SCHAEFFLER

Induction Heaters
BASIC Series

User manual

Contact

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ISO	ISO 9001: 2015
Machine ID and certification:	See machine plate

Warning!

Read the manual and safety instructions before operating the device

- Check all parts for possible damage during transportation. In case of damage, please contact the forwarder immediately.
- Because our products are continuously subject to improvements, we reserve the right to make changes.

Vor Inbetriebnahme die Betriebsanleitung und die Sicherheitsvorschriften aufmerksam lesen

- Alle Teile auf möglichen Transportschaden kontrollieren. Eventuelle Schäden umgehend der Spedition melden.
- Da unsere Produkte ständig verbessert werden, behalten wir uns Änderungen vor.

Antes de la primera puesta en marcha, lea atentamente el manual de uso y las instrucciones de seguridad

- Revise todos los elementos para detectar posibles daños sufridos durante el transporte. En caso de observar algún daño, avise inmediatamente a la empresa de transporte.
- Debido a que nuestros productos están continuamente sujetos a mejoras, nos reservamos el derecho de realizar cambios.

Lisez le mode d'emploi et les consignes de sécurité avant la mise en service

- Vérifiez pour l'ensemble des pièces que celles-ci n'ont pas été endommagées pendant le transport. En cas de dommages, avertissez immédiatement le transporteur.
- Nos produits étant constamment améliorés, nous nous réservons le droit d'apporter des modifications.

Lees voor ingebruikname eerst de gebruiksaanwijzing en de veiligheidsvoorschriften

- Controleer alle onderdelen op mogelijke transportschade. Waarschuw bij schade onmiddellijk het transportbedrijf.
- Omdat onze producten voortdurend worden verbeterd, behouden wij ons het recht voor om wijzigingen aan te brengen.

Foreword

The induction heating devices HEATER20-BASIC, HEATER50-BASIC, HEATER100-BASIC, HEATER150-BASIC, HEATER200-BASIC, HEATER400-BASIC, HEATER600-BASIC, HEATER800-BASIC and HEATER1600-BASIC give rapid, clean operation. Their high efficiency level allows energy-efficient heating and shorter mounting times. This reduces the operating costs. The uniform, controlled heating allows consistently good quality of mounting.

Operation is simple and user-friendly, the keyboard is oil-resistant, dustproof and waterproof.

When heating by induction is used, there is no need at all to use oil – this gives particularly good environmental compatibility. The scope of application is very extensive. It is possible to heat the loose inner rings of cylindrical or needle roller bearings as well as sealed and greased bearings. Compared with previous models, further improvements have been made in performance capacity and safety and the part to be heated need no longer be of a minimum mass.

In order to ensure durability in demanding industrial operation, the devices are extremely robust and reliable.

English

Contents

1. About the user manual

1.1 Current version A current version and translations of this user manual, can be found at “www.schaeffler.de/publications-heater” using the search term ‘HEATER-BASIC’.

1.2 Availability This user manual is supplied with each device and can also be ordered retrospectively.

1.3 Legal guidelines The information in this manual corresponded to the most recent status at the close of editing. The illustrations and descriptions cannot be used as grounds for any claims relating to devices that have already been delivered. Schaeffler Technologies AG & Co. KG accepts no liability for any damage or malfunctions if the device or accessories have been modified or used in an incorrect manner.

1.4 Original user manual The original user manual is taken to be a user manual in the Dutch language. A user manual in another language is to be taken as a translation of the original user manual.

2. Safety, warnings and potential hazards

2.1 Explanation of the pictograms

	Forbidden for persons with pacemaker or other sensitive implants.
	Wearing of metal parts, watches and jewellery forbidden.
	Forbidden for persons with metal implants.
	Forbidden for magnetically sensitive data media.
	Read the user manual!
	Wear heat-resistant gloves!
	Wear safety shoes!
	Warning of danger.
	Electric shock hazard.
	Warning of magnetic fields.
	Warning of hot surface.
	Warning of heavy object.

2.2 Description of potential hazards

Warning! Voltage

	Be aware that you are working with an electrical device. On the mains side as well as internally, voltages occur that can lead to serious injury and death if used inexpertly or improperly. ■ Connect the unit to the power according to the information on the rating plate. ■ Before each use, check the power supply cable for damage. ■ Safe disconnection from the power supply must be ensured at all times before starting maintenance and repair work. This can be achieved by removing the power plug from the socket.

Warning! Electromagnetic field

	Be aware that you are working with an device that generates electromagnetic fields. Keep a distance of 1 metre from the unit after switching on.
	These fields can be harmful for persons with active medical aids such as pacemakers.
	These fields can be harmful for persons with passive medical aids such as joint prostheses. The wearing of jewellery can also result in injuries due to burns.
	It is forbidden for persons with active medical aids to be in the immediate vicinity of the unit when it is in operation. The generated electromagnetic field may influence the proper function of such medical aids.
	It is forbidden to wear jewellery when working with the generator and inductors. There is a risk of the jewellery being heated by the electromagnetic field and resulting in injuries due to burns.
	For this reason, persons with passive implants are recommended not to enter the immediate vicinity of the induction heater when it is in operation.

