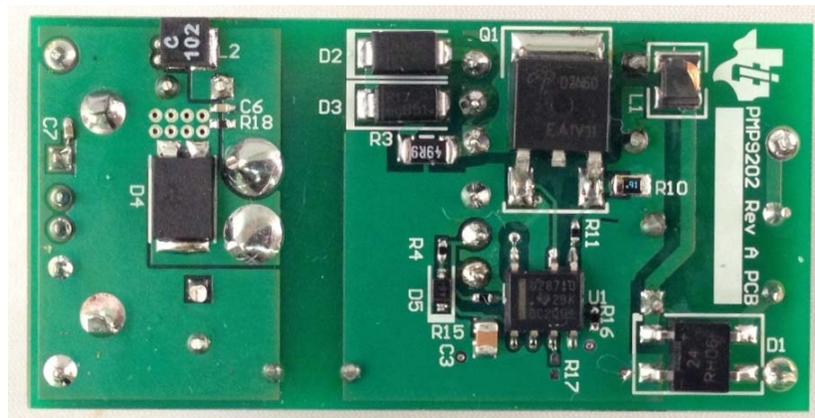
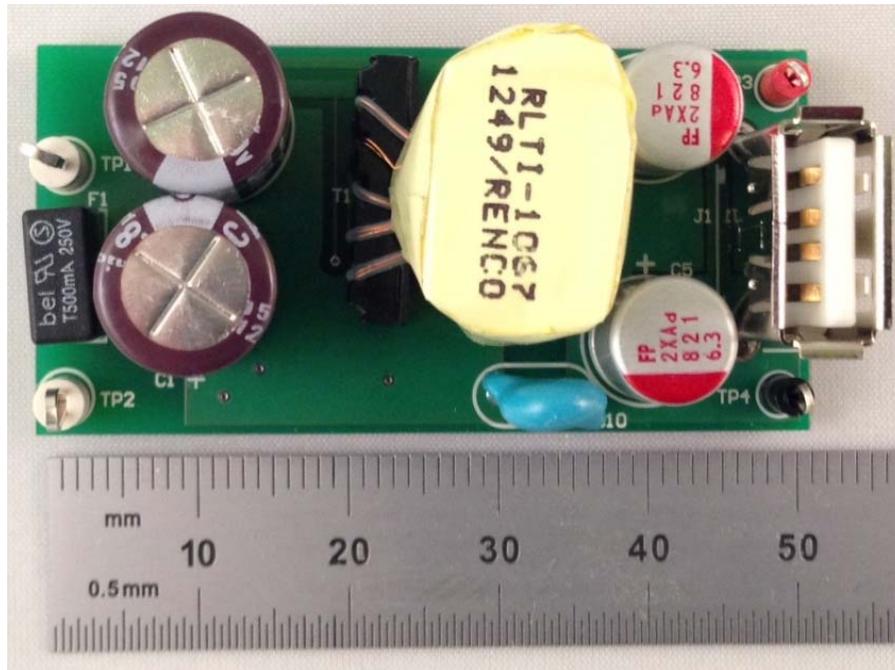


1 Photos

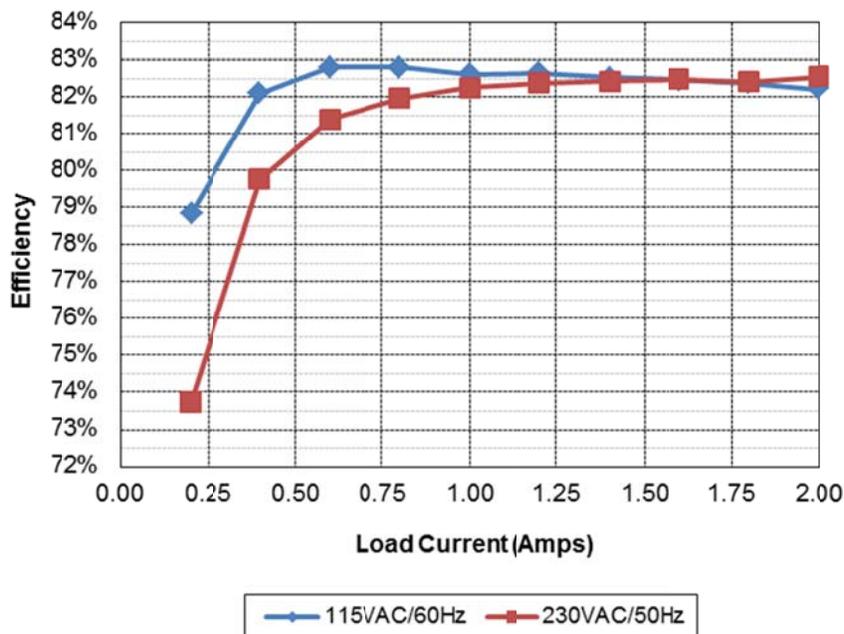
The photograph below shows the PMP9202 Rev A prototype assembly.



2 Standby Power

With no load attached to the output of the supply, the unit draws 14mW of input power with an 115VAC/60Hz input, and 16mW with a 230VAC/50Hz input.

