



Driving a Green Future

2025 SHORT FORM CATALOGUE

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TOTAL POWER SOLUTION

About Us

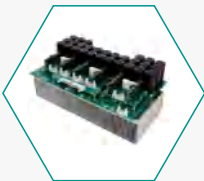
Hangzhou Firstack Technology Co., Ltd. was established in 2011, focusing on providing customers with total power solutions of highest level of reliability and excellent performance. Firstack offers an extensive range of products from DC-DC, gate driver cores, Plug-and-Play gate drivers to complete IGBT 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 markets demanding high reliability.



Driver IC



Gate driver





Power stack

Gate Driver Cores

Product part No.	Output power per channel/ Gate peak current	Rated voltage	Cross reference
 2FSC0110	1W/10A	1200V	/
 2FHC0210	2W/15A	1700V	/
 2FHC0215B1V	2W/15A	1700V	/
 2FHC0215	2W/15A	1700V	2SC0108T
 2FHC0435	4W/35A	1700V	2SC0435T
 2FHC0660	6W/60A	3300V	2SC0535T





Plug-and-Play Gate Driver

Product part No.	Output power per channel/ Gate peak current	Voltage class	Cross reference
 2FHD0115	1.2W/20A	1700V	2SP0115T
 2FHD0115x	1.2W/20A	1700V	/


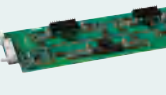

Plug-and-Play Gate Driver

Product part No.		Output power per channel/ Gate peak current	Voltage class	Cross reference
	2FHD0320	3W/20A	1700V	2SP0320T
	PM120E	4W/38A	1700V	2SP0320*2
	PM110TRP	4W/38A	1700V	2SP0320*3
	1FSD08110	8W/110A	1700V,3300V	1SP0635
	1FSD215	8W/110A	1700V,3300V	1SP0635
	2FSS0338	3W/38A	1700V,3300V	/
	1FSS0560	5W/60A	3300V,4500V	1IPSE1A33-60C
	SK08110	8W/110A	4500V,6500V	1SP0351
	HV1027P	3W/27A	4500V,6500V	1SP0335
	FPS08-15K	8W	4500V,6500V	Insulation voltage:15kV _{ac} /1min
	FPS08-35K	8W	4500V,6500V	Insulation voltage:35kV _{ac} /1min

SiC Solution

Product part No.		Output power per channel/ Gate peak current	Voltage class
	2FHD0620	6W/20A	1700V
	2FHC06M33XX	6W	3300V
	FS02P	2W	Insulation voltage:6500V _{DC}
	FS06P18GPSNA	6W	Insulation voltage:10000V _{DC}

Application Specific Gate Driver Solutions

Product part No.		Output power per channel/ Gate peak current	Support IGBT packages	Applications
	6FSC08110	8W/110A	EconoDUAL™ PrimePACK™	PV Wind Industrial driver
	ED-WP-CB series	4W/108A	EconoDUAL™ PrimePACK™ 62mm	PV Wind ESS
	9FSC0210T17A2C	2W/10A	EconoDUAL™ 62mm	APF/SVG ESS Mining

Power Stack

380V/150A Single-Phase Power Stack-FPI-2FSC0210L-db-B3

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*54mm ³
Applications	ESS PCS/Power Quality/EV Charger

*Note: Firstack provides DC capacitor board design reference

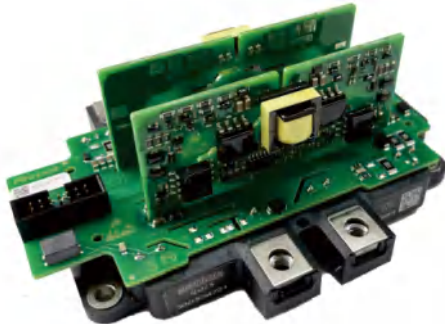


Two IGBTs in parallel installation unevenness <50um

690V/150A Single-Phase Power Stack-FPI-2FSC0210L-db-A5

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*60mm ³
Applications	ESS PCS/Power Quality/EV Charger

*Note: Firstack provides DC capacitor board design reference



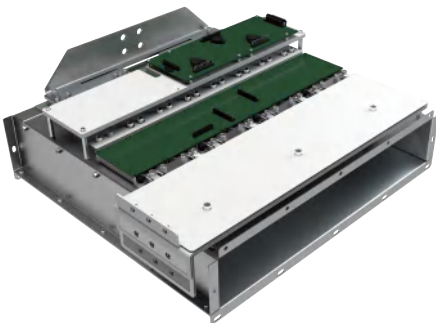
Systematic cost reduction 50%*

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

Power Stack

MW PCS Power Stack-FPS150HA124TA002

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*222mm ³
Applications	ESS PCS/PV&Wind Converter/SMPS



750V/350A Three-Phase Power Stack-FPS036TA121XWP001

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	424x324.5x451mm ³
Applications	ESS PCS