	Furthermore, it cannot be ruled out that the electromagnetic fields could cause damage to electronic and magnetic data media. Keep such equipment away from the induction heater.

Caution! Tripping hazard

 	Limit the risk of injury due to tripping as far as possible. ■ Keep your place of work tidy. Remove any loose and superfluous objects from the immediate vicinity of the unit. ■ Position any cables, including the power supply ones, as low as possible to minimize the risk of tripping.

Caution! Risk of burns

	The workpiece becomes warm to very hot during heating.
	Parts of the unit may also become hot due to contact with the workpiece or the heat radiated by the workpiece.
	Therefore always wear heat-resistant gloves when handling workpieces in order to avoid injury due to burns.

Caution! Risk of injury during lifting

	A number of units in the Schaeffler heater range weigh more than 23 kg and may therefore not be lifted by one person alone. (see technical specs)
	If a unit weighs more than 23 kg, lift it with two persons or use suitable lifting equipment.
	Wear safety shoes to prevent injury from unintentionally falling workpieces and/or machine parts.

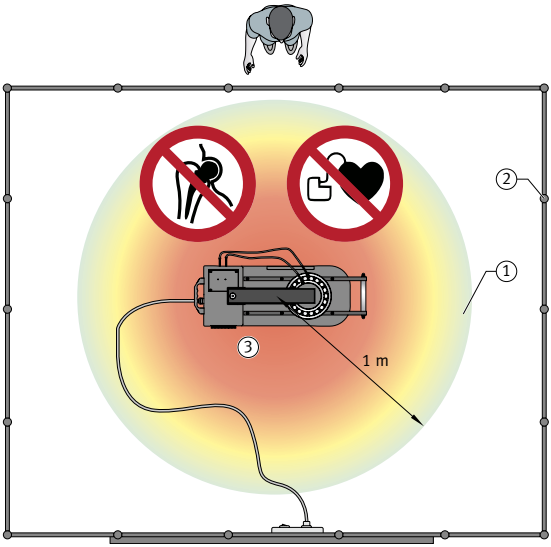
2.3 Safety measures to be taken

- The user must carefully read this manual and be familiar with the safety standards in the work practice.
- Follow the instructions in the manual at all times.
- Check the connection voltage against the rating plate on the unit. If the power cord does not have one, make sure it is fitted with the proper plug. This must be fitted by a qualified electrician.
- Never use or store an induction heater in a damp environment.
- Only use Schaeffler induction heaters indoors.
- If using a mobile version; always lock the castors when not moving the device.
- If the heater is equipped with extendable horizontal supports, always secure them with the appropriate locking pin, both in the fully retracted and in the fully extended position.
- Use suitable lifting equipment according to the weight of the ledge or component.
- Never use a metal strap to support workpieces or suspend them in the magnetic field. High currents could start running through the strap, causing it to heat up.
- Do not hold metal objects near ledge and poles.
- Whilst heating, observe a minimum distance of 1 metre from the heater.
- Never remove the induction ledge during heating.
- Do not modify the heater. Never use home-made ledges.
- Always check that the induction ledge is positioned correctly against the poles, so excessive vibration cannot cause personal injury or damage to the device.
- Do not switch on the heater until the core is closed with a ledge.
- In the event that smoke or vapor is emitted from the workpiece during heating, ensure that there is extraction or sufficient ventilation in the workshop. Do not inhale vapours or fumes!

Hazard area
The hazard area of the heating device can represent a danger of death.

DANGER!	
	Danger of heart stoppage in persons fitted with a pacemaker due to the strong electromagnetic field. Ensure that persons fitted with a pacemaker remain outside the hazard area of the heating device. Erect barriers and attach clearly visible warning signs, Figure 1.

WARNING!	
	Danger of death for persons with artificial heart valves made from metal, hazard of severe burns due to heating of implants by the electromagnetic field, see chapter 2.2. Ensure that persons with a ferromagnetic implant remain outside the hazard area of the heating device. Erect barriers and attach clearly visible warning signs, Figure 1.



1. Hazard area, 1m.

2. Barrier.

3. Flat work surface capable of supporting load.

Figure 1

2.4 Safety provisions

- The electronic systems switch off automatically if the ambient temperature rises above 70ºC.
- When heating in temperature mode, the heater switches off if no 1ºC temperature increase is measured during a time pre-set by the manufacturer.
- The coil of the heater is equipped with a temperature monitor. If the coil becomes too hot, the heating process is switched off entirely.
- Models with a swivel arm are equipped with a safety positioning cam.

An induction heater operates by means of a magnetic field. At a distance of 1 metre, the magnetic field has been reduced to such an extent that it is below the applicable standard of 0.5mT.

