



# STEVAL-IHT001V1

Thermostat control demonstration board for refrigerators,  
based on the ST7Lite39

Data brief

## Features

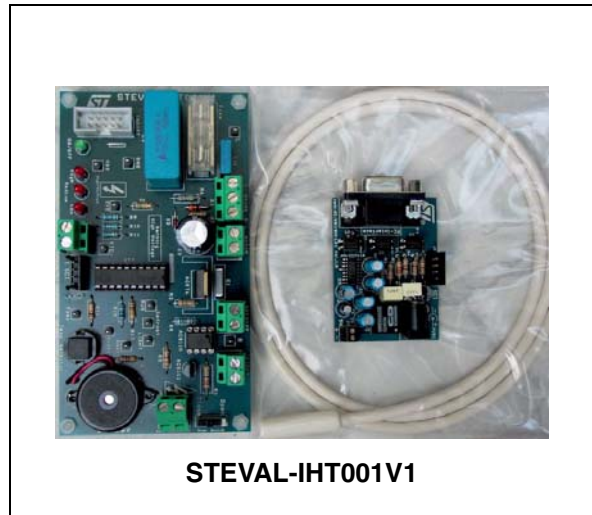
- Power supply: 220 Vac
- Power output: 36 W
- Boost topology
- Discontinuous-conduction mode
- RoHS compliant

## Description

The STEVAL-IHT001V1 demonstration board is a complete reference system for a simple cost-effective PFC (power factor corrector) using bipolar transistors and is intended for low-to-medium power HF ballasts.

The proposed bipolar PFC solution targets the low-cost HF ballast market up to 80 W as it provides a simple cost-effective solution without sacrificing THD and PF levels. No additional ICs are required for the PWM signal as the device uses just a power bipolar transistor and a closed-loop feedback which performs the duty cycle modulation and output power regulation.

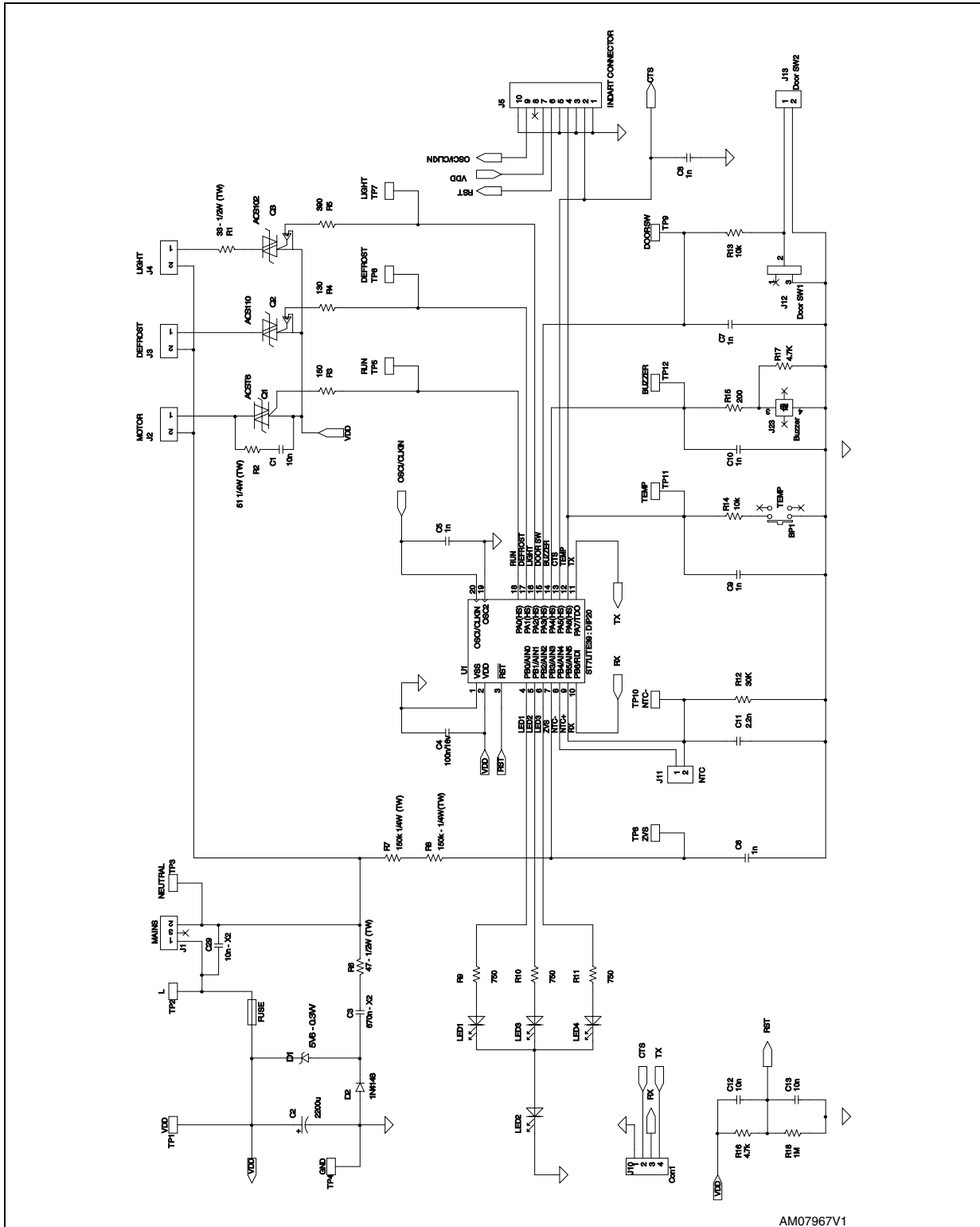
The active PFC solution with bipolar transistor adopts the boost topology operating in discontinuous-conduction mode.



STEVAL-IHT001V1

# 1 Schematic circuit

Figure 1. STEVAL-IHT001V1 demonstration board schematic diagram



## 2 Revision history

**Table 1. Document revision history**

Date	Revision	Changes
23-Sep-2010	1	Initial release.

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