600 V CoolMOS™ P7 for high power SMPS

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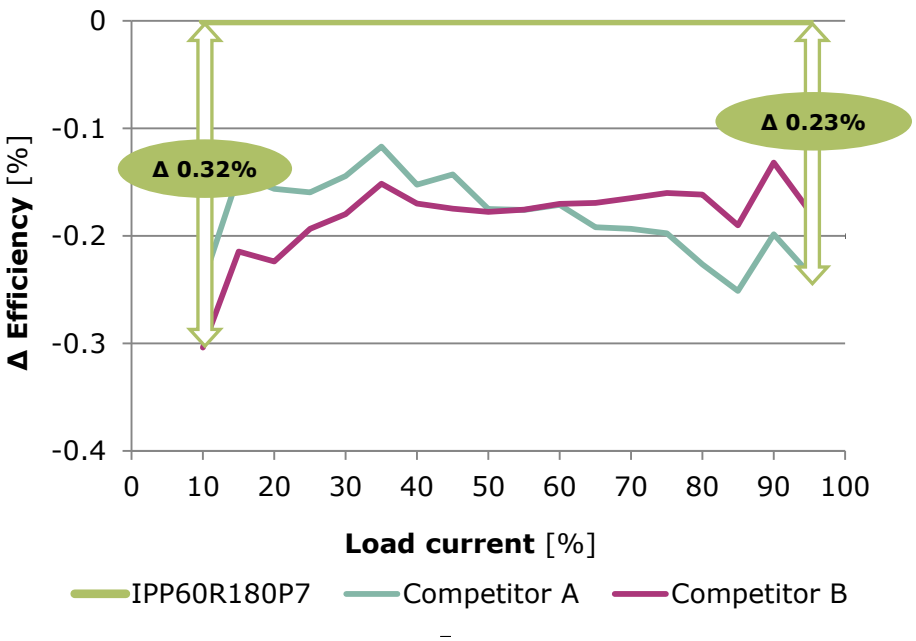
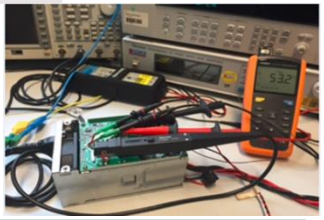
600 V CoolMOS™ P7 application test and benchmarking - 240 W PC power in PFC

1 Efficiency measurement

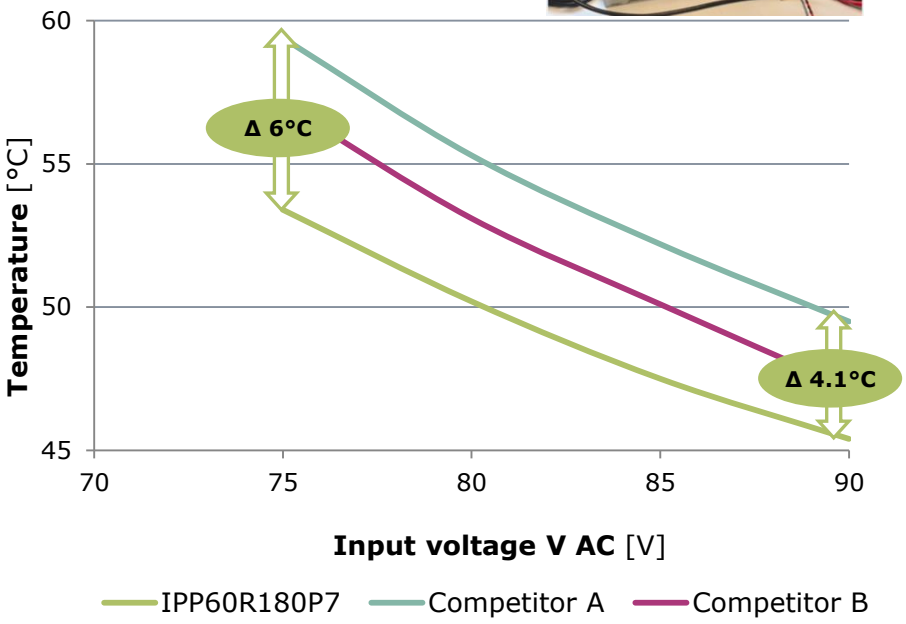
Delta efficiency @ 90 V_{AC}, 65 kHz



2 Brown out test



MOSFET temperature over V_{AC}



600 V CoolMOS™ P7 offers

- efficiency benefits up to 0.32% at low line
- passes brown out test with up to 6°C lower temperature compared to competition

