

Power to 15kW: Operation from 50kHz to 150kHz

EKOHEAT[®]



World-class Induction Heating Systems

EKOHEAT induction heating systems for the 50-150 kHz range provide reliable and repeatable solutions for high-speed heating of smaller parts where the part geometry or the coil size requires high frequency for efficient heating. Among many typical applications are heat treating of steels, shallow case depth hardening, and heating of steel, aluminum, copper or brass for brazing, shrink fitting, curing, forming and melting.

With the versatile EKOHEAT power control system you get rapid tuning, efficient and precise heating of your parts, power control within 0.2% resolution and an easy-to-use, easy-to-read front panel. Remote control is accomplished with 0-10V, 4-20mA inputs, RS485 serial port, 24V controls and remote E-Stop input so integration with your automated production lines is easy. EKOHEAT technology improves return on investment by reducing your energy usage compared to gas-fired and resistive heating techniques. Flameless, non-contact induction heating minimizes energy waste by focusing energy only on the part and zone to be heated. With very efficient power conversion and a power factor greater than 0.9, utility demand charges are reduced, lowering monthly energy bills. EKOHEAT systems are designed for efficient use of cooling water, further lowering your operating costs. This is a water-cooled system, requiring connection to a heat exchanger or other means of dissipating heat.



EKOHEAT AT-A-GLANCE

Versatile

- Efficient heating of many part geometries, sizes and compositions
 - Multiple capacitor configurations
 - Multiple tap transformer configurations
 - Voltage or Power control
- Repeatable, reliable heating, agile frequency tuning
- Through-Curie heating
- Movable workhead; up to 30m (100')
- Sub-second to continuous cycle times
- Remote operation or logging with RS485 port
- Accepts international AC line voltages

Easy to Use

- User-friendly operator front panel controls
- System configuration from front panel
- Cycle timer, peak and short-cycle data capture
- 10 ten-step heating profiles
- Overload-tolerant output management
- 5-language display suite (EN, ES, FR, DE, IT)

EKOHEAT is CE marked and manufactured at our ISO 9001:2008 certified facility.

SPECIFICATIONS

| SPECIFICATION | 10c/100 | 15c/100 | UNITS |
|---|---|---------|---------------------------|
| RF Terminal Power (continuous) ¹ | 9 | 14 | kW |
| AC Line Power | 10 | 15 | kW |
| Power Factor | 0.92 | | |
| Output Frequency | 50 - 150 | | kHz |
| AC Line Voltage | 360 - 520 | | Vac, 3Ø |
| AC Line Protection | 35 | | A |
| Display | LCD Monochrome, 240w x 128h Pixels | | |
| Serial Communication | RS485 standard (RS485/232 converter optional) | | |
| Process Timer | 0.01 - 10000 | | sec |
| Max Ambient Temp | 45 (115) | | ° C (° F) |
| Compliance ² | CE, EN60519, EN61326-1 | | |
| Ingress Protection | NEMA12 | | |
| Weight (System) | 32 (70) | | kg (lb) |
| Dimensions | 432 x 616 x 451 (17 x 24.25 x 17.75) | | WxDxH mm (in) |
| WATER COOLING | | | |
| Flow ³ | 7.6 (2.0) + 2.8 (0.75) | | l/m (g/m) |
| Max Input Pressure | 5.6 (80) | | Bar (lb/in ²) |
| Pressure Differential (Range) | 2.8 - 5.6 (40-80) | | Bar (lb/in ²) |
| Max Water Temp | 35 (95) | | ° C (° F) |

1) Maximum output may vary based on frequency and load conditions

2) Suitable for incorporation into equipment for compliance with Machinery Directive

3) Power supply + workhead caps; required workhead coil flow requirements vary by application

OPTIONS AND ACCESSORIES



EKOHEAT features a front panel programmable controller for monitoring, timer and power-level control, diagnostics and system configuration. Up to 10 ten-step heating profiles can be configured to control power levels over your specified timing requirements.

- Start-up assistance
- Heat exchanger or chiller
- Pendant station
- Auto-tap selection
- Redundant safety relays
- Multi-workhead controller
- eVIEW serial data reporting
- Footswitch
- Extended workhead cable lengths
- Optical pyrometer (closed-loop temperature control)
- External controller (plc)
- Front E-stop with retransmission



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