1   Startup

Input voltage   = 85VAC
Output power = 162W (27V@6A)

TEXAS INSTRUMENTS
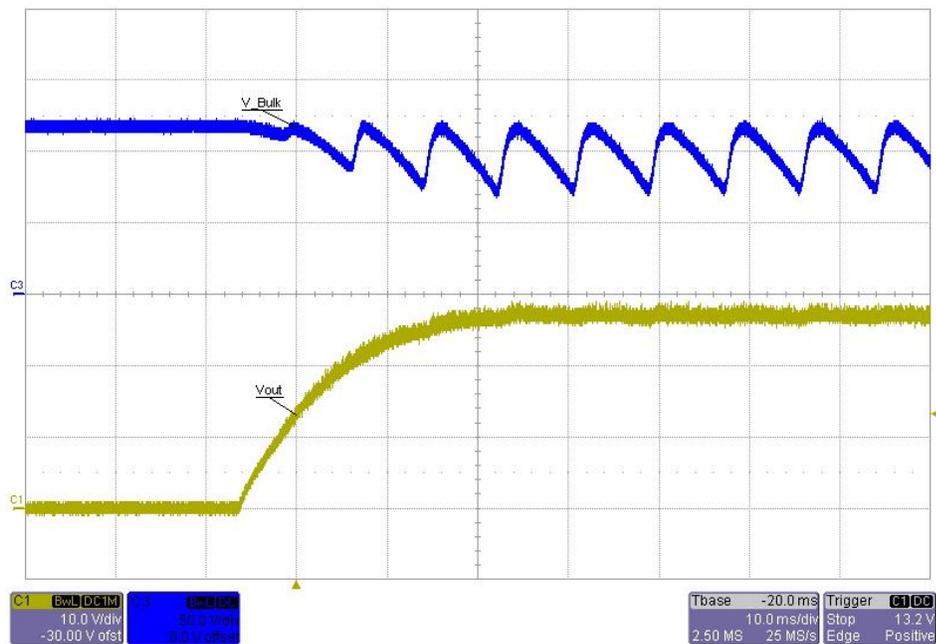
Input voltage = 264VAC
Output power = 162W (27V@6A)
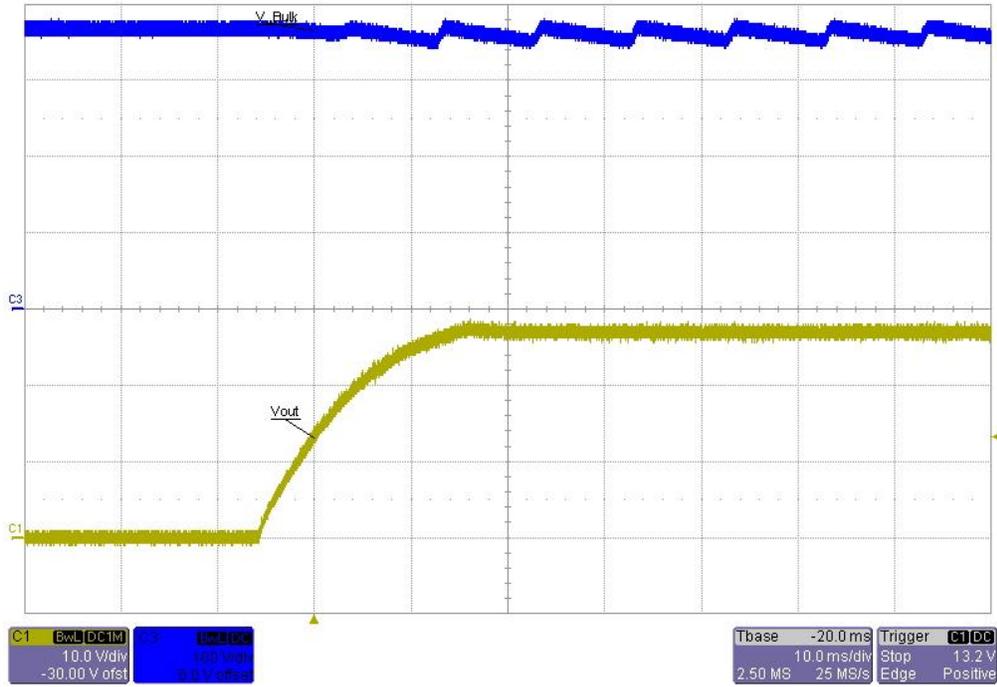
Input voltage = 85VAC
Output power = 0W (no load)
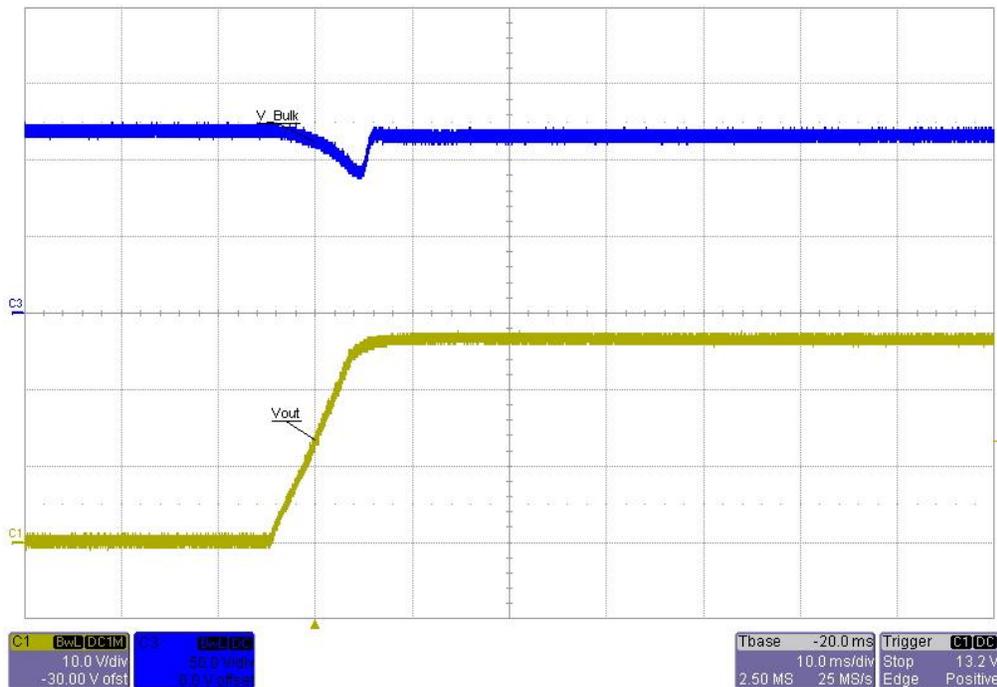
Input voltage   = 264VAC
Output power = 0W (no load)
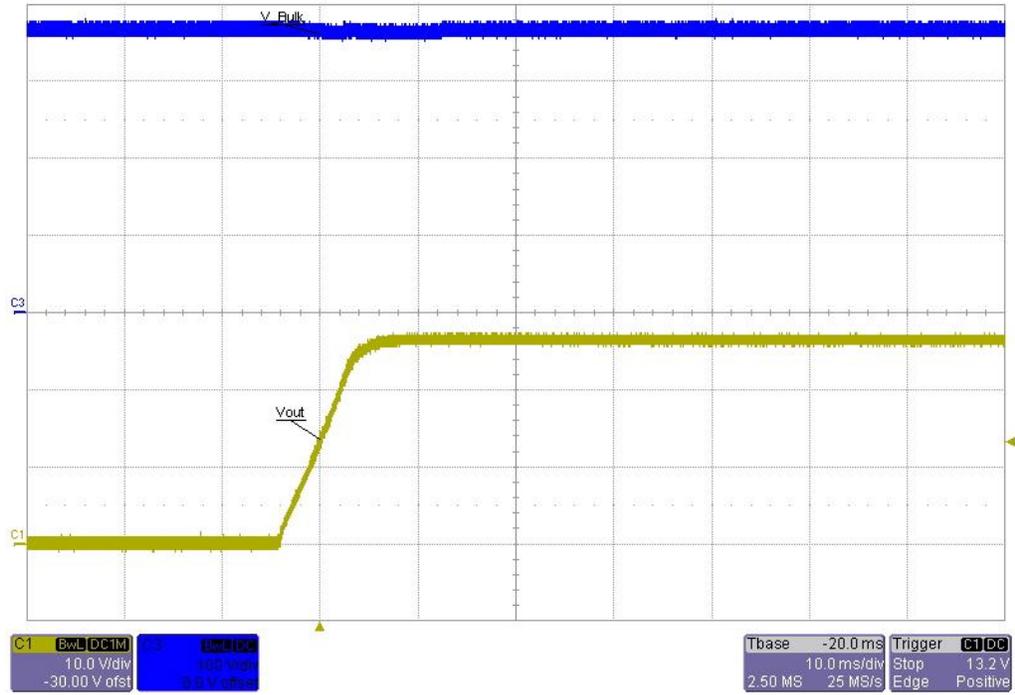
2   Shutdown