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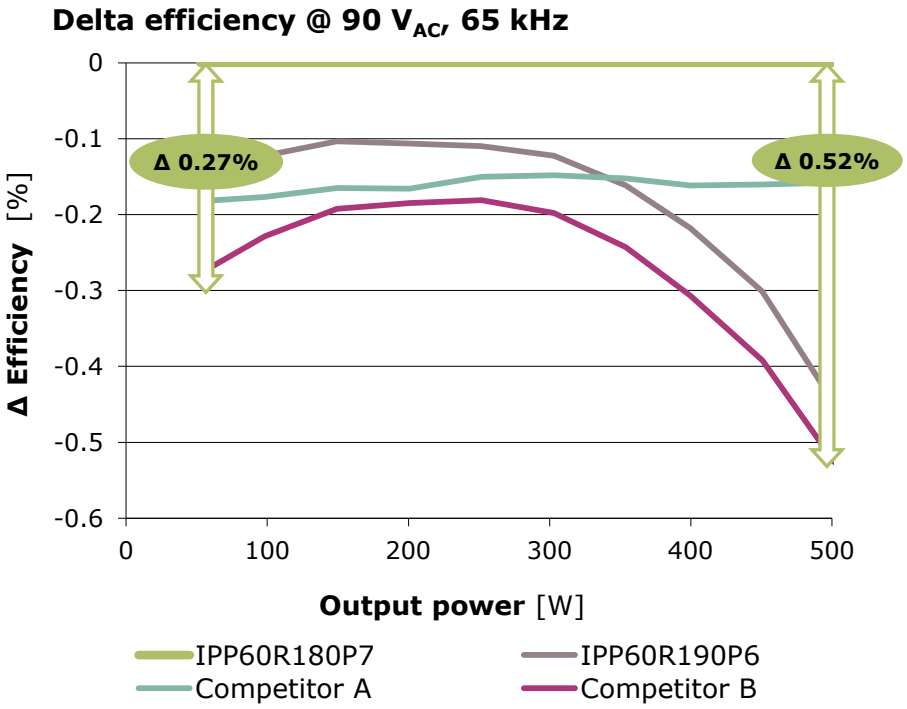
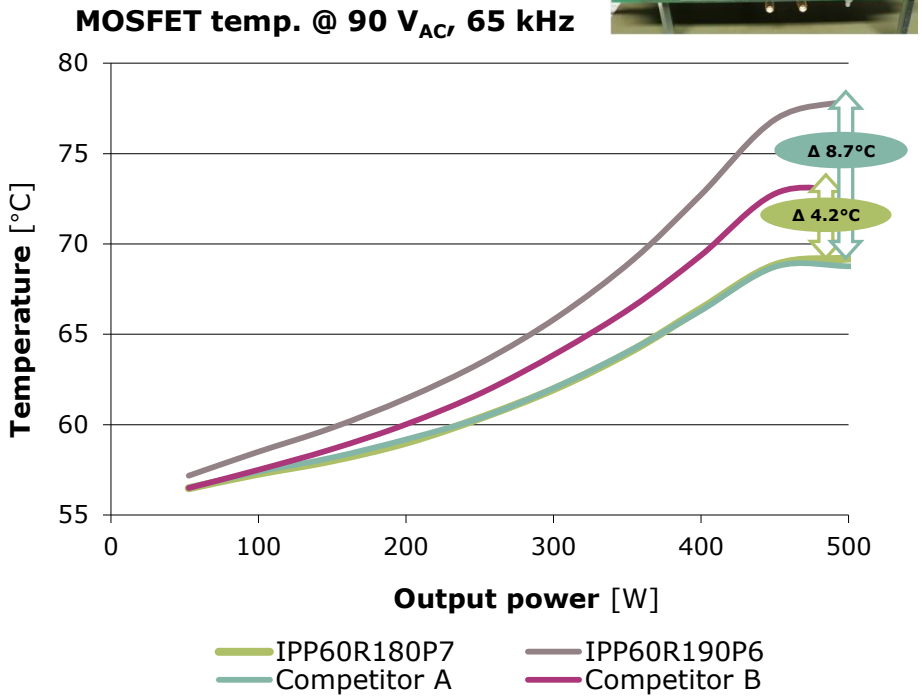
600 V CoolMOS™ P7 application test and benchmarking - 500 W in PFC

