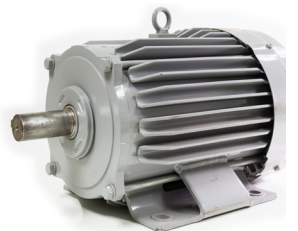




# MOTOR DRIVE SOLUTIONS

Energy-efficient, integrated and discrete  
semiconductor solutions for home  
appliance and industrial applications





As the demands for energy efficiency, environmental responsibility and meeting government regulations are increasing, the need for highly efficient electronic systems becomes more and more important.

Electrical motors are the single largest consumer of electrical power.



*Critical design factors and challenges for motor control architectures are efficiency, reliability, noise reduction, thermal performance, reduced board space and ease of design.*

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## Improving Energy Efficiency and Reliability in Motor Control Applications

As the demands for energy efficiency, environmental responsibility and meeting government regulations are increasing, the need for highly efficient electronic systems becomes more and more important. Since electrical motors are the single largest consumer of electrical power and account for between 40 to 50 percent of total global energy consumption, it is essential that motor control solutions are both efficient and reliable.

Making the situation more complex is the fact that there is an extremely wide range of electric motor applications.

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*Our Portfolio include products that are both energy efficient and reliable.*

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### Primary applications by sector

- **Residential**—refrigerators, air conditioners, fans, kitchen appliances, washers and dryers, computers, etc.
- **Industrial/commercial**—pumps and fans, air and liquid compression, heating and air conditioning (HVAC), large computers, escalators, elevators, hoists, cranes, tools, industrial-grade laundry, cleaning and cooking equipment
- **Transportation**—electric trains, trucks, cars and motorcycles in related cooling/ventilation systems.

To accommodate the hundreds of applications, there are many types of electric motors from which to choose in order to get the highest efficiency and/or lowest cost. The most commonly used motors are:

- AC Induction Motors (ACIM)
- Brushed DC
- Stepper
- Brushless DC and Permanent Magnet Synchronous (PMSM)

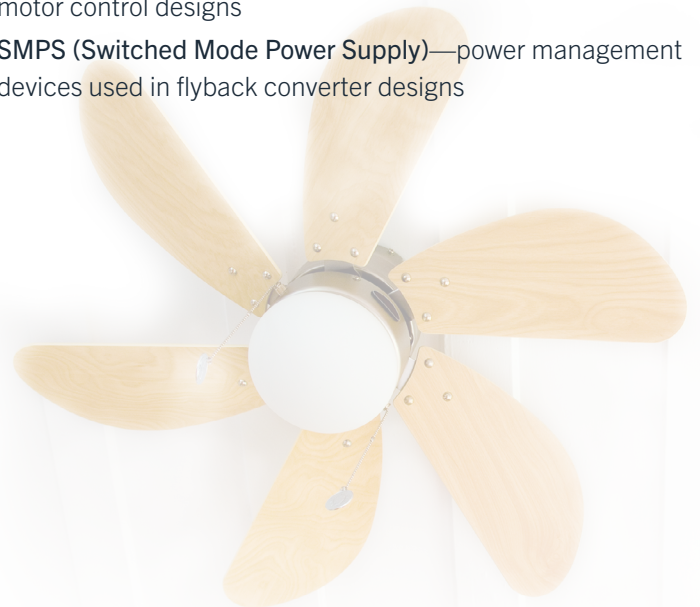
Once the motor has been chosen, it becomes extremely important to carefully choose the supporting components for the system. Critical design factors and challenges for motor control architectures are efficiency, reliability, noise reduction, thermal performance, reduced board space and ease of design.

## Innovated Solutions for Emerging Motor Control Applications

Our constantly expanding product portfolio—combined with manufacturing process enhancements—innovative topologies, and our systems expertise, allow circuit designers to develop the most advanced solutions to meet their needs. We offer a broad range of SPM®, IGBTs, Gate Drivers, PFC-PWM combos, MOSFETs, phototransistors and diodes for every motor control application. In addition, there are reference designs and evaluation boards to optimize your design success.