3 Efficiency

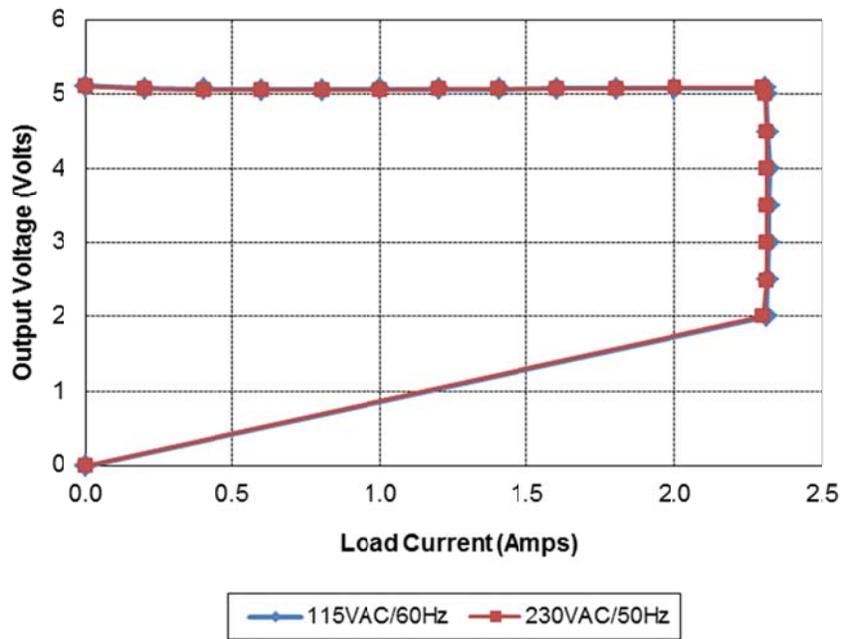


115VAC/60Hz								
lout	Vout	Vin	lin	Pin	PF	Pout	Losses	Efficiency
0.000	5.130	115.0	0.0008	0.014		0.00	0.01	0.0%
0.200	5.084	115.0	0.030	1.29	0.38	1.02	0.27	78.8%
0.400	5.070	115.0	0.050	2.47	0.43	2.03	0.44	82.1%
0.600	5.065	115.0	0.069	3.67	0.46	3.04	0.63	82.8%
0.801	5.066	115.0	0.087	4.90	0.49	4.06	0.84	82.8%
1.001	5.068	115.0	0.104	6.14	0.51	5.07	1.07	82.6%
1.200	5.069	115.0	0.121	7.36	0.53	6.08	1.28	82.6%
1.401	5.072	115.0	0.138	8.61	0.54	7.11	1.50	82.5%
1.601	5.079	115.0	0.154	9.86	0.56	8.13	1.73	82.5%
1.800	5.084	115.0	0.171	11.11	0.57	9.15	1.96	82.4%
2.000	5.084	115.0	0.187	12.37	0.58	10.17	2.20	82.2%

230VAC/50Hz								
lout	Vout	Vin	lin	Pin	PF	Pout	Losses	Efficiency
0.000	5.130	230.0	0.0006	0.016		0.00	0.02	0.0%
0.199	5.076	230.0	0.020	1.37	0.29	1.01	0.36	73.7%
0.400	5.065	230.0	0.034	2.54	0.33	2.03	0.51	79.8%
0.600	5.060	230.0	0.046	3.73	0.35	3.04	0.69	81.4%
0.800	5.061	230.0	0.057	4.94	0.38	4.05	0.89	82.0%
1.000	5.067	230.0	0.068	6.16	0.39	5.07	1.09	82.3%
1.200	5.073	230.0	0.079	7.39	0.41	6.09	1.30	82.4%
1.400	5.075	230.0	0.089	8.62	0.42	7.11	1.52	82.4%
1.600	5.078	230.0	0.099	9.85	0.43	8.12	1.73	82.5%
1.800	5.082	230.0	0.108	11.10	0.45	9.15	1.95	82.4%
2.000	5.089	230.0	0.118	12.33	0.46	10.18	2.15	82.5%

4 Current Limit

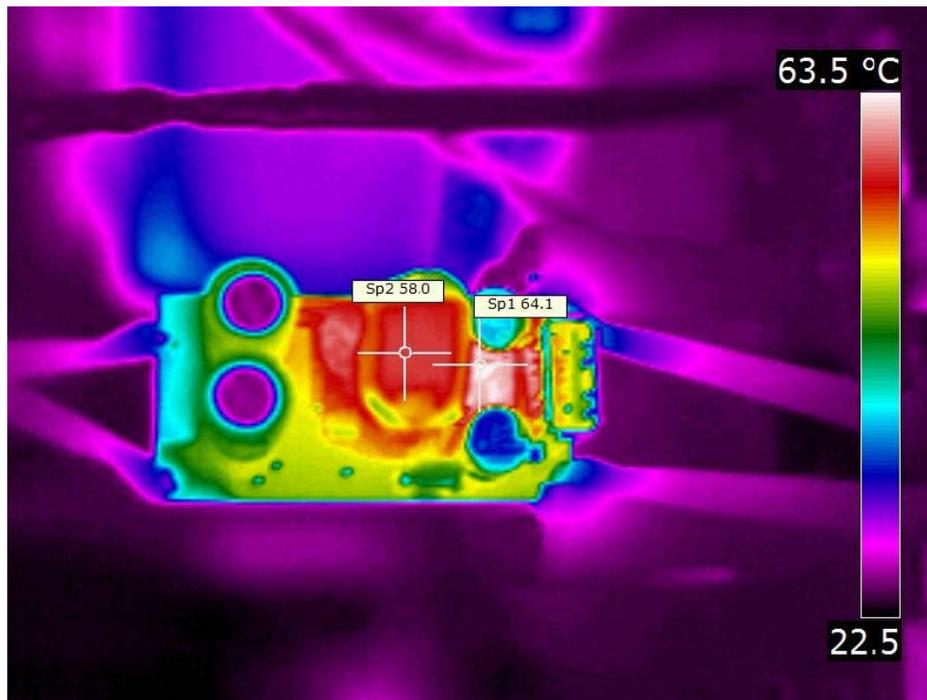
A plot of the output voltage versus load current is shown below.