1 Efficiency measurement



2 Thermal measurement



600 V CoolMOS™ P7 offers

- efficiency benefits up to 0.52% at low line
- 8.7°C better thermals compared to CoolMOS™ P6
- up to 4.2°C better temperature than competition

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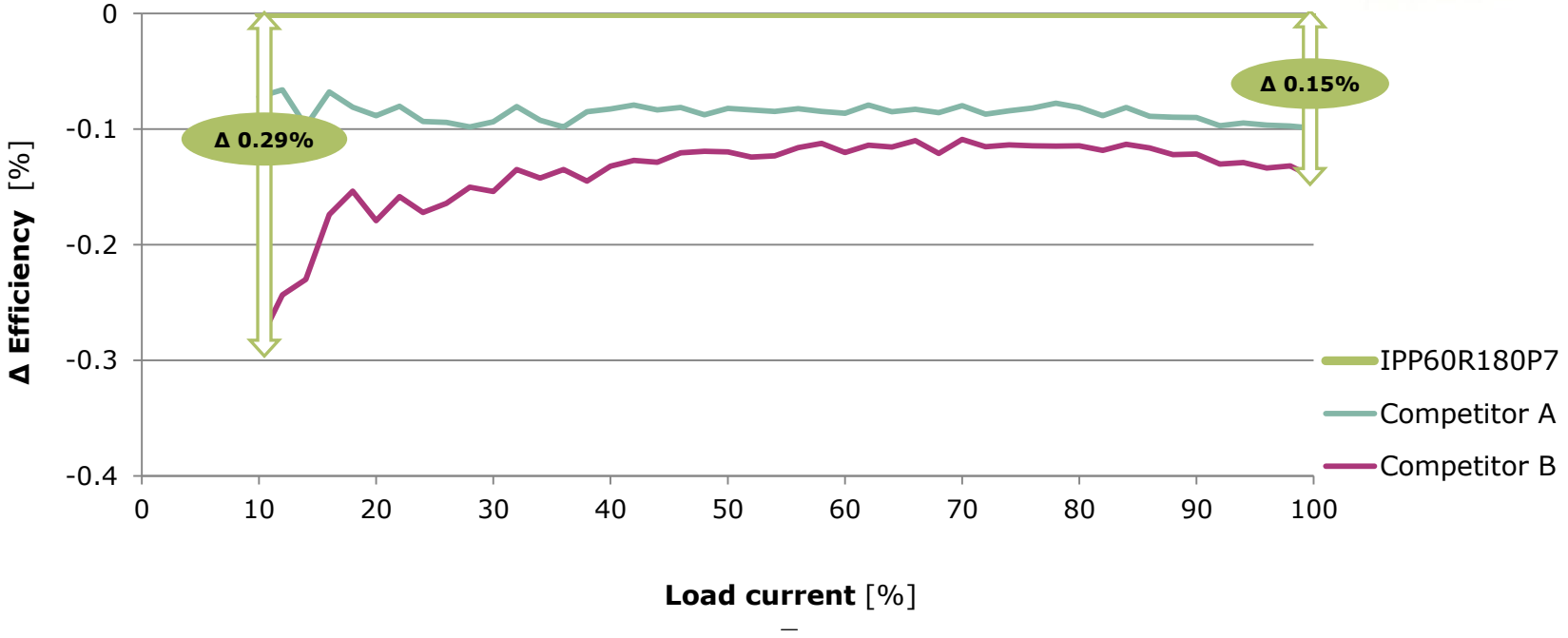
600 V CoolMOS™ P7 application test and benchmarking - 600 W in LLC

