

Power to 270 kW: Operation from 50 kHz to 150 kHz

EKOHEAT®
 With VPA Technology™



World-class Induction Heating Systems

EKOHEAT induction heating systems for 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, a 12 bit power control with a 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, utility demand charges are reduced, lowering monthly energy bills. EKOHEAT systems are designed for efficient use of cooling water, further lowering your operating costs. Additionally, VPA systems are scalable with the ability to add power.

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
- Remote workhead; 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
- 7-language display suite (EN, ES, FR, DE, IT, PT, PL)

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

SPECIFICATIONS

SPECIFICATION	180/100	225/100	270/100	UNITS
RF Terminal Power ¹	148	185	222	kW
AC Line Power	106 & 106	159 & 106	159 & 159	kVA
Power Factor	0.92			
Output Frequency	50 - 150			kHz
AC Line Voltage	360 - 520			Vac, 3Ø
AC Line Protection ²	200 & 200	300 & 200	300 & 300	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	NEMA 12			
Power Unit Dimensions	1718 x 806 x 1906 (67 x 32 x 75)			WxDxH mm (in)
Weight	391 (860)	430 (945)	470 (1035)	kg (lb)
WATER COOLING				
Flow ⁴	42 (11)	50 (13.25)	60 (15.75)	l/m (g/m)
Pressure Differential (Range)	2.8 - 5.6 (40-80)			Bar (lb/in ²)
Maximum Input Pressure	5.6 (80)			Bar (lb/in ²)
Max Water Temp	35 (95)			° C (° F)

- 1) Maximum output may vary by frequency and load conditions
- 2) Fast-acting fuses; left bay, right bay power drop respectively
- 3) Suitable for incorporation into equipment for compliance with Machinery Directive
- 4) Power supply; required workhead coil flow requirements vary by application
- 5) Two separate power feeds required; left bay, right bay respectively

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
- Cooling systems
- Pendant station
- Footswitch
- Redundant safety relays
- Complete spare parts kits
- Optional communication interfaces
- Extended workhead cable lengths
- Optical pyrometer (closed-loop temperature control)
- External controller (PLC)
- Front E-stop with retransmission
- eVIEW serial data reporting



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