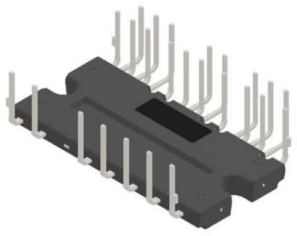
WGP10LD60D5W

600V 10A 3-phase Integrated Power Modules

Description

WGP10LD60D5W is an insulated type three-phase Intelligent Power Modules (IPM), highly integrated in a compact package. With the embedded HVIC and LVIC as the most compatible driver and protector for IGBTs, this series IPM offers an efficient power inverter solution with outstanding performance for PMSM motors such as low power fan or pump for home appliances and Industrial Instruments.



DIP-25B

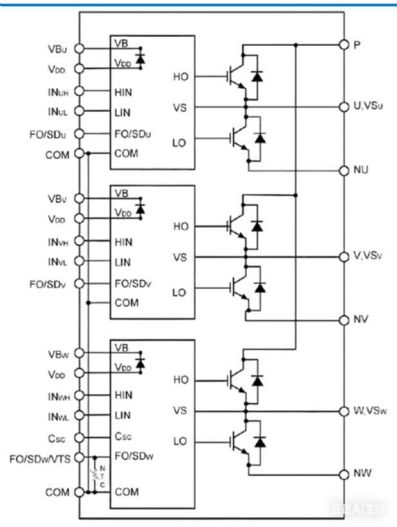
Features

- 600V /10A three-phase DC/AC IGBT inverter
- HVIC for gate driving and protecting
- Built-in Control supply under-voltage protection (UV)
- Built-in Short circuit protection (SC)
- Built-in Over Temperature protection
- Separate Open−Emitter Pins from Low−Side IGBTs for Three−Phase Current Sensing
- Bootstrap diode integrated

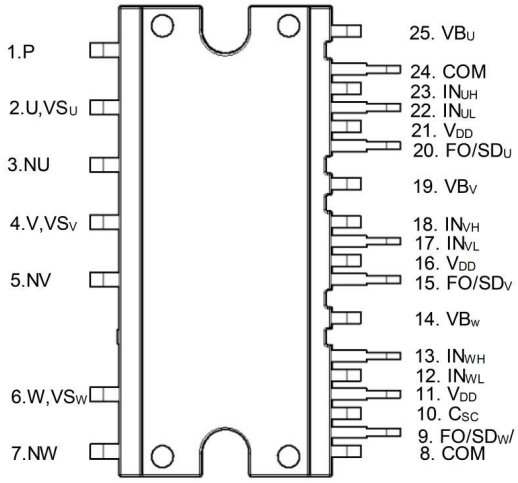
Applications

- Low Power Motors for Home Appliances and Industrial Instruments
- Refrigerator compressor
- Air Conditioner Outside Fan