### Examples From Our Portfolio

- **Motion SPM® (Smart Power Module)**—integrated solutions that support low-power (20W) and high-power (7.5kW) designs
- **BLDC Controller (Brushless DC/Permanent Magnet Synchronous Motor)**—mixed-signal ICs exclusively for motor control that replace complicated DSPs (Digital Signal Processors)
- **PFC (Power Factor Correction)**—PFC SPM® minimize input current distortion, reduce power loss and save energy and cost
- **Optocouplers**—provide isolation from high-voltage devices in motor control designs
- **SMPS (Switched Mode Power Supply)**—power management devices used in flyback converter designs





## Motion SPM® 2 Family

### Description

Motion SPM® 2 series modules provide fully-featured, high-performance inverter output stages for AC induction, BLDC controller, and PMSM motors. These modules integrate optimized gate drive of the built-in IGBTs to minimize EMI and losses, while also providing multiple on-module protection features: under-voltage lockouts, over-current shutdown, high accuracy, temperature sensing, and fault reporting.

The built-in, high-speed HVIC requires only a single supply voltage and translates the incoming logiclevel gate inputs to high-voltage, high-current drive signals to properly drive the module's internal IGBTs. SPM® 2 provides low-side IGBT current sensing for OCP protection. Separate negative IGBT terminals are available for each phase to support the widest variety of control algorithms.

### Applications

- Industrial Inverters / Servos
- HVAC



Package Overview

## 1200V SPM® Family

### Description

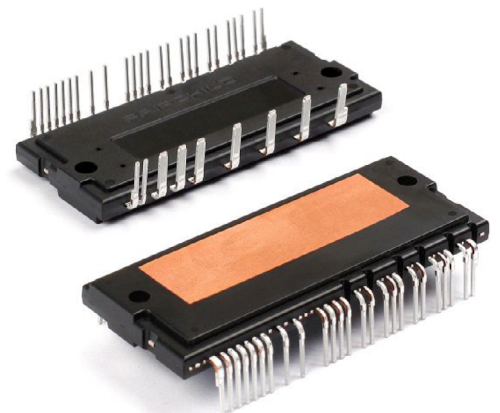
Fairchild SPM2 1200V series provide the most advanced 1200V technology - 1200V Trench Sensing IGBT / Diode for high efficiency & compact DBC (Direct Bonding Copper) package (80X33) for achieving thermal performance - for up to 7.5KW inverter application such as HVAC, pump, industrial inverter. And embedded under-voltage protection, thermal detecting by NTC on leadframe, OCP protection by sensing IGBT, fault out etc. for improving system reliability. Add on this leading edge technology, this module adopt 1200V BSD (= Boot Strap Diode), No-side-Dummy for customer design convenience. This SPM2 1200V have 10A to 35A current line up.

Fairchild release also another 1200V product in existing SPM3V package. This concept product is developed for the compact space required customer, such as fan motor, compact inverter application. SPM3V 1200V solution provide also 1200V Trench IGBT / Diode in SPM3 DBC technology

package (40X27, pin-compatible with existing SPM3V 600V series) and embedded under-voltage protection, OCP protection, fault out function. This SPM3 1200V have only 10A current lineup

### Applications

- Industrial Inverters / Servos
- HVAC
- Pump
- Fan Motor



Package Overview



## Motion SPM® 3 Family

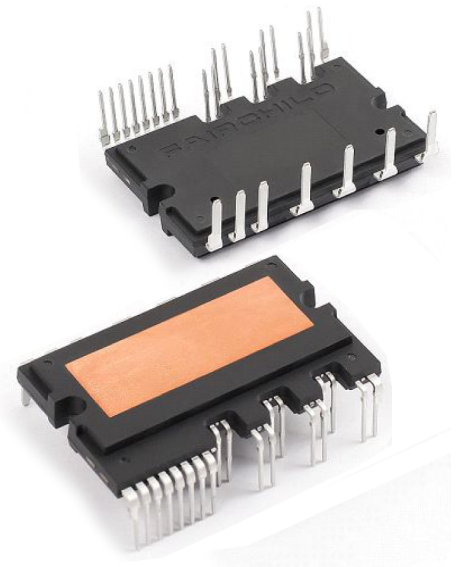
### Description

Motion SPM® 3 series modules provide a compact and high performance inverter solution for AC, BLDC controller, and PMSM motor drives in low-power consumer and industrial applications. Combining extensive on-module protections and gate drives matched to the low-loss IGBTs, system reliability is enhanced.

