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# STEVAL-ILL027V2

## 18 W single-stage offline LED driver based on the L6562A (European version)

**Data brief**

## Features

- Input voltage 190 Vac to 295 Vac
- Provides 18 W constant power to HBLED
- Able to drive 14 to 20 HBLED in series
- Soft switching
- LED open-circuit protection
- LED short-circuit protection
- Power factor > 0.8
- Efficiency > 87 %
- RoHS compliant

**STEVAL-ILL027V2**

## Description

The STEVAL-ILL027V2 implements a non-isolated, soft-switched, single-stage, high power factor offline LED driver.

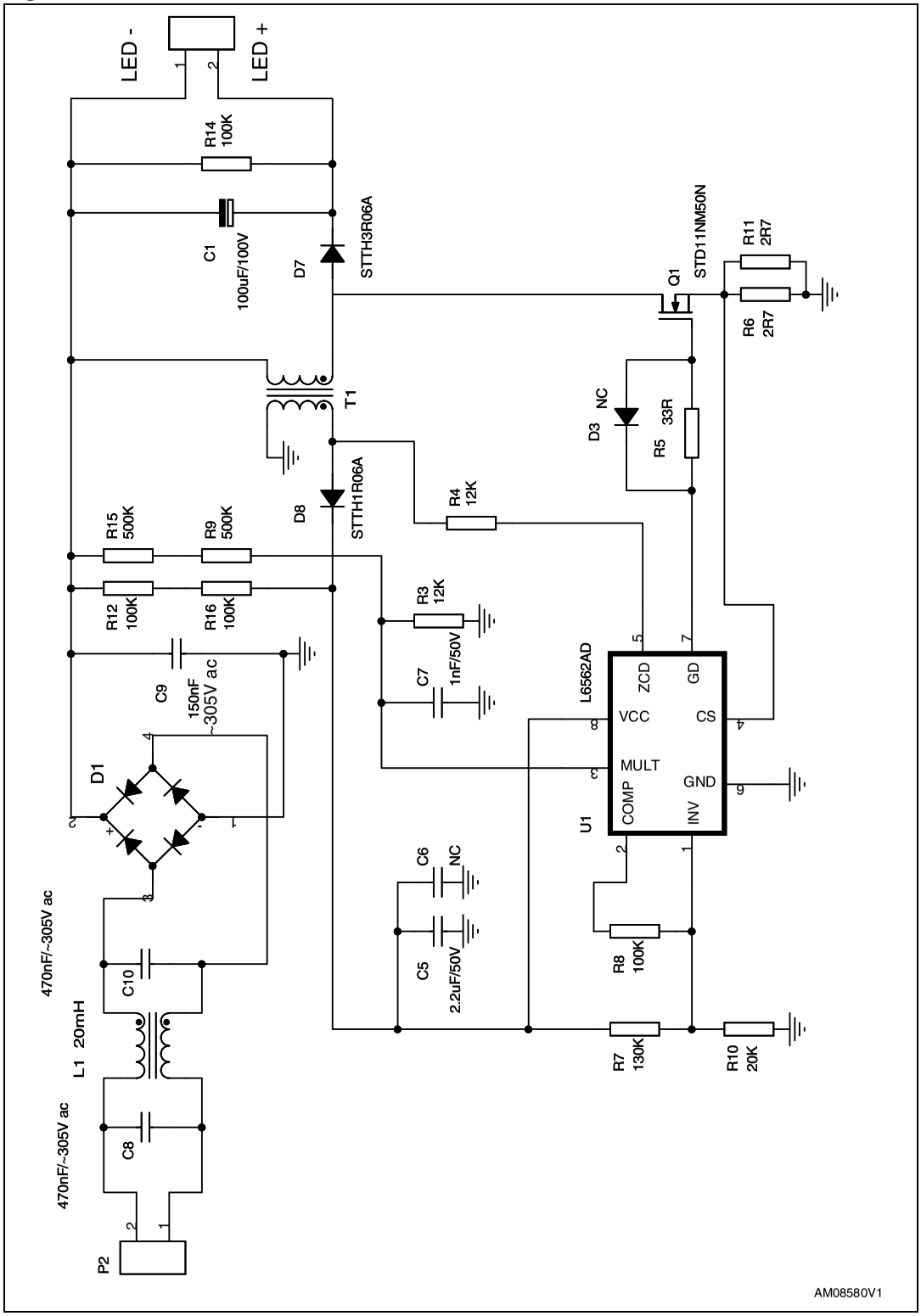
The buck-boost converter is chosen for this application due to its simplicity and low cost.

The converter operates with constant peak current for constant power control and in transition mode (boundary mode between CCM and DCM), to achieve soft switching, using the L6562A controller.

This single-stage buck-boost converter provides a cost-effective solution for offline non-isolated LED applications and it also has open load and short-circuit protection.

# 1 Circuit schematic

**Figure 1. Circuit schematic**



# 2 Revision history

**Table 1. Document revision history**

| Date | Revision | Changes |
|---|---|---|
| 10-Feb-2011 | 1 | Initial release. |