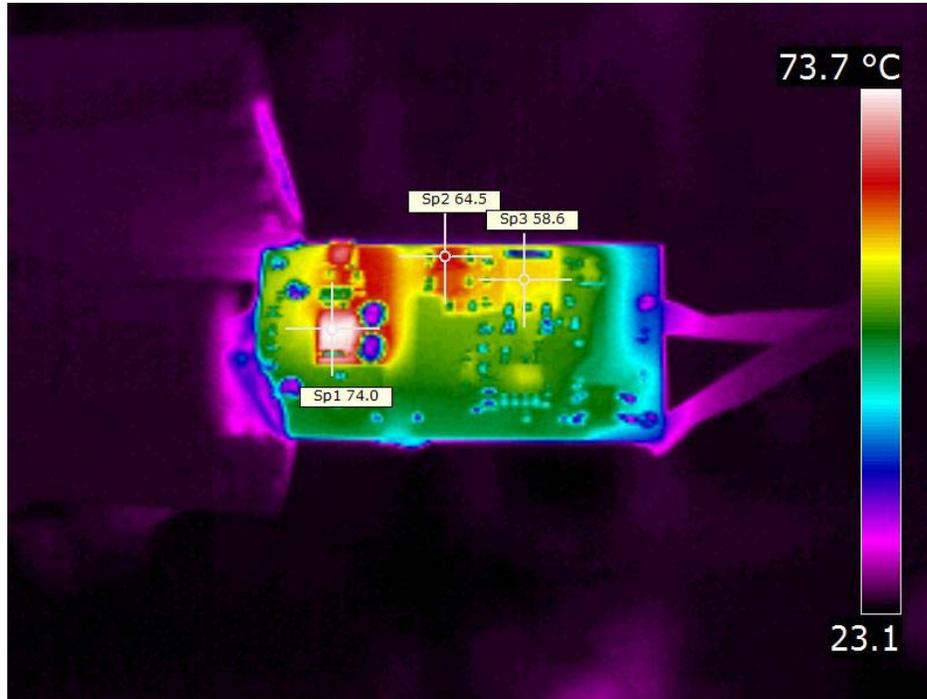


5 Thermal Images

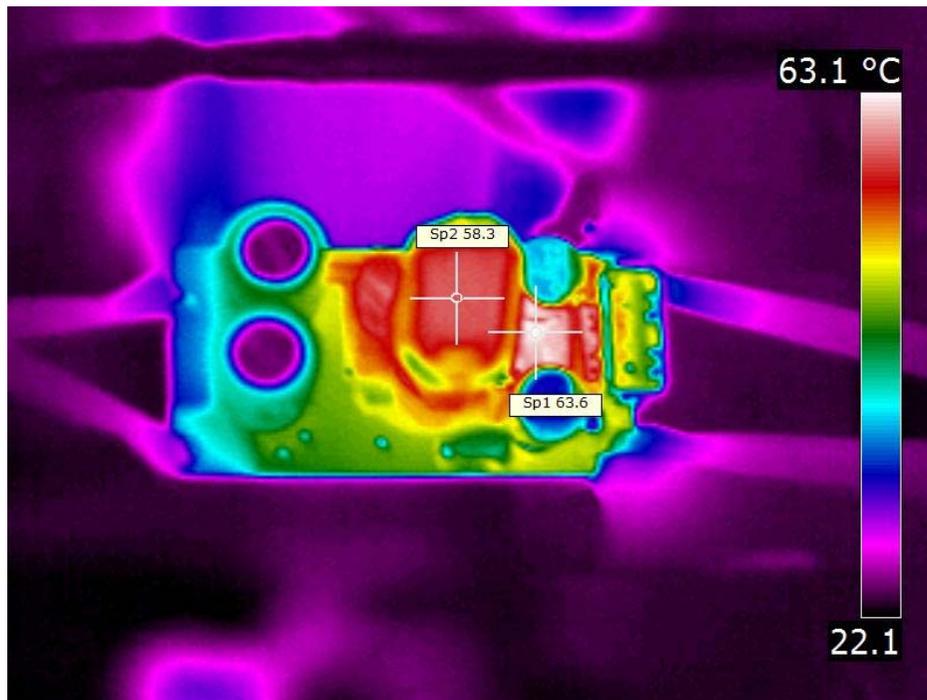
The ambient temperature was 25°C. The output was loaded with 2A.

