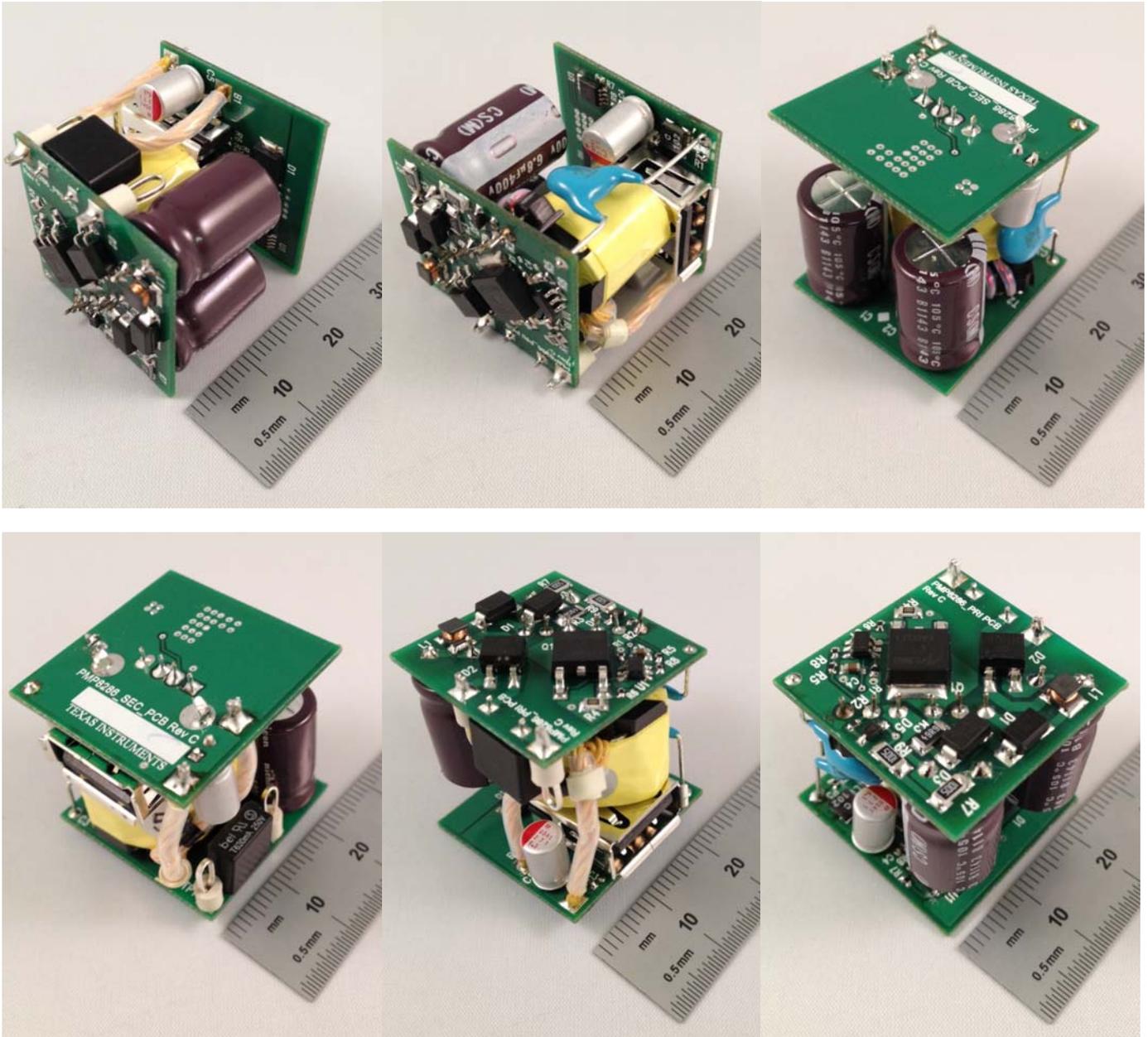


1 Photos

The photographs below show the PMP8286 Rev C prototype assembly.



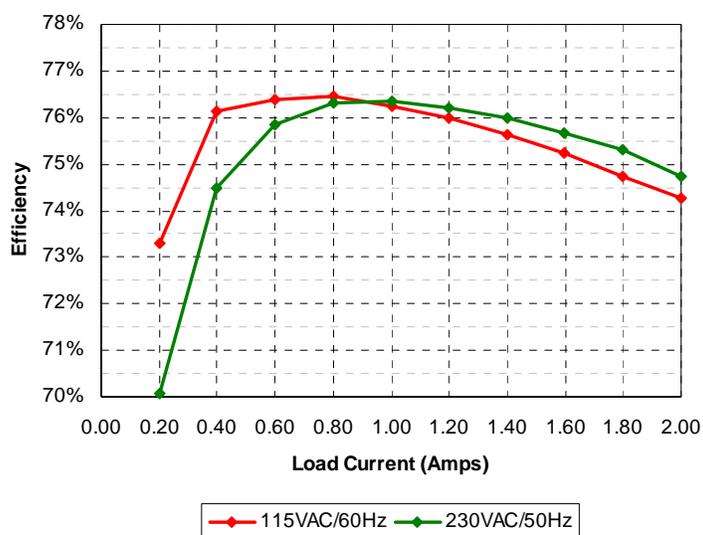
2 Standby Power

The table below shows the power drawn with no load attached to the output of the supply.

Vin (rms)	F (Hz)	Pin
85	60	0.020
115	60	0.021
132	60	0.021
150	60	0.021
180	50	0.023
230	50	0.026
265	50	0.029

3 Efficiency

The efficiency data is shown in the tables and graph below.



