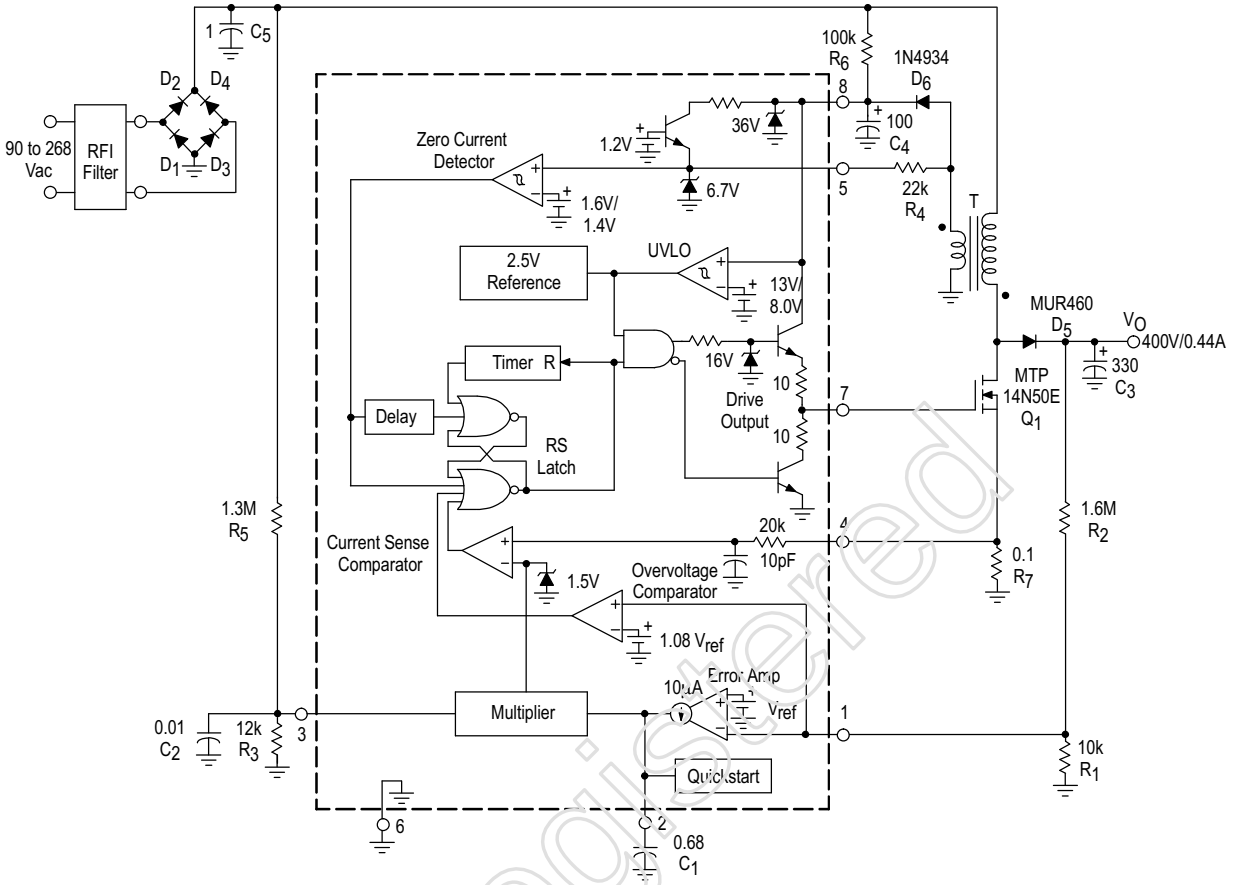
Figure 20. 175 W Universal Input Power Factor Controller



Power Factor Controller Test Data

AC Line Input									DC Output				
				Current Harmonic Distortion (% I_{fund})									
V_{rms}	P_{in}	PF	I_{fund}	THD	2	3	5	7	$V_{O(pp)}$	V_O	I_O	P_O	η(%)
90	193.3	0.991	2.15	2.8	0.18	2.6	0.55	1.0	3.3	402.1	0.44	176.9	91.5
120	190.1	0.998	1.59	1.6	0.10	1.4	0.23	0.72	3.3	402.1	0.44	176.9	93.1
138	188.2	0.999	1.36	1.2	0.12	1.3	0.65	0.80	3.3	402.1	0.44	176.9	94.0
180	184.9	0.998	1.03	2.0	0.10	0.49	1.2	0.82	3.4	402.1	0.44	176.9	95.7
240	182.0	0.993	0.76	4.4	0.09	1.6	2.3	0.51	3.4	402.1	0.44	176.9	97.2
268	180.9	0.989	0.69	5.9	0.10	2.3	2.9	0.46	3.4	402.1	0.44	176.9	97.8

This data was taken with the test set–up shown in Figure 24.

T = Coilcraft N2880–A
Primary: 78 turns of # 16 AWG
Secondary: 6 turns of # 18 AWG
Core: Coilcraft PT4215, EE 42–15
Gap: 0.104″ total for a primary inductance (L_P) of 870 μH

Heatsink = AAVID Engineering Inc. 590302B03600