Inductive Charge Inverter
ICI [`izi] 22kW

- ✓ DCAC inverter for driving inductive charging coils, e.g. for electric vehicles
- ✓ DC input power up to 22 kW
- ✓ High efficiency >93% at an air gap up to 1 cm
- ✓ AC output current max. 70 Arms at cos phi = 0 (just reactive power)
- ✓ Input voltage range 0…800 V (max. 1.000 V)
- ✓ Variable output frequency from 60 kHz to 100 kHz (optionally scalable)
- ✓ Variable Duty-Cycle from 0 to 1
- ✓ Controllable via Ethernet with user interface or remotely controlled

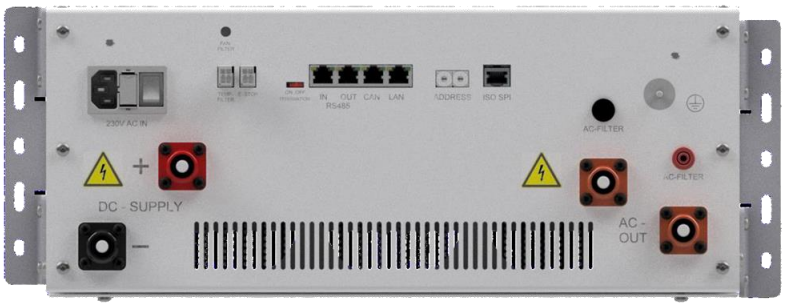
Applications

- ✓ Control of inductive charging coils for e.g. electric vehicles
- ✓ Control of HF-transformers
- ✓ Square wave generator for testing of all type of inductive components

Performance Characteristics

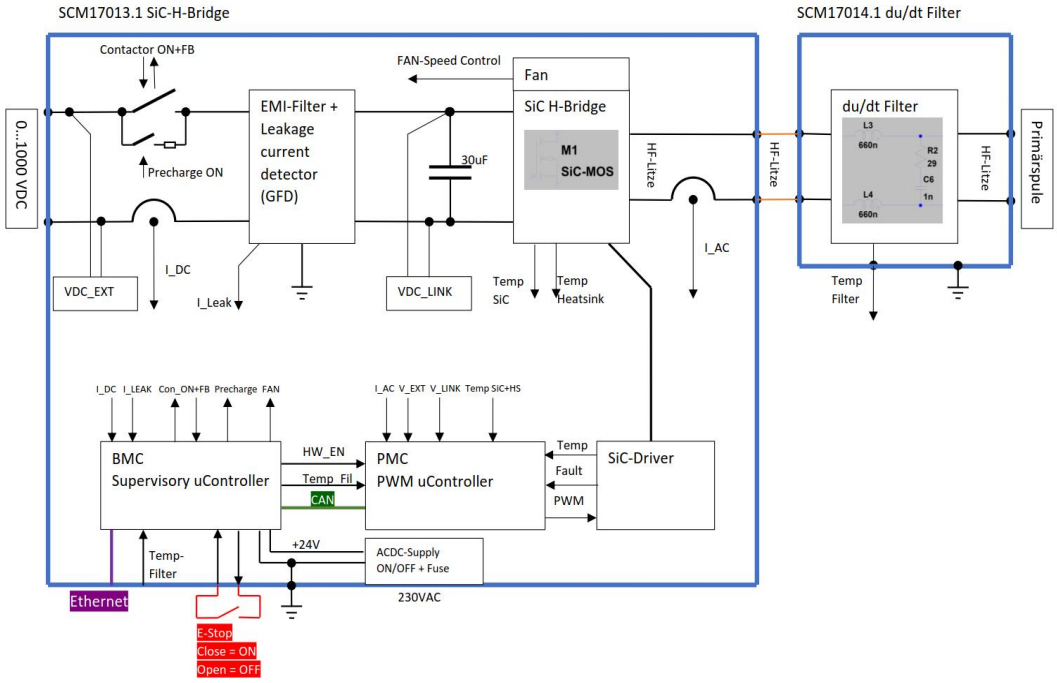
- ✓ Ethernet Interface for easy operation via "Stercom Visual Studio" or remote operation of the inverter
- ✓ Display with most important actual values and the state of the inverter
- ✓ DC-EMI filter and integrated Ground Fault Detector
- ✓ DC power contactor for safety disconnection in case of failure including pre-charge feature
- ✓ Precise DC current and voltage measurement incl. power indication
- ✓ AC current measurement and indication of the RMS value
- ✓ Integration in an extern e-Stop loop
- ✓ Optional extern temperature sensor
- ✓ Integrated quick stop feature in case of failure (DC current, AC current, DC voltage)
- ✓ Complete digital control
- ✓ 230 VAC plug for electronic supply
- ✓ Temperature controlled fans
- ✓ Optional: CAN-bus or RS-485 control interface

Connections



- ✓ + - DC-Connections
  - 1x Amphenol plug Surlock SLPPB35BSR
  - 1x Amphenol plug Surlock SLPPB35BSB
- ✓ 230VAC electronics supply + switch + mini fuse
- ✓ External temperature sensor
- ✓ E-Stop Loop
- ✓ RS485 Termination Switch
- ✓ Isolated RS485 Interface (IN/OUT – RJ45 socket)
- ✓ CAN Interface (RJ45 socket)
- ✓ Ethernet Interface (TCP/IP – RJ45)
- ✓ Address switches
- ✓ Isolated PI Bus (RJ45 socket)
- ✓ Earth connection
- ✓ AC output
  - 2x Amphenol plug Surlock SLPPB35BSO
  - 2x laboratory jack for measuring purposes or connection du/dt filter

Block diagram



Technical Data

Description			
Input voltage	min	0	V
	max	1000	V
Input current	max	50	A
Output frequency	min	60	kHz
	max	100	kHz
DutyCycle	min	0	%
	max@60kHz	94	%
	max@100kHz	90	%
Frequency step range	@60kHz	58,7	Hz
	@100kHz	117,3	Hz
Output current	max	100	Ap
	max	70	Arms
Ambient temperature	min	-20	°C
	max	45	°C

Warnings and shut downs			
Input current	Stop	>50	A
Input voltage	Stop	>1000	V
Output current	Stop	>100	Ap
	Stop	>70	Arms
Differential fault current	Stop	>300	mA
SiC temperature	Warning	85	°C
	Stop	95	°C
Heatsink temperature	Warning	60	°C
	Stop	70	°C
Driver temperature	Warning	75	°C
	Stop	85	°C
Filter temperature	Warning	80	°C

Contact

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