



develop

PSU test report

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2 General information

Testing the following device

Manufacturer: Vigortronix
Device name: VTX-214-005-112
Serial number: 1
Nominal voltage: 12.000V
Nominal current: 0.420A
Tester: Bernhard Woerndl-Aichriedler <bwa@xdevelop.at>
Start time: 14-Jul-2016 00:03:18

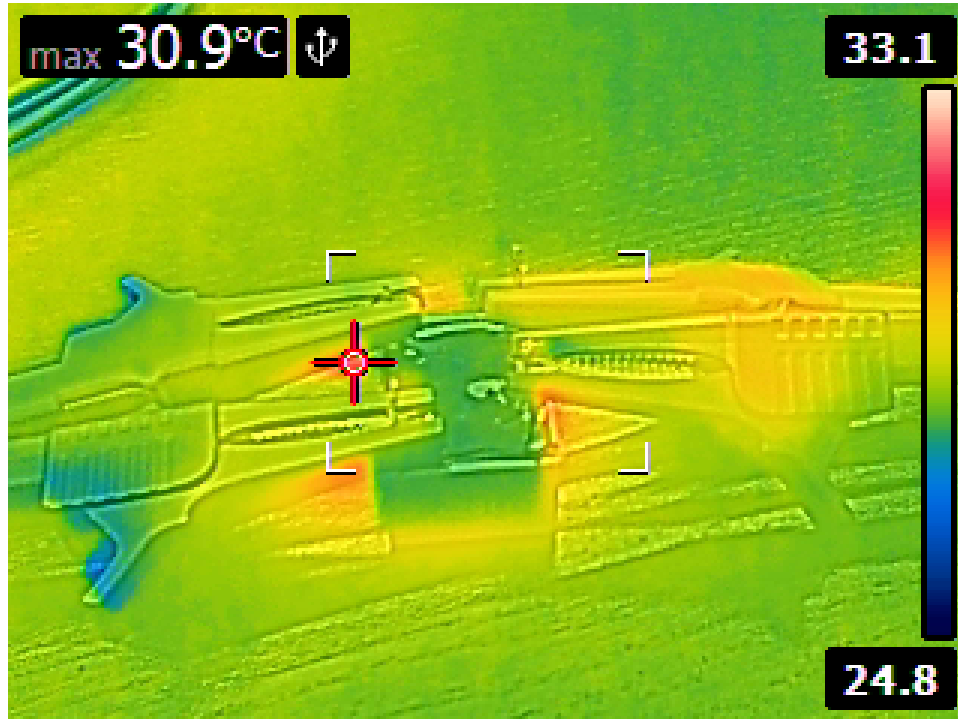


3 Point of operation

The test has been conducted with the following conditions

Voltage/Frequency: 230V-50Hz

Ambient Temperature: 31.48C





4 Standby power consumption

Voltage: 230.63V

