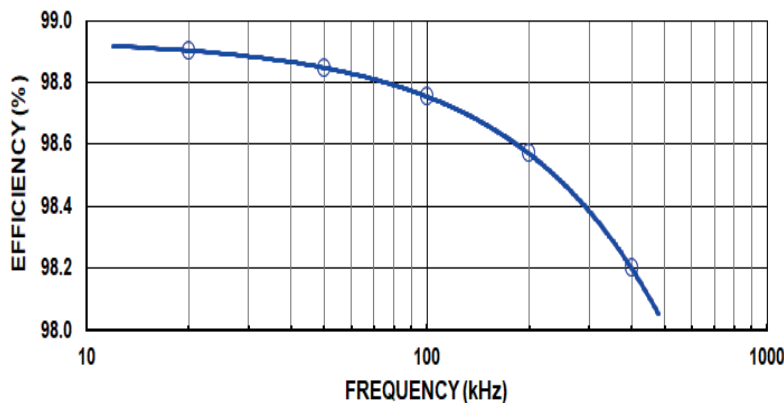


Smart Induction Heating Converter Module i50k400R



- 50 kW MF-HF Converter
- Frequency Range: 10 kHz - 400 kHz
- 50 kW in 2,4 litres
- Power Density: 20 kW/litre
- Efficiency: 98,2% @ 400 kHz
- Efficiency: 98,9% @ 20 kHz
- Weight: 3,5 kg



Universal Smart Power Module for
Induction Heating Applications

4 x 12,5 kW Independent Outputs

Total Output Power 50 kW

Wide Frequency Range 10..400 kHz

SiC Multi-Power Port Technology

Extremely High Efficiency

Ultra Compact Size & Low Weight

Integrated Smart Controller

CAN Bus Interface to PLC

Integrates Power Inverter & Rectifier,
Driving Circuits, Floating Auxiliary
power Supplies, Sensors and
Heatsink

Water Cooling

Applications

- Induction Bonding
- Induction Brazing
- Induction Annealing
- Stress Relieving
- Multi-Task Induction

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GENERAL FEATURES	
Output Power	50 kW
Output Frequency Range	10...400 kHz
Multi-Power Port	4 x 12,5 kW independent power ports
Efficiency	98.9% @ 20 kHz / 98,2% @ 400 kHz
Power Density	21 kW/litre
Power Specific Weight	15 kW/kg
INPUT	
Mains Voltage	400 V _{AC} (Three-Phase)
Normal Operating Range	400 V _{AC} ± 10 %
Input AC Current (400 kHz)	85,5 A _{AC} @ 360 V _{AC} , 70 A _{AC} @ 440 V _{AC}
Input AC Power (400 V _{AC})	52,9 kVA @ 20 kHz / 53,3 kVA @ 400 kHz
Normal Operating Frequency Range	47,5 / 63 Hz
Cos (φ)	> 0,99
OUTPUT	
Output Circuits	Series LC
Inductor Short Circuit Protection	Yes
CONTROLLER	
Controller	Fully Digital Controller
Control Strategies	FM
Power Regulation Range ⁽¹⁾	5...100%
Current Regulation Range ⁽¹⁾	5...100%
Power Setting Time ⁽²⁾	< 50 ms
MECHANICAL SPECIFICATIONS	
Size (width x depth x height)	257 x 293 x 33 mm
Weight	3,5 kg
COOLING SPECIFICATIONS	
Cooling	Water
Water Maximum Temperature	40°C
Minimum Water Flow	5 l/min
ENVIRONMENTAL CONDITIONS	
Environmental Temperature Range	-10°C to +40°C
Maximum Humidity	90%
COMMUNICATION	
Interfaces	CAN BUS (basic) Interface

(1) At Nominal Load

(2) At Adaptative Mode

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