Input voltage   = 85VAC
Output power = 162W (27V@6A)
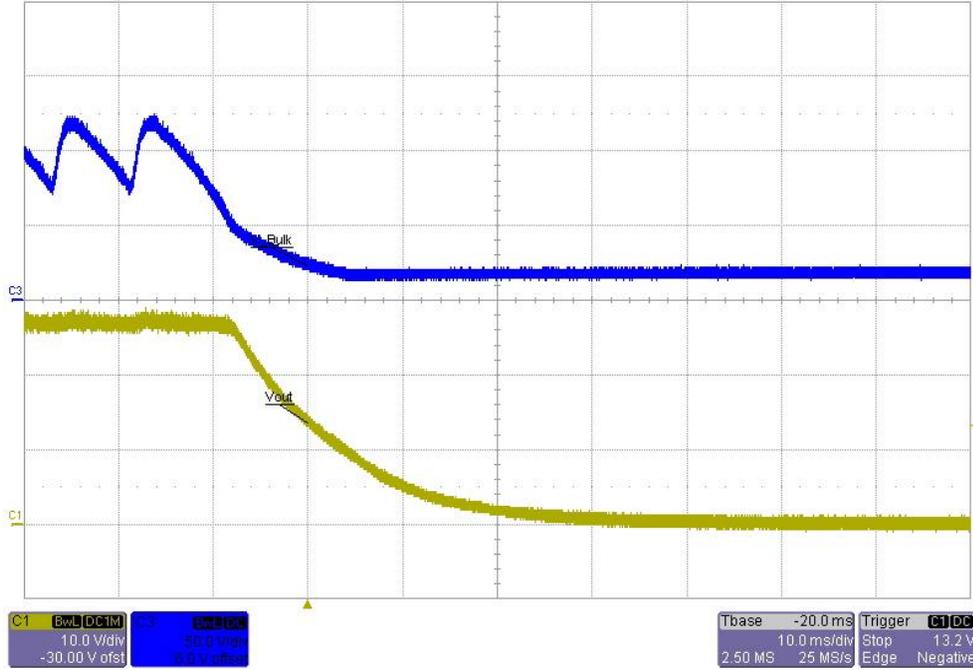
Input voltage   = 264VAC
Output power = 162W (27V@6A)