Frequency: 50Hz

Current: 0.002989A

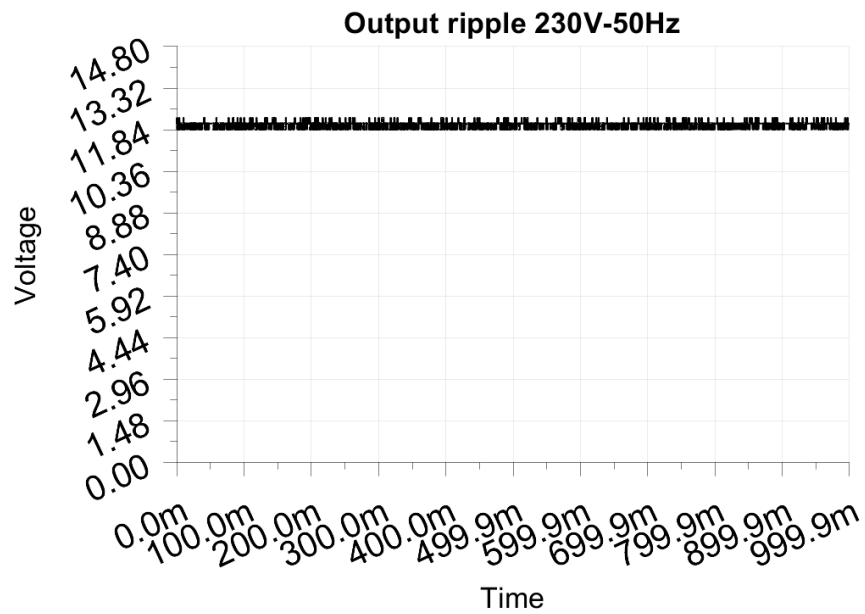
P active: 0.147W

P apparent: 0.689VA

P reactive: 0.673VAR

P factor: 0.214

Output voltage: 12.102V



5 Load testing

Characteristics

Voltage: 230.64V

Frequency: 50Hz

Loads: 0.000A to 0.420A

Minimum output voltage: 12.030V

Maximum output voltage: 12.200V

Regulation error absolute: -0.030V/+0.200V

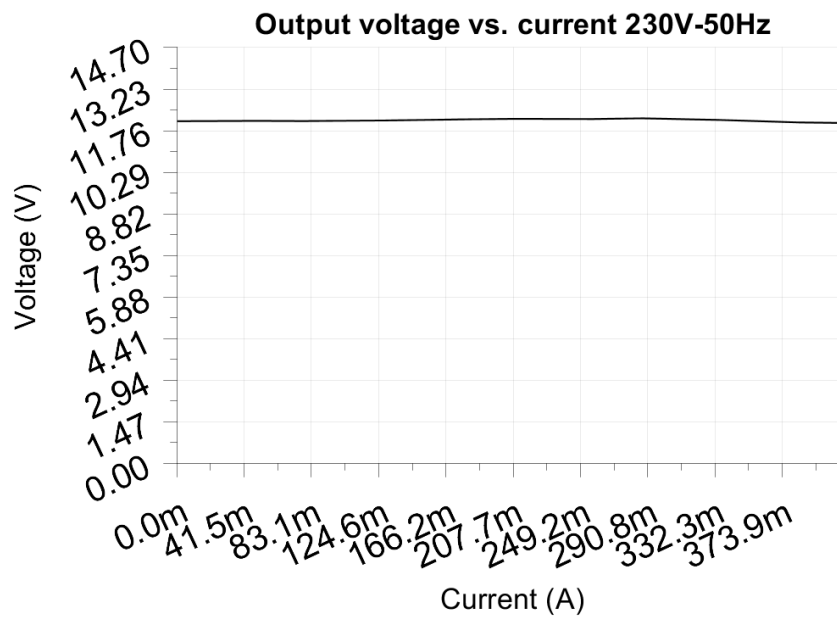
Regulation error relative: -0.2%/+1.7%

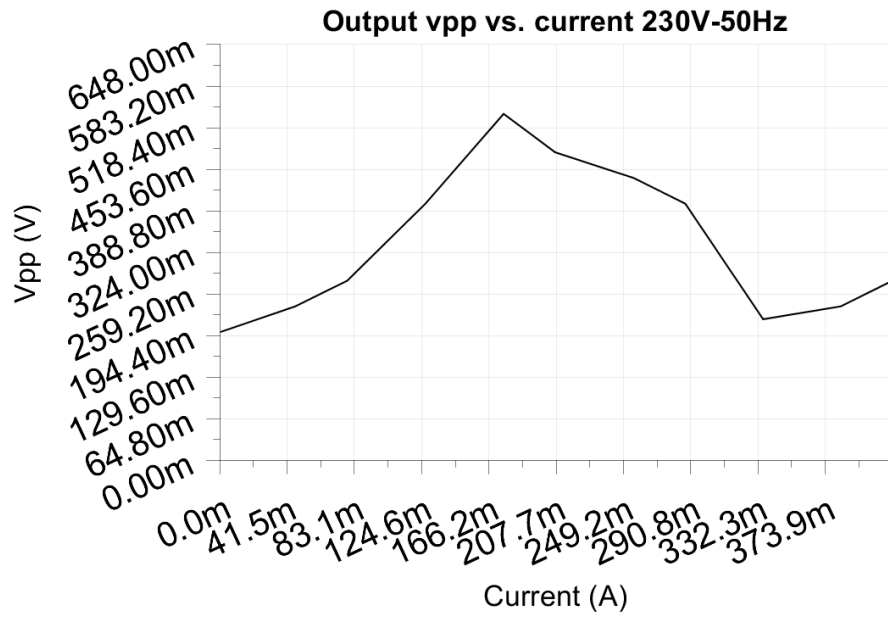
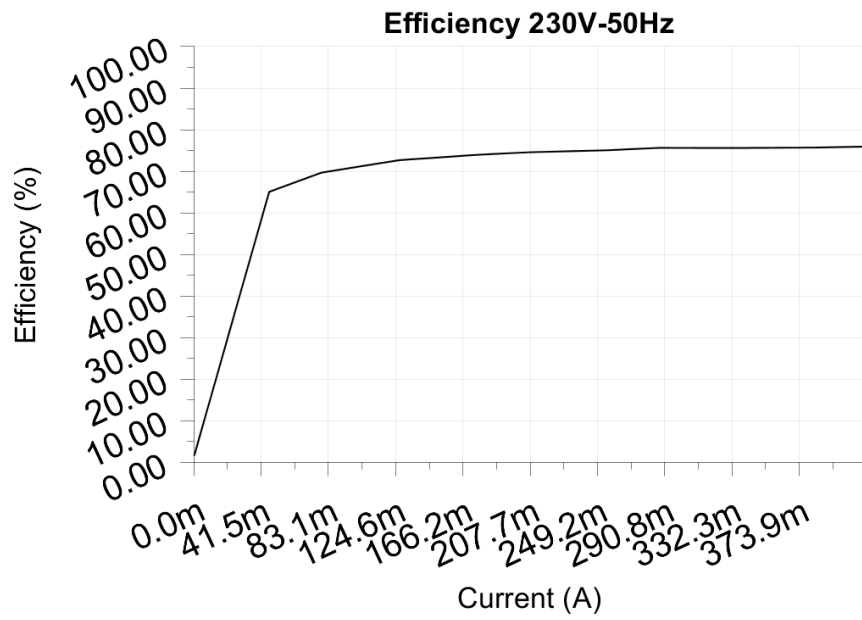
Vpp ripple&noise absolute: 0.540V