115VAC/60Hz

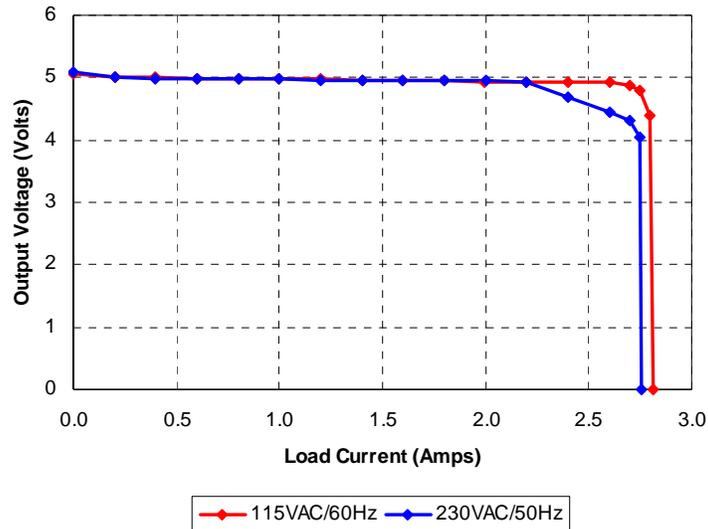
Iout	Vout	Vin	Iin	Pin	PF	Pout	Losses	Efficiency
0.000	5.07	115.0	0.0011	0.021	0.16	0.00	0.02	0.0%
0.199	5.01	115.0	0.031	1.36	0.38	1.00	0.36	73.3%
0.399	5.00	115.0	0.053	2.62	0.43	2.00	0.63	76.1%
0.600	4.99	115.0	0.073	3.92	0.47	2.99	0.93	76.4%
0.800	4.98	115.0	0.091	5.21	0.50	3.98	1.23	76.5%
1.000	4.97	115.0	0.110	6.52	0.52	4.97	1.55	76.2%
1.200	4.97	115.0	0.128	7.85	0.53	5.96	1.89	76.0%
1.400	4.96	115.0	0.145	9.18	0.55	6.94	2.24	75.6%
1.599	4.95	115.0	0.163	10.52	0.56	7.92	2.60	75.2%
1.798	4.95	115.0	0.181	11.91	0.57	8.90	3.01	74.7%
1.998	4.94	115.0	0.199	13.29	0.58	9.87	3.42	74.3%

230VAC/50Hz

I _{out}	V _{out}	V _{in}	I _{in}	P _{in}	PF	P _{out}	Losses	Efficiency
0.000	5.08	230.0	0.0010	0.026	0.13	0.00	0.03	0.0%
0.200	5.01	230.0	0.021	1.43	0.29	1.00	0.43	70.1%
0.400	4.99	230.0	0.036	2.68	0.33	2.00	0.68	74.5%
0.600	4.98	230.0	0.048	3.94	0.36	2.99	0.95	75.8%
0.800	4.97	230.0	0.060	5.21	0.38	3.98	1.23	76.3%
1.000	4.97	230.0	0.072	6.51	0.39	4.97	1.54	76.3%
1.200	4.96	230.0	0.083	7.81	0.41	5.95	1.86	76.2%
1.399	4.96	230.0	0.094	9.13	0.42	6.94	2.19	76.0%
1.599	4.95	230.0	1.040	10.46	0.44	7.92	2.54	75.7%
1.798	4.95	230.0	0.115	11.82	0.45	8.90	2.92	75.3%
1.999	4.95	230.0	0.126	13.24	0.46	9.90	3.34	74.7%

4 Current Limit

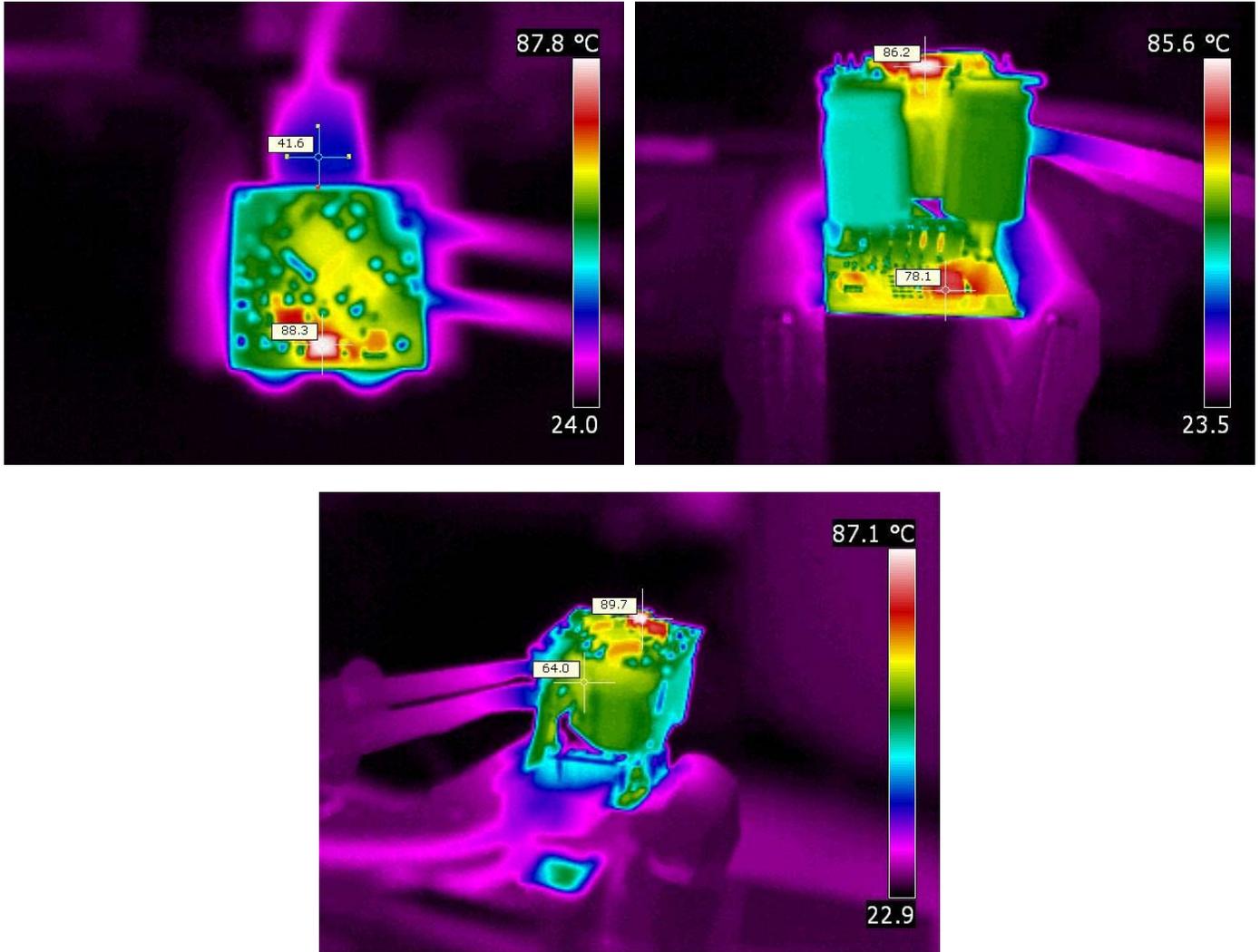
The plot below shows the output voltage versus output current as the load is increased into current limit.



