All measurement taken with 48V input, 2.9A load and 20MHz bandwidth unless noted.

**Efficiency**

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<td>89.7%</td>
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</table>
Ripple and Noise

Output ripple
20mV/div, 2usec/div
Measured 50mVpp across C16:

Input ripple
20mV/div, 2usec/div
Measured 18mVpp across C11:

Dynamic Loading

Output load step response, 1.45A to 2.9A load step
100mV/div, 1A/div, 100usec/div, slew rate = 250mA/usec
Measured 373mVpp across C16:
Turn On Response

2.9A load, 1V/div, 500usec/div:

![Waveform 1](image1.png)

0A load, 1V/div, 500usec/div:

![Waveform 2](image2.png)

Waveforms

Vds, Q3, 20V/div, 2usec/div, 57VDC input, 2.9A load, 750MHz bandwidth

Measured 129.3Vpeak:

![Waveform 3](image3.png)
Vds, Q2, 5V/div, 2usec/div, 57VDC input, 0A load, 750MHz bandwidth
Measured 26.3Vpeak:

Vds, Q2, 5V/div, 2usec/div, 57VDC input, 2.9A load, 750MHz bandwidth
Measured 16.3Vpeak:

Loop Stability

Bandwidth= 7.8 kHz  Phase Margin=60 degrees  Gain Margin=16dB
Thermal

Top:

Bottom:
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