3. Introduction

3.1 Application

Schaeffler induction heaters are intended for heating bearings, so they can be assembled easily by means of a shrink fit. Subject to professional assessment, they can also be used to heat bushings, cogwheels, couplings and metal objects that form a closed circuit. Bearings and workpieces are demagnetized automatically after each heating cycle.

Bearings and workpieces can be heated to a maximum temperature of 240ºC (464°F), except for the HEATER20-BASIC type where the maximum temperature is set at 150ºC (300°F).

Schaeffler induction heaters are suitable for continuous use. However, when heating to 240°C (464°F), don't do so for more than half an hour. HEATER20-BASIC has a duty cycle of 1,5 hour.

CAREFUL!

- Bearings may be heated to a maximum of 120°C (248°F).
- Precision bearings may be heated to a maximum of 70°C (158°F). Higher temperatures can affect metallurgical structure and lubrication, resulting in instability and failure.
- Do not use a heater for bearings and workpieces that are outside the minimum and maximum dimensions specified in the technical specifications.
- Never switch off the unit with the main switch while it is still heating up.

3.2 Operating conditions

- Only use the device indoors.
- Fit for use in an industrial environment, at an ambient temperature of 0ºC (32°F) to 50ºC (120°F) and humidity of 5 to 90% – non-condensing.
  At temperatures below 0°C (32°F), the unit stops operating.

3.3 Principle of operation

The operation of the heater is based on inducing a (low frequency) current in the bearing. This is achieved by incorporating the bearing as a secondary winding in a transformer.

The primary winding is connected to the mains by means of an electronic controller. The magnetic field induces a high current (short-circuit current) through the bearing, which then becomes hot. After each heating cycle, the bearing or workpiece is demagnetized.

4. Installation

- Remove the packaging and place the induction heater on a non-ferrous, stable and level surface. Put heaters with wheels on the brake to prevent the heaters from moving.
- Check the connection voltage against the rating plate on the unit.
- Each heater is equipped with a plug. As there is a wide variety of plug types, the provided plug may not fit. In such cases, obtain a proper plug. It must be fitted by a qualified electrician. There are different fitting options depending on the type of cable on the heater:

Fitting options HEATER20 - 150 BASIC

120V/230V 1 phase heaters		
	Brown	Phase
	Blue	Zero
	Green/Yellow	Ground
120V/240V 1 phase heaters		
	Black	Phase
	White	Zero
	Green	Ground

Fitting options HEATER200 - 1600 BASIC

400V/450V/500V 2 phase heaters		
	Brown	Phase
	Black	Phase
	Green/Yellow	Ground
480V/600V 2 phase heaters		
	Black	Phase
	Black	Phase
	Green	Ground

- Ensure that the power supply cable cannot come into contact with the workpiece to be heated. Insert the plug in a grounded socket outlet with connection.
- Switch on the device by means of the main switch. The machine briefly shows “Test”, and the display shows a “pre-set end temperature” programmed by the manufacturer.
- Connect the temperature sensor by inserting the plug into the socket. Make sure that the – and + of the plug correspond to that of the socket.
- The induction heater is now ready for use in the temperature mode.

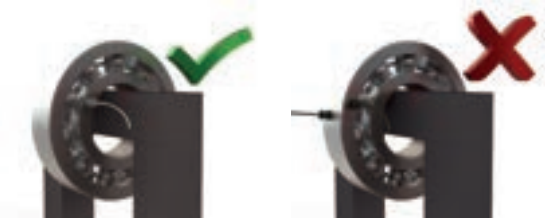
5. Explanation of display and keys

1. Time or temperature up
2. Heating in time mode
3. Start heating after setting time/temperature
4. Display: time or temperature
5. Time or temperature down
6. Heating in temperature mode
7. Stop heating / automatic demagnetisation

6. The magnetic temperature sensor

- The temperature sensor comes with the heater and can be reordered as spare part.
- The magnetic temperature sensor must always be used when heating in “temperature mode”

- The sensor can be used as a tool for temperature control whilst heating in “time mode”.
- The sensor is suitable for a maximum temperature of 240ºC (464°F).
- In the event of temperatures exceeding 240ºC (464°F), the connection between the magnet and the sensor is interrupted. The heater switches off automatically when the sensor does not detect a temperature increase.
- Special clamp sensors are available for non-magnetic workpieces.
- Make sure that the sensor and workpiece surfaces are clean.
- Always place the sensor on a flat area as close as possible to the bore. Connect the sensor by inserting the plug into the socket (in the casing). Make sure that the – and + of the plug correspond to that of the socket.



CAREFUL!

Handle the sensor with care! It is a vulnerable part of the heater. After use, place the sensor on the side of a vertical pole. Remove the sensor from the workpiece at the plastic part. Do not pull the cable.

7. Method of operation

WARNING!