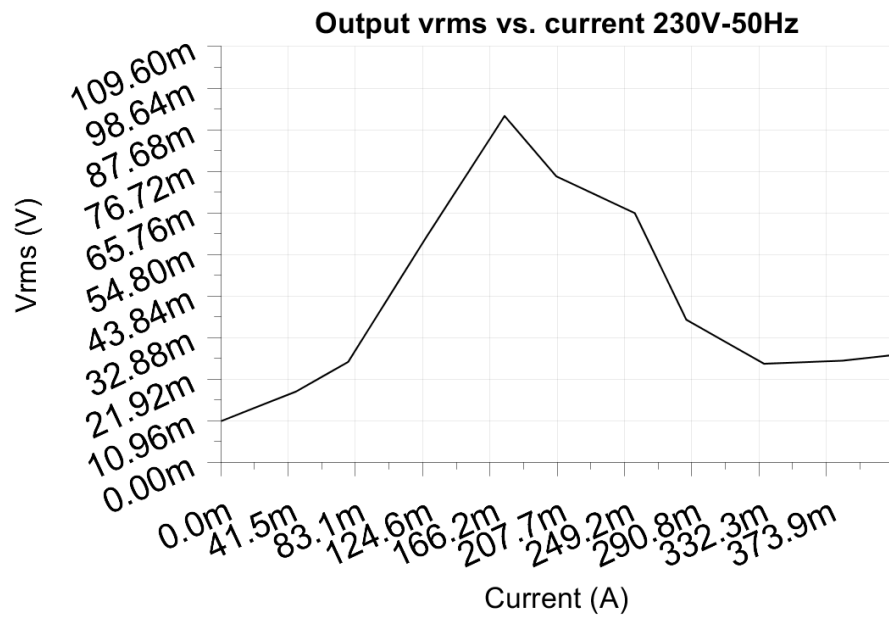
Vpp ripple&noise relative: 4.5%

RMS ripple&noise absolute: 0.091V

RMS ripple&noise relative: 0.8%







6 Turn on voltage

Testing when the PSU enables it's output

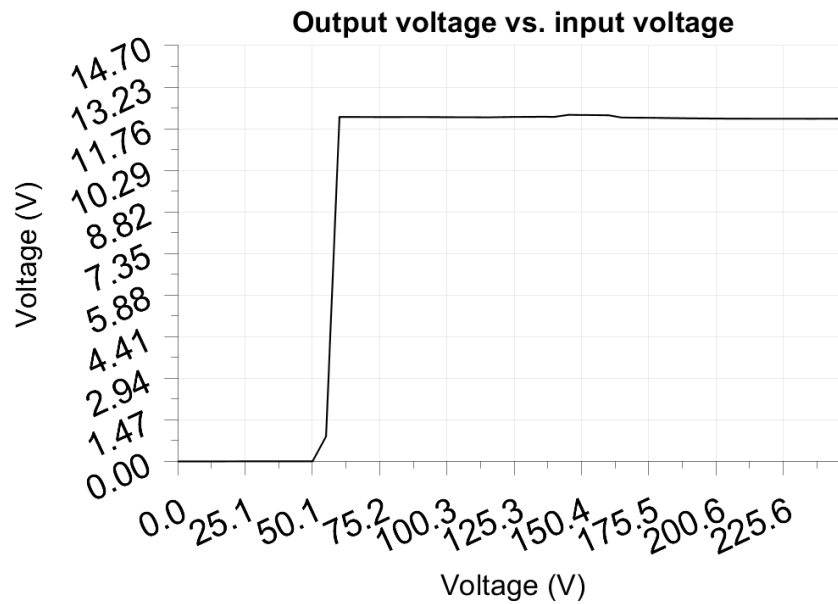
Test load: 0.042A

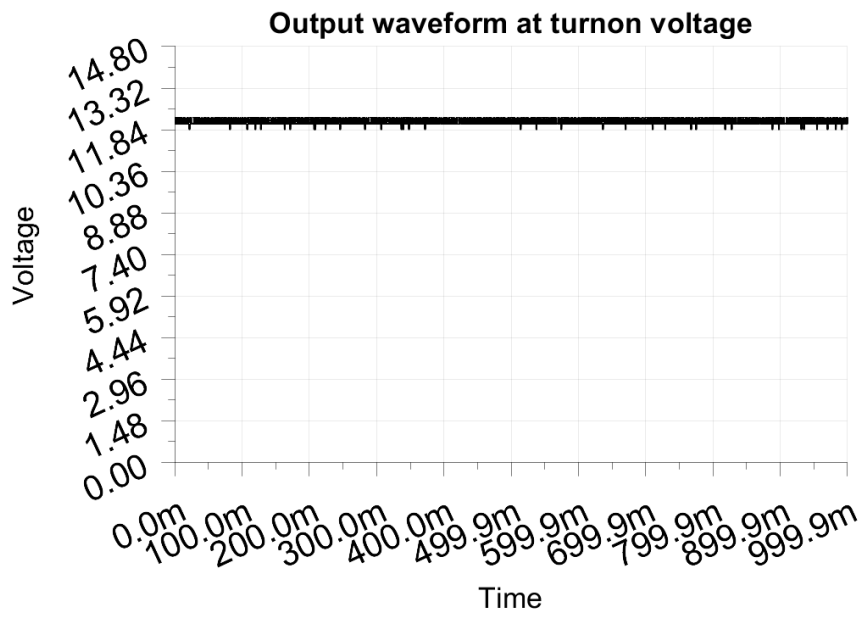
Test Frequency: 50Hz

Threshold: 9.000V

Turn-on voltage: 60.00V

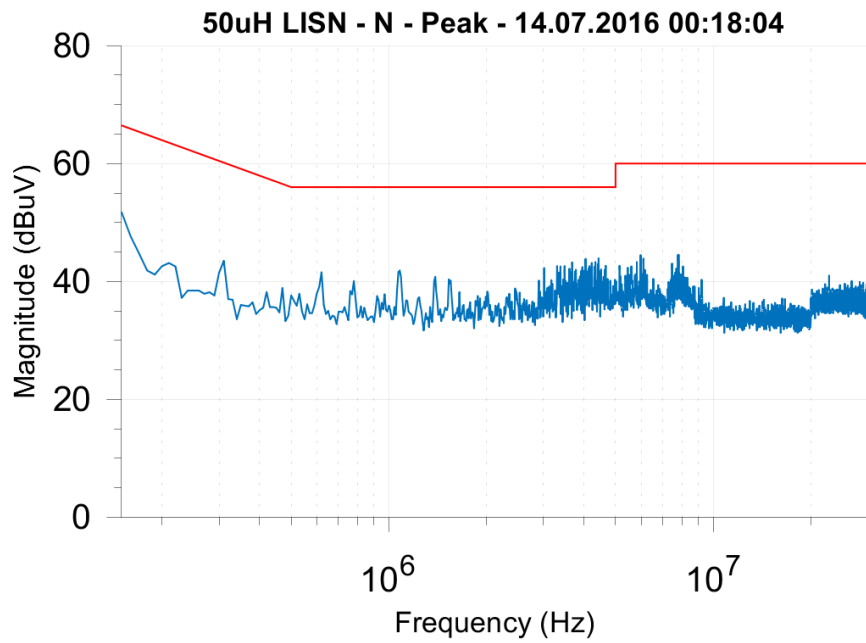
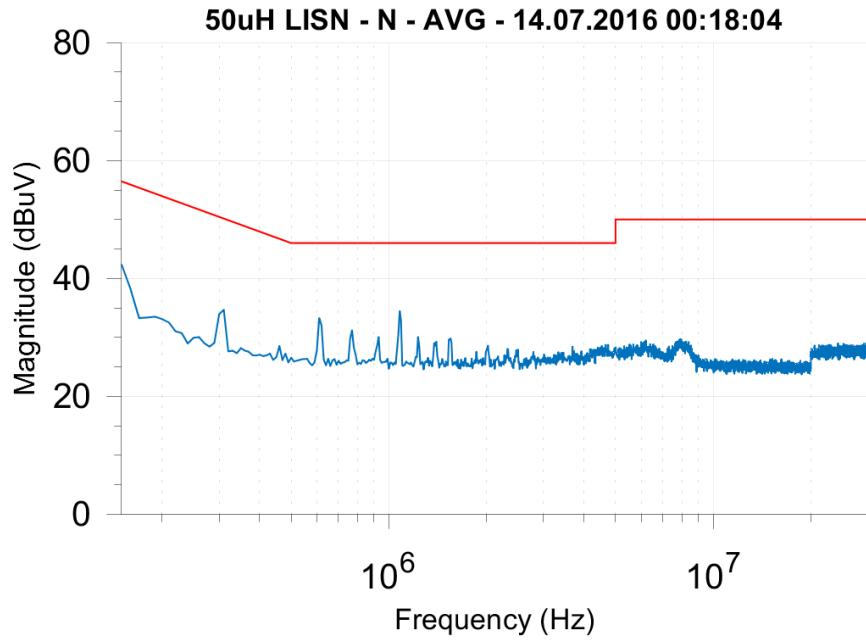
Output voltage: 12.175V

