

**FEATURES**

- European input mains range: 230(180)Vac – 264Vac, frequency 45Hz – 55Hz
- Output voltage: 56V at 0.715A continuous operation
- Safety: meets EN60950
- EMI: precompliant to EN55022 (B) limits
- Dimensions: 183x27 h17mm
- PCB: single-side, 35um, FR4, mixed PTH/SMD

**DESCRIPTION**

High brightness LED driver, power factor corrected, preliminary, slim demonstrative board. This board implements an offline power converter based on a single stage high-PF flyback topology using a new ST Microelectronics controller in development stage. Output voltage is controlled by primary side auxiliary sampling, thus dropping the need for costly optocouplers. Tight regulation is achieved by means of an extraordinary low leakage inductance in power transformer, whose design is a proprietary Magnetica patent. This makes very good regulation against load and line changes feasible. Conducted EMI have been pre-screened and clearances and creepage distances have been kept accordingly to EN60950 for safety. Output rail is protected against short-circuit.

Main applications for this converter is bus power supply for an LED string driver providing 4kV isolation.

Support will be offered to customers willing to develop their own version of this converter, as long as technical documentation including functional and thermal measurements. PCB layout (gerber or source version) could be supplied upon request.

Magnetic component used:

- 7787 – Common mode inductor
- 7761 – Switchmode transformer



**TECHNICAL DATA(@230Vac)**

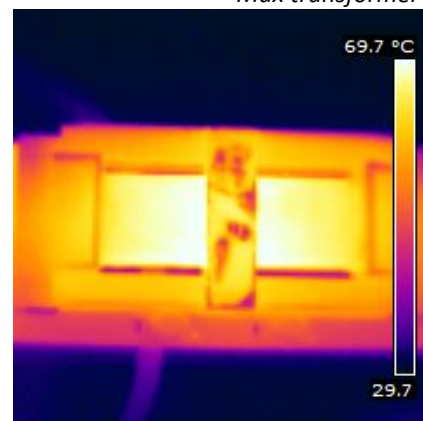
<b>Vout max</b>	56V ± 1V
<b>Min load</b>	500mW
<b>No load voltage*</b>	61.50Vmax
<b>Pout</b>	40W (35W@180Vac)
<b>Efficiency</b>	91% (full load)
<b>Power factor</b>	0.90 min (load≥60%)
<b>Output voltage ripple**</b>	1.5Vpp/530mVrms (full load)

\* with preload, if zero-load required

\*\* external components required

**THERMAL MAP (@265Vac, Pout 100%)**

Max transformer ΔT=45°C



**CONDUCTED EMISSION**

(Pout 100% @230Vac, QuasiPeak EmiAVG)

