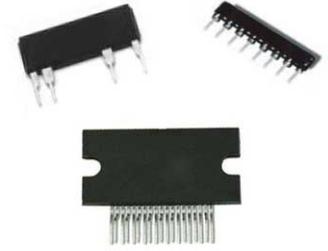


## Intelligent Power Module (IPM), 2-in-1 PFC and Inverter, 600 V, 15 A



Images are for reference only

[Inquiry](#)

**Manufacturer:** [ON Semiconductor, LLC](#)

**Package/Case:** SIP35

**Product Type:**

**Lifecycle:** Obsolete

### General Description

The STK57FU394AG-E is a fully-integrated PFC and inverter power module consisting of a high-voltage driver, six motor drive IGBTs, one PFC IGBT, one PFC rectifier and a thermistor, suitable for driving permanent magnet synchronous (PMSM) motors, brushless-DC (BLDC) motors and AC asynchronous motors. The IGBTs are configured in a 3-phase bridge with separate emitter connections for the lower legs for maximum flexibility in the choice of control algorithm. An internal comparator and reference connected to the over-current protection circuit allows the designer to set individual over-current protection levels for the PFC and the inverter stages. Additionally, the power stage has a full range of protection functions including crossconduction protection, external shutdown and under-voltage lockout functions.

### Key Features

Simple thermal design with PFC and inverter stage in one package

PFC operating frequency up to 40KHz

Cross conduction protection, adjustable overcurrent protection level

Integrated bootstrap diodes and resistors

Certified by UL1557 file number E339285

### Application

Major Home Appliances

Industrial HVAC

Heat Pumps (Renewable Energy)

### Recommended For You

#### NCV4274AST33T3G

ON Semiconductor, LLC

SOT223

#### MAX809STRG

ON Semiconductor, LLC

SOT23-3

#### NCPI117ST50T3G

ON Semiconductor, LLC

SOT223

**NCV8405ASTT1G**

ON Semiconductor, LLC  
SOT-223

**NCP1117ST33T3G**

ON Semiconductor, LLC  
SOT223

**NCV4264-2ST50T3G**

ON Semiconductor, LLC  
SOT223

**STK581U3C2D-E**

ON Semiconductor, LLC  
IPM

**STK5C4U332J-E**

ON Semiconductor, LLC  
ZIP24

**NCP1117ST25T3G**

ON Semiconductor, LLC  
SOT223

**LMB17MST3G**

ON Semiconductor, LLC  
SOT-223

**STK551U3A2A-E**

ON Semiconductor, LLC  
IPM

**STK984-090A-E**

ON Semiconductor, LLC  
3

**STK672-642AN-E**

ON Semiconductor, LLC  
SIP19

**ISL9V2040D3ST**

ON Semiconductor, LLC  
TO-252

**ISL9V5036S3ST**

ON Semiconductor, LLC  
TO263