# 3 Efficiency
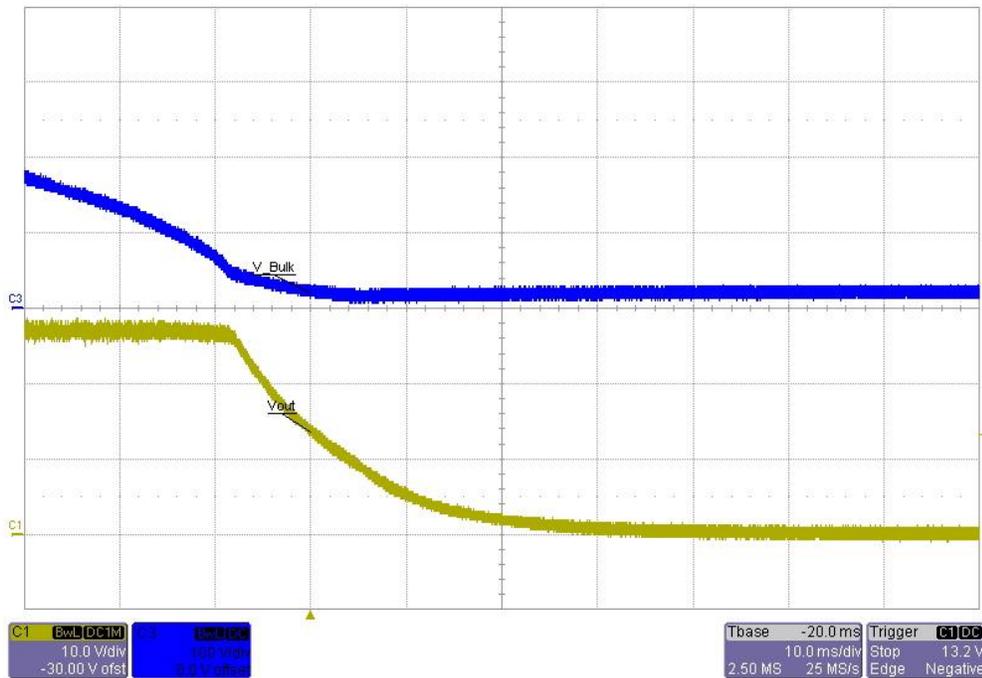
PMP30092_RevB efficiency

4 Load regulation

PMP30092_RevB load regulation

TEXAS INSTRUMENTS
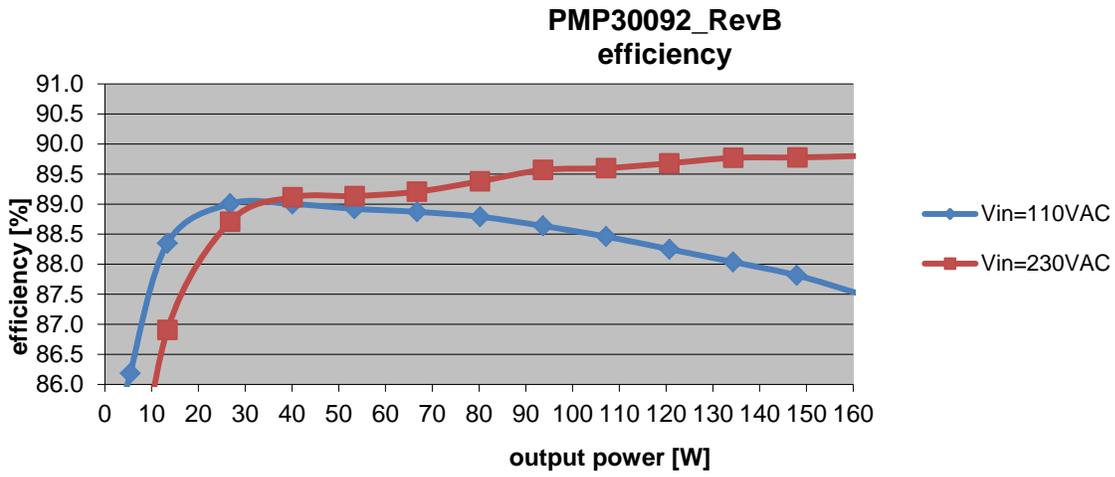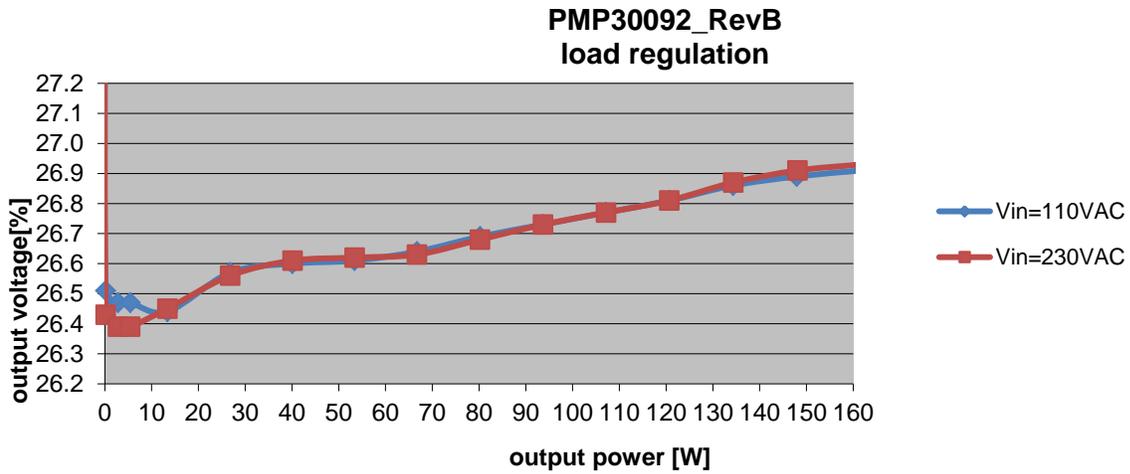
5   Switch Node

Input voltage   = 264VAC
Output power = 162W (27V@6A)