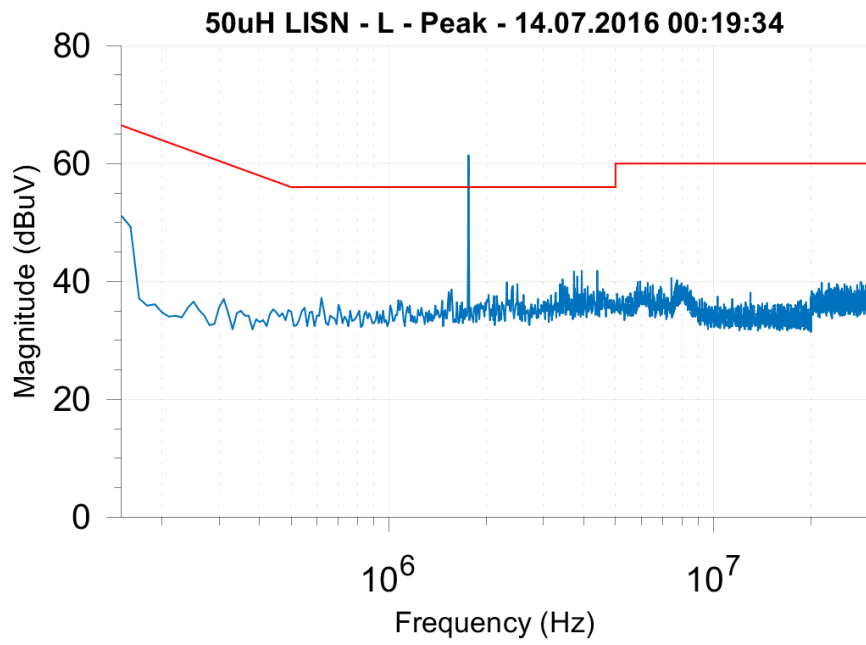
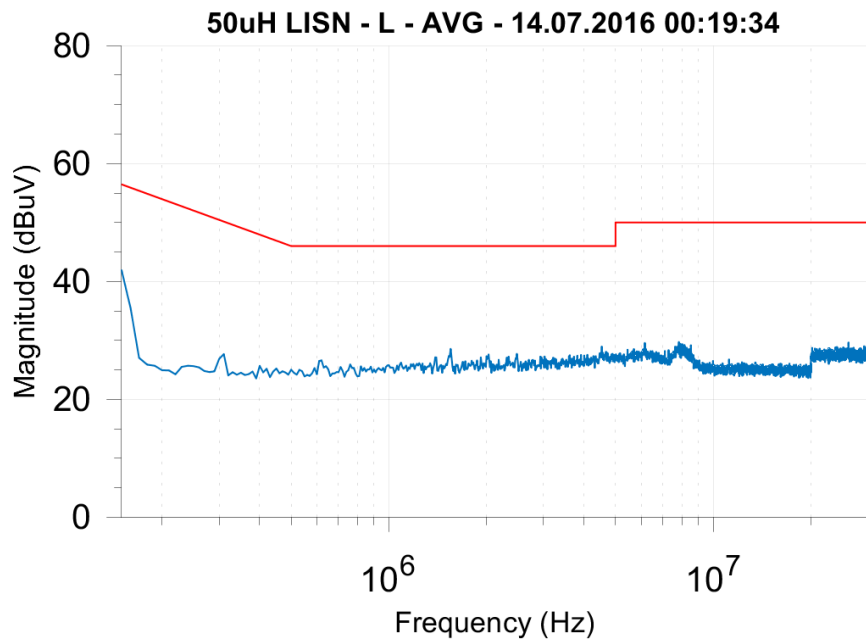




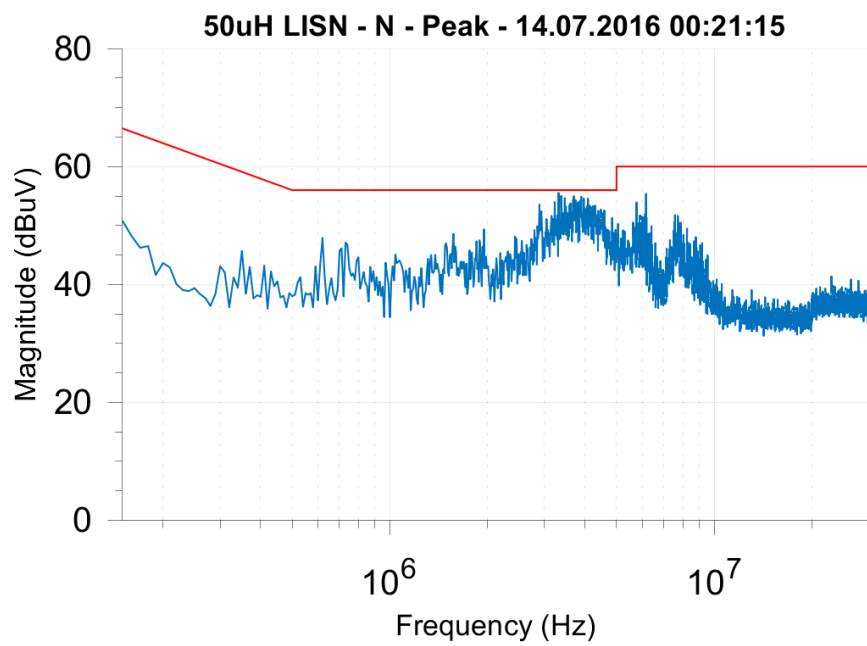
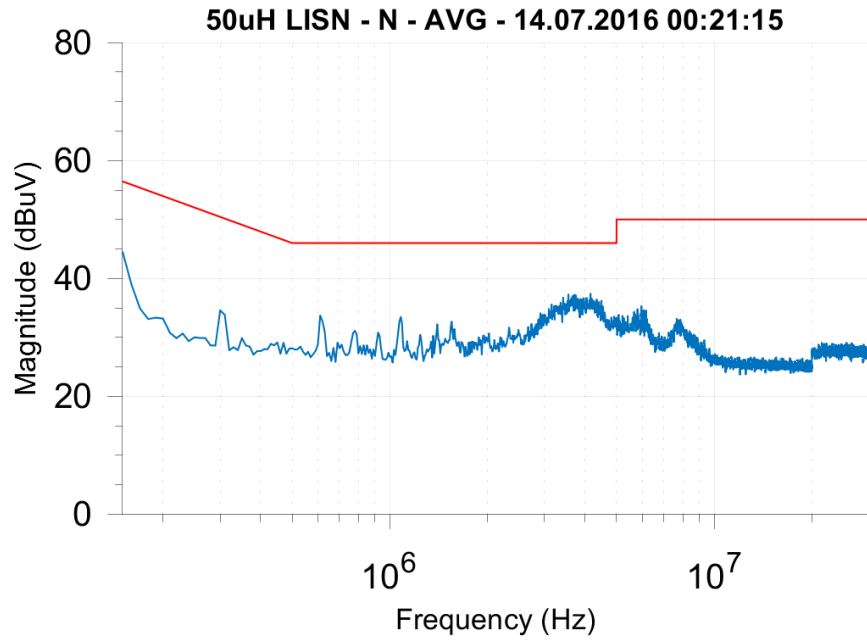
7 Conducted EMI