- Use suitable lifting equipment for heavy ledges and workpieces. Prevent personal injury by improper handling.
- The weight of the workpiece may not exceed the value given in section 7.3 and in the technical specifications. This can cause failure of the device and personal injury.
- Ensure that the power supply cable cannot come into contact with the workpiece to be heated. Damage to the cable can cause electrocution!
- Never use a metal strap to support workpieces or suspend them in the magnetic field. High currents could start running through the strap, causing it to heat up.

A workpiece can be placed in different ways:

Hanging, with ledge through the workpiece

Horizontal, with workpiece around the pole

Hanging, with ledge through the workpiece

Horizontal, with workpiece around the pole

Horizontal, with workpiece around the ledge

Horizontal, with workpiece around the ledge

Large workpieces can be thermally insulated by wrapping them in insulating material, such as a welding blanket. This ensures that the heat stays in the workpiece and does not dissipate.

7.1 Heating a hanging workpiece

- Place the induction ledge with the bearing on the poles. Make sure that the bare metal side is positioned straight on the poles.
- Always choose an induction ledge that fills the bore of the bearing as much as possible. You can even use 2 ledges at the same time. This promotes optimal, fast and even heating.
- Make sure that the bare-metal sides are sufficiently coated with grease to ensure optimal contact and avoid vibration.

- Swivel arm models: swivel the ledge open (towards you) until it clicks in the safety positioning cam. Slide the workpiece over the ledge until it is in the middle. Swivel the ledge back to the pole.

- Always make sure that the workpiece does not come into contact with the plastic casing of the heater. When the heating is finished, follow the instructions in reverse order. Use heat-resistant gloves to move the heated workpiece.

7.2 Heating a horizontal workpiece

- This is only possible if the bore of the workpiece is large enough to fit over the pole.
- Place the workpiece as centrally as possible around the pole on the horizontal supports.
- The workpiece may not be wider than the horizontal supports.
- Always choose the largest induction ledge.
- Make sure that the bare-metal sides are sufficiently coated with grease to ensure optimal contact and avoid vibration.

- Always make sure that the workpiece does not come into contact with the plastic casing of the heater. When the heating is finished, follow the instructions in reverse order. Use heat-resistant gloves to move the heated workpiece.

7.3 Maximum weights for swivel arm models

Table for maximum permitted weights on the horizontal support and the (swivel) ledges:

Type	On supports	Size of (swivel)yokes (mm)										
		7	10	14	20	30	40	50	60	70	80	90
HEATER20-BASIC	-	1 kg	2 kg	3 kg	5 kg	-	20 kg	-	-	-	-	-
HEATER50-BASIC	50 kg	1 kg	2 kg	3 kg	5 kg	10 kg	15 kg	-	-	-	-	-
HEATER100-BASIC	100 kg	-	2 kg	3 kg	5 kg	10 kg	15 kg	20 kg	-	-	-	-
HEATER150-BASIC	150 kg	-	-	-	10 kg	15 kg	25 kg	40 kg	45 kg	50 kg	-	-
HEATER200-BASIC	200 kg	-	-	-	10 kg	15 kg	25 kg	40 kg	45 kg	50 kg	-	-
HEATER400-BASIC	400 kg	-	-	-	-	-	-	-	60 kg	-	80 kg	-
HEATER600-BASIC	600 kg	-	-	-	-	-	-	-	60 kg	-	-	80 kg
HEATER800-BASIC	800 kg	-	-	-	-	-	-	-	-	-	-	-
HEATER1600-BASIC	1600 kg	-	-	-	-	-	-	-	-	-	-	-

- Keep to these maximum weights and avoid tilting the heater or damaging the supports, (swivel) ledges or hinge.

CAREFUL!

- Always handle induction ledges with care. They are damaged easily when dropped, knocked against something, etc. Store them immediately after use.

8. Operation

There are 2 heating methods:

Temperature mode

- For controlled heating up to the desired temperature and if you want to make use of the thermostat feature. This feature maintains the heated workpiece at the pre-set temperature for a maximum period of 5 minutes.

Time mode

- Suitable for series production. If the time needed to reach a certain temperature is known, the workpiece can be heated in series with the time mode.
- In the event of an emergency. If the sensor is faulty, as a contingency measure, the workpiece can be heated with the time mode. The temperature can be measured with an external thermometer.
- In incidental cases when workpieces are too big for the heater, which in temperature mode would lead to an error message due to an insufficient increase in temperature, the time mode may be a solution. If this is often the case, choose a bigger heater from the Schaeffler range.

8.1 Selecting heating modes

- Position the workpiece and sensor (according to chapters 6 & 7).
- Switch on the heater. The display shows 100ºC. Enter the desired temperature by pressing the '▲' or '▼' button (by pressing the (🌡) button, you can select increments of either 1º or 10º).
- Press '**START**'. The heating starts, you will hear a slight humming sound.
- The display shows the current temperature of the bearing. Once the pre-set temperature has been reached, the display blinks and a clear beep is sounded. Unless you press '**STOP**', the temperature of the bearing is maintained for 5 minutes, thanks to the thermostat feature. Heating will restart if the temperature drops by 3ºC. Once the pre-set temperature has been reached again, the induction heater will sound a clear beep.
- The display blinks during this cycle. After 15 minutes, the induction heater switches off and sounds a continuous beep. Each time the induction heater stops, it automatically demagnetises the workpiece.
- The heating process or thermostat feature can be interrupted by pressing '**STOP**'.

