

SiCMag Family

Silicon Carbide Multi Application Generator



SiCMag L Cabinet

- Up to 800 kW MF-HF Power Supply
- MF Frequency Range: 5 - 100 kHz
- HF Frequency Range: 20 - 400 kHz
- Efficiency: 98,4% @ 400 kHz
- Single or Multi-Power Port
- Power Regulation: 2 ..100%



SiCMag S Cabinet

Multi-Application Generator for
Induction Heating Applications

Total Output Power up to 800 kW

Wide Frequency Range 5..400 kHz

Single or up to 8 Independent Power
Ports

Different Cabinet Options

Fully Digital Controller

Extremely High Efficiency

Compact Size & Low Weight

Siemens PLC with SIRUIS safety relay
(L cabinet) / SiCtech PLC (S cabinet)

Water Cooling

Applications

- Induction Heat Treatment
- Induction Hardening
- Induction Tempering
- Induction Annealing
- Induction Pre & Post Heating
- Induction Cable & Wire Heating



The SiCMag Technical Specs

SiCMag	12k...	25k...	50k...	100k...	200k...	300k...	400k...	500k...	600k...	700k...	800k...
Total Output Power	12,5 kW	25kW	50kW	100 kW	200 kW	300 kW	400 kW	500 kW	600 kW	700 kW	800 kW
MF Output Frequency Range SiCMag	5-100 kHz										
HF Output Frequency Range SiCMag	20-400 kHz							NA			
Efficiency	98,9 % @ 100 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										
MF SiCMag...S Cabinet Size (WxDxH)-cm	36x42x25,5	36x42x25,5	48x42x25,5								
MF SiCMag...S Cabinet Weight	22 kg	22 kg	26 kg								
HF SiCMag...S Cabinet Size (WxDxH2)-cm	36x42x25,5	48x42x25,5	48x42x25,5								
HF SiCMag...S Cabinet Weight	21kg	26 kg	26kg								
MF SiCMag...L Cabinet Size (WxDxH)-cm				60x60x200	60x60x200	120x60x200	120x60x200	180x60x200	180x60x200	180x60x200	180x60x200
MF SiCMag...L Cabinet Weight				180 kg	200 kg	220 kg	240 kg	330 kg	330 kg	360 kg	360 kg
HF SiCMag...L Cabinet Size (WxDxH)-cm				60x60x200	60x60x200	120x60x200	120x60x200				
HF SiCMag...L Cabinet Weight				180 kg	200 kg	330 kg	350 kg				
Water Max. Temperature	40 °C										
Minimum Water	5 l/min	5 l/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
Maximum Delta Tw	0,6 °C	1,1 °C	1,1 °C	1,3 °C	2,3 °C	3,0 °C	4,6 °C	4,6 °C	4,6 °C	4,6 °C	4,6 °C
Environmental Temperature	+5 °C to +50 °C										
Maximum Humidity	90 %										
User Interface	Siemens HMI KTP700 (cabinet L) ; SiCtech PLC (cabinet S)										
Standard Fieldbus	ModBus TCP/IP (only in the L Cabinet)										
Optional Fieldbuses	Profinet, DeviceNet, (only in the L Cabinet)										
Optional External Control Unit	The Unit comprises: External Star/stop, External power control, External Emergency Stop (only in the L Cabinet)										
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

Subject to changes