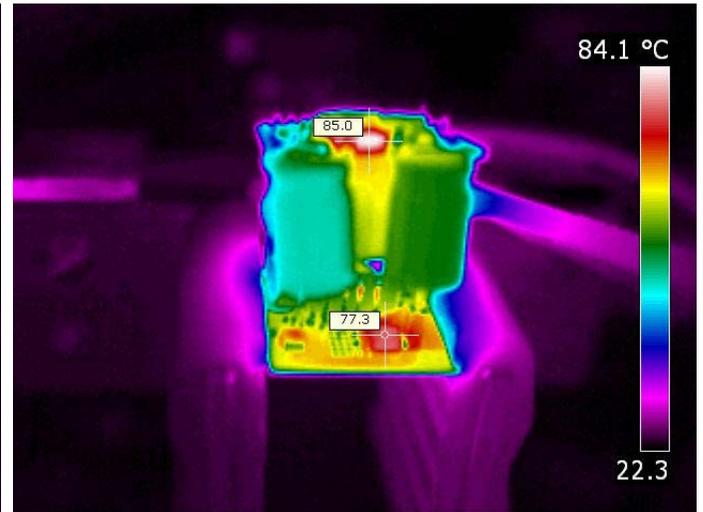
5 Thermal Images

The thermal images below show the top and bottom of the primary and secondary boards with a 2A load. The ambient temperature was 25°C.