8.2 Heating in time mode

- Position the workpiece and sensor (according to chapters 6 & 7.) Only use the sensor if you want to check the temperature before the countdown has completed.
- Switch on the heater and press '◷'. Enter the desired time by pressing '▲' or '▼'; by pressing '◷', you can select increments of either 1 minute or 1 second.
- Press '**START**'. The heating starts, you will hear a slight humming sound. Press ' 🌡 ' during heating to display the current temperature for 3 seconds. The countdown then continues.
- During heating, the pre-set time counts down to 00:00. When 00:00 is reached, the induction heater switches off. The workpiece is then demagnetized automatically and a loud, continuous beep sounds. Press '**STOP**' to switch off the beep.

8.3 Workpiece installation

- After pressing '**STOP**', place the sensor on the side of the pole. By pressing '**STOP**', the workpiece is demagnetized automatically.
- Wear heat-resistant gloves. Place the ledge with the workpiece on a clean surface. If the heater has a swivel arm, open it up to the safety positioning cam and slide the workpiece off. Install the workpiece without delay and prevent it from cooling down.

8.4 Error message

- If no temperature increase of at least 1ºC is measured within the time pre-set by the manufacturer, the induction heater automatically switches off. The display blinks and shows 4 hyphens (----). An alternating, clear beep is sounded. Press **'STOP'** to switch off the beep and check whether:
  - the sensor has been placed on the workpiece
  - the sensor plug has been inserted in the socket (Make sure that the – and + of the plug correspond to that of the socket)
  - the wiring of the sensor has not been damaged
  - the surface area of the sensor is clean
  - the workpiece is within the specifications for the heater as listed in chapter 10

If the sensor is faulty, as a contingency measure, the workpiece can be heated with the time mode. The temperature needs to be measured with an external thermometer.

8.5 Switching between Celsius and Fahrenheit

- The induction heater operates in the temperature units °C or °F. Follow the procedure below to switch between these two units:
  - Press and hold the temperature key for 10 seconds. When pressing, a short beep is sounded.
  - After 10 seconds, another short beep is sounded and the display changes from one temperature unit to the other.
  - The heater can now be operated using the newly set temperature unit.

9. Cleaning, maintenance and troubleshooting

- Clean with a dry cloth. Never clean with water.
- Keep the bare parts of the poles clean. Lubricate regularly with acid-free grease for better contact with the ledges and to prevent corrosion.
- Also lubricate the pivots regularly.

If the heater produces a loud vibrating sound:

- Stop the heating cycle
- Are all contact surfaces clean and greased?
- Is the ledge positioned level on the poles?
  If this is not the case, follow the instructions below to adjust the ledge.

Models with horizontal swivel ledge:

1. Remove dirt, burrs, etc., from the ledge and poles and lubricant lightly.
2. Place the ledge on the hinge point and rotate it above the poles.

3. Loosen the socket screws and the bolts on the hinge bushing by about half a turn.

4. Switch on the heater by pressing **'start'**. The ledge now sets itself. If necessary, a dead blow (plastic) hammer may be used.

5. When noise reduces, then tighten all bolts and switch off the heater.

Models with vertical ledge:

1. Remove dirt, burrs, etc., from the ledge and poles and acid-free lubricant lightly.
2. Place the ledge in front of the poles.
3. Loosen the bolts on the yoke by about half a turn.
4. Switch on the heater by pressing **start**. The ledge now sets itself. If necessary, a plastic (dead blow) hammer may be used.
5. When noise reduces, then tighten all bolts and switch off the heater.

3	4	5

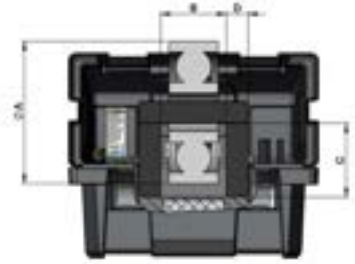
WARNING!

- Carrying out the right maintenance and following the instructions is important.
- Contact your supplier if in doubt about the correct functioning of the device.
- Repairs must be carried out by the manufacturer or a specialist approved by the manufacturer.

