

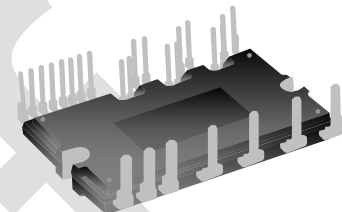
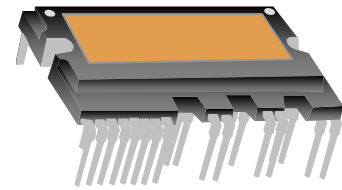
# 600V/30A 3-PHASE FULL-BRIDGE DRIVER (INTELLIGENT POWER MODULE)

## 1. DESCRIPTION

SD30M60AC is a 3-phase brushless DC motor driver with high integration and high reliability for high power inverter driving such as air condition, inverter, and industrial sewing machine. It has embedded six low-loss IGBT and three high-speed half-bridge gate drivers with high voltage.

The under voltage, short circuit and over temperature protections integrated make the circuit work safely in a wide range. The current of each phase can be detected separately because there is one independent negative DC terminal for each phase.

SD30M60AC adopts high-insulation design, compact package and carries heat easily, which makes it easy to use especially for compact installation applications.



DIP-27H

## 2. FEATURES

- ◆ Built-in six low-loss 600V/30A IGBT
- ◆ Built-in high-voltage gate driver
- ◆ Built-in under voltage, over temperature and over current protections
- ◆ Built-in bootstrap diode
- ◆ Compatible with 3.3V, 5V MCU interface, active high
- ◆ Three independent negative DC terminal for inverter current detection
- ◆ Alarm signal: for low-side under voltage and short circuit protections
- ◆ Package in DBC design with low thermal resistance
- ◆ Insulation level: 2500Vrms/min

