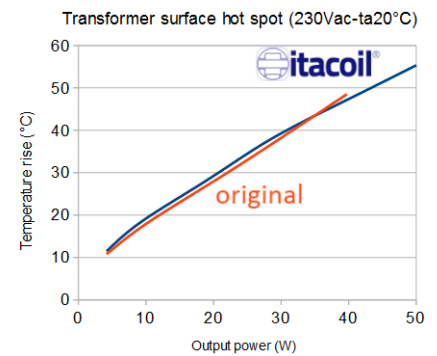
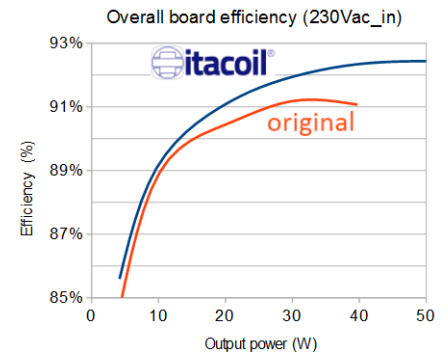


	Original	itacoil®	
230Vac input, 40W output			
Input voltage	230,0	230,0	Vac
Input power	43,63	42,89	W
Input current	0,195	0,192	Arms
Output voltage	55,62	53,17	Vdc
Output current	0,716	0,747	Adc
Output power	39,74	39,60	W
Converter efficiency	91,1%	92,3%^(*) (+1,2%)	%
Power loss		-0,61 (-15%)	W

Transformer			
Ambient temperature	20,4	19,5	°C
T _{rise}	48,5	47,1	°C
L x W x H	5,71x2,30x1,41	4,16x2,33x1,47	cm
overall footprint	13,13	9,69 (-26%)	cm ²
overall volume	18,52	14,35 (-22%)	cm ³
weight	25,5	20,4 (-20%)	gr
power density @40W	2,16	2,78 (+28%)	W/cm ³
power density @50W	--	3,73 (+61%)	W/cm ³



TEST CONDITIONS

Test performed on ST Microelectronics® STEVAL-ILL076V1 demo-board, flyback converter based on HVLED001™. ([demo-board user guide](#))

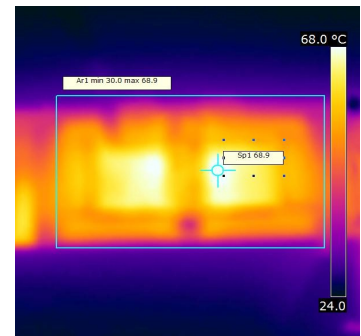
Both transformer and common mode inductor have been replaced with our products TSLE22156 and SCLE16333 during the 2nd part of the test.

(*)In the case only the transformer is replaced, the efficiency @230V-40W is 91,4%.

Using the TSLE22156 the output voltage results slightly lower than the nominal value.

The tests have been performed at the same output power for a significant comparison, in the actual using the pertinent resistor should be adjusted.

original transformer 230Vac 40W t_a20,4°C

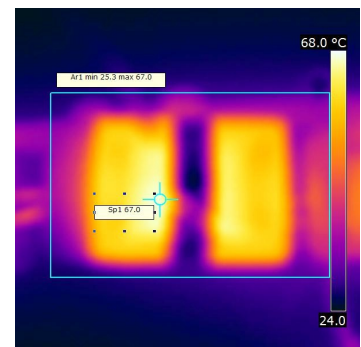


TEST RESULTS

The following improvements have been achieved with Itacoil components

- better efficiency
- lower power loss
- smaller dimensions
- 20-30V lower peak voltage across the mosfet

Itacoil transformer 230Vac 40W t_a19,9°C



Furthermore TSLE22156 is 50W ready, the original transformer not.

BENEFITS OF TRANSFORMER DESIGN BY ITACOIL® PROPRIETARY SOFTWARE

- smaller components
- reduced power loss and costs improvement
- best efficiency
- **first time success of your project**

Every effort has been made to maximize the accuracy of the contents of this report. However no responsibility will be accepted for any inaccuracy. Each product must be analyzed and tested in the final equipment in order to verify that it meets all technical and safety requirements. Also consider normal tolerances before using.

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