Power Management Solutions

TEXAS
INSTRUMENTS

Power Management Solutions

TEXAS
INSTRUMENTS
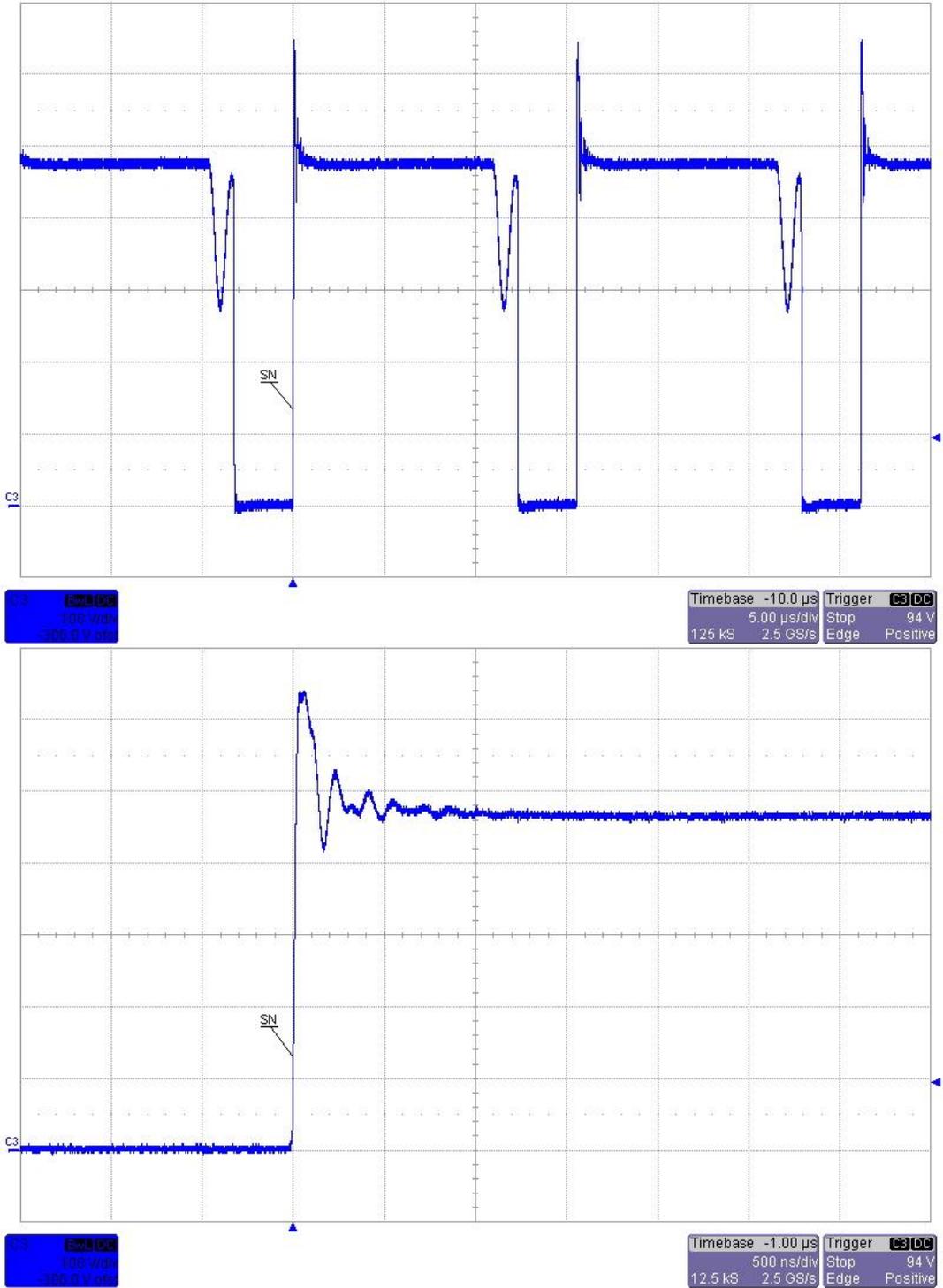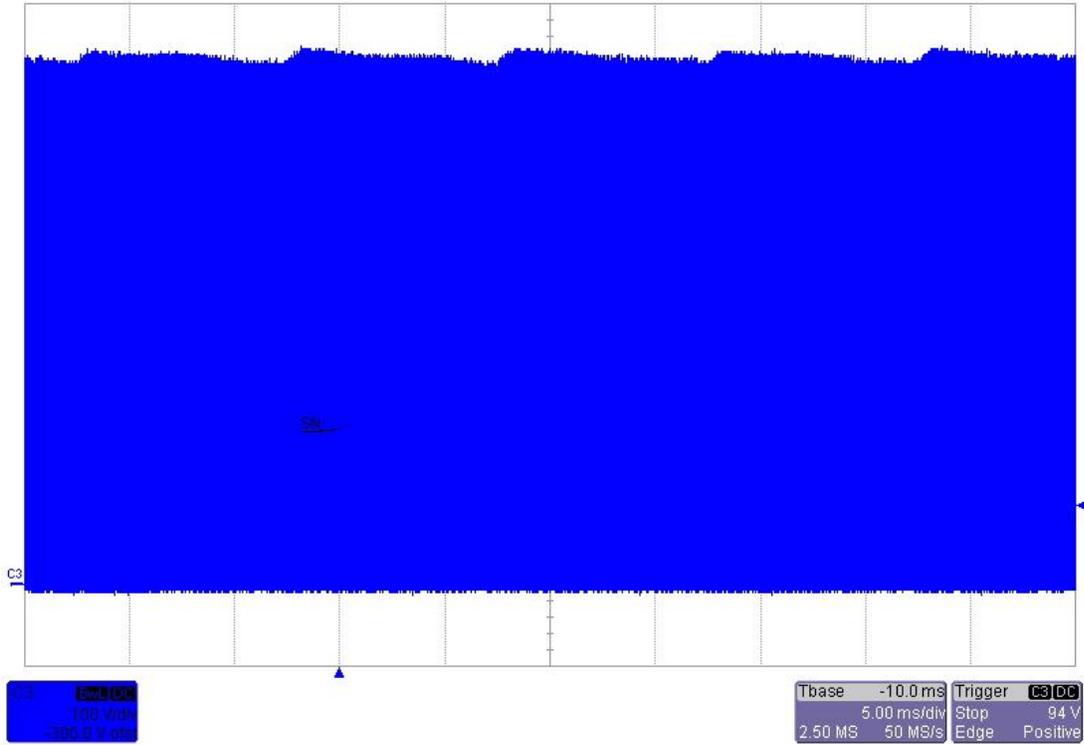
6   Switch Node secondary side