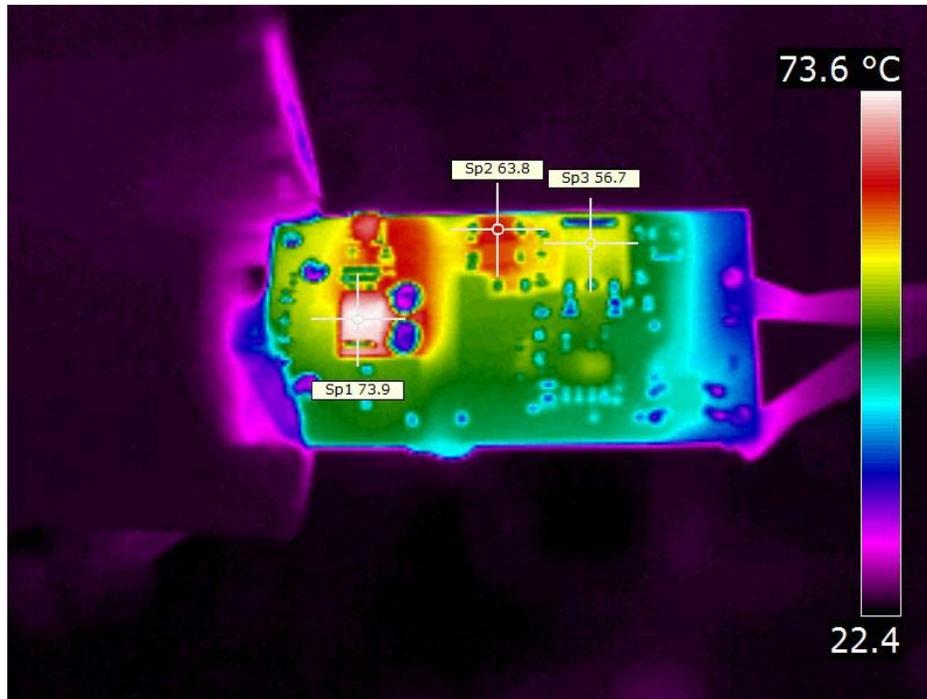
5.1 115VAC/60Hz Input





5.2 230VAC/50Hz Input

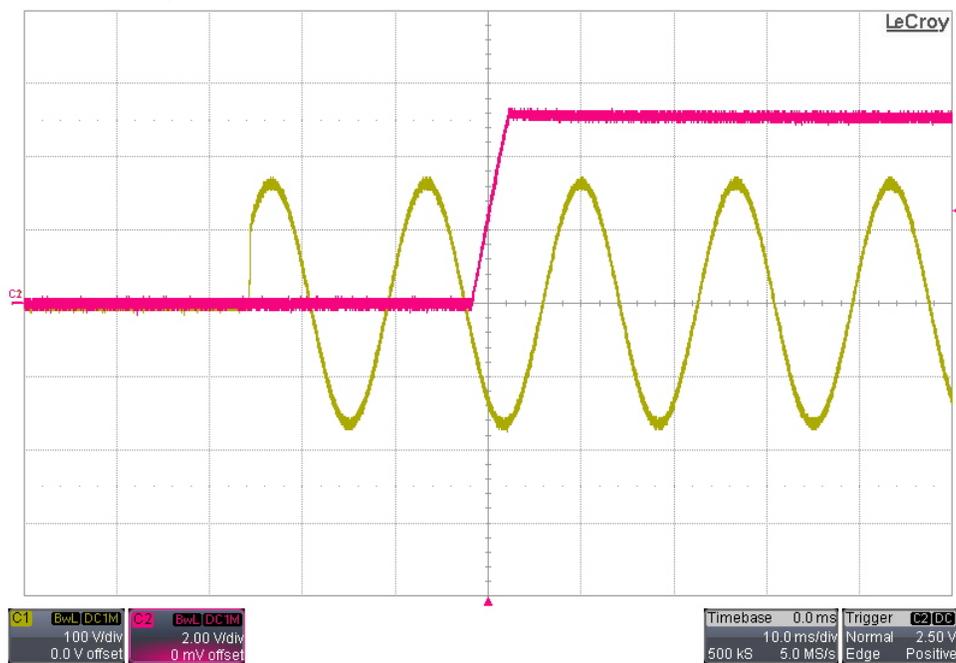




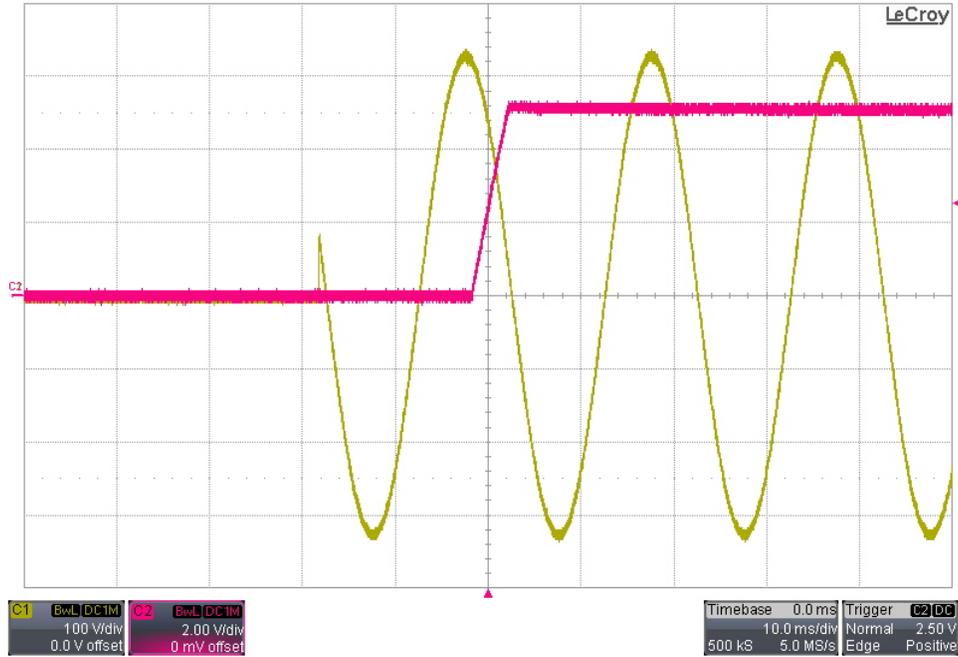
6 Startup

Channel 1 shows the AC input voltage. Channel 2 shows the output voltage.

