

Circuit Block for H-Bridge circuit

HGCB-4A-401200

HGCB-4x4A-401200

H-bridge circuit block with SiC power devices



Overview

- HGCB-4A-401200 includes 4 SiC-MOSFET, gate-drive circuits, and voltage-sensor circuits in the form of H-bridge inverters, and includes substrates and heat sinks.
- HGCB-4x4A-401200 includes 4 boards of HGCB-4A-401200 and the chassis with the chiller.
- Inputs the gating signals and power supply for driving the SiC-MOSFET from the outside. The analog signal observed by the voltage sensor circuit is output.
- To use this product, a separate 24V power supply, circuit board-to-board, main circuit wiring, and controller are required.
- It is designed to protect against power device short circuit, gate drive circuit power supply voltage drop, and DC overvoltage, and it is hard to destroy even if the gate pulse pattern is incorrect.

Characteristic

SiC-MOSFET, gate-drive circuit, and voltage-sensor circuit are included

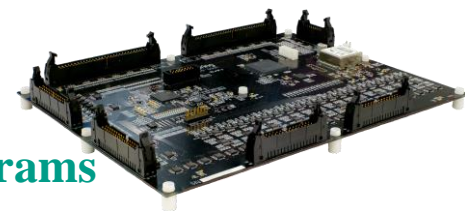
- ✓ Single-phase inverter and chopper circuit can be constructed by changing the connection.
- ✓ Insulated inside the board and operable only by inputting gate power and gate signals
- ✓ The detection signal from the voltage sensor can be used for feedback control.

Convenient to use in combination

- ✓ Compulsory air cooling is possible with the chassis for mounting four boards.
- ✓ The control wiring can be connected with the attached cable.
- ✓ Convenient for use as MMC cell module

Disclosure of design materials such as circuit diagrams

- ✓ User can modify to suit the application.
- ✓ See examples of combinatorial use, etc.



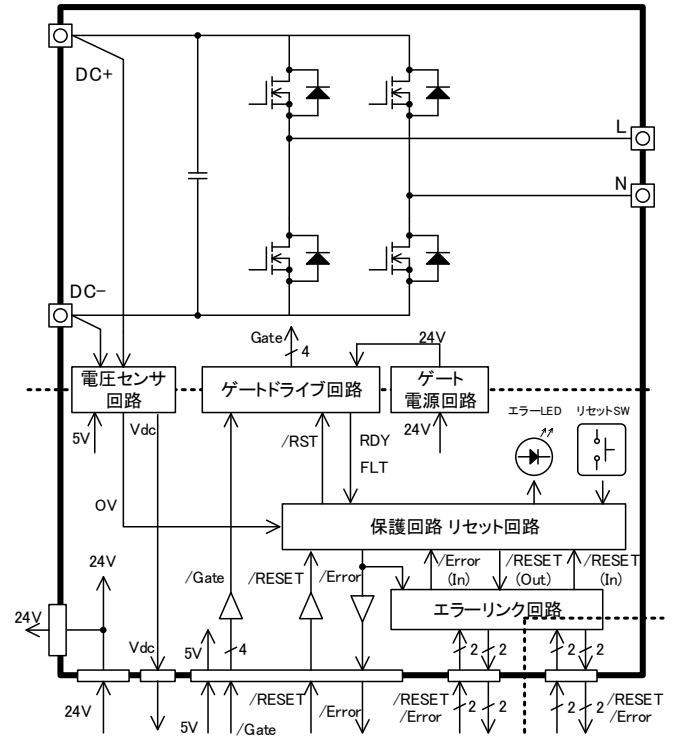
**Easy to setup the MMC Experimental Environment
with multi-gate controller(option).**

Specification

Item	Specification	Remark
Voltage range	0V~400V	DC+, DC-terminal voltage
Maximum current	20Arms	L and N terminal currents
Rated power	4kVA	Assume AC200V, 20A
Maximum Switching frequency	200kHz	
Minimum dead time	200ns	
Controlling power	DC24V	
Equipment size	W 150mm D 110mm H 54mm	HGCB-4A-401200
	W 162mm D 170mm H 246mm	HGCB-4x4A-401200

※Product specifications may be changed without notice.

Functional block diagram :HGCB-4A-401200



Connection example: MMC type 4-cell module