Input voltage   = 264VAC
Output power = 162W (27V@6A)

Power Management Solutions

TEXAS
INSTRUMENTS
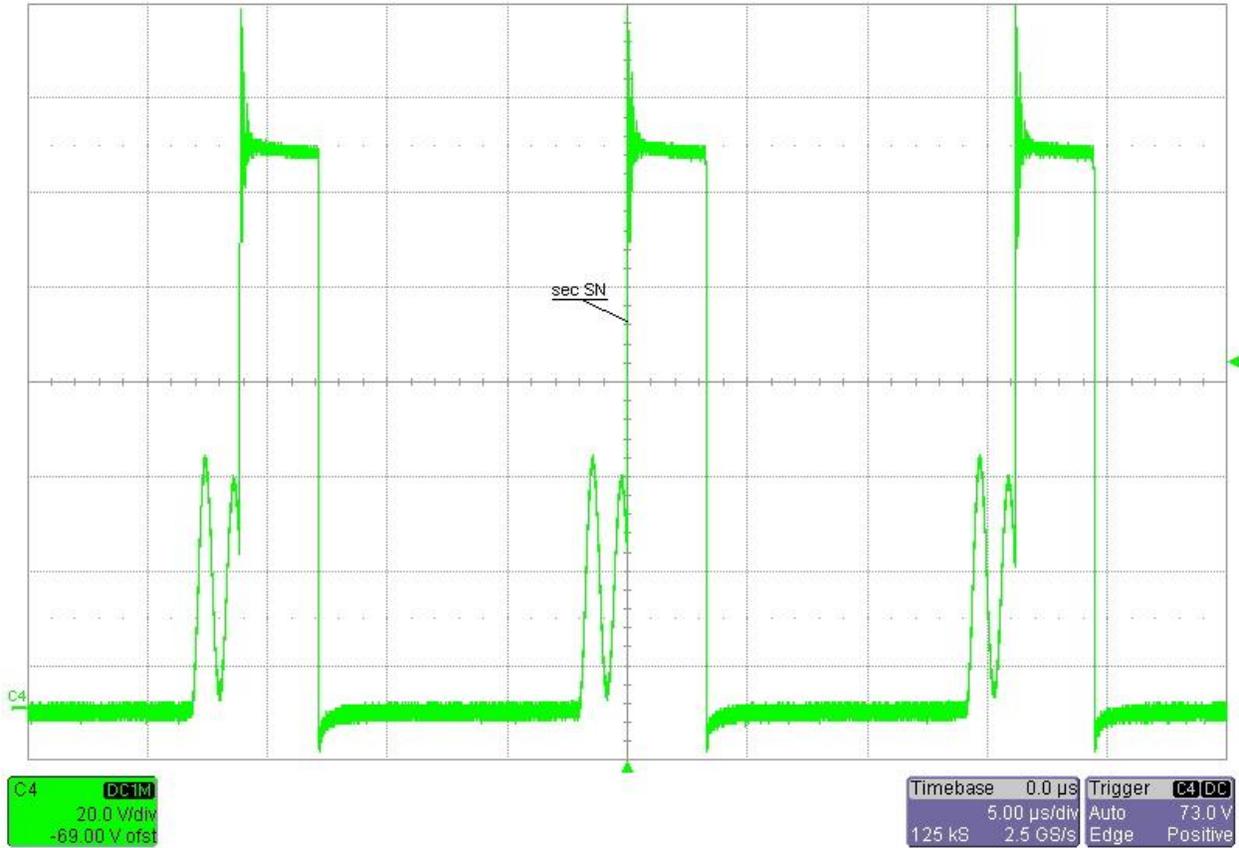
7 Output ripple voltage