10. Technical specifications and accessories

10.1 Technical specifications
HEATER20-200

Type	HEATER20-BASIC	HEATER50-BASIC	HEATER100-BASIC	HEATER150-BASIC	HEATER200-BASIC
Key pad	Yes				
Frequency	50-60Hz				
Temperature measurement	Single				
Operating modes	Time or Temperature control				
Automatic demagnetization	<2A/cm²				
Weight kg	21	21	31	52	52
Max. temperature	150°C / 302°F	240°C / 464°F			
Max. bearing weight kg	20	50	100	150	200
Max. OD Ø mm A	240	400	500	600	600
Space between poles mm B	120	120	180	210	210
Pole height mm C	135	130	185	205	205
Pole surface mm D	40x40	40x50	50x50	70x80	70x80
Dimensions mm (LxWxH)	460x240x280	600x226x272	702x256x392	788x315x456	788x315x456



HEATER20

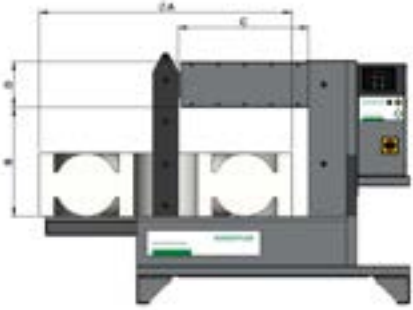
HEATER50 - 200

10.2 Technical specifications
HEATER400-1600

Type	HEATER400-BASIC	HEATER600-BASIC	HEATER800-BASIC	HEATER1600-BASIC
Key pad	Yes			
Frequency	50-60Hz			
Temperature measurement	Single			
Operating modes	Time or Temperature control			
Automatic demagnetization	<2A/cm²			
Weight kg	150	170	250	720
Max. temperature	240°C / 464°F			
Max. bearing weight kg	400	600	800	1600
Max. OD Ø mm A	850	1050	1150	1700
Space between poles mm B	320	400	430	710
Pole height mm C	305	315	515	780
Pole surface mm D	80x100	90x110	180x180	230x230
Dimensions mm (LxWxH)	1214x560x990	1344x560x990	1080x650x955 1080x650x1025*	1520x750x1415 1520x750x1485*

*Height with optional wheels

HEATER400 - 600



HEATER800 - 1600

10.3 Machine ID and certification

See machine plate on the machine.

Available models HEATER20 - 200

Name	Voltage/Amp	kVA	Certification*
HEATER20-BASIC-120V	120V/10A	1,2	CE
HEATER20-BASIC-230V	230V/10A	2,3	CE
HEATER20-BASIC-230V-UK	230V/10A	2,3	UKCA
HEATER20-BASIC-120V-US	120V/10A	1,2	QPS
HEATER20-BASIC-240V-US	240V/5A	1,2	QPS
HEATER50-BASIC-120V	120V/13A	1,5	CE
HEATER50-BASIC-230V	230V/13A	3	CE
HEATER50-BASIC-230V-UK	230V/13A	3	UKCA
HEATER50-BASIC-120V-US	120V/13A	1,5	QPS
HEATER50-BASIC-240V-US	240V/13A	3,1	QPS
HEATER100-BASIC-120V	120V/15A	1,8	CE
HEATER100-BASIC-230V	230V/16A	3,7	CE
HEATER100-BASIC-230V-UK	230V/13A	2,9	UKCA
HEATER100-BASIC-120V-US	120V/15A	1,8	QPS
HEATER100-BASIC-240V-US	240V/16A	3,8	QPS
HEATER150-BASIC-230V	230V/16A	3,7	CE
HEATER150-BASIC-230V-UK	230V/13A	2,9	UKCA
HEATER150-BASIC-240V-US	240V/16A	3,8	QPS
HEATER200-BASIC-400V	2 ~ 400V/20A	8	CE
HEATER200-BASIC-450V	2 ~ 450V/16A	7,2	CE
HEATER200-BASIC-500V	2 ~ 500V/16A	8	CE
HEATER200-BASIC-480V-US	2 ~ 480V/16A	7,7	QPS
HEATER200-BASIC-600V-US	2 ~ 600V/14A	8,4	QPS

CE UKCA c PS US CERTIFIED ELECTRICAL SAFETY LR1601

* Devices with suffix “US”: QPS certified versions for US and Canada are according to USA C22.2 No. 88-19 - Industrial Heating Equipment and UL 499, 14 th Ed. (Nov 7, 2014) - Electric Heating Appliances

Available models HEATER400 - 1600

Name	Voltage/Amp	kVA	Certification*
HEATER400-BASIC-400V	400V/30A	12	CE / UKCA
HEATER400-BASIC-450V	450V/25A	12	CE / UKCA
HEATER400-BASIC-500V	500V/24A	12	CE / UKCA
HEATER400-BASIC-480V-US	480V/24A	12	QPS
HEATER400-BASIC-600V-US	600V/20A	12	QPS
HEATER600-BASIC-400V	400V/45A	18	CE / UKCA
HEATER600-BASIC-450V	450V/40A	18	CE / UKCA
HEATER600-BASIC-500V	500V/36A	18	CE / UKCA
HEATER600-BASIC-480V-US	480V/36A	18	QPS
HEATER600-BASIC-600V-US	600V/30A	18	QPS
HEATER800-BASIC-400V	400V/60A	24	CE / UKCA
HEATER800-BASIC-450V	450V/50A	24	CE / UKCA
HEATER800-BASIC-500V	500V/48A	24	CE / UKCA
HEATER800-BASIC-480V-US	480V/48A	24	QPS
HEATER800-BASIC-600V-US	600V/40A	24	QPS
HEATER1600-BASIC-400V	400V/100A	40	CE / UKCA
HEATER1600-BASIC-450V	450V/80A	40	CE / UKCA
HEATER1600-BASIC-500V	500V/80A	40	CE / UKCA
HEATER1600-BASIC-480V-US	480V/80A	40	QPS
HEATER1600-BASIC-600V-US	600V/65A	40	QPS