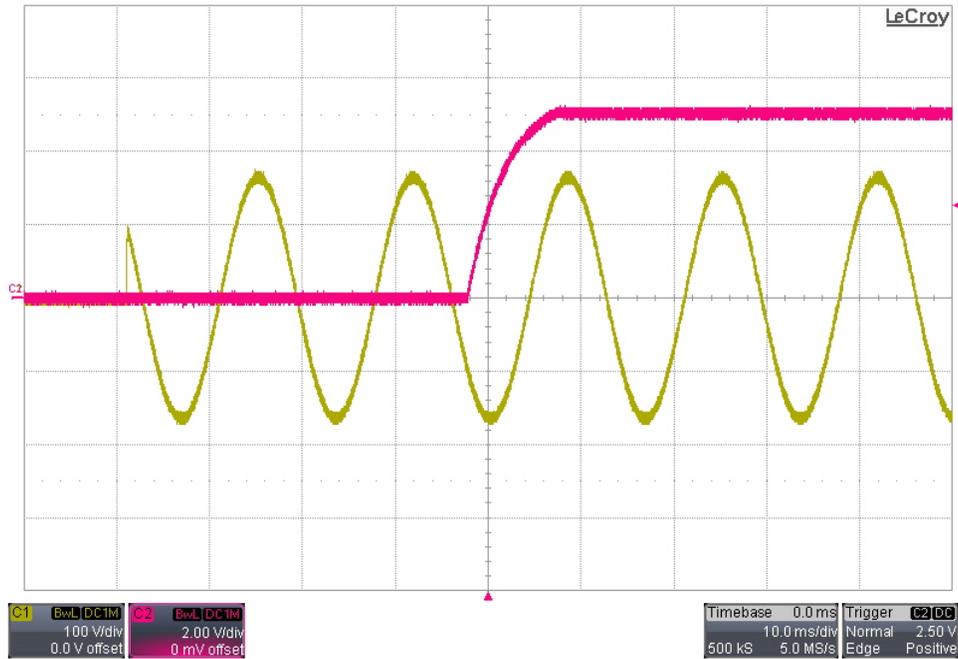
6.1 115VAC/60Hz Startup – 0A Load



6.2 230VAC/50Hz Startup – 0A Load



6.3 115VAC/60Hz Startup – 2.5Ω Load



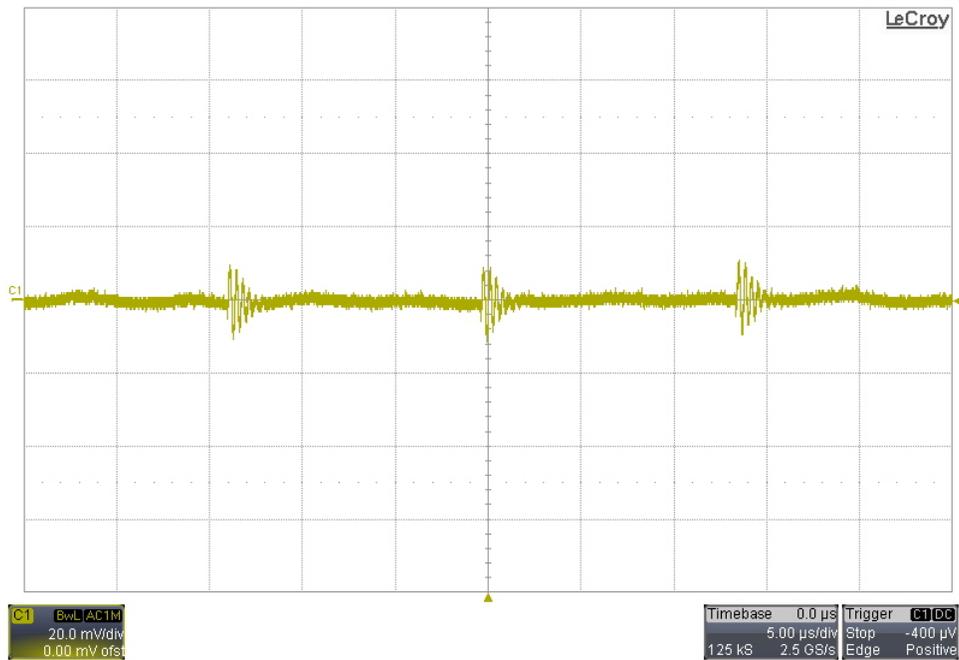
6.4 230VAC/50Hz Startup – 2.5Ω Load



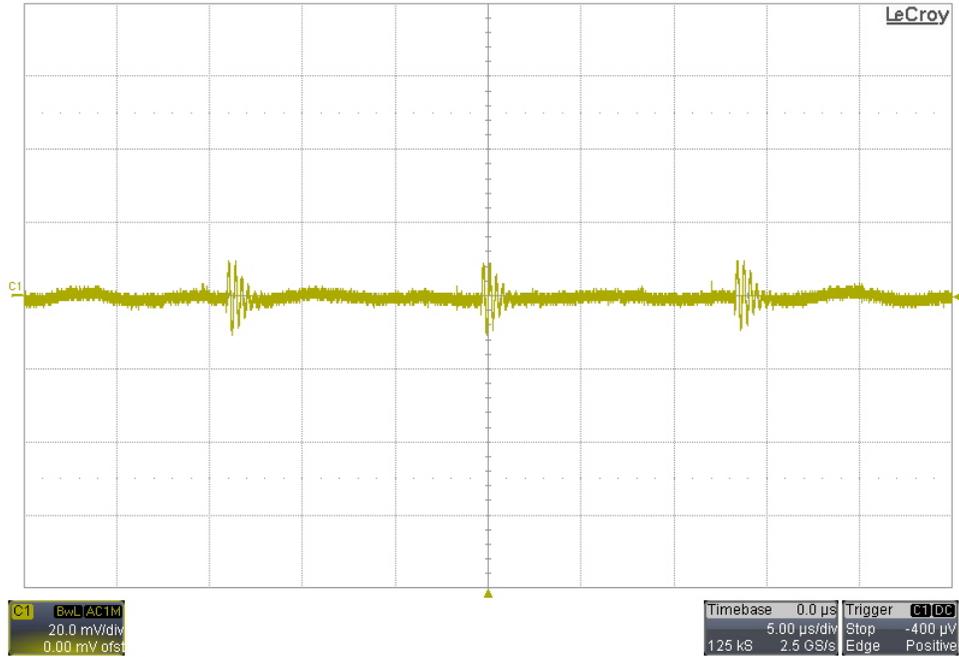
7 Output Ripple Voltage

The output was loaded with 2A.