Input voltage   = 110VAC
Output power = 162W (27V@6A)
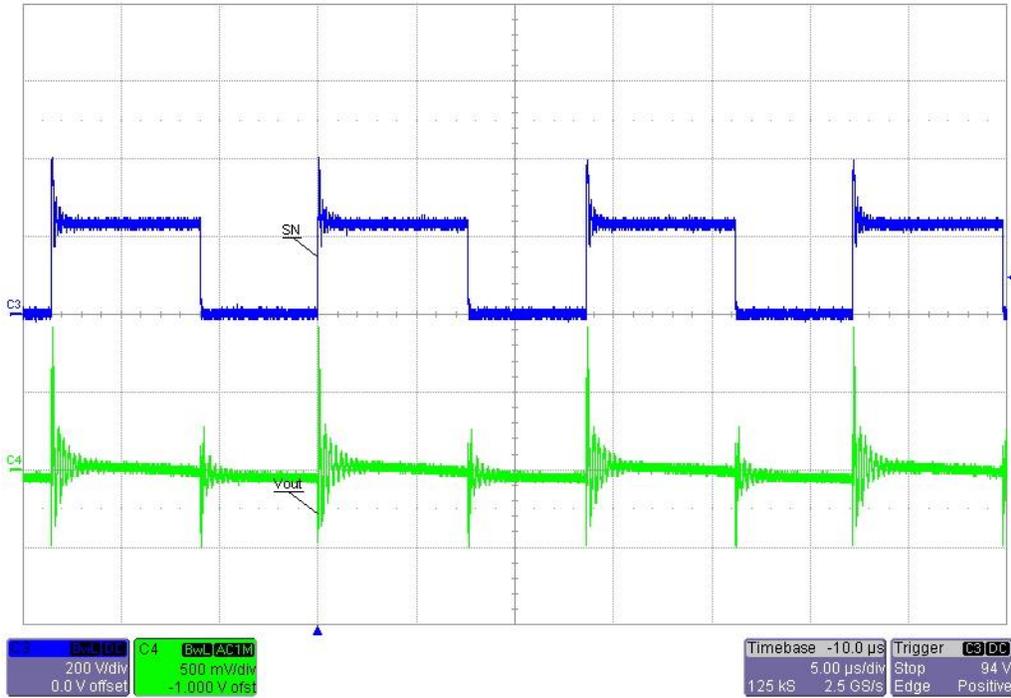
Input voltage   = 264VAC
Output power = 162W (27V@6A)
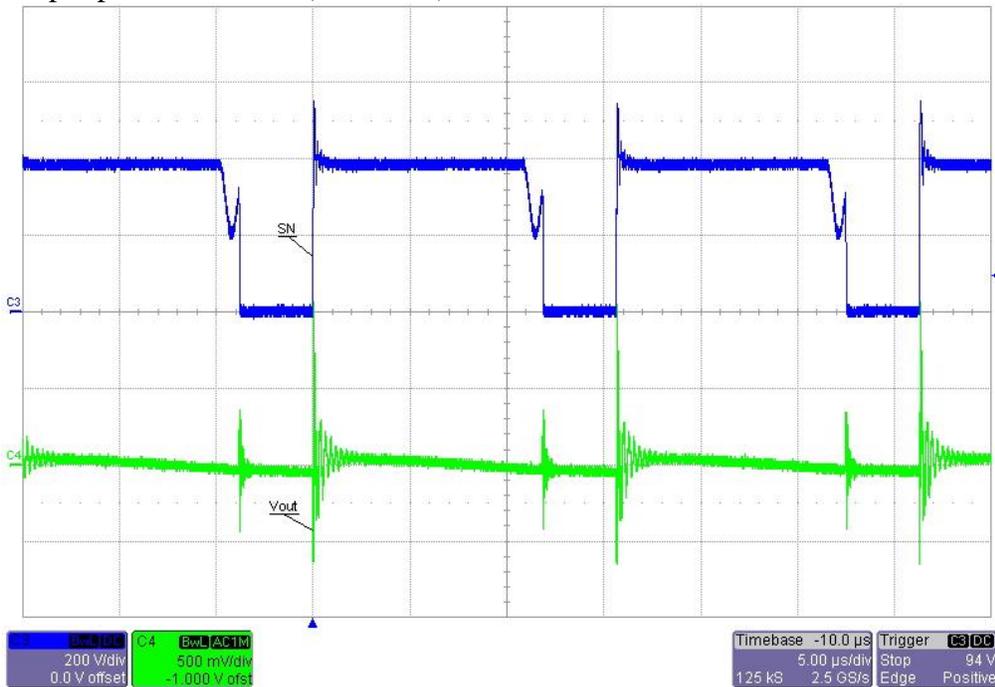
8   Load Transients
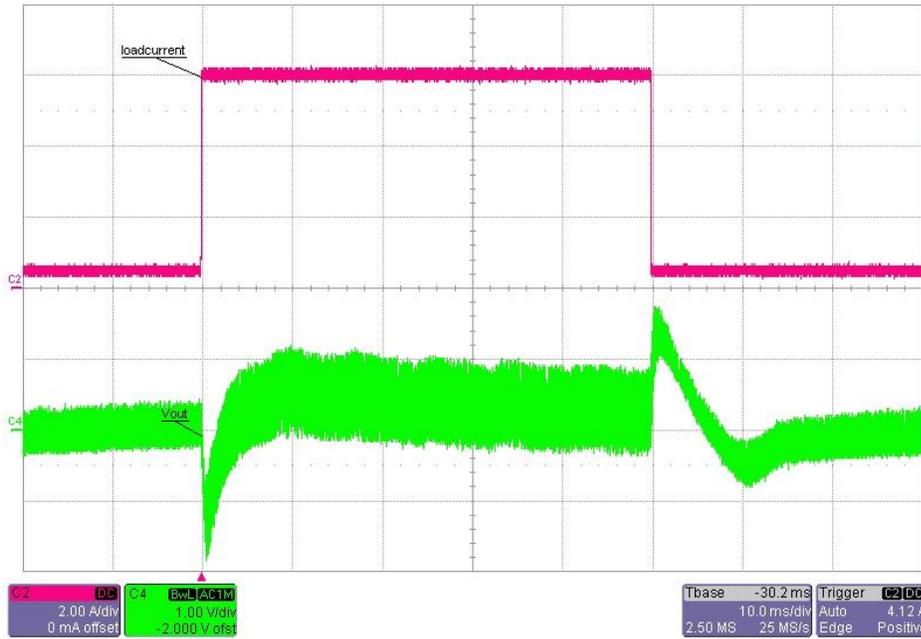
Input voltage   = 110VAC
Load current   = 0.5A to 6A

