

Power to 50kW: Operation from 5 kHz to 15 kHz

EKOHEAT[®]

With VPA Technology™

World-class Induction Heating Systems

EKOHEAT induction heating systems for 5-15 kHz range provide reliable and repeatable solutions for heating with large coils or for heating larger parts. Among the many typical applications are heating of hard-to-couple parts, deeper heat penetration, crystal growing, heat treating steel, preheating for forging of steel, aluminum, copper or brass, and melting in crucibles.

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)

SPECIFICATIONS

SPECIFICATION	20/10	35/10	50/10	UNITS
RF Terminal Power	20	35	50	kW
AC Line Power	23	41	58	kVA
Power Factor	0.92			
Output Frequency	5 - 15			kHz
AC Line Voltage	360 - 520			Vac, 3 ϕ
AC Line Protection ¹	50	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 ²	CE EN60519 EN61326-1			
Ingress Protection	IP54, NEMA 12			
Power Unit Dimensions	436 x 721 x 762 (17.2 x 28.4 x 30)			WxDxH mm (in)
Weight	75 (165)			kg (lb)
WATER COOLING				
Flow ³	9.5 (2.5)			l/m (g/m)
Pressure Differential (Range)	2.8 - 5.5 (40-80)			Bar (lb/in ²)
Maximum Input Pressure	5.6 (80)			Bar (lb/in ²)
Max Water Temp	35 (95)			° C (° F)

- 1) Fast-acting fuses
- 2) Suitable for incorporation into equipment for compliance with Machinery Directive
- 3) Power supply; required workhead coil flow requirements vary by application
- 4) Assumes 70% coil losses

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
- Auto-tap selection
- Redundant safety relays
- Complete spare parts kits
- eVIEW serial data reporting
- Footswitch
- Extended workhead cable lengths
- Optical pyrometer (closed-loop temperature control)
- External controller (PLC)
- Front E-stop with retransmission
- Broadband frequency range (2-15 kHz)



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