These protections include under-voltage lock-outs, over-current faults, and thermal sensing. The high-speed built-in HVIC provides optocoupler-less, single-supply IGBT gate driving capability that further reduces the overall size of the inverter system. Each phase leg current of the inverter can be monitored via the three separate negative dc terminals.

### Applications

- Air Conditioners
- Industrial Inverters / Servos
- Pumps



Package Overview

# MOTION SPM® MODULES

## Motion SPM® 3 Family

Part Number	Voltage (V)	Current Rating (A @ 25°C)	Optimized Switching (kHz)	Device	Package	Thermal Interface	Bootstrap Diodes	UVLO Protection	Short Circuit Protection	Temp Output	Shutdown Pin	Interlock
<a href="#">FCBS0550</a>	500	5	20	MOSFET	<a href="#">SPM3 27L Double DIP</a>	Ceramic	No	Yes	Yes	No	Yes	No
<a href="#">FSBS3CH60</a>	600	3	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Ceramic	No	Yes	Yes	No	Yes	No
<a href="#">FSBF5CH60B</a>	600	5	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Plastic	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBS5CH60</a>	600	5	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Ceramic	No	Yes	Yes	No	Yes	No
<a href="#">FSBF10CH60B</a>	600	10	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Plastic	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBF10CH60BT</a>	600	10	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Plastic	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBF10CH60BTL</a>	600	10	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Plastic	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBS10CH60</a>	600	10	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Ceramic	No	Yes	Yes	No	Yes	No
<a href="#">FSBB15CH60</a>	600	15	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	No	Yes	Yes	No	Yes	No
<a href="#">FSBB15CH60C</a>	600	15	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBB15CH60F</a>	600	15	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	No	Yes	Yes	Fault	Yes	No
<a href="#">FSBF15CH60BT</a>	600	15	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Plastic	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBS15CH60</a>	600	15	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Ceramic	No	Yes	Yes	No	Yes	No
<a href="#">FSBS15CH60F</a>	600	15	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Ceramic	No	Yes	Yes	Fault	Yes	No
<a href="#">FSBB20CH60</a>	600	20	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	No	Yes	Yes	No	Yes	No
<a href="#">FSBB20CH60C</a>	600	20	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBB20CH60CL</a>	600	20	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBB20CH60CT</a>	600	20	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBB20CH60F</a>	600	20	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	No	Yes	Yes	Fault	Yes	No
<a href="#">FSBB20CH60L</a>	600	20	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	No	Yes	Yes	No	Yes	No
<a href="#">FSB32560</a>	600	25	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	Ceramic	No	Yes	Yes	No	Yes	No
<a href="#">FSBB30CH60</a>	600	30	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	No	Yes	Yes	No	Yes	No
<a href="#">FSBB30CH60C</a>	600	30	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBB30CH60CT</a>	600	30	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	Yes	Yes	Yes	Fault	Yes	No
<a href="#">FSBB30CH60D</a>	600	30	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	Yes	Yes	Yes	HVIC Output	Yes	No
<a href="#">FSBB30CH60F</a>	600	30	20	IGBT	<a href="#">SPM3 27L Double DIP</a>	DBC	No	Yes	Yes	Fault	Yes	No