Input voltage   = 110VAC
Load current   = 0.5A to 6A

TEXAS
INSTRUMENTS
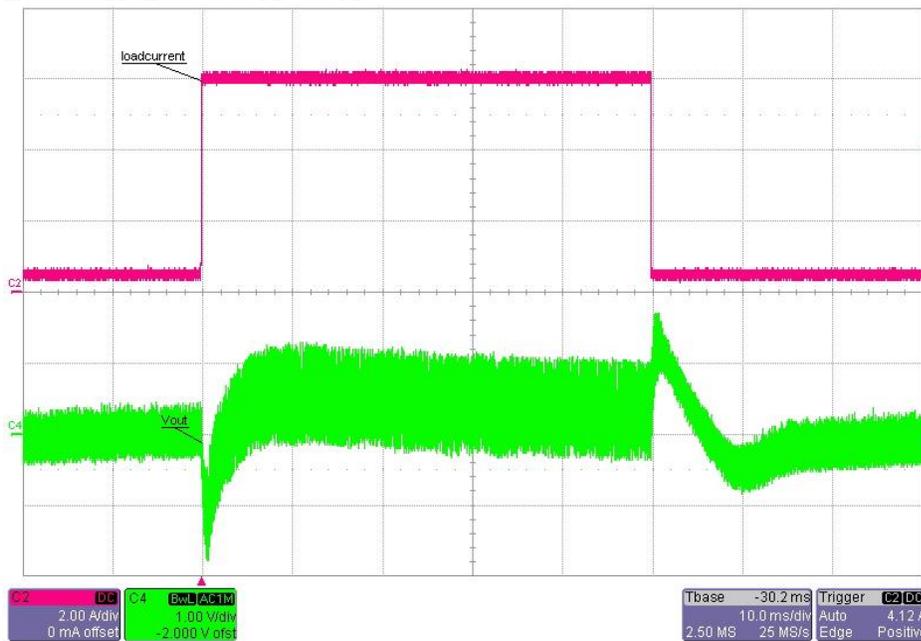
Input voltage = 110VAC
Load current = 3A to 6A
(C4 measurement with digital filter)
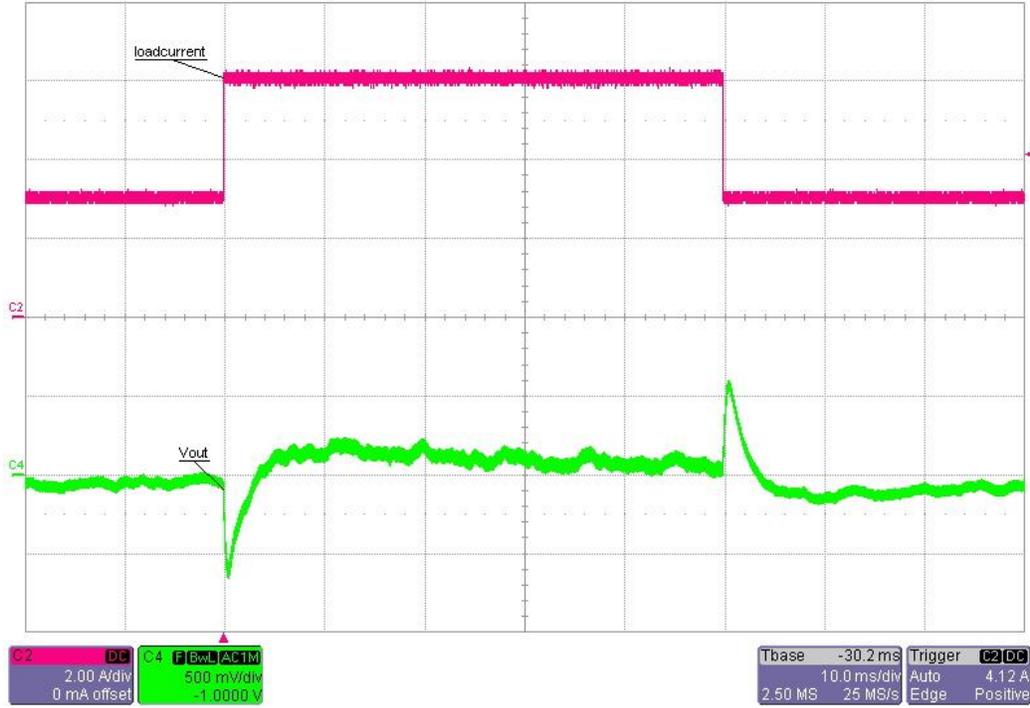
Input voltage = 230VAC
Load current = 3A to 6A
(C4 measurement with digital filter)

Power Management Solutions
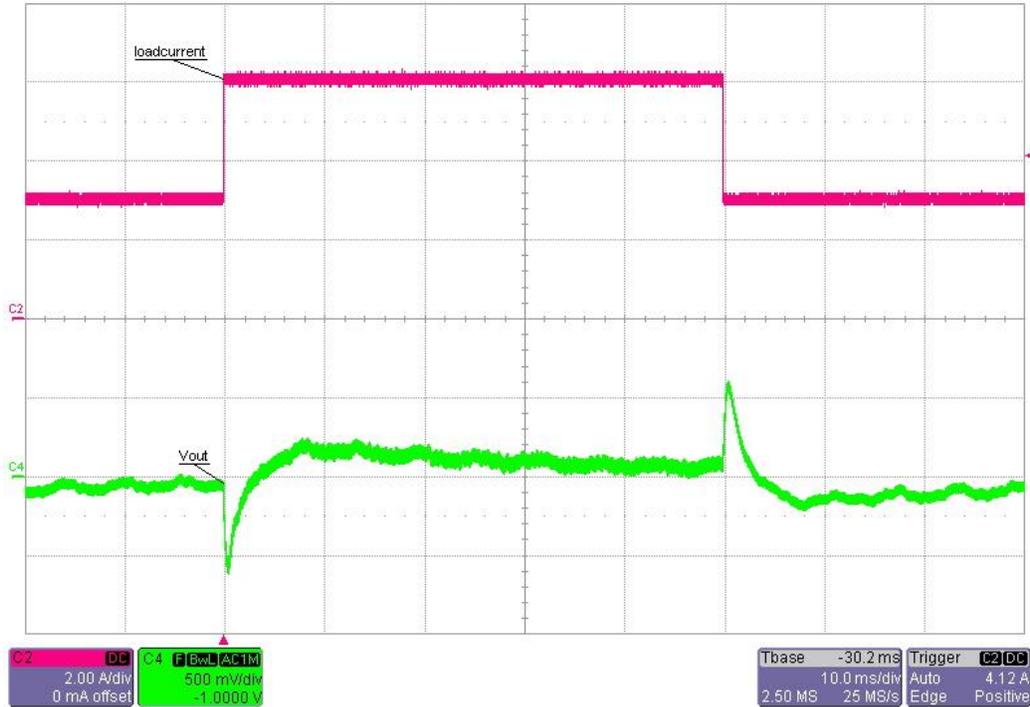
9   Thermal Analysis

The images below show the infrared images taken from the FlexCam after **2min** at 162W output power.