5.1 115VAC/60Hz Input

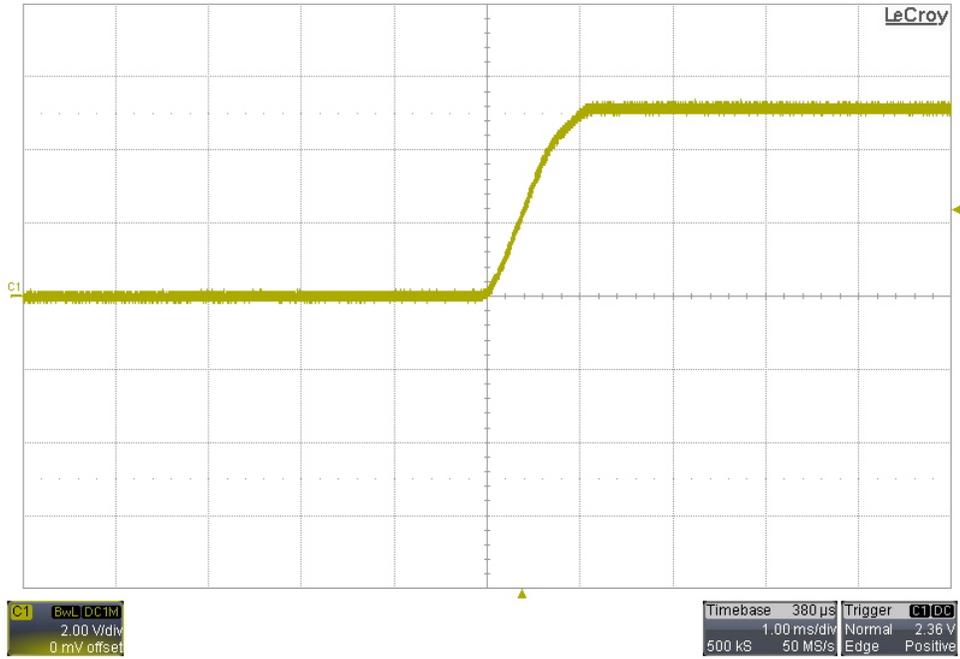


5.2 230VAC/50Hz Input

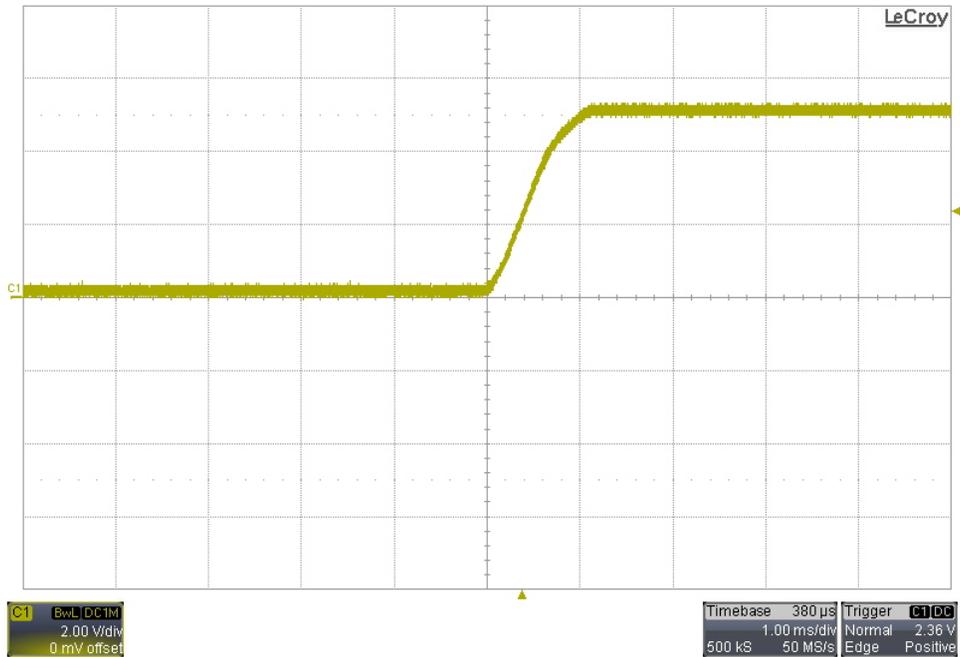


6 Startup

6.1 115VAC/60Hz Input



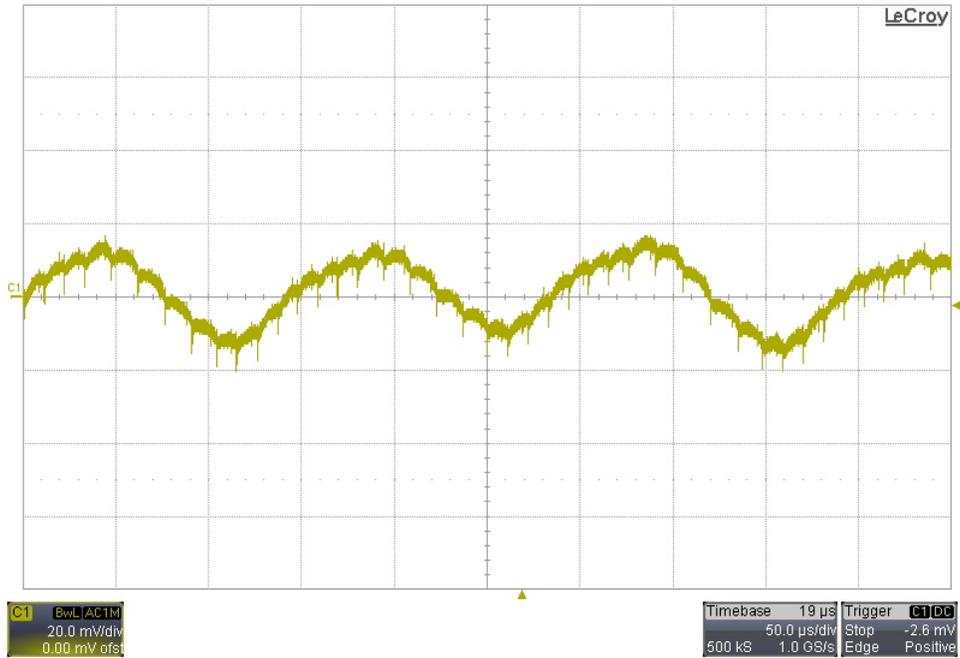
6.2 230VAC/50Hz Input



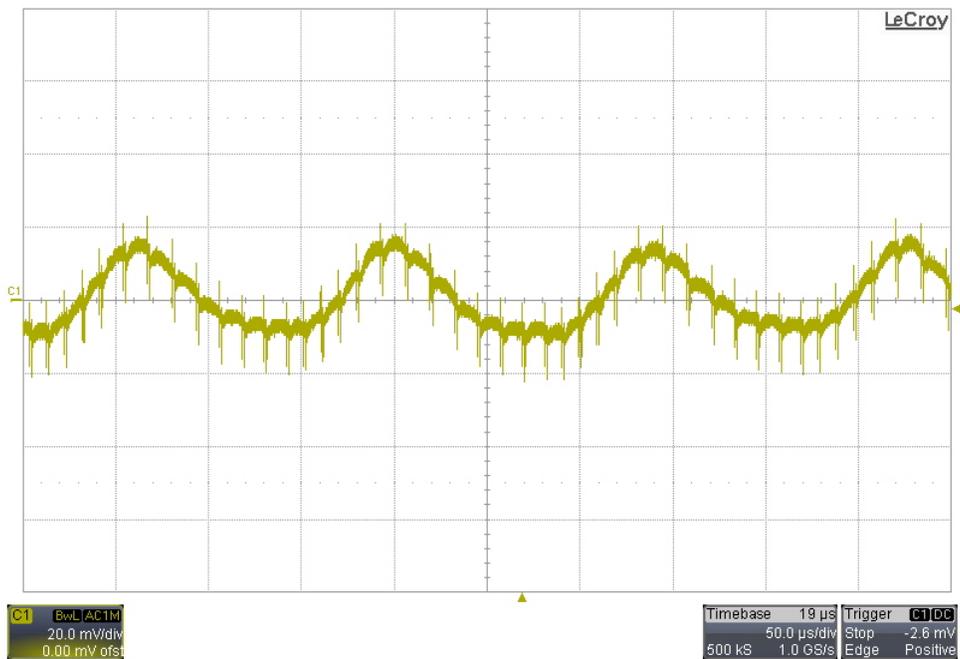
7 Output Ripple Voltage

The output ripple voltage was measured across C1.

