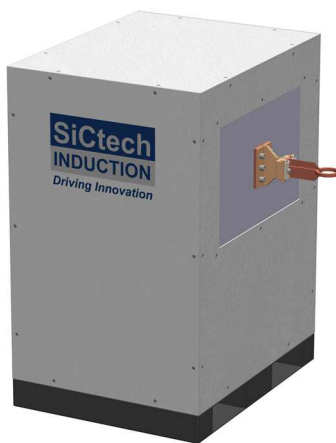


SiCDual Family

Silicon Carbide Dual-Frequency Hardening Generator



- Up to 800 kW MF/HF Power Supply
- MF Frequency Range: 8 - 25 kHz
- HF Frequency Range: 100 - 400 kHz
- MF Efficiency: 98,9 % @ 10 kHz
- HF Efficiency: 98,4 % @ 400 kHz
- Power Regulation: 2 ..100%



Simultaneous Dual Frequency for Induction Hardening Applications with a Single Inductor

Total Power up to 800 kW

Wide Frequency Range 8..400 kHz

MF Module Freq. Range 5-100 kHz
HF Module Freq. Range 20-400 kHz

Precise Power, Voltage, DC Current, Energy, Frequency and Output Current Monitoring with a high sample rate.

Latest SiC Mosfet Technology with short-circuit protection

Siemens PLC with SIRUIS safety relay

Regulation in Steps of 0,1% in Input Power or Output Current

Heating station with Sictech Transformers

Different Regulation Modes: Manual, Ramp, Timed and Adaptative

Applications

- Induction Heat Treatment of Unregular Surfaces
- Induction Heat Treatment of Gears



The SiCDual Portfolio & Technical Specs

| SiCDual Family | 100/100 | 200/100 | 200/200 | 300/100 | 300/200 | 300/300 | 400/200 | 400/300 | 400/400 |
|---------------------------------------|-----------------------------------------------------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Total Output Power | 200 kW | 300 kW | 400 kW | 400 kW | 500 kW | 600 kW | 600 kW | 700 kW | 800 kW |
| MF Output power | 100 kW | 200 kW | 200 kW | 300 kW | 300 kW | 300 kW | 400 kW | 400 kW | 400 kW |
| HF Output Power | 100 kW | 100 kW | 200 kW | 100 kW | 200 kW | 300 kW | 200 kW | 300 kW | 400 kW |
| MF Output Frequency Range | 8-25 kHz | | | | | | | | |
| HF Output Frequency Range | 100-400 kHz | | | | | | | | |
| Efficiency | 98,9 % @ 10 kHz 98,4% @ 400 kHz | | | | | | | | |
| Mains Voltage ⁽³⁾ | 400 V _{AC} ± 10 % (Three-Phase) | | | | | | | | |
| Normal Oper. Freq. Range | 50 & 60 Hz | | | | | | | | |
| Cos (φ) | > 0,99 | | | | | | | | |
| Output Circuits | Series LC | | | | | | | | |
| Inductor Short Circuit Protec. | Yes | | | | | | | | |
| Controller | Fully Digital Controller | | | | | | | | |
| Power Regulation Range ⁽¹⁾ | 2...100 % | | | | | | | | |
| Power Setting Time ⁽²⁾ | 1 ms | | | | | | | | |
| SiCDual Cabinet Size (WxDxH)-cm | 120x60x160 | | | | 240x60x160 | | | | |
| SiCDual Cabinet Weight | 330 kg | 350 kg | 335 kg | 355 kg | (4) | (4) | (4) | (4) | (4) |
| Water Max. Temperature | +40 °C | | | | | | | | |
| Minimum Water (litre/min) | 10 l/min | 10 l/min | 15 l/min | 15 l/min | 20 l/min | 25 l/min | 30 l/min | 35 l/min | 40 l/min |
| Environmental Temperature | +5 °C to +50 °C | | | | | | | | |
| Maximum Humidity | 90 % | | | | | | | | |
| User Interface | Siemens HMI KTP700 / KTP900 | | | | | | | | |
| Standard Fieldbus | ModBus TCP/IP | | | | | | | | |
| Optional Fieldbuses | Profinet, DeviceNet, | | | | | | | | |
| Optional External Control Unit | The Unit comprises: External Star/stop, External power control, External Emergency Stop | | | | | | | | |
| Optional Temperature Control | Low Temperature Pyrometer (150-400 °C); High temperature Pyrometer (500-1000 °C) | | | | | | | | |
| Optional Cable Length | 10 m | | | | | | | | |

NOTE: ⁽¹⁾ At Nominal Load
⁽²⁾ At Adaptive Mode
⁽³⁾ For 480 VAC contact with SiCtech
⁽⁴⁾ Contact with SiCtech

Subject to changes

