

Power to 45 kW: Operation from 50 kHz to 150 kHz

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 0.02% 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, Modbus 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, your utility demand charges are reduced, lowering your 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
- Repeatable, reliable heating, agile frequency tuning through-Curie heating
- Movable work head; up to 30 m (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)
- System diagnostics displayed on front panel

SPECIFICATION	30/100	45/100	UNITS
RF Terminal Power (continuous)	27	40 ²	kW
AC Line Power	30	45	kW
Power Factor	0.92		
Output Frequency	50 - 150		kHz
AC Line Voltage	360 - 520		Vac, 3Ø
AC Line Protection ¹	80	100	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 ³	CE, EN60519, EN61326-1		
Ingress Protection	NEMA12		
Power Unit Weight	73 (160)		kg (lb)
Power Unit Dimensions	436 x 721 x 762 (17.2 x 28.4 x 30)		WxDxH mm (in)
WATER COOLING			
Flow ⁴	9.5 (2.5)		l/m (g/m)
Maximum 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 Fast-acting fuses
 2 Maximum output may vary by frequency and load conditions
 3 Suitable for incorporation into equipment for compliance with Machinery Directive
 4 Power supply; 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
- Optional Communication Interfaces