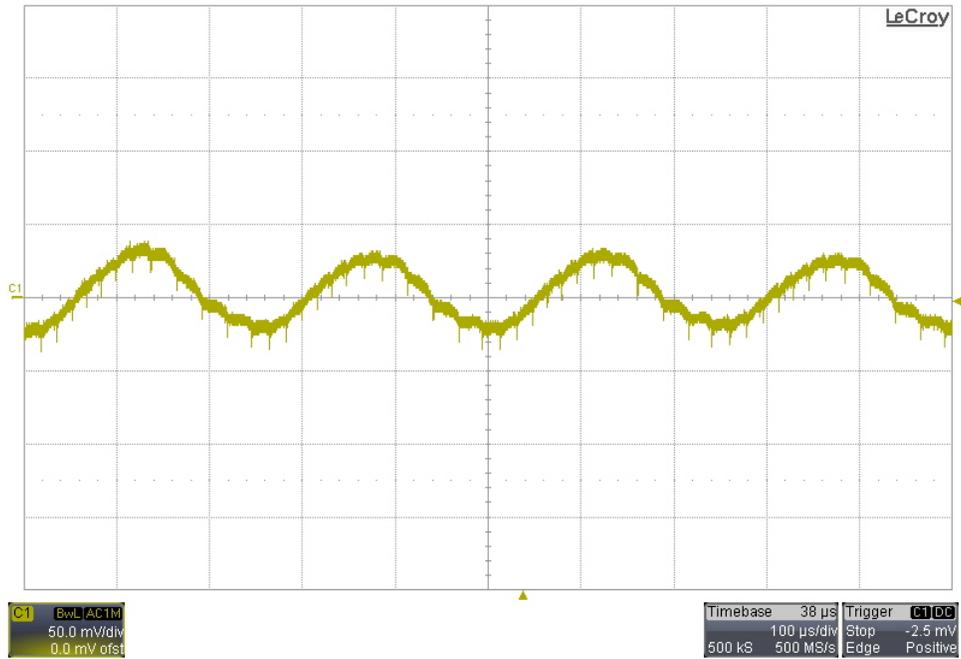
7.1 2A Load – 115VAC/60Hz Input



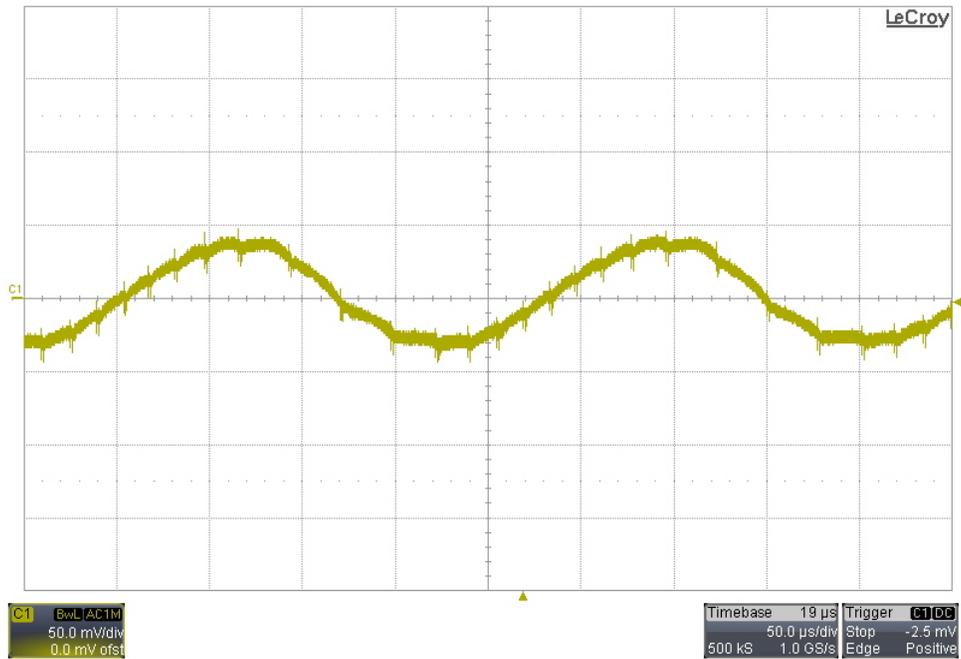
7.2 2A Load – 230VAC/50Hz Input



7.3 1A Load– 115VAC/60Hz Input



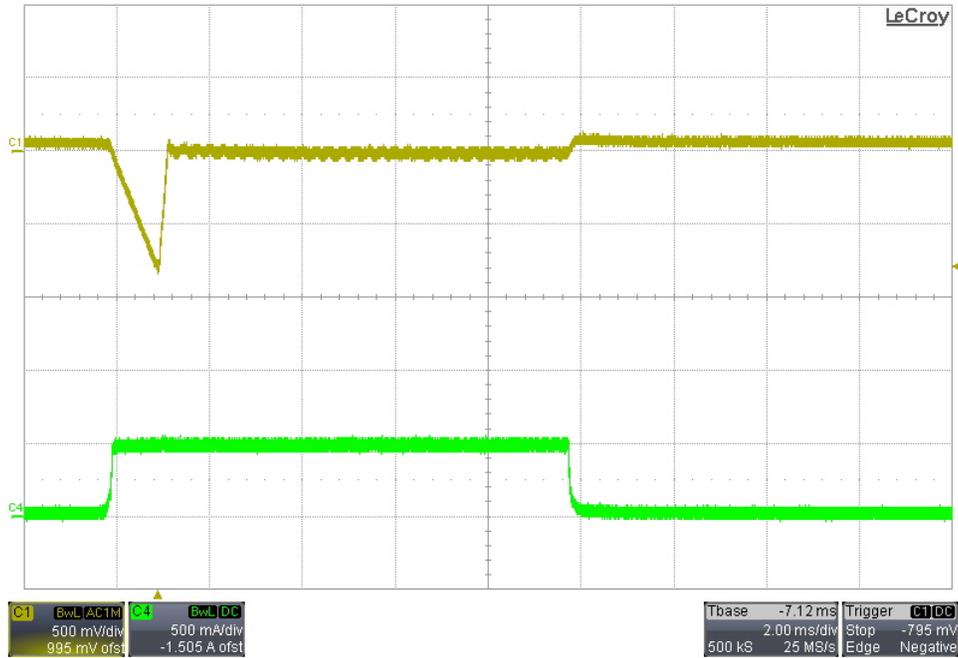