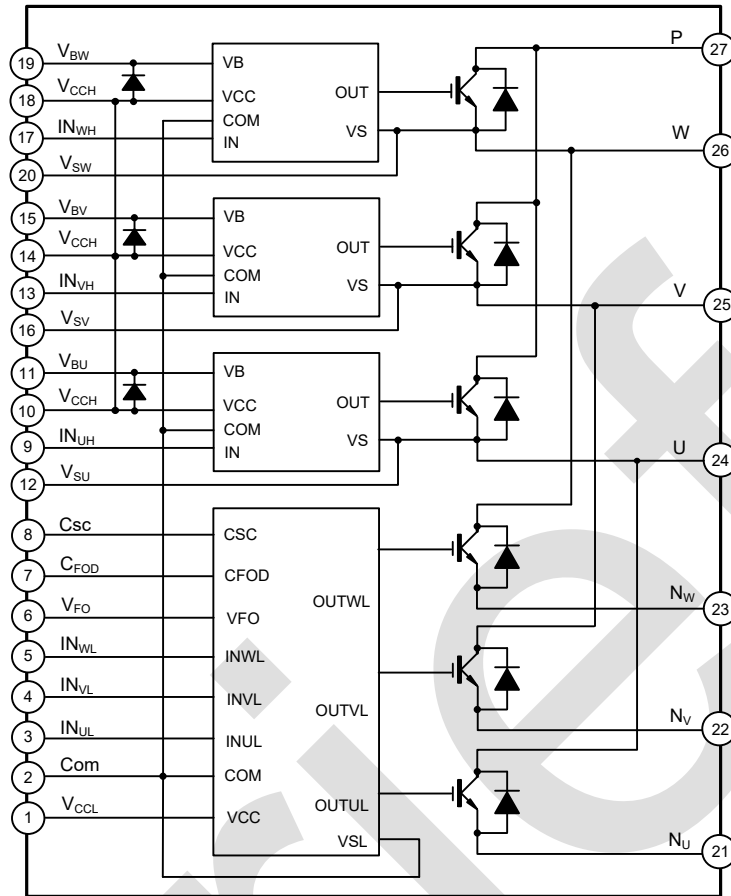
## 3. APPLICATIONS

- ◆ Air condition compressor
- ◆ Industrial sewing machine
- ◆ Inverter

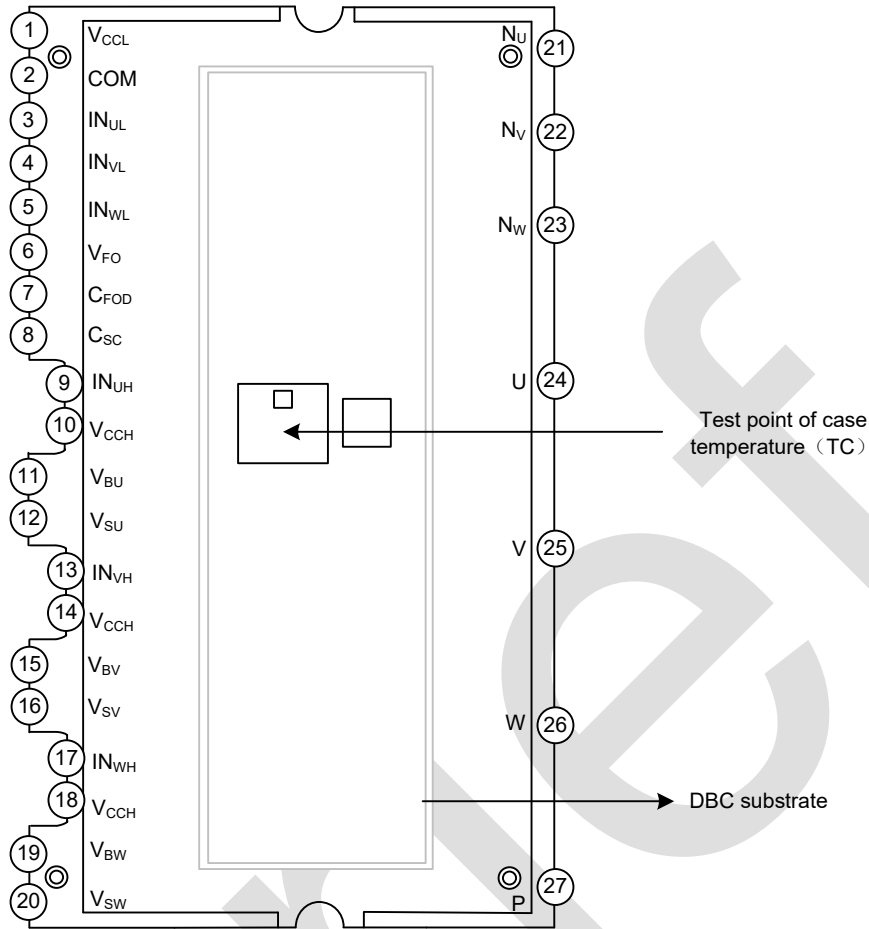
## 4. ORDERING INFORMATION

Part No.	Package	Marking	Hazardous Substance Control	Packing Type
SD30M60AC	DIP-27H	SD30M60AC	Halogen Free	Tube

