

Driving a Green Future

2025 SHORT FORM CATALOGUE

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TOTAL POWER SOLUTION

About Us



Firststack Technology Co., Ltd. was established in 2011, focusing on providing customers with total power solutions of highest level of reliability and excellent performance. Firststack 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.









Gate Driver Cores

Product part No.	Output power per channel/ Gate peak current	Voltage class	Cross reference
 2FSC0110	1W/10A	1200V	/
 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	/


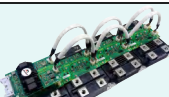

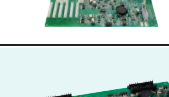
Plug-and-Play Gate Driver

Product part No.	Output power per channel/ Gate peak current	Voltage class	Cross reference
 2FHD0320	3W/20A	1700V	2SP0320T
 PM110TRP	4W/38A	1700V	2SP0320*3
 1FSD08110	8W/110A	1700V,3300V	1SP0635
 1FSD215	8W/110A	1700V,3300V	1SP0635
 HV1027P	3W/27A	4500V,6500V	1SP0335
 2FHD0620	6W/20A	1700V	/





Application Specific Gate Driver Solutions

Product part No.	Output power per channel/ Gate peak current	Module packages	Cross reference
 1FSS0560	5W/60A	Depends on slave boards	1IPSE1A33-60C
 SK08110	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
 2FSS0338	3W/38A	Depends on slave boards	Rail Converter
 2FHC06M33XX	6W	Depends on slave boards	PV Wind Rail
 6FSC08110	8W/110A	Depends on slave boards	PV Wind Industrial driver
 ED-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
 FS02P	2W	1200V	6500V _{DC}
 FS06P	6W	1200V	10000V _{DC}
 FPS08-15K	8W	4500V, 6500V	15kV _{ac} /1min
 FPS08-35K	8W	4500V, 6500V	35kV _{ac} /1min

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

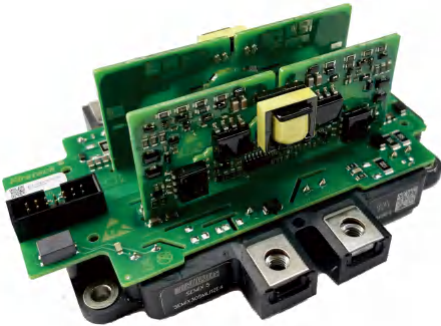


Two IGBTs in parallel installation unevenness <50um

*Note: Firstack provides DC capacitor board design reference

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



Systematic cost reduction 50%*

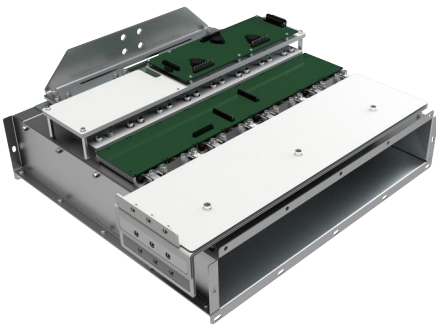
*Compared based on Firstack power schemes and sample product power schemes

*Note: Firstack provides DC capacitor board design reference

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	424×324.5×451mm ³
Applications	ESS PCS