7.4 1A Load– 230VAC/50Hz Input



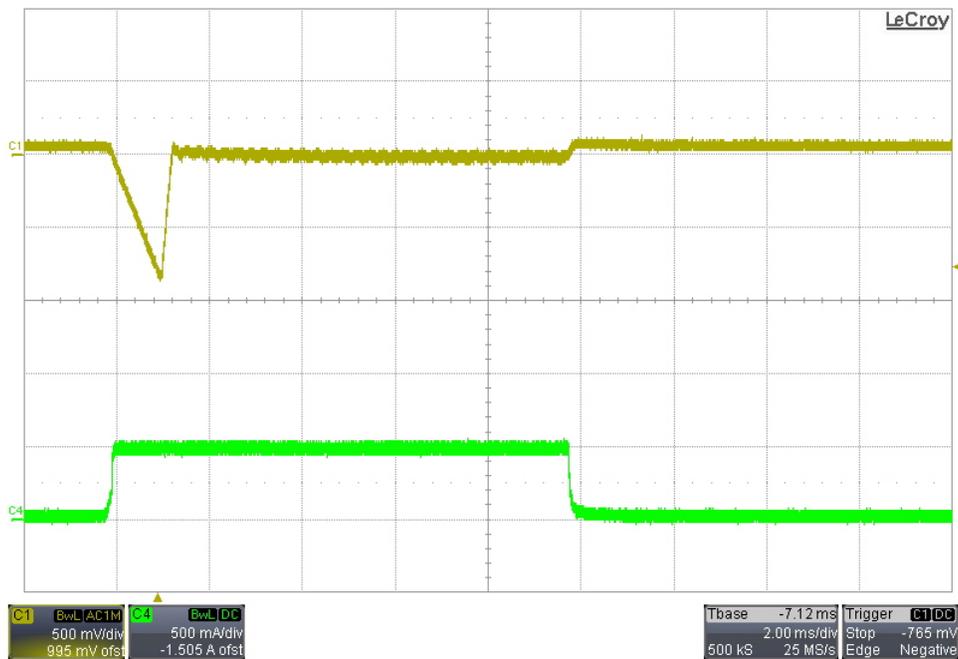
8 Load Transients

The output voltage was measured across C1.

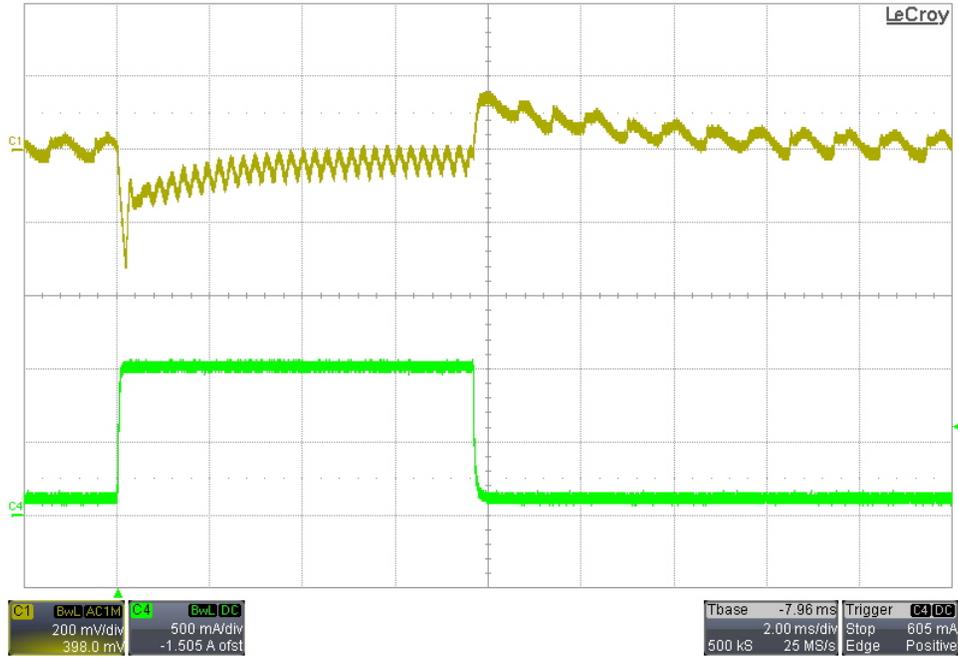
8.1 0A to 500mA Transient – 115VAC/60Hz Input