App Notes

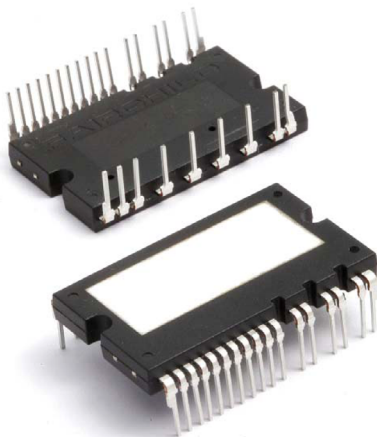
Eval Boards

Data Sheets

## Motion SPM® 45 Family

### Description

Motion SPM® 45 series modules were developed to provide a very compact and high performance inverter solution for AC, BLDC controller, and PMSM motor drives in low-power applications such as washing machines and industrial fans. It combines low-loss short-circuit rated IGBTs and optimized gate drivers in a fully isolated package to deliver a simple and robust design. The system reliability is further enhanced by the built-in NTC for temperature monitoring, integrated under-voltage lock-out function for both high and low side, and an over-current protection input. Three separate open-emitter pins for low side IGBTs make three leg current sensing possible. Built-in bootstrap diodes and dedicated VS pins make PCB layout easy.



Package Overview

### Applications

- Air Conditioners
- Washing Machines
- Industrial Inverters / Servos
- Mobile Robotics
- Floor Care Equipment
- Power Tools
- Refrigerators



Part Number	Voltage (V)	Current Rating (A @ 25°C)	Rds_on (Ω, max @ 25°C)	Optimized Switching (kHz)	Device	Package	Thermal Interface	Bootstrap Diodes	UVLO Protection	Short Circuit Protection	Temp Output	Shutdown Pin	Interlock
<a href="#">FSB44104A</a>	40	57	0.004	5	MOSFET	<a href="#">SPM45L 22L DIP</a>	Ceramic	No	Yes	No	No	No	No
<a href="#">FNA40560</a>	600	5	n/a	5	IGBT	<a href="#">SPM45H 26L DIP</a>	Ceramic	Yes	Yes	Yes	NTC	Yes	No
<a href="#">FNB40560</a>	600	5	n/a	20	IGBT	<a href="#">SPM45H 26L DIP</a>	Ceramic	Yes	Yes	Yes	NTC	Yes	No
<a href="#">FNA40860</a>	600	8	n/a	5	IGBT	<a href="#">SPM45H 26L DIP</a>	Ceramic	Yes	Yes	Yes	NTC	Yes	No
<a href="#">FNA41060</a>	600	10	n/a	5	IGBT	<a href="#">SPM45H 26L DIP</a>	Ceramic	Yes	Yes	Yes	NTC	Yes	No
<a href="#">FNB41060</a>	600	10	n/a	20	IGBT	<a href="#">SPM45H 26L DIP</a>	Ceramic	Yes	Yes	Yes	NTC	Yes	No
<a href="#">FNA41560</a>	600	15	n/a	5	IGBT	<a href="#">SPM45H 26L DIP</a>	Ceramic	Yes	Yes	Yes	NTC	Yes	No
<a href="#">FNB41560</a>	600	15	n/a	20	IGBT	<a href="#">SPM45H 26L DIP</a>	Ceramic	Yes	Yes	Yes	NTC	Yes	No
<a href="#">FNC42060F</a>	600	20	n/a	20	IGBT	<a href="#">SPM45H 26L DIP</a>	Ceramic	Yes	Yes	Yes	NTC	Yes	No



## Motion SPM® 5 Family

### Description

Motion SPM® 5 series modules are based on fast-recovery MOSFET (FRFET®) technology as a compact inverter solution for small power motor drive applications such as fans and pumps. These modules contain six FRFET MOSFETs, three half-bridge gate driver HVICs, temperature sensing, and three bootstrap diodes in a compact package, fully isolated and optimized for thermal performance. Electromagnetic interference (EMI) characteristics are optimized via tuned switching and reduced parasitic inductance. Employing MOSFETs, they provide much more ruggedness and a larger safe operating area (SOA) than IGBT-based power modules. These modules are ideal for compact and reliable inverter designs where assembly space is constrained.