Delta efficiency measurement @ 150 kHz



600 V CoolMOS™ P7 offers efficiency benefits up to 0.29% compared to competition over the whole load range

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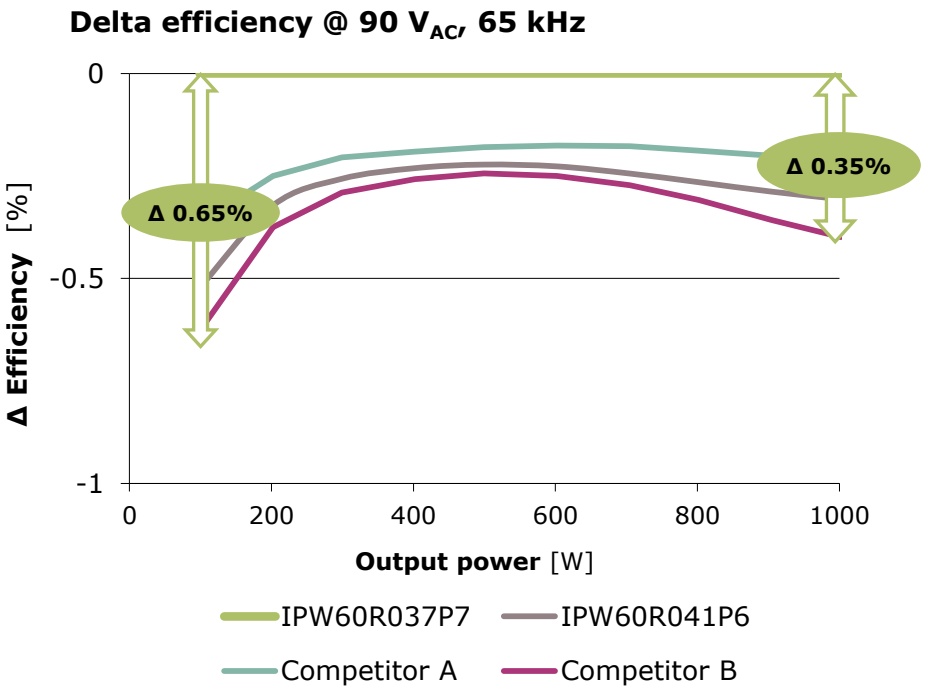
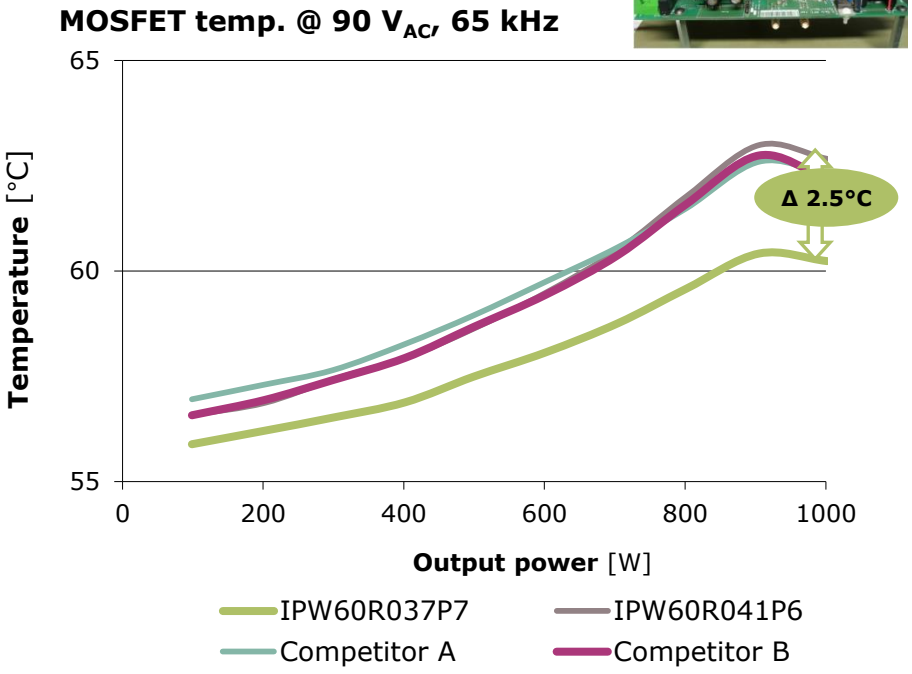
600 V CoolMOS™ P7 application test and benchmarking - 3 kW in PFC