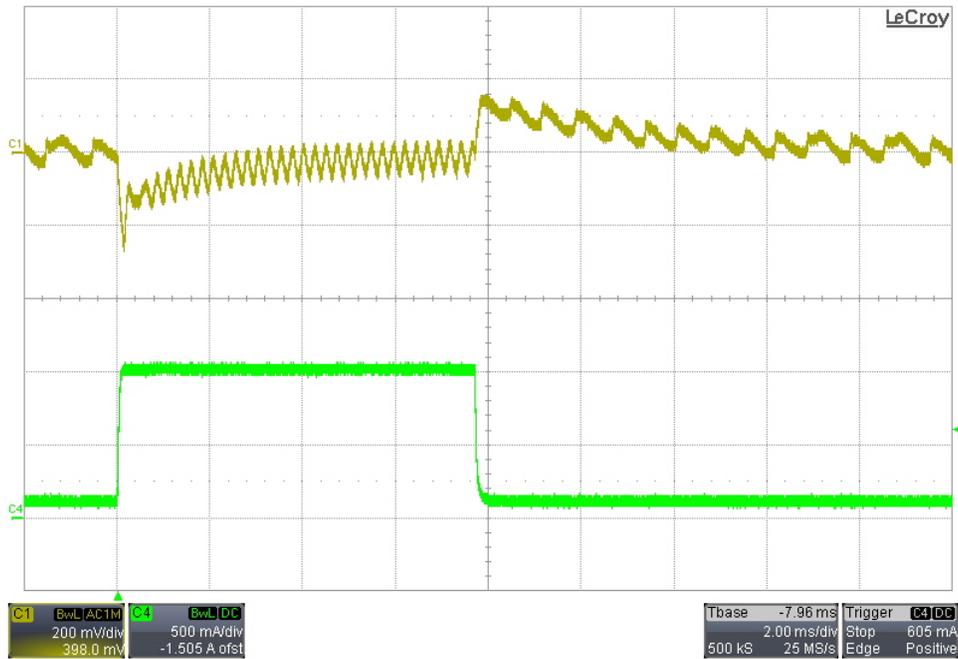
8.2 0A to 500mA Transient – 230VAC/50Hz Input



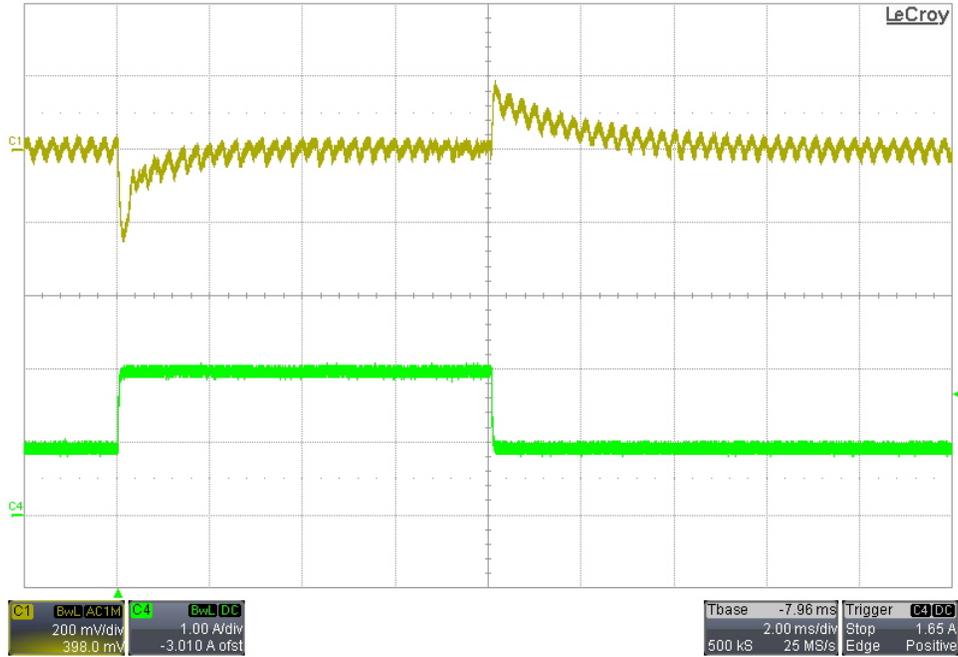
8.3 100mA to 1A Transient – 115VAC/60Hz Input



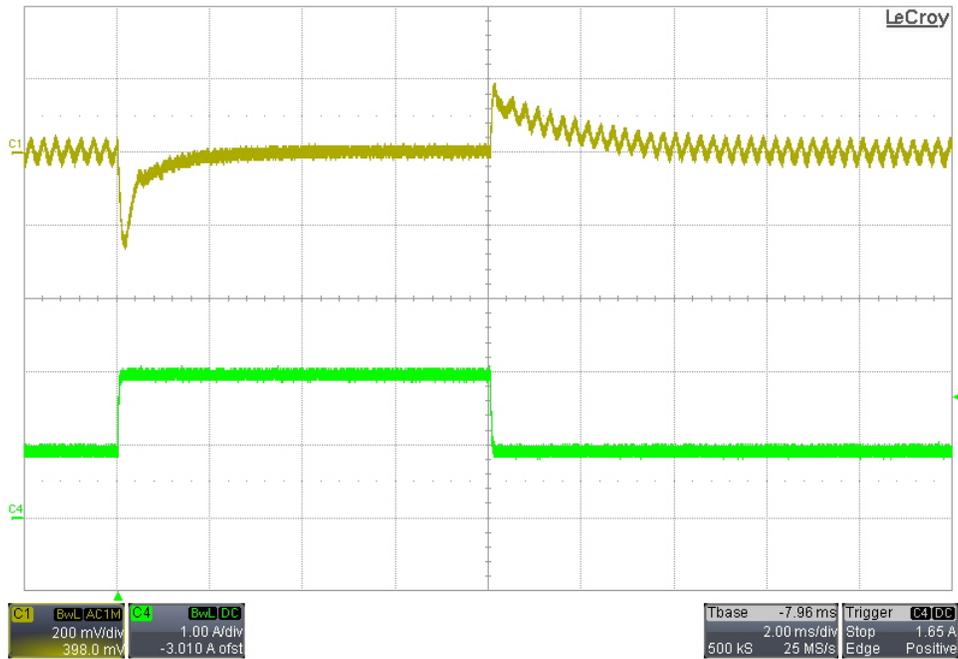
8.4 100mA to 1A Transient – 230VAC/50Hz Input



