



Driving a Green Future

IGBT & SIC Driver catalog

2025

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TOTAL POWER SOLUTION

About Us

ZHEJIANG HECHENG SMART ELECTRIC CO.,LTD. was established in 2011, focusing on providing customers with total power solutions of highest level of reliability and excellent performance. HIITIO offers an extensive range of products from DC-DC, gate driver cores, Plug-and-Play gate drivers to complete IGBT and Silicon Carbide(SiC) based power stacks, efficiently empowering customers to achieve intelligence and flexibility across a broad spectrum of applications including wind, PV, ESS, motor drives and other mar-kets demanding high reliability.



Gate Driver Cores

Product part No.	Output power per channel/ Gate peak current	Voltage class	Cross reference
 H2SC0110	1W/10A	1200V	/
 H2HC0215B1V	2W/15A	1700V	/
 H2HC0215	2W/15A	1700V	2SC0108T
 H2HC0435	4W/35A	1700V	2SC0435T
 H2HC0660	6W/60A	3300V	2SC0535T

Plug-and-Play Gate Driver

Product part No.	Output power per channel/ Gate peak current	Voltage class	Cross reference
 H2HD0115	1.2W/20A	1700V	2SP0115T
 H2HD0115Cx	1.2W/20A	1700V	/

Plug-and-Play Gate Driver

Product part No.		Output power per channel/ Gate peak current	Voltage class	Cross reference
	H2HD0320	3W/20A	1700V	2SP0320T
	HPM110TRP	4W/38A	1700V	2SP0320*3
	H1SD08110	8W/110A	1700V,3300V	1SP0635
	H1SD215	8W/110A	1700V,3300V	1SP0635
	HV1027P	3W/27A	4500V,6500V	1SP0335
	H2HD0620	6W/20A	1700V	/

Application Specific Gate Driver Solutions

Product part No.		Output power per channel/ Gate peak current	Module packages	Cross reference
	H1SS0560	5W/60A	Depends on slave boards	1IPSE1A33-60C
	HSK08110	8W/110A	Depends on slave boards	1SP0351

Application Specific Gate Driver Solutions

Product part No.		Output power per channel/ Gate peak current	Module packages	Applications
	H2SS0338	3W/38A	Depends on slave boards	Rail Converter
	H2HC06M33XX	6W	Depends on slave boards	PV Wind Rail
	H6SC08110	8W/110A	Depends on slave boards	PV Wind Industrial driver
	HED-WP-CB series	4W/108A	Depends on slave boards	PV Wind ESS

DC-DC

Product part No.		Output power per channel/ Gate peak current	Voltage class	Insulation voltage
	HS02P	2W	1200V	6500V _{DC}
	HS06P18	6W	1200V	10000V _{DC}
	HPS08-15K	8W	4500V, 6500V	15kV _{ac} /1min
	HPS08-35K	8W	4500V, 6500V	35kV _{ac} /1min

Power Stack

HPI-H2SC0210L-db-B3 380V/150A Single-Phase Power Stack

Parameter	
Power rating	100kVA
Rated voltage/current	380V/150A
DC voltage	800V
Typical switching frequency	20kHz
Topology	Single phase/NPC I-type 3-level
Power stack component	Integrated IGBT,sunbber capacitor
Gate driver protection function	Short-circuit soft shut down/ power supply undervoltage protection/ fault timing protection/ GE short-circuit protection
Current or NTC sampling	Dual-channel NTC sampling, maximum temperature output/ temperature difference protection
DC capacitance*	External DC capacitor board
Dimensions	140*108*54mm³
Applications	ESS PCS/Power Quality/EV Charger

*Note: Firstack provides DC capacitor board design reference

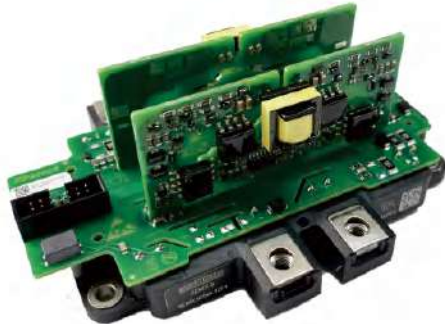


Two IGBTs in parallel installation unevenness <50um

HPI-H2SC0210L-db-A5 690V/150A Single-Phase Power Stack

Parameter	
Power rating	180kVA
Rated voltage/current	690V/150A
DC voltage	1500V
Typical switching frequency	20kHz
Topology	Single phase/NPC I-type 3-level
Power stack component	Integrated IGBT
Gate driver protection function	Short-circuit soft shut down/ power supply undervoltage protection/fault timing
Current or NTC sampling	NTC terminals lead directly to the connector
DC capacitance*	External DC capacitor board
Dimensions	140*104*60mm³
Applications	ESS PCS/Power Quality/EV Charger

*Note: Firstack provides DC capacitor board design reference



Systematic cost reduction 50%*

*Compared based on Firstack power schemes and sample product power schemes

Power Stack

HPS150HA124TA002 MW PCS Power Stack

Parameter	
Power rating	1.725MW
Cooling method	Air cooling
Rated voltage/current	690V/1442A
DC voltage	1500V _{DC}
Switching frequency	3.5 kHz
IGBT package/topology	EconoDUAL™ /ANPC/ NPC 3-Level4 in parallel
NTC sampling	Integrated 12-channel NTC sampling, isolated output
Gate driver protection function	Short-circuit soft shut down/ Power supply undervoltage protection/ Intelligent timing management/multi-level turn-off/ Intelligent fault communication/ Encrypted communication protocol
Power stack component	IGBT, heatsink, gate driver board, DC busbar, AC copper busbar
Dimensions	621.5*538*222mm³
Applications	ESS PCS/PV&Wind Converter/SMPS



HPS036TA121XWP001 750V/350A Three-Phase Power Stack

Parameter	
Power rating	450kW
Cooling method	Liquid cooling
Rated voltage/current	750V/350A
DC voltage	1600V _{DC}
Switching frequency	3.5 kHz
IGBT package/topology	EconoDUAL™ /3-phase 3-level ANPC
NTC sampling	Integrated 9-channel NTC sampling,isolated output
Gate driver protection function	Short-circuit soft shut down/ Power supply undervoltage protection/ Intelligent timing management/ Multi-level turn-off/ Intelligent fault communication
Power stack component	IGBT, heatsink, gate driver board, DC busbar, AC copper busbar
Dimensions	424×324.5×451mm³
Applications	ESS PCS

