

# BEARING HEATER </br> <INVERTER DRIVEN INDUCTION HEATER>

## INSTRUCTION MANUAL

# **IHE Series**

Single Phase: IHE0110A, IHE0120G

Three Phase: IHE0320G, IHE0340G, IHE0620G, IHE0640G

IHE1120G, IHE1140G, IHE2320G, IHE2340G





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Manual No. TO-IHE-0703-E

#### 1. PREFACE

Thank you for purchasing the Inverter Driven Bearing Heater (IHE series). This product is designed to heat a ring, usually a bearing, for the shrink-fitting process of the ring. This manual is designed to provide correct and suitable application information.

Read this manual before attempting to install, operate, maintain or inspect IHE series heaters. Keep this manual in a safe, convenient location for future reference. Understand all precautions and safety information before attempting use.

### 2. GENERAL PRECAUTIONS

- **(A)** Any illustration, photograph or examples used in this manual are provided as examples only and may not apply to all products to which this manual is applicable.
- **(B)** The products and specifications described in this manual can be changed without notice.
- **(C)** If the equipment is used in a manner not specified in this manual, the protection provided by the equipment may be compromised.
- (D) This product is designed to metal rings such as bearing and gear etc. only.
- **(E)** When ordering a new copy of the manual due to damage or loss, please provide the manual number shown on the front page.

## 3. SAFETY INFORMATION

- (A) Do not heat bearings above 120°C (248°F).
- **(B)** Wear heavy gloves to prevent burns.
- **(C)** Keep magnetic materials such as watches, computers, hearing aids etc. away from the unit.
- (D) People with pacemakers shall not be in the vicinity of the heater(s).
- **(E)** Do not touch the main core or I-type core during heating.
- **(F)** When heating, be sure to place the bearing and install the I-core.

Doing so may result in overcurrent or an increase in the temperature of the device itself.

- **(G)** Check supply voltage regularly.
- **(H)** To provide continued protection against electric shock, connect to properly grounded outlets only.
- (I) Read Safety Instruction in Appendix 2 before using.
- (J) Don't attempt to modify or alter the bearing heater.
- **(K)** Follow the instruction manual at all times.
- (L) Turn off the main power when not in use.
- (M) Turn off the main power and unplug the machine when a lightning strike may occur.
- **(N)** In initial state of heating, the inverter output frequency changed from high to low to find the optimal frequency most suitable for heating efficiency for the load.

(Ref: 6.1 (A) Constant Apparent Power Control)

Temperature detection is still operated after set frequency. The heating temperature may over the target while the frequency is adjusted depending on the condition.

The products which ship now, the frequency decrease is set in about 1 second at shipment. Regarding the products which ship <u>from May 2009 to September 2015</u>, it takes at maximum about 8 seconds.