8.5 1A to 2A Transient – 115VAC/60Hz Input



8.6 1A to 2A Transient – 230VAC/50Hz Input

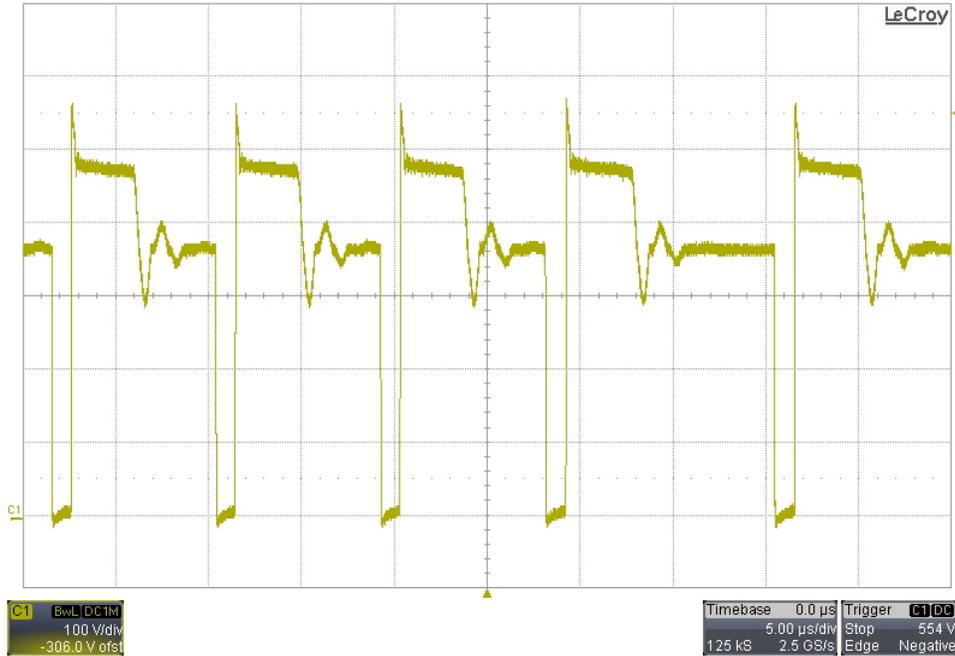


9 Switching Waveforms

The images below show the voltage waveforms on the switching devices within the supply. The input was 265VAC/50Hz. The output was loaded 2A.

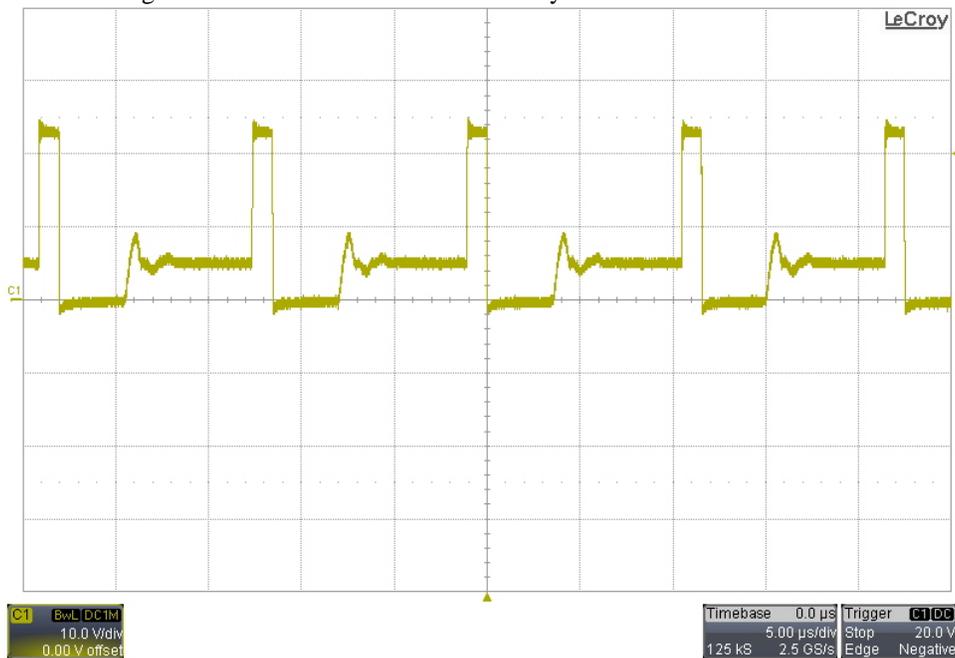
9.1 Primary Waveforms

The image below shows the drain-to-source voltage on Q1 on the primary board.



9.2 Secondary Waveforms

The image below shows the voltage on the anode of D1 on the secondary board.



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