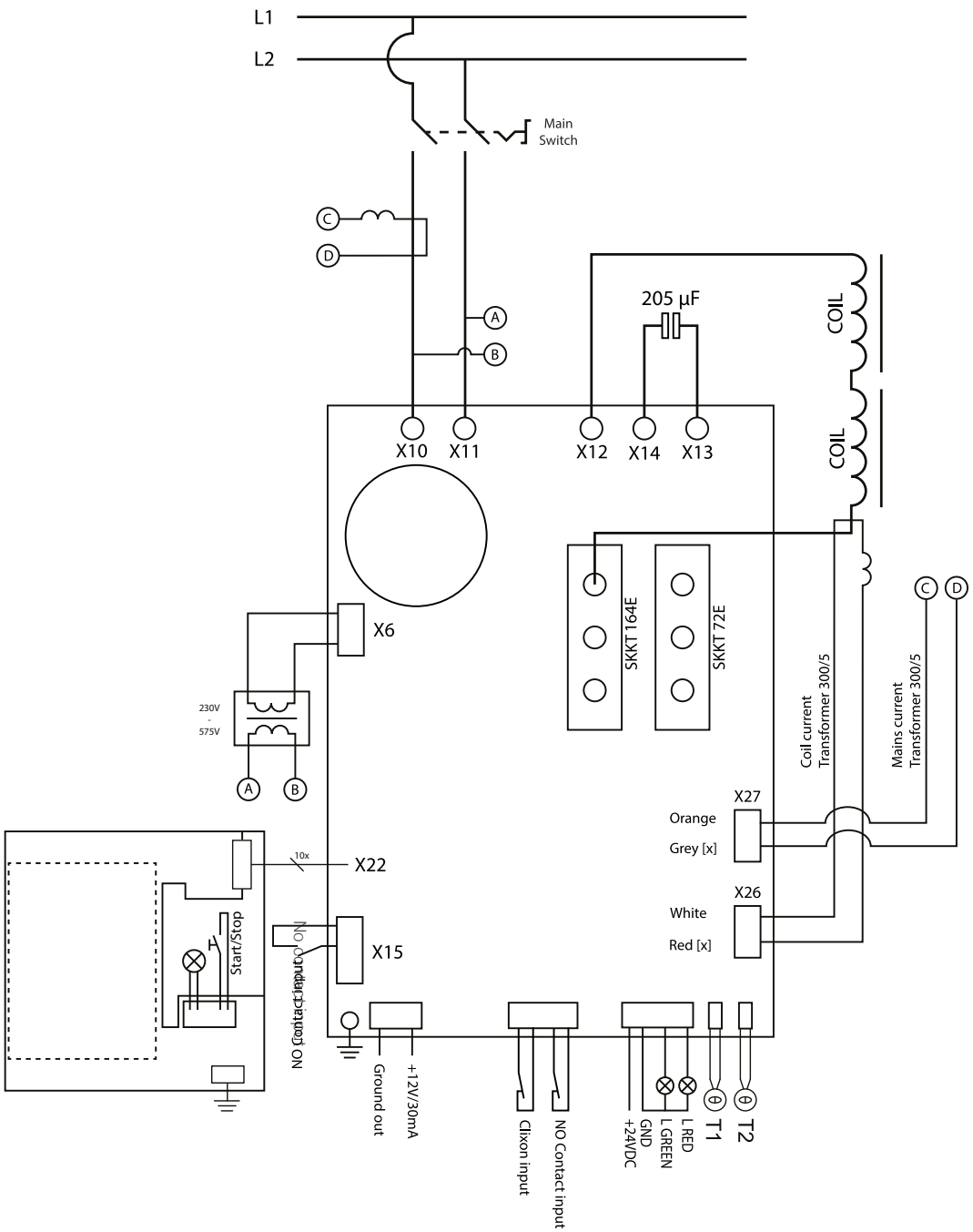
Electrical drawing

SmartTEMP™ XXL



Electrical drawing

SmartTEMP™ XXXL



DECLARATION OF CONFORMITY

This Declaration of Conformity is issued under the sole responsibility of the manufacturer

Manufacturer

Company name:	NTN Europe
Full address:	1 rue des Usines BP2017 - 74010 Annecy Cedex
Country:	France

UK Representation

Company name:	NTN BEARINGS(UK)LTD
Full address:	Wellington Crescent Fradley Park WS 13 8RZ Lichfield, Staffordshire
Country:	United Kingdom

Object of the declaration

Generic name:	SmartTemp
Function:	Inductively heating the bore of bearings, couplings, gears, buses etc., so it expands and can be placed easily and tension-free over a shaft.
Type:	S, M, L, XL, XXL and XXXL
Commercial name:	SmartTemp

The object of the declaration described above is in conformity with the relevant UK Statutory Instruments (and their amendments)

2008 No. 1597	**Supply of Machinery (Safety) Regulations 2008**
2016 No. 1091	**Electromagnetic Compatibility Regulations 2016**
2016 No. 1101	**Electrical Equipment (Safety) Regulations 2016**

References to the relevant designated standards used or references to the other technical specifications in relation to which conformity is declared:

Supply of Machinery (Safety) Regulations	**Electromagnetic Compatibility Regulations**	**Electrical Equipment (Safety) Regulations 2016**
EN-ISO 12100:2010	EN 61000-6-4:2007	EN 60204-1:2018

Technical documentation for the product is available from:

Manufacturer	NTN Europe	***Signed by:***	
Full address:	1 rue des Usines BP2017 - 74010 Annecy Cedex France	Name:	M. Mathieu Ollier
Place of issue:	Annecy	Function:	Sales & Marketing Director EMEA
Date of issue:	21/12/2022	Signature:	

NOTES

NOTES

NOTES

Make the world **NAMERAKA**

NTN Europe - 1 rue des Usines - 74000 Annecy
RCS ANNECY B 325 821 072 - Code APE 2815Z - Code NACE 28.15
www.ntn-europe.com

NTN | SNR | BCA BEARINGS | BOWER | Brands of **NTN Group**