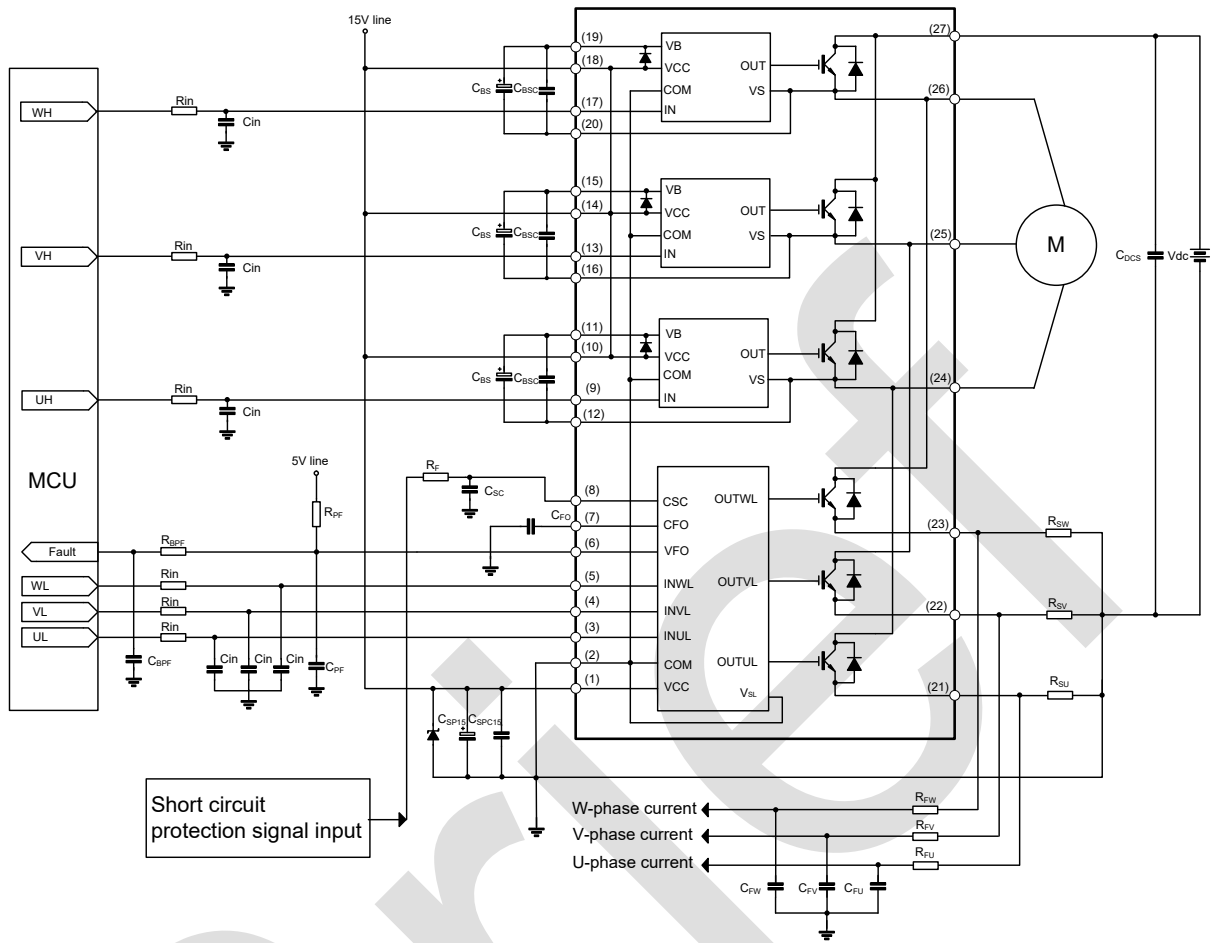
5. BLOCK DIAGRAM



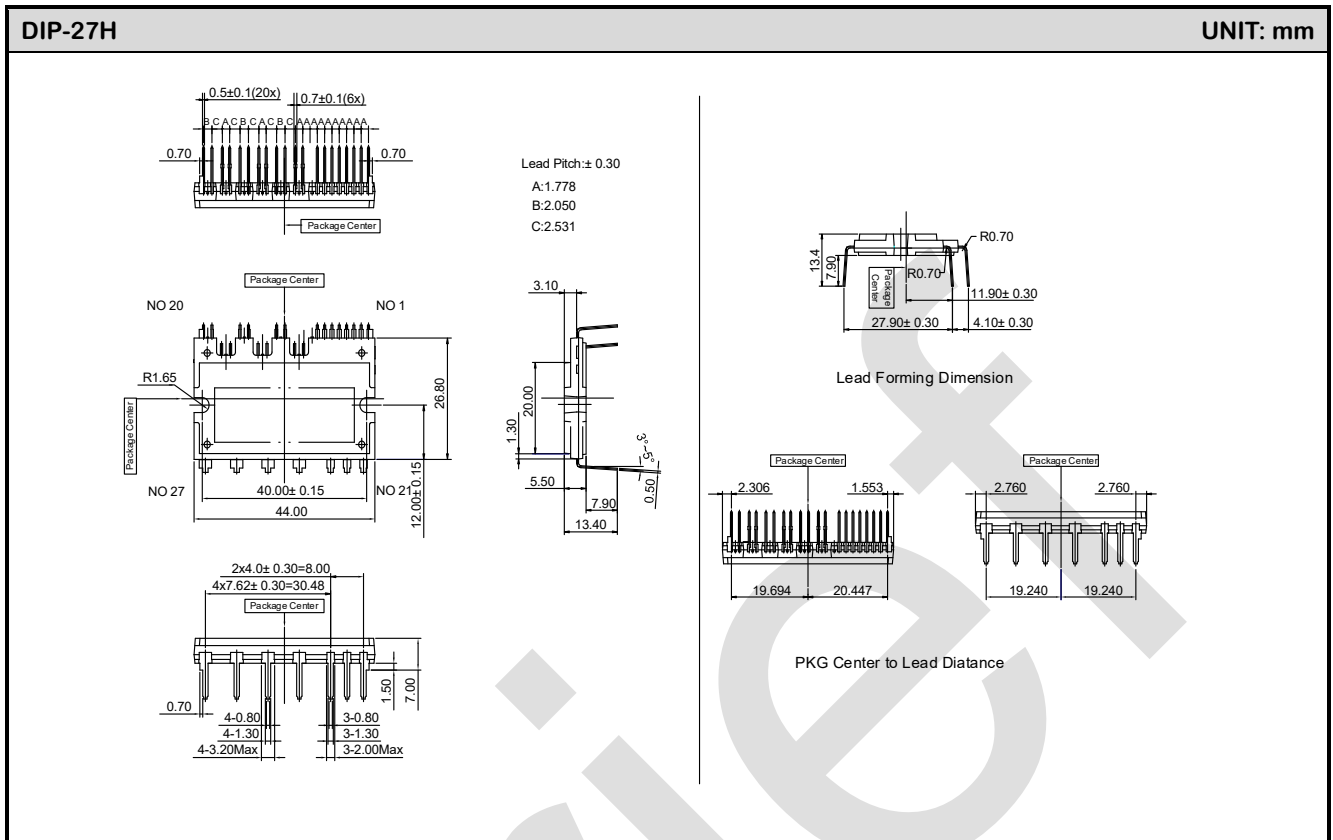
6. PIN CONFIGURATION



7. TYPICAL APPLICATION CIRCUIT



8.PACKAGE OUTLINE



**Important notice :**

1. The instructions are subject to change without notice !
2. Customers should obtain the latest relevant information before placing orders and should verify that such information is complete and current. Please read the instructions carefully before using our products, including the circuit operation precautions.
3. Our products are consumer electronic products or the other civil electronic products.
4. When using our products, please do not exceed the maximum rating of the products, otherwise the reliability of the whole machine will be affected. There is a certain possibility of failure or malfunction of any semiconductor product under specific conditions. The buyer is responsible for complying with safety standards and taking safety measures when using our products for system design, sample and whole machine manufacturing, so as to avoid potential failure risk that may cause personal injury or property loss.
5. It is strongly recommended to identify the trademark when buying our products. Please contact us if there is any question.
6. Product promotion is endless, our company will wholeheartedly provide customers with better products!
7. Website: <http://www.silan.com.cn>