Internal Electrical Schematic

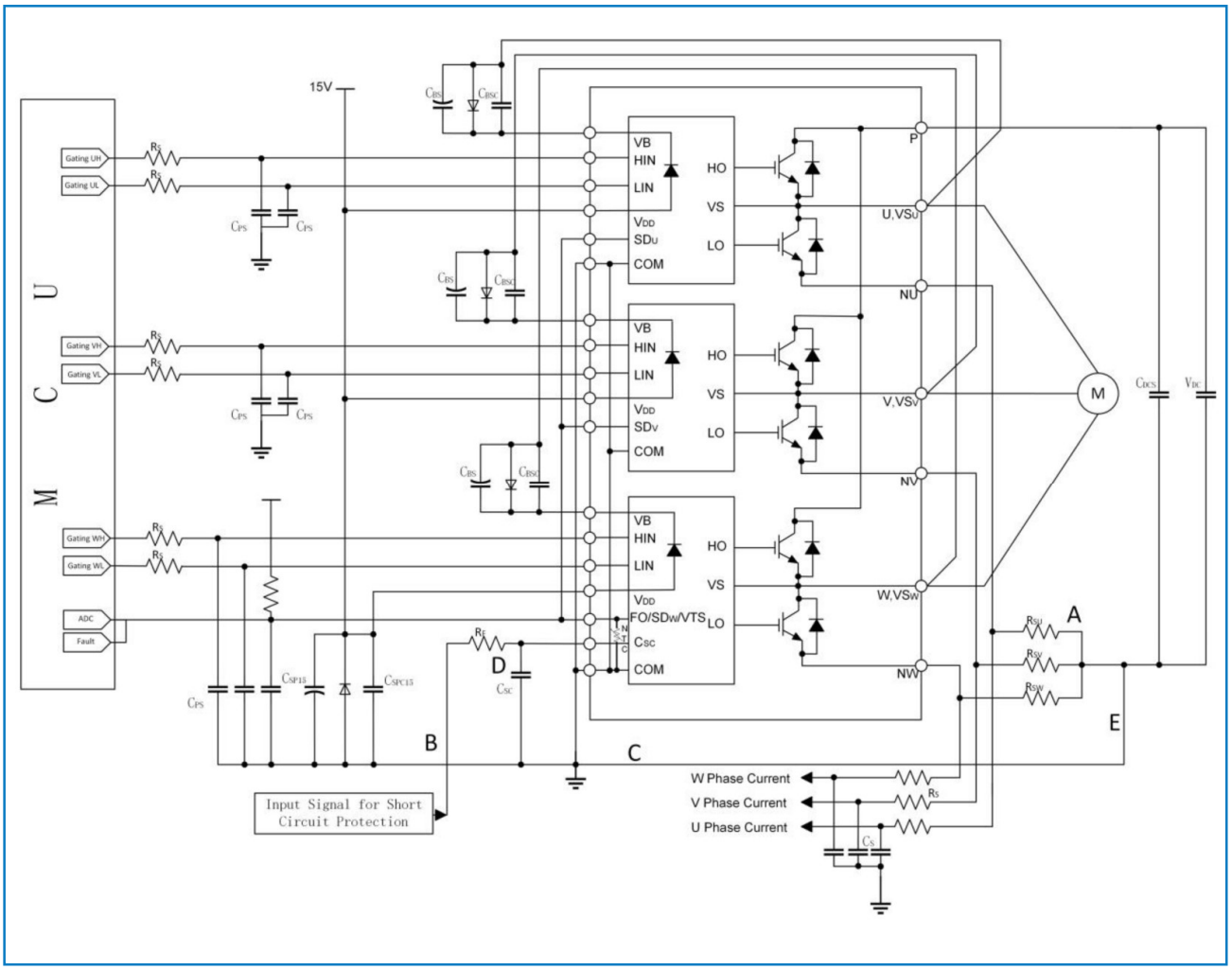


Module Pin-Out Description



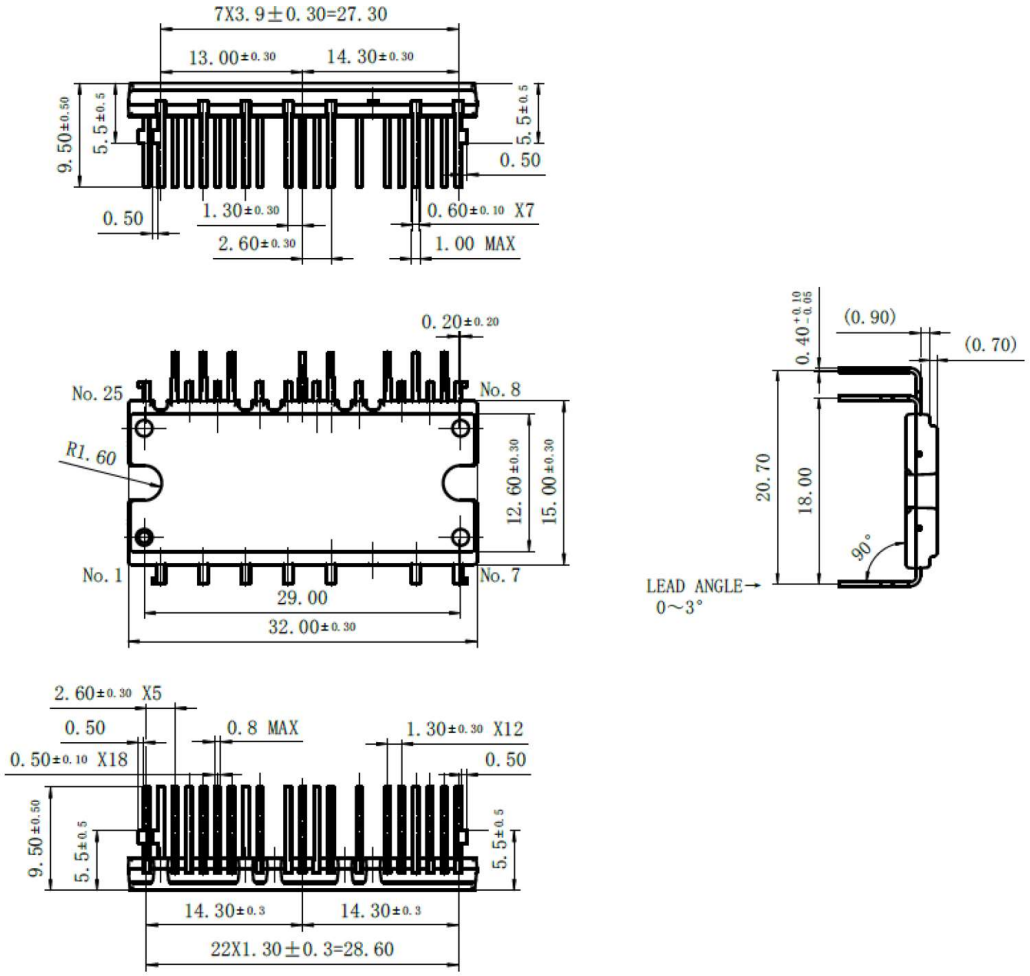
Pin Number	Pin Name	Pin Description
1	P	Positive DC-Link Input
2	U,V_{SU}	Output for U Phase
3	NU	Negative DC-Link Input for U Phase
4	V,V_{SV}	Output for V phase
5	NV	Negative DC-Link Input for V Phase
6	W,V_{SW}	Output for W phase
7	NW	Negative DC-Link Input for W phase
8	COM	Common Supply Ground
9	FO/SD_W/VTS	Fault Output/ Shut-Down Input for W Phase/Output for Temperature Sensing
10	C_{SC}	Shut Down Input for Over Current and Short Circuit Protection
11	V_{DD}	Common Bias Voltage for IC and IGBTs Driving
12	IN_{WL}	Signal Input for Low-Side W Phase
13	IN_{WH}	Signal Input for High-Side W Phase
14	VB_W	High-Side Bias Voltage for W-Phase IGBT Driving
15	FO/SD_V	Fault Output/Shut Down Input for V Phase
16	V_{DD}	Common Bias Voltage for IC and IGBTs Driving
17	IN_{VL}	Signal Input for Low-Side V Phase
18	IN_{VH}	Signal Input for High-Side V Phase
19	VB_V	High-Side Bias Voltage for V-Phase IGBT Driving
20	FO/SD_U	Fault Output/Shut Down Input for U Phase
21	V_{DD}	Common Bias Voltage for IC and IGBTs Driving
22	IN_{UL}	Signal Input for Low-Side V Phase
23	IN_{UH}	Signal Input for High-Side V Phase
24	COM	Common Supply Ground
25	VB_U	High-Side Bias Voltage for U-Phase IGBT Driving

● Example of Application Circuit



Mechanical Dimensions for DIP-25B

UNIT:mm



Ordering Information

Part	Package	Marking	QTY(PCS)	Packing method
WGP10LD60D5W	DIP-25B	WGP10LD60D5W	TBD	Tube

Contact Information

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Product Specification Statement

1.The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

2.The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.

3.WAYON strives to provide accurate and up-to-date information to the best of our ability. However, due to technical, human, or other reasons, WAYON cannot guarantee that the information provided in the product specification is entirely accurate and error-free. WAYON shall not be held responsible for any losses or damages resulting from the use or reliance on any information in these product specifications. WAYON reserves the right to revise or update the product specification and the products at any time without prior notice, and the user's continued use of the product specification is considered an acceptance of these revisions and updates. Prior to purchasing and using the product, users should verify the above information with WAYON to ensure that the product specification is the most current, effective, and complete. If users are particularly concerned about product parameters, please consult WAYON in detail or request relevant product test reports. Any data not explicitly mentioned in the product specification shall be subject to separate agreement.

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5.The design of the product is intended to meet civilian needs and is not guaranteed for use in harsh environments or precision equipment. It is not recommended for use in systems or equipment such as medical devices, aircraft, nuclear power, and similar systems, where failures in these systems or equipment could reasonably be expected to result in personal injury. WAYON shall assume no responsibility for any consequences resulting from such usage.

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