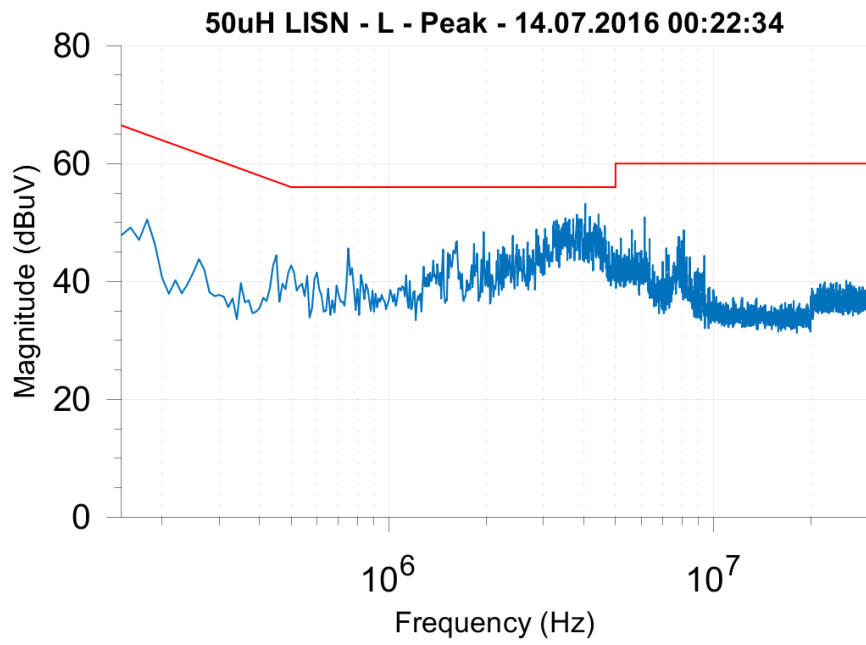
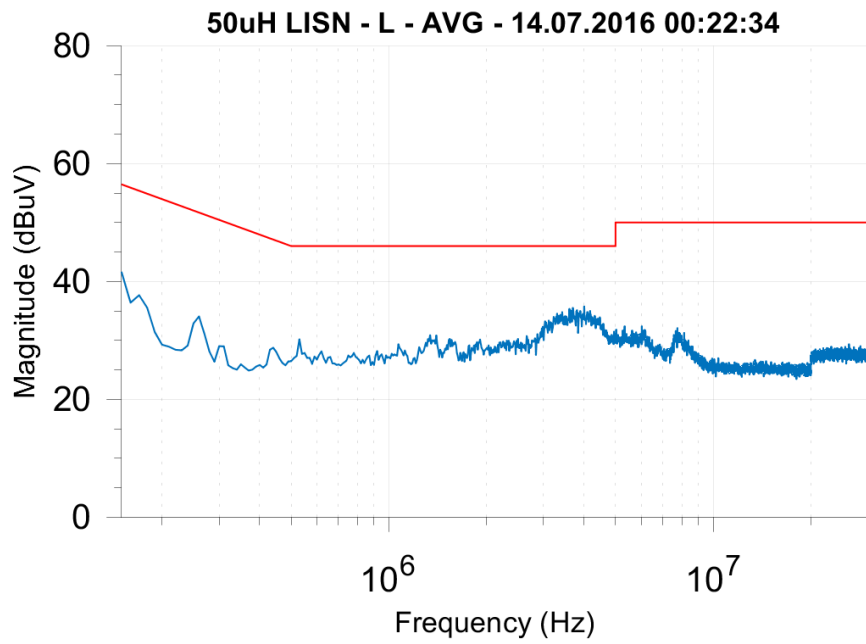
7.1 Output load 0.000A



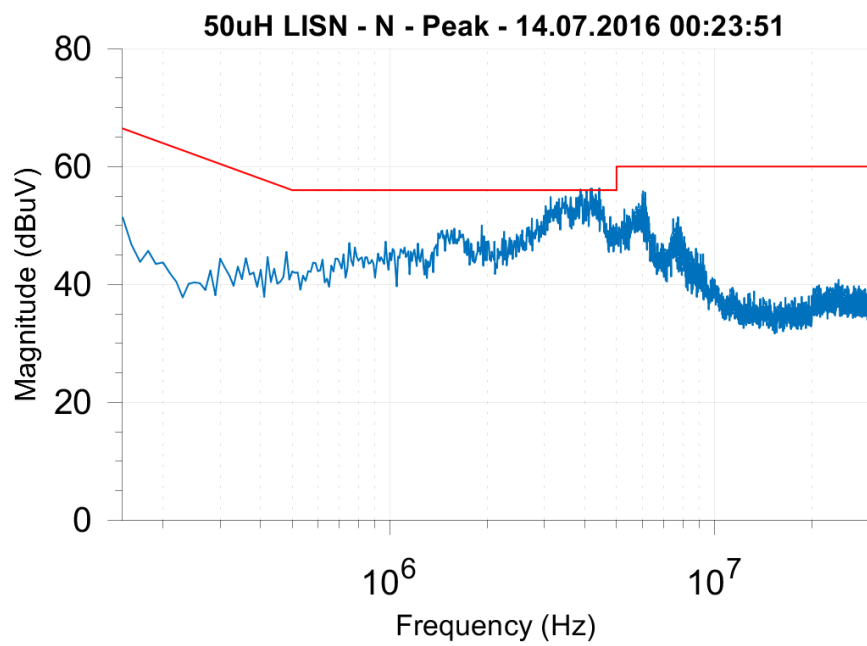
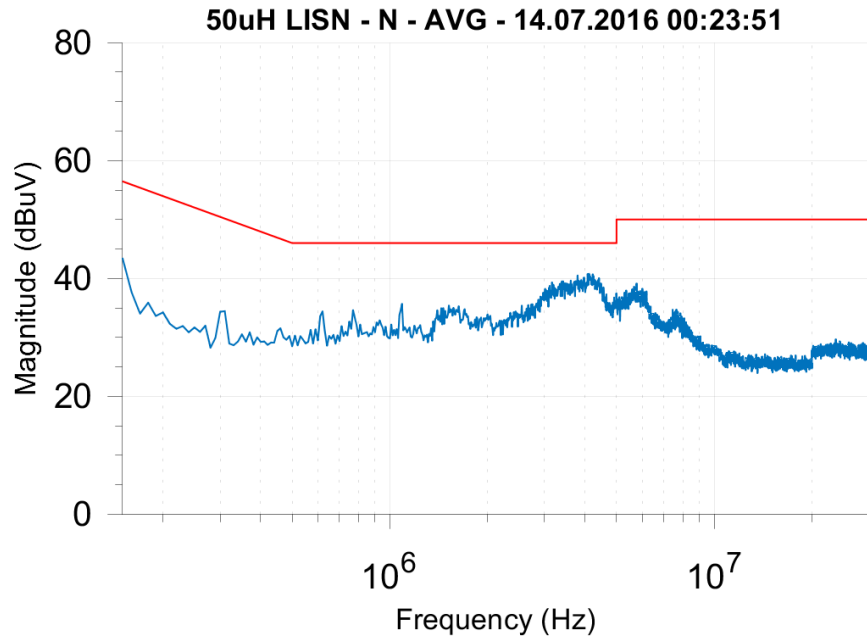