7.1 115VAC/60Hz Output Ripple Voltage

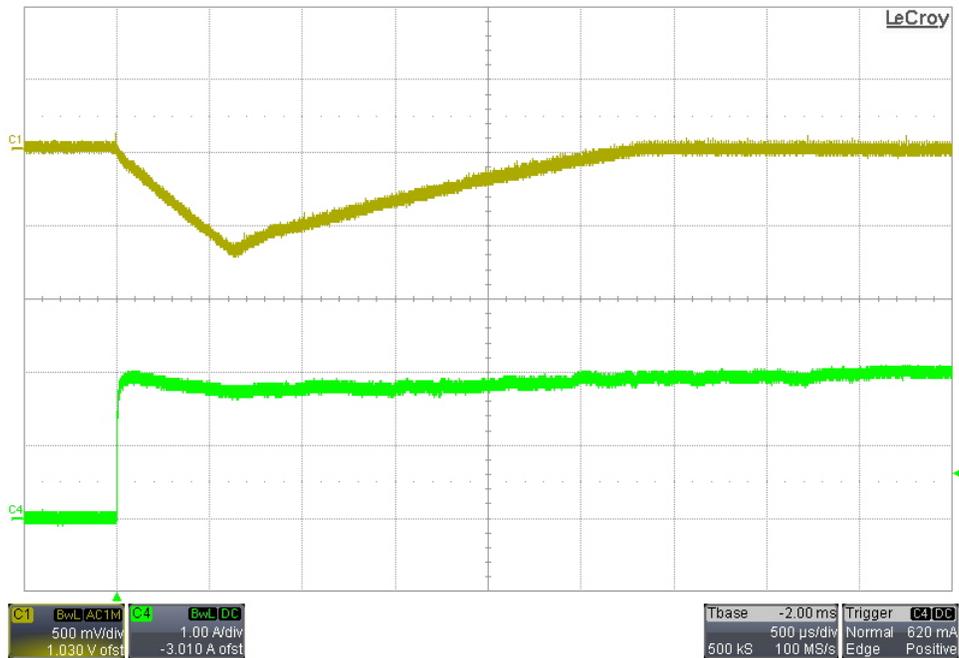


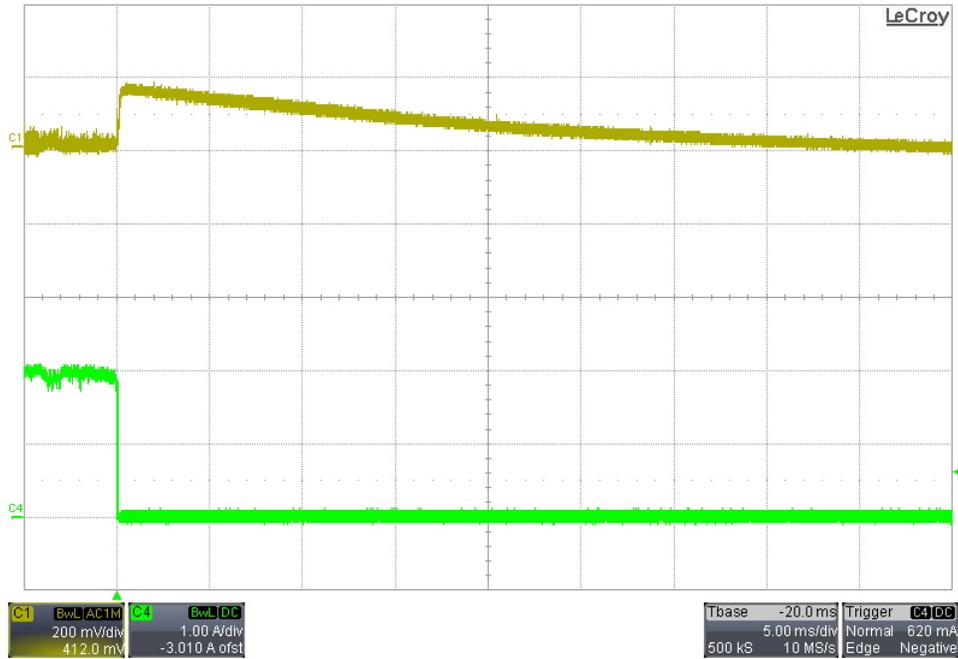
7.2 230VAC/50Hz Output Ripple Voltage



