

# EKOHEAT<sup>®</sup>

With VPA Technology™

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

## 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
- 7-language display suite (EN, ES, FR, DE, IT, PT, PL)

SPECIFICATION	180/100	225/100	270/100	UNITS
RF Terminal Power <sup>1</sup>	180	225	270	kW
AC Line Power	212	265	318	kVA
Power Factor	0.92			
Output Frequency	50 – 150			kHz
AC Line Voltage	360 - 520			Vac, 3Ø
AC Line Protection <sup>1</sup>	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 <sup>3</sup>	CE, UKCA, EN 60519, EN 61326-1			
Ingress Protection	NEMA 12			
Dimensions	1800 x 852 x 1975 (71 x 33 x 78)			WxDxH mm (in)
Weight	391 (860)	430 (945)	574 (1263)	kg (lb)
<b>WATER COOLING</b>				
Flow <sup>4</sup>	42 (11)	50 (13.25)	60 (14.5)	l/m (g/m)
Pressure Differential (Range)	2.8 - 5.6 (40 - 80)			Bar (lb/in <sup>2</sup> )
Maximum Input Pressure	5.6 (80)			Bar (lb/in <sup>2</sup> )
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

## 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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