Package Overview

### Applications

- Dishwashers
- Ceiling Fans
- Pumps



# MOTION SPM® MODULES

## Motion SPM® 5 Family

Part Number	Voltage (V)	Current Rating (A @ 25°C)	Rds_on (Ω, max @ 25°C)	Optimized Switching (kHz)	Device	Package	Thermal Interface	Bootstrap Diodes	UVLO Protection	Short Circuit Protection	Temp Output	Shut-down Pin	Interlock
<a href="#">FSB52006S</a>	60	2.6	0.08	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50325T</a>	250	1.5	1.8	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50325A</a>	250	1.7	1.7	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50325AT</a>	250	1.7	1.7	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50825A</a>	250	3.6	0.45	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50825AS</a>	250	3.6	0.45	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50825US</a>	250	4	0.45	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50250</a>	500	1	4	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50250UD</a>	500	1.1	4.2	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	Yes	Yes	No	No	No	No
<a href="#">FSB50250US</a>	500	1.1	4.2	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50250UTD</a>	500	1.1	4.2	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	Yes	Yes	No	No	No	No
<a href="#">FSB50250A</a>	500	1.2	3.8	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50250AS</a>	500	1.2	3.8	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50250AT</a>	500	1.2	3.8	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50450</a>	500	1.5	2.4	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50450A</a>	500	1.5	2.4	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50450AS</a>	500	1.5	2.4	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50450AT</a>	500	1.5	2.4	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50450S</a>	500	1.5	2.4	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50450UD</a>	500	1.5	2.4	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	Yes	Yes	No	No	No	No
<a href="#">FSB50450US</a>	500	1.5	2.4	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50550T</a>	500	1.8	1.7	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50550A</a>	500	2	1.4	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50550AS</a>	500	2	1.4	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50550AT</a>	500	2	1.4	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50550US</a>	500	2	1.4	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	No	Yes	No	No	No	No
<a href="#">FSB50550UTD</a>	500	2	1.4	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	Yes	Yes	No	No	No	No
<a href="#">FSB50660SF</a>	600	3.1	0.7	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50660SFS</a>	600	3.1	0.7	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50660SFT</a>	600	3.1	0.7	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50760SF</a>	600	3.6	0.53	20	MOSFET	<a href="#">SPM5 23L DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50760SFS</a>	600	3.6	0.53	20	MOSFET	<a href="#">SPM5 23L SMT</a>	Plastic	Yes	Yes	No	HVIC Output	No	No
<a href="#">FSB50760SFT</a>	600	3.6	0.53	20	MOSFET	<a href="#">SPM5 23L Double DIP</a>	Plastic	Yes	Yes	No	HVIC Output	No	No

App Notes



Eval Boards



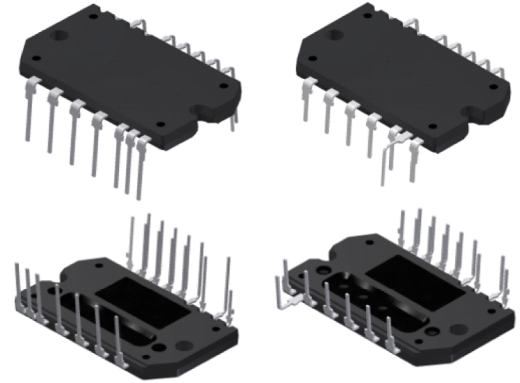
Data Sheets



## Motion SPM® 55 Family

### Description

Motion SPM® 55 modules provide fully-featured, high-performance inverter output stages for AC Induction, BLDC controller, and PMSM motors. These modules integrate optimized gate drive of the built-in IGBTs to minimize EMI and losses, while also providing multiple on-module protection features including under-voltage lockouts, interlock function, over-current shutdown, thermal monitoring, and fault reporting. The built-in, high-speed HVIC requires only a single supply voltage and translates the incoming logic-level gate inputs to the high-voltage, high-current drive signals required to properly drive the module's robust short-circuit-rated IGBTs. Separate negative IGBT terminals are available for each phase to support the widest variety of control algorithms.