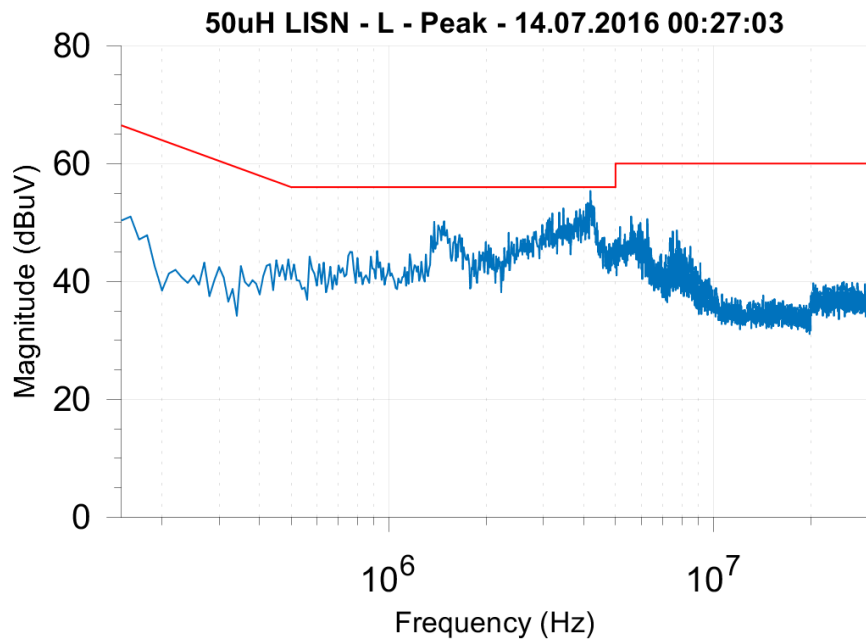
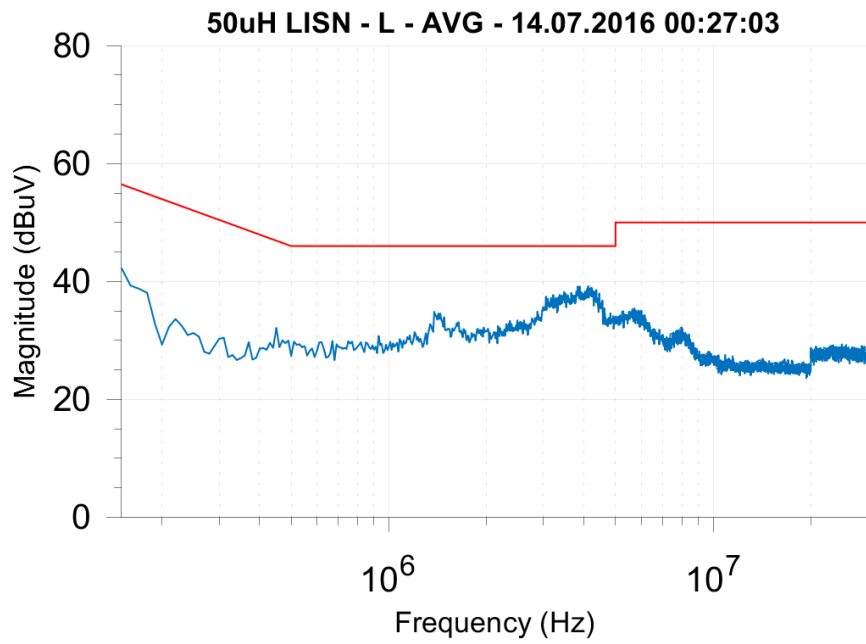
7.2 Output load 0.210A