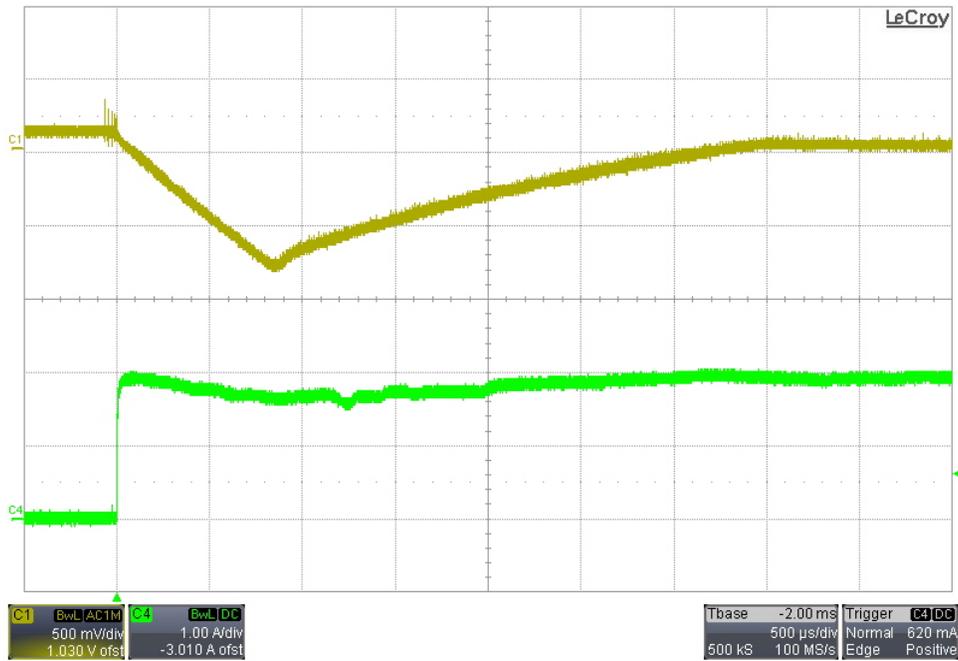
8 Load Transients

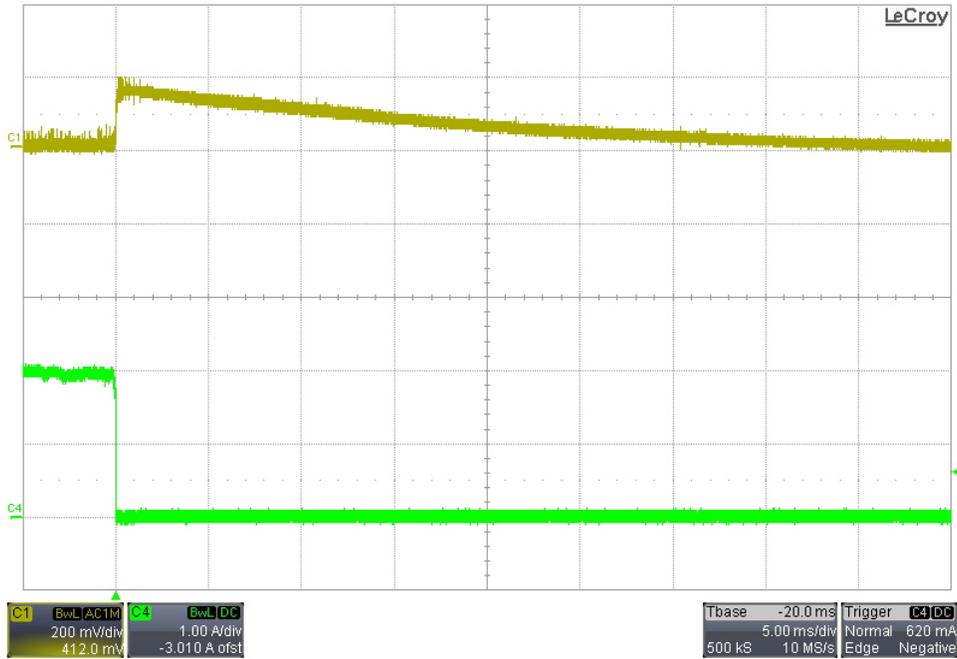
8.1 0A to 2A Transient – 115VAC/60Hz Input