Input voltage   = 110VAC
Output power   = 162W
Ambient temperature = 25°C
No heatsink, no airflow, 2min=on, 18min=stand-by

110VAC Pout=162W(27V@6A) 2min.is2

Name	Temperature	
Rectifier D1	46.3°C	
Snubber D3	74.3°C	
Transformer T1	53.2°C	
Mosfet Q1	59.6°C	
Diode D10	58.4°C	

Input voltage   = 230VAC
Output power   = 162W
Ambient temperature = 25°C
No heatsink, no airflow, 2min = on, 18min=stand-by

230VAC Pout=162W(27V@6A) 2min.is2
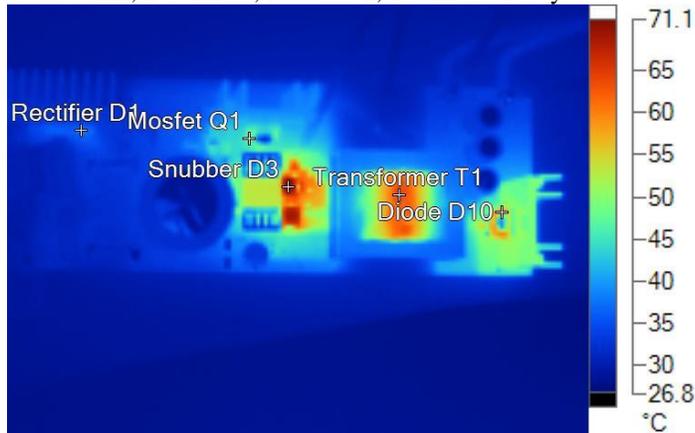
| Name	Temperature	
Rectifier D1	37.1°C	
Mosfet Q1	47.2°C	
Snubber D3	71.1°C	
Transformer T1	64.1°C	
Diode D10	59.1°C	

10 EMI Measurement

The graph below shows the conducted emission EMI noise and the EN55022 Class-B Quasi-Peak limits (measurement from the worst case line). The measurement is not certified. The load was connected to a LISN and an isolation transformer; the load was a power resistor. The receiver was set to Quasi-peak detector, 10 KHz bandwidth. The negative terminal of the converter has been connected to the ground of the LISN.

Input voltage = 230VAC
Output power = 162W (27V@6A)
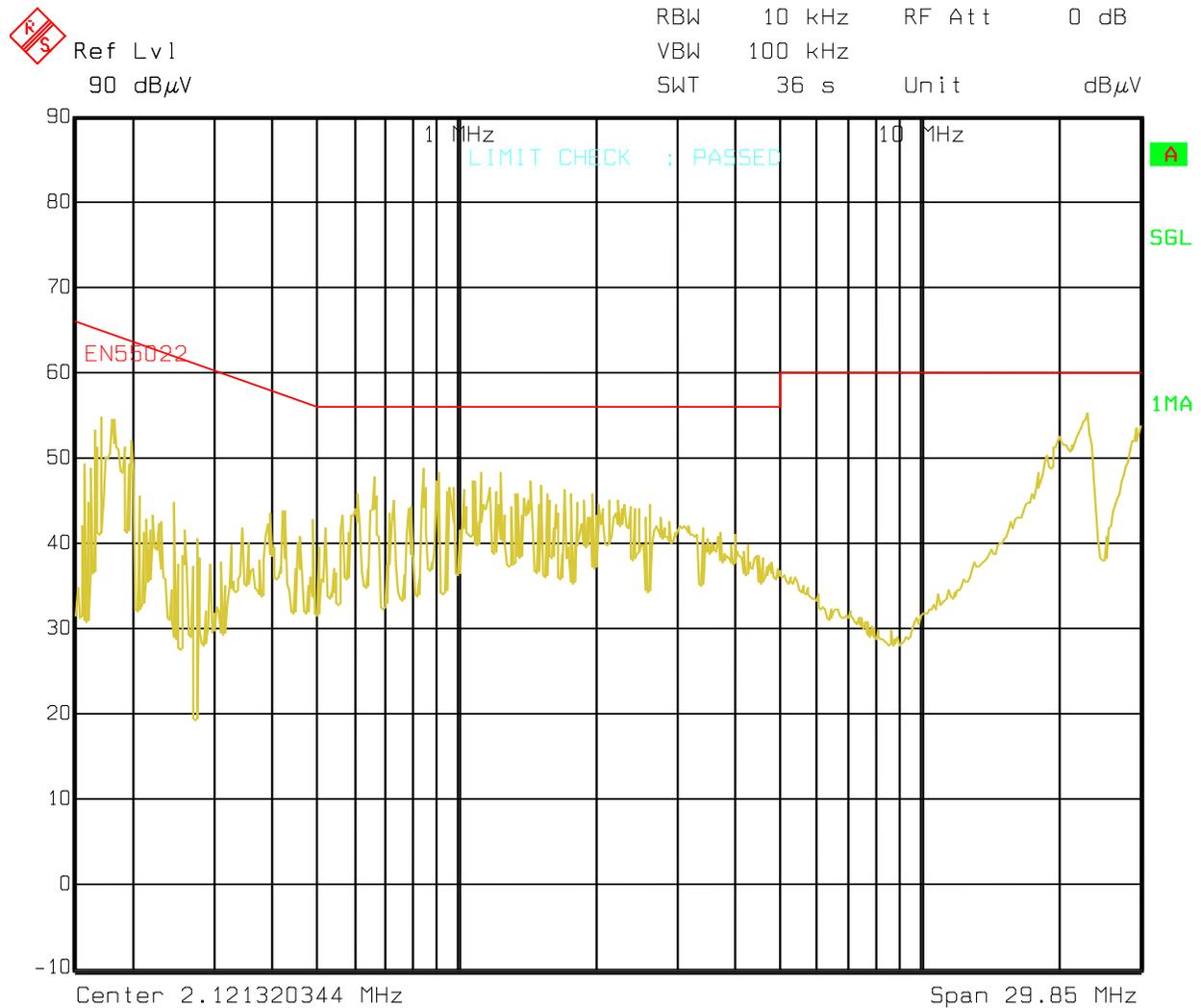
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