7.3 Output load 0.420A





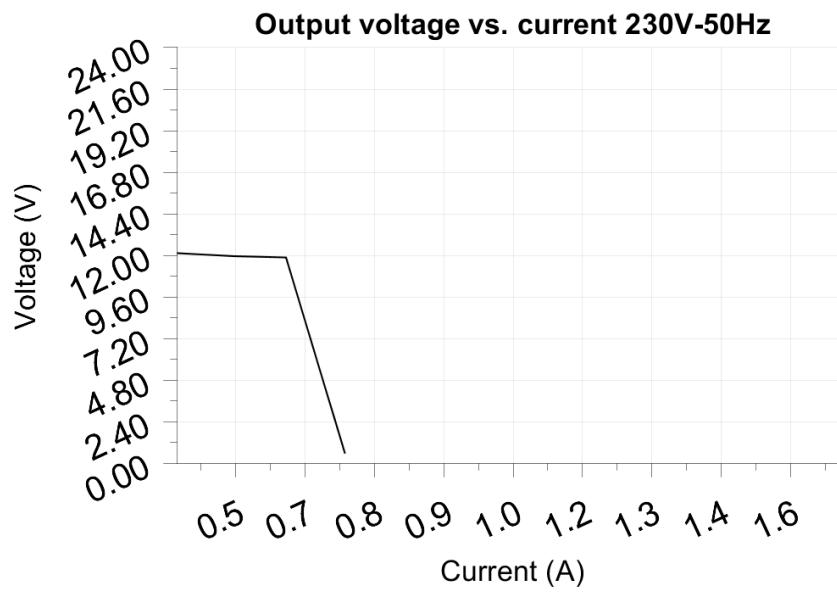
8 Overload testing

Test voltage: 230.00V

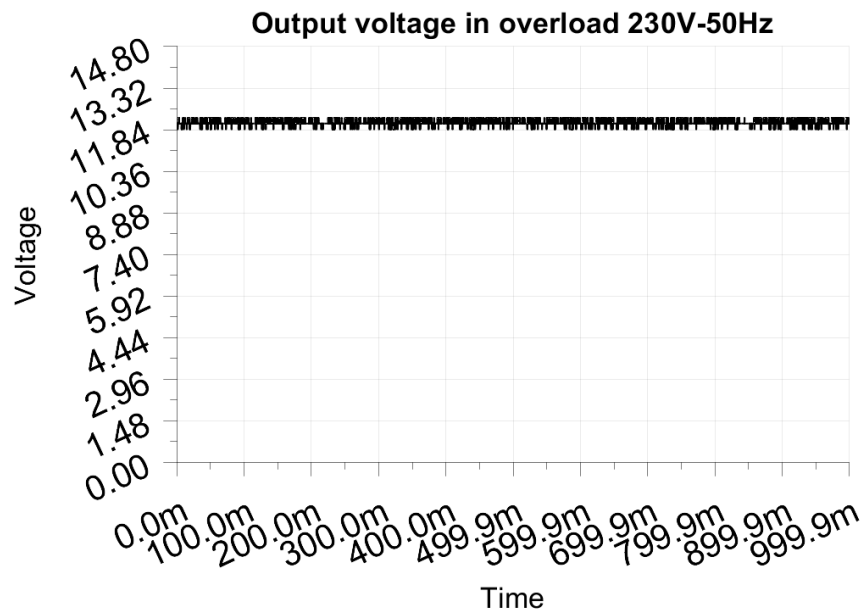
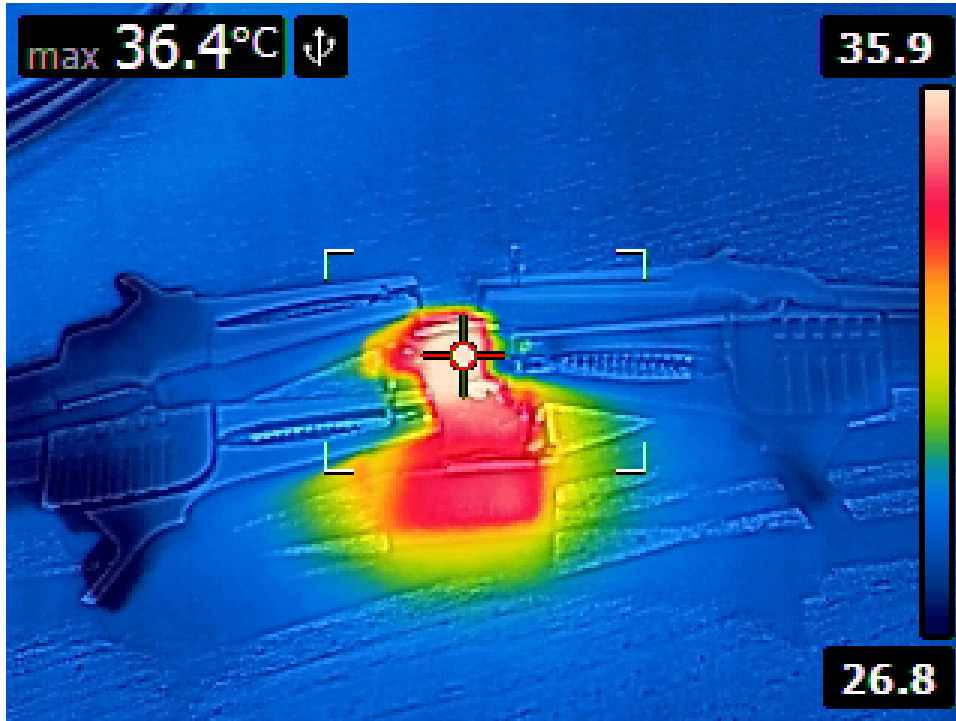
Test Frequency: 50Hz

Threshold: <6.000V

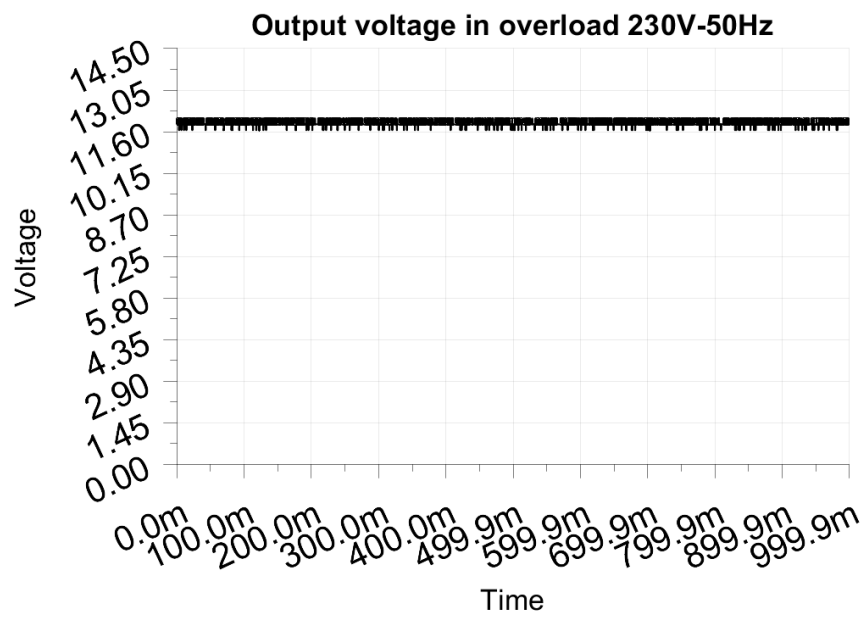
Maximum output current before shutdown: 0.735A



