

# Koyo®

✓ NEW TOOLS !

## Koyo MF Quick-heater Multi-purpose induction heaters



**JTEKT**  
GROUP

# INDUCTION HEATERS

## KOYO MF Quick-Heaters – medium-frequency technology

*Mounting, dismantling and preheating of metal components*

### Fast and/or controlled heating with $\Delta T$

Thanks to medium-frequency technology, energy is transferred to the workpiece effectively, so, it is heated easily and quickly. The KOYO MF Quick-Heater consists of a generator with a fixed or flexible inductor. Its compact dimensions make it easy to move.

KOYO MF Quick-Heaters result in time savings as they can be deployed very rapidly (fewer actions) and heat faster than conventional methods. Energy use is much more efficient thanks to its lower power consumption. One of the major advantages of this type of induction heater is that they are not limited to components with a cylindrical shape: flexible inductors can be wound around any size or shape.

### Advantages of KOYO MF Quick-Heaters

- ✓ For mounting, dismantling and preheating
- ✓ Suitable for steel, cast iron, stainless steel and titanium
- ✓ Temperature and/or time-controlled heating
- ✓ Double temperature measurement ( $\Delta T$  monitoring)
- ✓ Low connection power (32/63 Amp)
- ✓ Generators are adjustable from 2.5 to 22/44 kW
- ✓ Easy to use and flexible
- ✓ Suitable for production and maintenance applications
- ✓ No residual magnetism
- ✓ No fire hazard due to open flames
- ✓ No noise, fumes or smoke nuisance
- ✓ Air-cooled: no water cooling needed
- ✓ Because the work is carried out damage-free, expensive components can be reused

### To be used for

- Bearings
- Labyrinth seals
- Bearing rings
- Bearing housings
- Gear wheels
- Rollers
- Tubes
- Bushings
- Couplings
- Train wheels/train wheel tyres
- Extruders
- Stator housings

## The KOYO MF Quick-Heater

This heater consists of a generator and one or more inductors. The generator is designed for the connection of inductors used for heating ferromagnetic workpieces. Suitable materials include iron, steel, stainless steel, titanium and certain bronze alloys. The maximum capacity workpieces can be subjected to is 22 kW or 44 kW, depending on the type of heater.

## Flexible inductors

Flexible inductors are a multifunctional solution for various shapes or sizes. They can be used in or around a workpiece.



### KMF-22NR, 22 kW

Dismounting in a steel factory, using a flexible inductor wrapped around a bearing ring.

Temperature: 200°C  
Time needed: 17 min.

# INDUCTION HEATERS

KOYO MF Quick-Heaters – medium-frequency technology



**44kW**

**22/44**  
power kW

**7"**  
display inch

**400/450/  
500/600**  
voltages V

## KOYO MF Quick-Heater

- Compact design with 7" display
  - User-friendly touchscreen operation
  - Choice of 2 generators: 22 or 44 kW
  - Smart electronics ensure optimum operating frequency
  - Adjustable power regulation
  - Double temperature measurement ( $\Delta T$  monitoring)
  - Choice between fixed and flexible inductors
- 
- Can heat according to preset temperature/time curve
  - The heating process is displayed in a clear graph
  - Create proof of work report
  - Log function to save data or export it via a USB port



**22kW**

## Which inductor?

For the MF Quick-Heater, choose a suitable inductor for your application. Request our product questionnaire for proper advice and a quotation.



**Flexible  
inductor**



**Fixed  
induct**



**Fixed  
induct**



**Table  
induct**

## SMART inductor recognition

When a fixed inductor is connected to the generator for a second time, it will automatically select the correct settings. All you have to do is press START.

Bearing rings and labyrinth rings can be dismantled using custom inductors.

# TECHNICAL SPECIFICATIONS

Medium-frequency



Type	KMF-22NR	KMF-44NR
Forced air cooling	Yes	Yes
Power	22kW	44kW
Frequency	10-25 kHz	10-25 kHz
Voltage/Amperage	3 ~ 400V/32A	3 ~ 400V/63A
Voltage/Amperage	3 ~ 450V/30A	3 ~ 450V/59A
Voltage/Amperage	3 ~ 500V/28A	3 ~ 500V/55A
Voltage/Amperage	3 ~ 600V/23A	3 ~ 600V/45A
Frequency	50/60Hz	50/60Hz
Temperature measurement	For type K thermocouple	For type K thermocouple
Accuracy	± 3.5°C / ± 38.2 °F	± 3.5°C / ± 38.2 °F
Inductor recognition	Yes	Yes
Temperature sensor	Yes, for max 300°C / 572 °F	Yes, for max 300°C / 572 °F
Extra thermocouple input	Yes	Yes
Dimensions of generator LxWxH	600 x 300 x 600 mm	600 x 650 x 580 mm
Weight of generator	46 kg	78 kg
Trolley	Optional	Optional
Operation		
Dimensions display	7"	7"
Heat curve in display	Yes	Yes
Setpoint power	Via touchscreen	Via touchscreen
Setpoint temperature	Via touchscreen	Via touchscreen
Setpoint temperature curve	Yes	Yes
Setpoint timer	Via touchscreen	Via touchscreen
Selection operating mode	Via touchscreen	Via touchscreen
Digital readings temperature	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen
Digital readings time	Setpoint and actual value on touchscreen	Setpoint and actual value on touchscreen
Digital readings power	Actual value on touchscreen	Actual value on touchscreen
Digital readings frequency	Actual value on touchscreen	Actual value on touchscreen
USB connection	Yes	Yes
Network connection	Yes	Yes
Heating log	Yes	Yes
Signaling by		
Installation in operational state	Light optional	Light optional
Error message	Acoustic signal / light optional	Acoustic signal / light optional
End of heating cycle	Acoustic signal	Acoustic signal

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