

TI Designs

Test Results - TIDM-THREEPHASEMETER_F6779

Active Energy Accuracy Test Results



Table 1. Energy Measurement Error With High-End CTs

Current (A)	0°	60°	-60°
0.05	-0.02	0.0445	-0.147
0.1	-0.011	0.093	-0.1373
0.25	-0.0173	0.073	-0.131
0.5	-0.0187	0.0877	-0.1277
1	-0.0173	0.0853	-0.1077
2	-0.0157	0.0815	-0.1203
5	-0.014	0.0627	-0.0887
10	-0.006	0.0497	-0.0633
20	-0.0073	0.0377	-0.049
30	-0.001	0.018	-0.037
40	0.0003	0.026	-0.027
50	-0.006	-0.0197	0.0013
60	-0.007	-0.04	0.0297
70	-0.003	-0.0533	0.041
80	-0.0083	-0.0613	0.049
90	-0.0093	-0.0707	0.053
100	-0.0177	-0.0763	0.0497

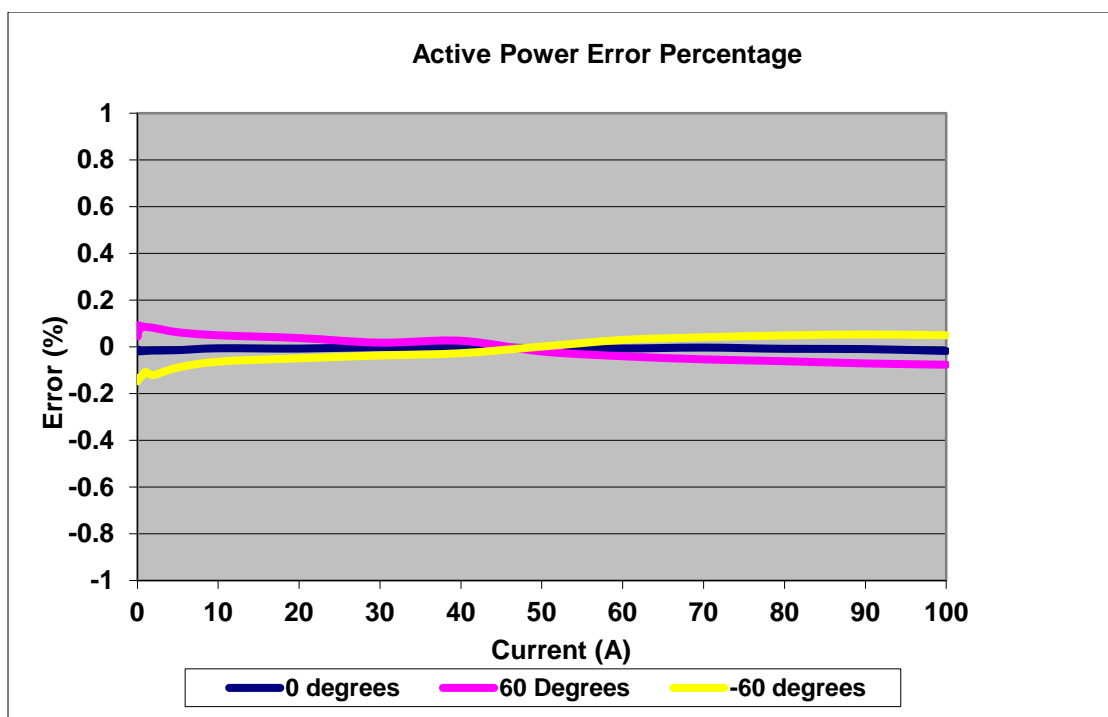


Figure 1. Energy Measurement Error Across Current With High-End CTs

Table 2. Energy Measurement Error With Customized CTs on EVM430-F6779 (%)