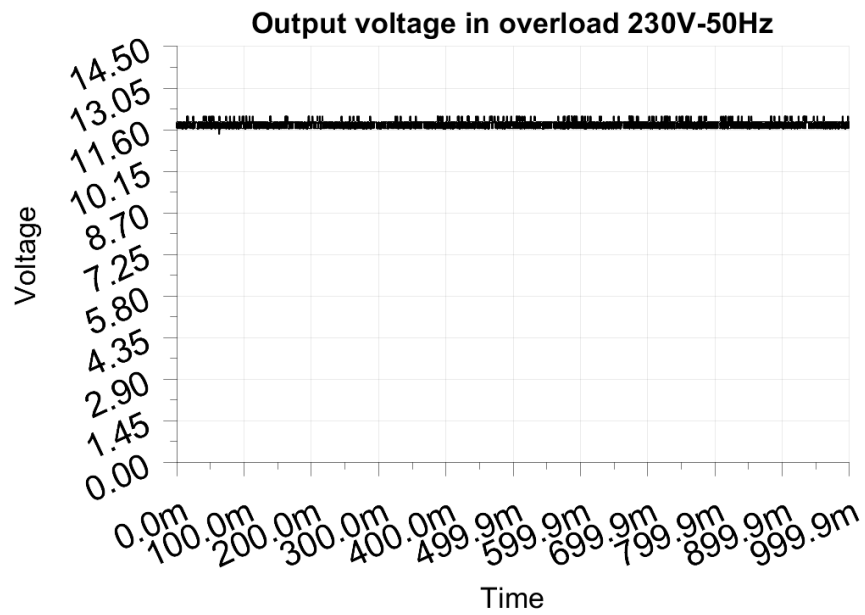
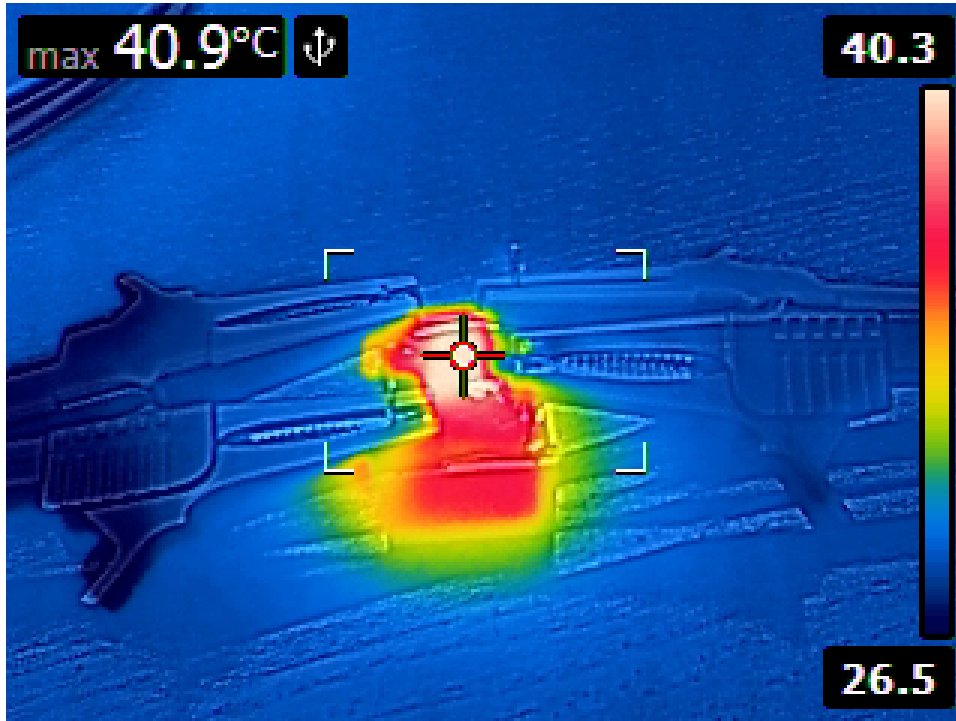
8.1 Output load 0.420A or 100%



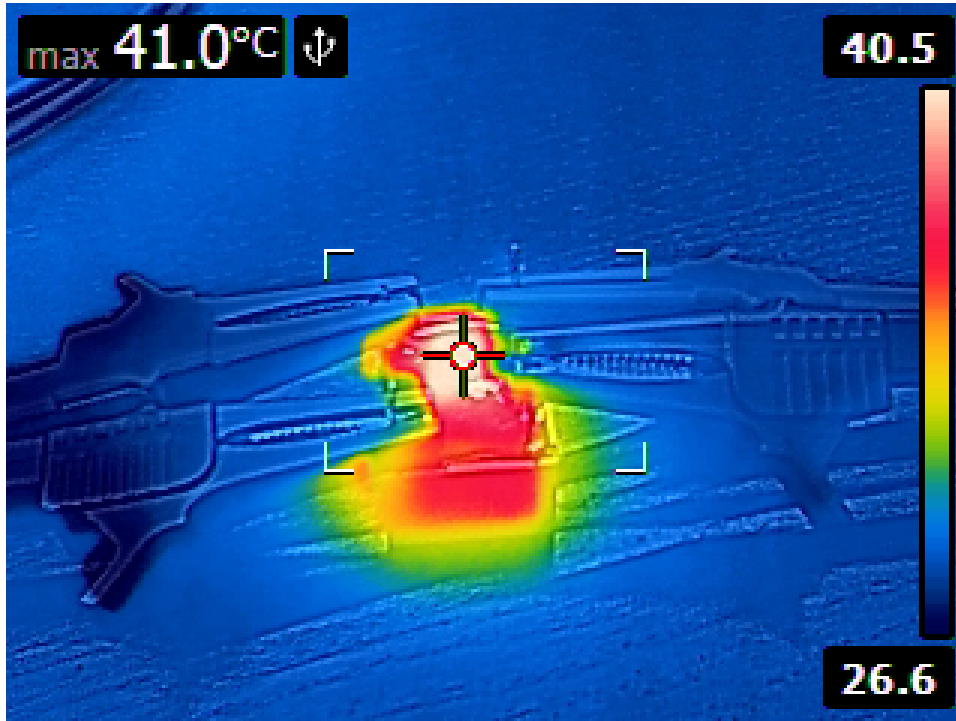
8.2 Output load 0.525A or 125%



8.3 Output load 0.630A or 150%



8.4 Output load 0.735A or 175%



Output voltage in overload 230V-50Hz