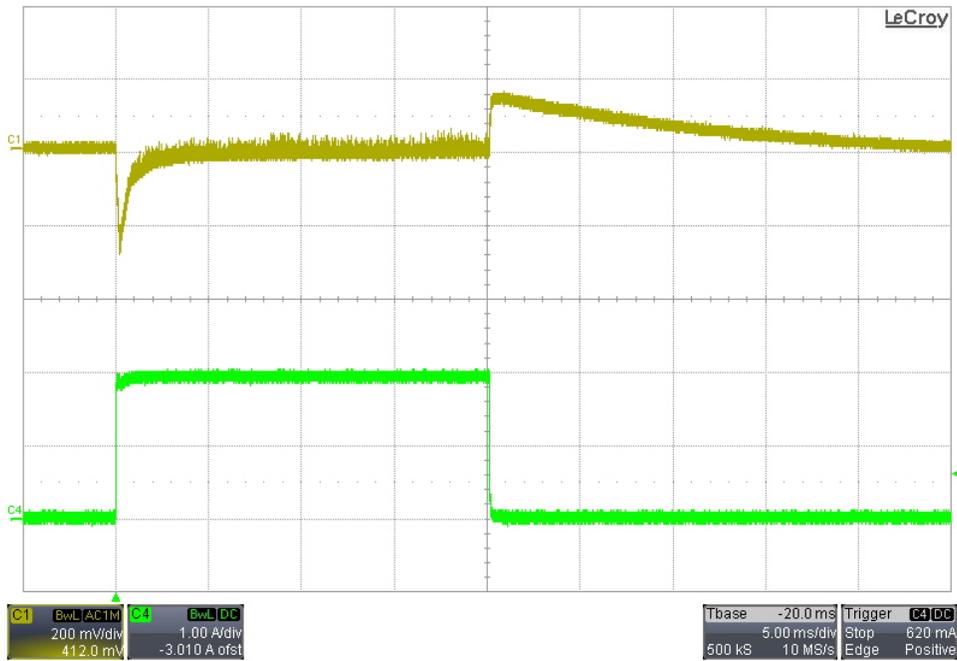


8.2 0A to 2A Transient – 230VAC/50Hz Input

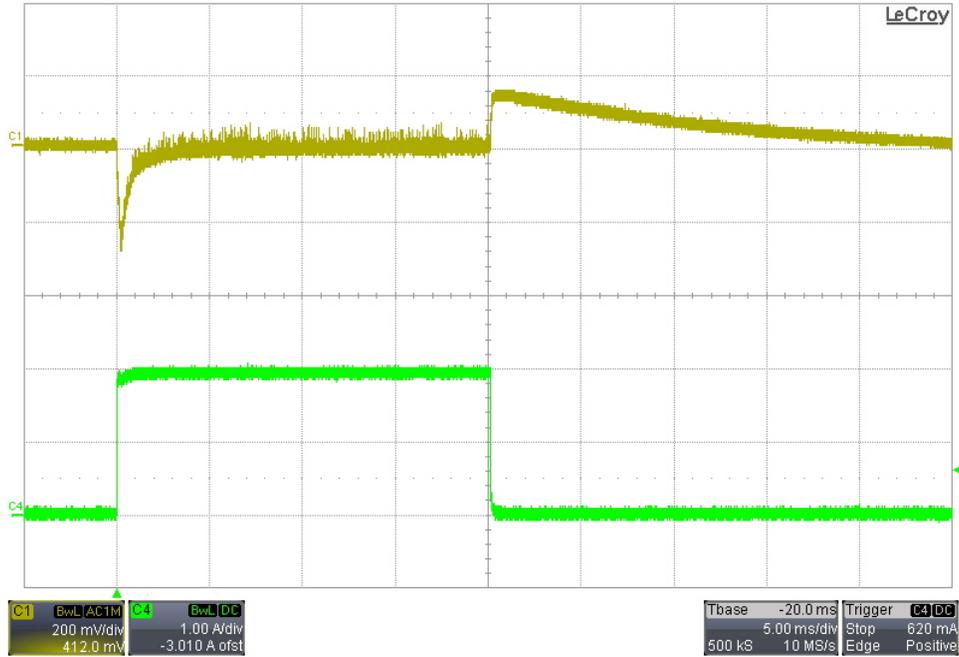




8.3 10mA to 2A Transient – 115VAC/60Hz Input



8.4 10mA 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.

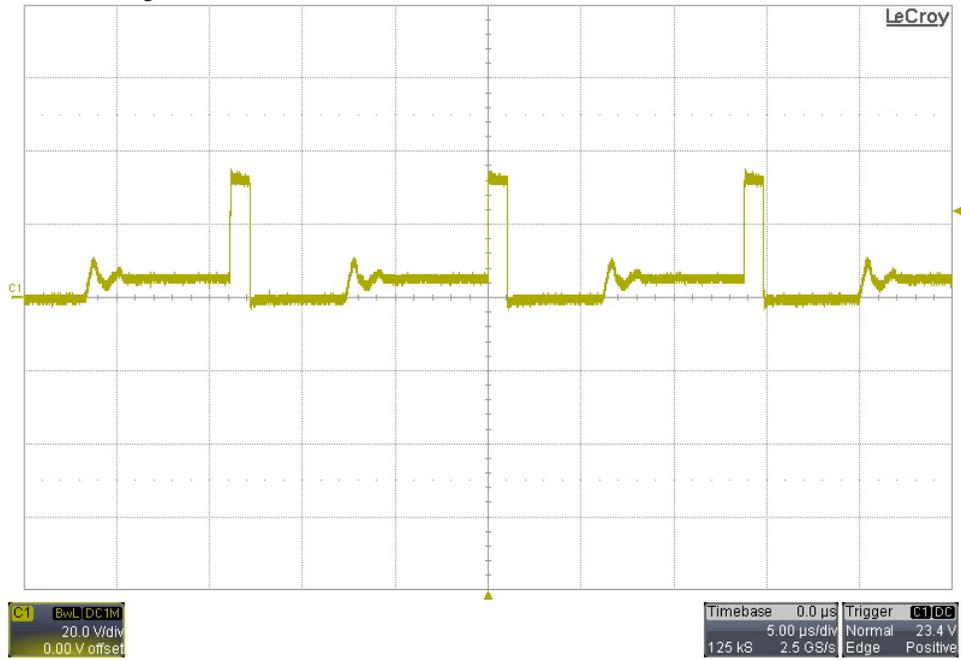
9.1 Primary Waveforms

The image below shows the drain voltage on Q1.



9.2 Secondary Waveforms

The image below shows the voltage on the cathode of D4.



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