CE UKCA c PS US CERTIFIED ELECTRICAL SAFETY LR1601

* Devices with suffix “US”: QPS certified versions for US and Canada are according to USA C22.2 No. 88-19 - Industrial Heating Equipment and UL 499, 14 th Ed. (Nov 7, 2014) - Electric Heating Appliances

10.4 Ledges (Yokes)

HEATER20-BASIC

Name	Min. bore diam. (mm)	Size mm	Weight kg	Swivel arm	Scope of delivery	Optional
HEATER50.YOKE-10	10	7x7x200	0,08	No	✓	
HEATER50.YOKE-15	15	10x10x200	0,15	No	✓	
HEATER50.YOKE-20	20	14x14x200	0,32	No	✓	
HEATER50.YOKE-30	30	20x20x200	0,61	No	✓	
HEATER50.YOKE-60	60	40x40x200	2,42	No	✓	

HEATER50-BASIC

Name	Min. bore diam. (mm)	Size mm	Weight kg	Swivel arm	Scope of delivery	Optional
HEATER50.YOKE-10	10	7x7x200	0,08	No	✓	
HEATER50.YOKE-15	15	10x10x200	0,15	No		✓
HEATER50.YOKE-20	20	14x14x200	0,32	No	✓	
HEATER50.YOKE-30	30	20x20x200	0,61	No		✓
HEATER50.YOKE-60	60	40x40x200	2,42	No		✓
HEATER50.YOKE-65	65	40x50x200	3,02	No	✓	

HEATER100-BASIC

Name	Min. bore diam. (mm)	Size mm	Weight kg	Swivel arm	Scope of delivery	Optional
HEATER100.YOKE-15	15	10x10x280	0,21	No		✓
HEATER100.YOKE-20	20	14x14x280	0,40	No		✓
HEATER100.YOKE-30	30	20x20x280	0,84	No	✓	
HEATER100.YOKE-45	45	30x30x280	2,40	Yes		✓
HEATER100.YOKE-60	60	40x40x280	3,87	Yes		✓
HEATER100.YOKE-72	72	50x50x280	5,78	Yes	✓	
HEATER100.YOKE-85	85	60x60x280	8,09	Yes		✓

HEATER150-BASIC / HEATER200-BASIC

Name	Min. bore diam. (mm)	Size mm	Weight kg	Swivel arm	Scope of delivery	Optional
HEATER200.YOKE-15	15	10x10x350	0,27	No		✓
HEATER200.YOKE-20	20	14x14x350	0,51	No		✓
HEATER200.YOKE-30	30	20x20x350	1,06	No		✓
HEATER200.YOKE-45	45	30x30x350	3,67	Yes	✓	
HEATER200.YOKE-60	60	40x40x350	5,51	Yes		✓
HEATER200.YOKE-72	72	50x50x350	7,79	Yes		✓
HEATER200.YOKE-85	85	60x60x350	10,69	Yes		✓
HEATER200.YOKE-100	100	70x70x350	14,01	Yes		✓
HEATER200.YOKE-110	110	70x80x350	15,90	Yes	✓	

HEATER400-BASIC

Name	Min. bore diam. (mm)	Size mm	Weight kg	Swivel arm	Scope of delivery	Optional
HEATER400.YOKE-30	30	20x20x500	3,12	Yes		✓
HEATER400.YOKE-45	45	30x30x500	4,95	Yes		✓
HEATER400.YOKE-60	60	40x40x500	7,55	Yes		✓
HEATER400.YOKE-85	85	60x60x500	14,83	Yes		✓
HEATER400.YOKE-115	115	80x80x500	25,40	Yes	✓	

HEATER600-BASIC

Name	Min. bore diam. (mm)	Size mm	Weight kg	Swivel arm	Scope of delivery	Optional
HEATER600.YOKE-60	60	40x40x600	8,57	Yes		✓
HEATER600.YOKE-85	85	60x60x600	17,43	Yes		✓
HEATER600.YOKE-115	115	80x80x600	29,10	Yes		✓
HEATER600.YOKE-130	130	90x90x600	37,90	Yes	✓	