Current (A)	0°	60°	-60°
0.05	0.048	0.1445	0.144
0.1	0.0857	0.1185	0.0725
0.25	0.011	0.05	-0.02
0.5	-0.006	0.0327	-0.0295
1	-0.0075	0.0365	-0.033
2	-0.015	0.0207	-0.0505
5	-0.009	0.006	-0.03
10	-0.002	0.0097	-0.012
20	0.0027	0.0023	-0.007
30	-0.0017	-0.0107	0.016
40	0.0015	-0.021	0.032
50	-0.003	-0.0473	0.0437
60	-0.001	-0.0687	0.066
70	0.0017	-0.0683	0.069
80	0.006	-0.0727	0.0747
90	0.001	-0.0683	0.078
100	-0.0007	-0.0527	0.0863

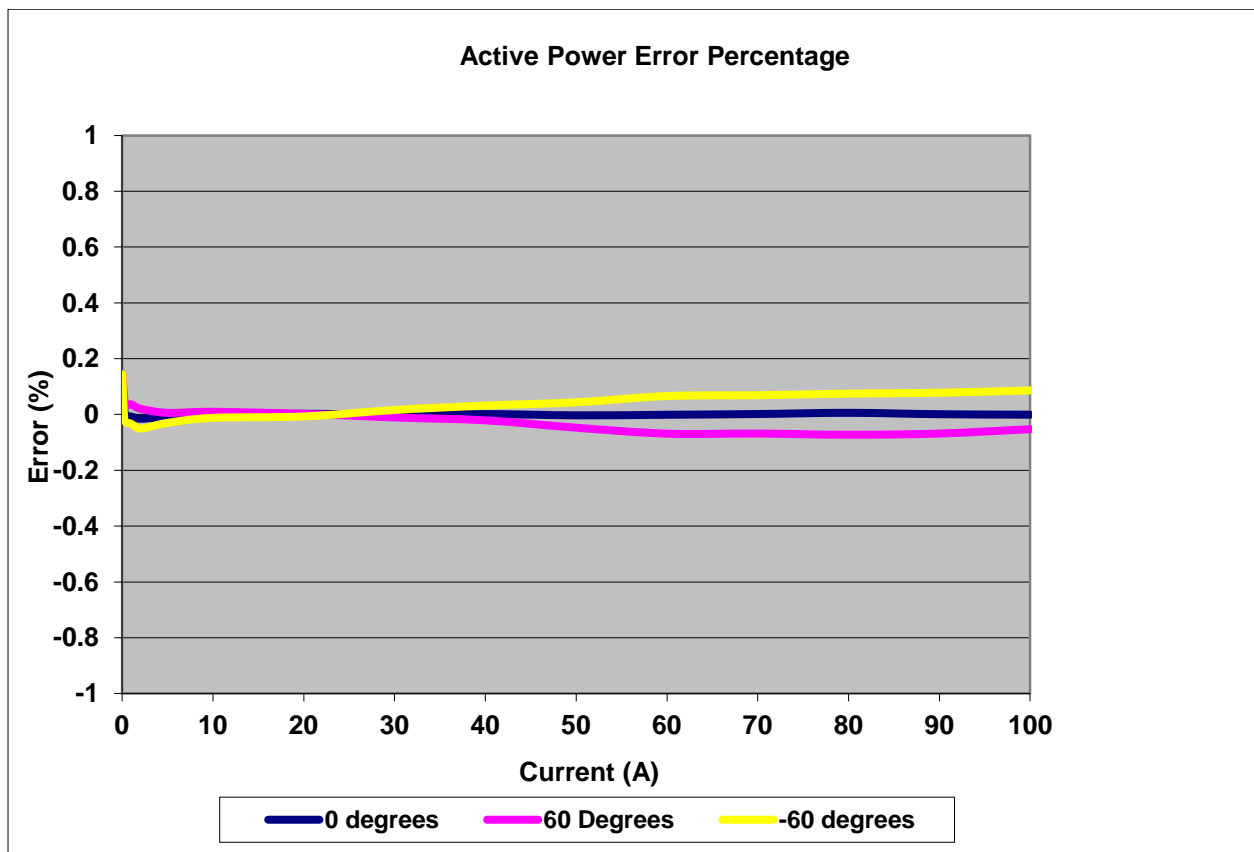


Figure 2. Energy Measurement Error Across Current With High-End CTs

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