Package Overview

### Applications

- Washing Machines
- Refrigerators
- Dishwashers
- Consumer & Industrial Fans
- Pumps



Part Number	Voltage (V)	Current Rating (A @ 25°C)	Rds_on (Ω, max @ 25°C)	Optimized Switching (kHz)	Device	Package	Thermal Interface	Bootstrap Diodes	UVLO Protection	Short Circuit Protection	Temp Output	Shutdown Pin	Interlock
<a href="#">FNB50560T1</a>	600	5	n/a	15	IGBT	<a href="#">SPM55 20L Double DIP</a>	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes
<a href="#">FNA51060T3</a>	600	10	n/a	5	IGBT	<a href="#">SPM55 20L Double DIP</a>	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes
<a href="#">FNB51060T1</a>	600	10	n/a	15	IGBT	<a href="#">SPM55 20L Double DIP</a>	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes
<a href="#">FNA51560T3</a>	600	15	n/a	5	IGBT	<a href="#">SPM55 20L Double DIP</a>	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes
<a href="#">FNB51560T1</a>	600	15	n/a	15	IGBT	<a href="#">SPM55 20L Double DIP</a>	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes



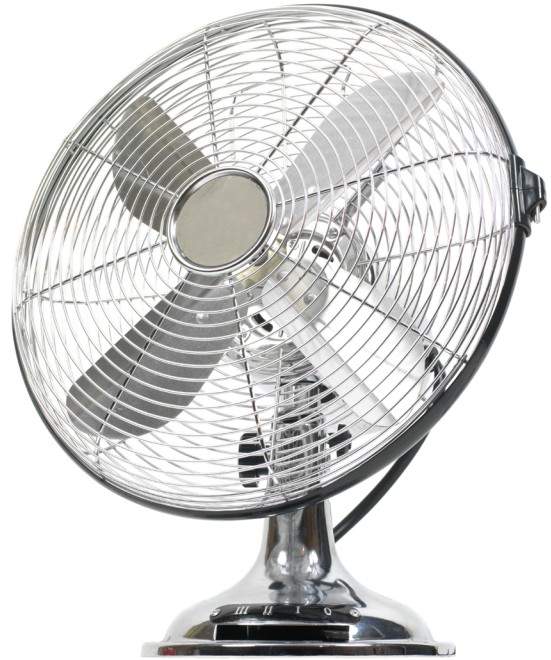
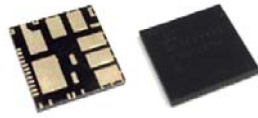
## Motion SPM® 7 Family

### Description

Motion SPM® 7 modules provide fully-featured, high-performance inverter output stages for smaller appliances such as fans and pumps. These modules integrate optimized gate drive of the built-in MOSFETs (FRFET® technology) to minimize EMI and losses, while also providing multiple on-module protection features including under-voltage lockouts, thermal monitoring, fault reporting, and interlock function. The built-in HVIC translates the incoming logic-level gate inputs to the high-voltage, high-current drive signals required to properly drive the module's internal MOSFETs. Separate open-source MOSFET terminals are available for each phase to support the widest variety of control algorithms.

### Applications

- Air Conditioner Fans
- Pedestal Fans
- Ceiling Fans
- Small Pumps



Part Number	Voltage (V)	Current Rating (A @ 25°C)	Rds_on (Ω, max @ 25°C)	Optimized Switching (kHz)	Device	Package	Thermal Interface	Bootstrap Diodes	UVLO Protection	Short Circuit Protection	Temp Output	Shutdown Pin	Interlock
<a href="#">FSB70325</a>	250	4.1	1.4	20	MOSFET	PQFN 27L	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes
<a href="#">FSB70625</a>	250	6.9	0.8	20	MOSFET	PQFN 27L	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes
<a href="#">FSB70250</a>	500	3.3	3.4	20	MOSFET	PQFN 27L	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes
<a href="#">FSB70450</a>	500	4.8	2.2	20	MOSFET	PQFN 27L	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes
<a href="#">FSB70550</a>	500	5.3	1.85	20	MOSFET	PQFN 27L	Plastic	No	Yes	Yes	HVIC Output	Yes	Yes

## Automotive

- Brake Systems
- Direct Fuel Injection
- Electric Coolant Pump
- Electric Fuel Pump
- Electric Oil Pump
- Electric Power Steering
- Electrically Driven A/C Compressor
- Engine Cooling Fan
- HID Lighting
- Ignition
- Power Inverters