1 Efficiency measurement



2 Thermal measurement



600 V CoolMOS™ P7 offers

- efficiency benefits up to 0.65% compared to competition
- lowest temperate increase and outperforms competition by offering thermal benefits of up to 2.5°C

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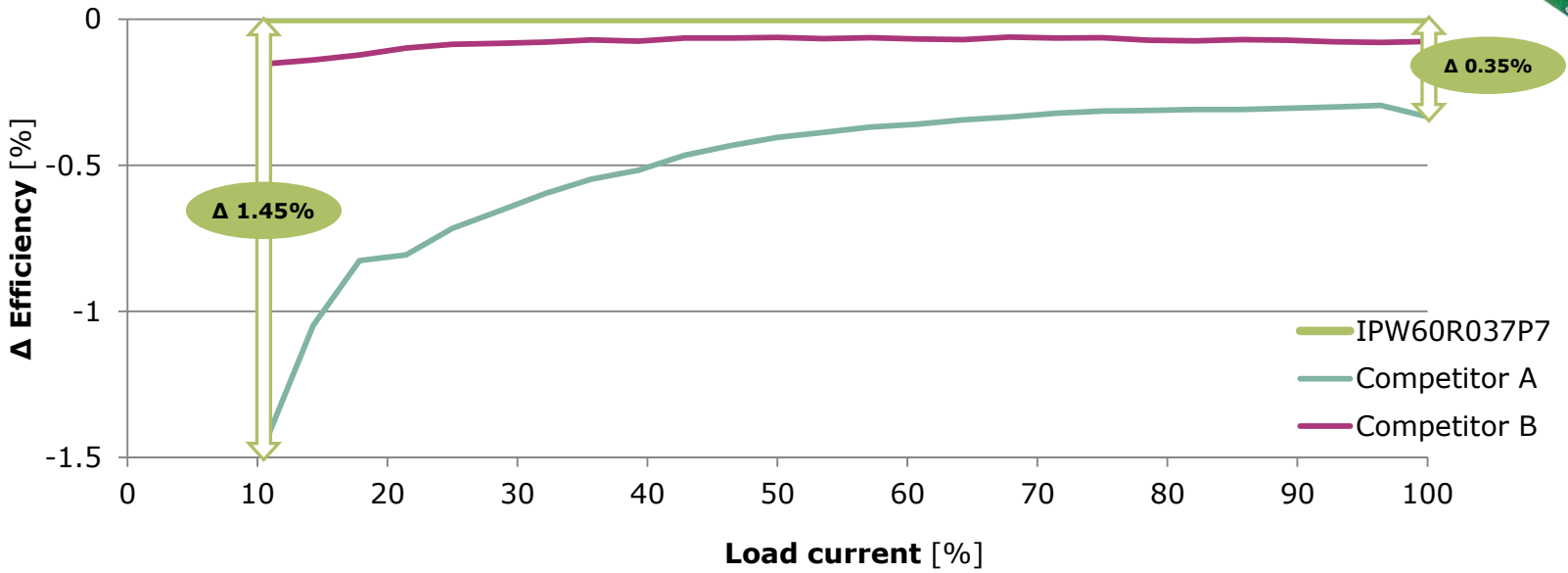
600 V CoolMOS™ P7 application test and benchmarking - 3 kW in LLC

Delta efficiency @ 200 kHz



600 V CoolMOS™ P7 offers efficiency benefits of up to 1.45% compared to competition

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