

# SiCBond Family

## Silicon Carbide Bonding Generator



SiC Generator for Bonding Applications

Single, Dual, Twin and Spot Bonding

Up to 2 Independent Power Outputs for Twin Bonding

Total Output Continuous Power up to 100 kW.

Frequency Range 10...50 kHz

Programmable Heating Segments

System Based on a SiC MOSFET Transistor Series Inverter

Connection to an external Capacitor Bank or to Coaxial Transformer

Siemens PLC with SIRUIS safety relay

Integrated Smart Digital Controller

Integrated Air/Water or Water/Water Cooling System

- Up to 100 kW for Bonding Application
- MF Frequency Range: 10 kHz - 50 kHz
- Efficiency: 98,9 % @ 40 kHz
- Single or Dual-Power Port

### Applications

- Full Bonding
- Full Spot
- Twing Bonding
- Spot Bonding



# The SiCBond Family Technical Specs

SiCBond Family	SiCBond-F 50k50F	SiCBond-F 100k50F	SiCBond-T 50k50T	SiCBond-T 100k50T	SiCBond-S 50k50S	SiCBond-S 100k50S
Type of Bonding Process	Full Bonding Full Spot Bonding	Full Bonding Full Spot Bonding	Full Bonding Full Spot Bonding	Full Bonding Full Spot Bonding	Spot Bonding	Spot Bonding
Generator Operation Mode	Single or Dual Operation Mode	Single or Dual Operation Mode	Twin Operation Mode	Twin Operation Mode	Spot Operation Mode	Spot Operation Mode
Total Continuous Output Power	50 kW	100kW	50kW	100 kW	50 kW	100 kW
Output Circuits	1	1	2	2	4	8
Power per Output	#1: 50 kW	#1: 100 kW	#1: 25kW #2: 25 kW	#1: 50 kW #2: 50 kW	Each output: 12,5 kW	Each output: 12,5 kW
Output Frequency Range	10...50 kHz					
Inverter Efficiency	98,9 % @ 40 kHz					
Mains Voltage <sup>(1)</sup>	400-480 V <sub>AC</sub> ± 10 % (Three-Phase)					
Cos (φ)	> 0,99					
Heating Station	External	External	External	External	Coaxial Transformer	Coaxial Transformer
Inductor Short Circuit	Yes					
Controller	Fully Digital Controller					
Power Regulation <sup>(2)</sup>	2...100 %					
Power Setting Time <sup>(3)</sup>	< 1 ms					
Size (W x D x H) (mm)	600x800x1.800	600x800x1.800	600x800x1.800	600x800x1.800	600x800x1.800	600x800x1.800
Weight	215 kg	215 kg	215 kg	215 kg	215 kg	215 kg
Cooling	Integrated Air/Water or Water/Water Cooling System					
Water Max. Temperature	35 °C					
Environmental Temperature Range	+5 °C to +35 °C					
Maximum Humidity	90 %					
User Interface	Siemens HMI KTP700					
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)					
Optional Cable Length	10 m					

**NOTE:** <sup>(1)</sup> For 480 VAC contact with SiCtech  
<sup>(2)</sup> At Nominal Load  
<sup>(3)</sup> At Adaptive Mode

Subject to changes