## Cloud/Servers/Data Centers

- Server (PSU & Motherboard)
- Solid State Drive (SSD)
- Uninterruptible Power Supply

## Computing and Storage

- Desktop PC
- Notebook PC
- Server
- Solid State Drive (SSD)
- Uninterruptible Power Supply

## Home Appliance & White Goods

- Air Conditioner
- Digital Power Generator
- Fan Motor / Pump
- Induction Heating
- Low Voltage Inverter
- Refrigerator
- Uninterruptible Power Supply
- Washing Machine / Dishwasher
- Pedestal/Ceiling/Range Hood Fan

## Industrial Automation

- Sensors
- Human Machine Interface (HMI)
- Industrial Motion & Motor Control

## Industrial Motion & Motor Control

- Air Conditioner
- Engine Cooling Fan
- Fan Motor / Pump
- Low Voltage Inverter
- Refrigerator
- Washing Machine / Dishwasher

## Lighting

- Backlighting BLU
- Fluorescent Lamp
- HID Lamp
- LCD TV & Monitor (CCFL BLU)
- LED Lighting
- LED TV & Monitor (LED BLU)
- PDP-TV
- Portable LED Drivers

## Machine-to-Machine (M2M)

- GPS
- Industrial Automation
- Mobile Wireless
- Smart Meter
- Smart Home & Home Entertainment

## Medical

- A/C Powered Hair Removal Unit
- Automatic External Defibrillator
- Blood Glucose Monitor
- Electronic / Digital Stethoscope
- Hearing Aid
- Medical Pump / Fan / Motor Application
- Medical USB Port
- Portable, Coin Cell & AA based Battery
- Portable, Single & Dual Cell Li Battery
- Positive Airway Pressure Machine
- Pulse Oximeter

## Mobile Wireless

- Charger (CC/CV)
- Mobile Handsets
- MP3 & Cloud Portable Player
- Tablets
- USB

## Motion Tracking

- 3D Character Animation
- 3D Wearable Technology
- Human Motion Measurement
- Inertial Sensor Modules

## Networking & Gateway

- Critical Embedded Power
- Firewall & Security Appliances
- Modem
- Routers
- Switches

## Portable Consumer

- Audio
- Digital Still Camera
- GPS
- MP3 & Cloud Portable Player
- USB

## Power Supply

- Charger (CV/CC)
- Computing & Storage
- Home Appliances & White Goods
- Portable Consumer
- Smart Grid & Metering
- Smart Home & Home Entertainment
- Telecommunication Infrastructure

## Smart Grid & Metering

- Smart Meter
- Solar Inverter

## Smart Home & Home Entertainment

- Audio
- Digital Still Camera
- DVD
- LCD TV & Monitor (CCFL BLU)
- LED TV & Monitor (LED BLU)
- Notebook PC
- PDP TV
- Set-top Box
- TV & Monitor
- USB

## Solar/Renewable Energy/UPS

- Central Inverter System
- Micro Converter System
- Micro Inverter System
- Solar Inverter
- Uninterruptible Power Supply

## Travel Adaptors & Power Banks

- Adaptors
- Chargers (CC/CV)
- Mobile Wireless
- Portable Consumer
- USB

## Telecom Infrastructure

- Critical Embedded Power
- Optical Networking & Infrastructures
- Telecommunication Systems
- Video Broadcasting, Processing, Communication System

## Wearables

- 3D Wearable Technology

## Welding & Induction Heating

- Induction Heating
- Welding Machine

## ABOUT FAIRCHILD

Fairchild is all about power management. And to that end, we provide a unique combination of design and manufacturing expertise to our customers, allowing them to power amazing electronic products. Our mission is to help you build the absolute best product possible and to ensure that we meet or exceed your time-to-market and quality requirements.

This product guide and the Fairchild website will enable you to find the information and products you need to meet the power demands of your design. If questions remain about product specs or you require design assistance, please contact us directly. Often, the solution to a particular problem involves a unique combination of products or a process modification that wasn't obvious in the spec review. Fairchild is committed to help you find that solution. We want your power design experience to be amazing.



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