HEATER800-BASIC

Name	Min. bore diam. (mm)	Size mm	Weight kg	Swivel arm	Scope of delivery	Optional
HEATER800.YOKE-60	60	40x40x725	9,00	No		✓
HEATER800.YOKE-72	72	50x50x725	14,50	No		✓
HEATER800.YOKE-85	85	60x60x725	20,30	No		✓
HEATER800.YOKE-115	115	80x80x725	36,10	No		✓
HEATER800.YOKE-145	145	100x100x725	56,40	No	✓	

HEATER1600-BASIC

Name	Min. bore diam. (mm)	Size mm	Weight kg	Swivel arm	Scope of delivery	Optional
HEATER1600.YOKE-85	85	60x60x1140	32,50	No		✓
HEATER1600.YOKE-115	115	80x80x1140	56,76	No		✓
HEATER1600.YOKE-145	145	100x100x1140	88,69	No		✓
HEATER1600.YOKE-215	215	150x150x1140	199,56	No	✓	

10.5 Scope of delivery

Scope of delivery	HEATER-BASIC
Temperature sensor	1 pc.
Heat protection gloves (up to 250°C)	✓
Acid-free lubricant	✓
Printed manual (English, German)	✓

11. Disclaimer

The manufacturer and/or supplier cannot be held liable for any damage to workpieces or consequential damage resulting from incorrect use of the device or damage to workpieces and any consequential damage resulting from a defect in the device.

12. Waste disposal

Power tools, accessories and packaging must be reused at the end of their life cycle in an environmentally sound manner. Do not dispose of used power tools as residual waste, but bring them to a recycling company that complies with the applicable environmental requirements.

CERTIFICATE OF CONFORMITY

We hereby declare that the product described below is in conformity with the applicable health and safety requirements of the EC Directive in terms of its design and type and in the execution we have brought into circulation. This declaration shall cease to be valid if any modification is made to the product without our agreement.

Product description: Inductive heater

Product name/type:

- HEATER20-BASIC-120V
- HEATER20-BASIC-230V
- HEATER50-BASIC-120V
- HEATER50-BASIC-230V
- HEATER100-BASIC-120V
- HEATER100-BASIC-230V
- HEATER150-BASIC-230V
- HEATER200-BASIC-400V
- HEATER200-BASIC-450V
- HEATER200-BASIC-500V
- HEATER400-BASIC-400V
- HEATER400-BASIC-450V
- HEATER400-BASIC-500V
- HEATER600-BASIC-400V
- HEATER600-BASIC-450V
- HEATER600-BASIC-500V
- HEATER800-BASIC-400V
- HEATER800-BASIC-450V
- HEATER800-BASIC-500V
- HEATER1600-BASIC-400V
- HEATER1600-BASIC-450V
- HEATER1600-BASIC-500V

Comply with the requirements of:

- Low Voltage Directive 2014/35/EU
- EMC Directive 2014/30/EU

Applicable harmonized standards:

Electric Safety
- EN 60335-1

EMC Emission
- EN 55011
- EN 61000-3-2
- EN 61000-3-3

EMC Immunity
- EN 61000-6-2

Name and address of the authorized person for the technical documentation:

Schaeffler Technologies AG & Co. KG
Georg-Schäfer-Straße 30
D-97421 Schweinfurt

H. van Essen
Managing Director
Bega International BV

Place, Date:
Vaassen, 23-11-2021

CE

UK Declaration of Conformity

We hereby declare that the product described below is in conformity with the applicable UK regulations terms of its design and type and in the execution we have brought into circulation. This declaration shall cease to be valid if any modification is made to the product without our agreement.

Product description:	Inductive heater
Product name/type:	■ HEATER20-BASIC-230V ■ HEATER50-BASIC-230V ■ HEATER100-BASIC-230V ■ HEATER150-BASIC-230V ■ HEATER200-BASIC-400V ■ HEATER200-BASIC-450V ■ HEATER200-BASIC-500V ■ HEATER400-BASIC-400V ■ HEATER400-BASIC-450V ■ HEATER400-BASIC-500V ■ HEATER600-BASIC-400V ■ HEATER600-BASIC-450V ■ HEATER600-BASIC-500V ■ HEATER800-BASIC-400V ■ HEATER800-BASIC-450V ■ HEATER800-BASIC-500V ■ HEATER1600-BASIC-400V ■ HEATER1600-BASIC-450V ■ HEATER1600-BASIC-500V
Are in conformity with the UK requirements of:	■ Electromagnetic Compatibility Regulations 2016 ■ Electrical Equipment (safety) Regulations 2016
Where applicable, the following harmonised standards have been applied:	Electric Safety ■ EN 60335-1 EMC Emission ■ EN 55011 ■ EN 61000-3-2 ■ EN 61000-3-3 EMC Immunity ■ EN 61000-6-2
Name and address of the authorized person for the technical documentation:	Schaeffler Technologies AG & Co. KG Georg-Schäfer-Straße 30 D-97421 Schweinfurt

H. van Essen
Managing Director
Bega International BV

Place, Date:
Vaassen, 01-11-2022

UK CA

23.02.R01-EN

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