

ISM MF 3 RANGE

Features

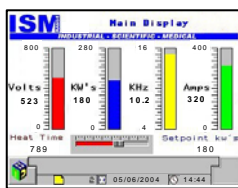
- Range of power from 50kW to 350kW
- Operating Frequency 1.5kHz to 4.5kHz
- Equipment supplied in 'plug & play' condition
- Software driven for maximum flexibility
- High power to size ratio with small footprint
- Local & remote control and monitoring
- External communications via duplicated 42 pin sockets including 0-10 Volt and/or 4-20mA power control for ease of connection to external control devices
- Optional data communication via RS485/232

Tuning

The unique design of the ISM's electronic control system utilizes a patent protected "Instant" tune and power control system, enabling it to process the widest range of products at optimum power loading.

Touch-Sensitive Control

- A colour touch-sensitive screen display featuring:-
- Graphical and numeric display of power, frequency, voltage and current
 - Status information for warnings & faults, in real time
 - Output controlled in either voltage or power mode
 - Programmable single or multi-stage heating profiles
 - Heat profiles can be memorized against part number
 - Peak hold facility of displayed outputs
 - Control system configurable for different applications
 - Configurable I/O relays for external controls
 - Timed and dated fault logs



TECHNICAL DATASHEET

ISM MF 175kW Induction Heater

Power circuit breaker

Optional RS 485/232 connection

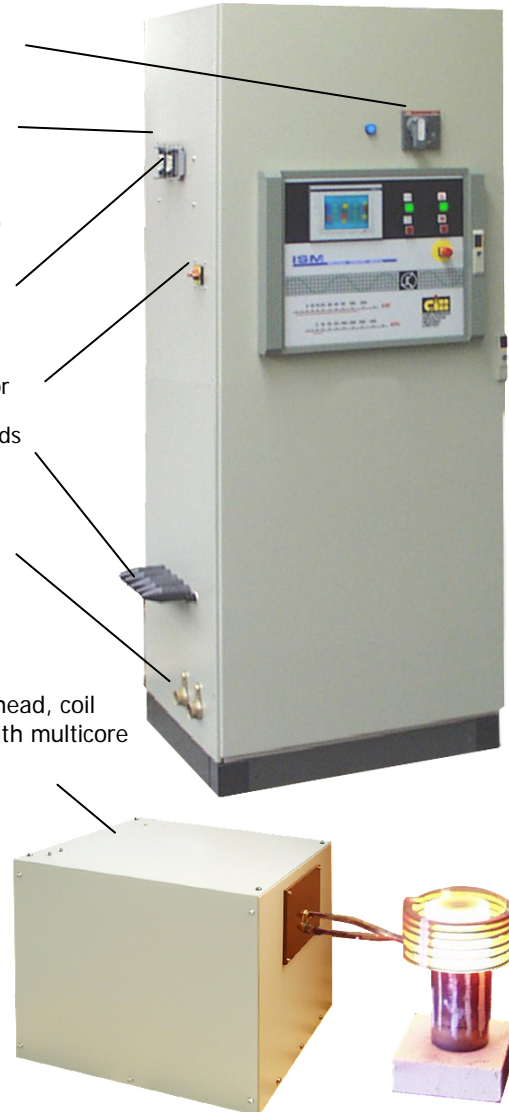
Duplicated I/O Connection (digital and analogue)

Lockable Style Control Isolator

MF Cable Glands

Water Connection

Remote workhead, coil (connected with multicore MF cable)



Remote Workheads

Workheads can be positioned remotely from the induction heater, using up to 100 metres of low loss multi core cable. A wide range of workheads can be supplied to accommodate all types of heating processes including portable, high kVA and transformer workheads. A single ISM can supply multiple workheads.

Safety Features

The workhead is galvanically isolated from the ISM and AC line by a double wound transformer. All access to the ISM is interlocked with its circuit breaker via a Pilz relay. Critical components are monitored and controlled by the electronics so that voltages, currents and temperatures are kept well within safe limits, including the remote workheads.

Cleaner Environment

The ISM Range of Induction Heaters offers a clean and efficient form of heating which in turn improves the operating environment.

SPECIFICATION

Model ISM	Max Output (kW)	Frequency Range (kHz)	Size W x D x H (mm)	Weight (kgs)	Full Load (kVA)	Min. Water Flow (lpm) + coil	Water Connection
MF50 - 3	50	1.5 to 4.5	800 x 600 x 2100	225	68	7*	12mm
MF75 - 3	75	1.5 to 4.5	800 x 600 x 2100	225	102	7*	12mm
MF100 - 3	100	1.5 to 4.5	800 x 600 x 2100	225	135	7*	12mm
MF125 - 3	125	1.5 to 4.5	800 x 600 x 2100	225	169	7*	12mm
MF150 - 3	150	1.5 to 4.5	800 x 600 x 2100	225	203	7*	12mm
MF175 - 3	175	1.5 to 4.5	800 x 600 x 2100	225	237	7*	12mm
MF200 - 3	200	1.5 to 4.5	1600 x 600 x 2100	325	270	14*	22mm
MF250 - 3	250	1.5 to 4.5	1600 x 600 x 2100	325	338	14*	22mm
MF300 - 3	300	1.5 to 4.5	1600 x 600 x 2100	325	405	14*	22mm
MF350 - 3	350	1.5 to 4.5	1600 x 600 x 2100	325	473	21*	22mm

Standard remote hand control box supplied with all ISM induction heaters including heat on, heat off and emergency stop buttons

* Minimum water flow (lpm) is the minimum flow requirement for the induction heater only. This excludes the water flow requirement of the workhead, work coil and any tooling requirements as these are application specific.

Additional Information	
Transformer Output Voltage	Low AC line: 800, 686 & 570 Volts High AC line: 922, 790 & 657 Volts
Output Voltage Control	4% to 100%
Tuned Circuit Q Range	3 to 100
Efficiency	94%
AC Line Voltage Range	360 – 458; 415 – 528 Volts
Protection	IP 55, NEMA 12
Colour	RAL 7035
Digital I/O	Duplicated 42 pin Harting sockets
External power control	0-10 Volt and/or 4-20mA
AC line	3 phase & earth (no neutral required) 45Hz to 65Hz
Power factor	0.89

Cooling Water	
Min. Pressure Differential	3.1 bar (~45 PSI)
Max. Pressure	6.2 bar (~90 PSI)
Max. Inlet Temperature	35°C (95°F)
Min. Inlet Temperature	Must not fall to or below the atmospheric dew point
Conductivity	<200 µS
pH Range	7.2 to 8.4

Options & Accessories

- A range of workheads
- Multiple workhead changeover switch
- Transformer tap change switch
- Foot control switch
- Remote power control
- RS485/232 communications
- Temperature control systems
- Cabinet air conditioning
- Water cooling systems
- Stainless steel enclosures
- Repackaged and mobile systems