

# PFC Continuous Current Mode 3P-Interleave

## Pin=1.5kW

ROHM PD SimG

### PFC Continuous Current Mode 3P-Interleave Simulation Circuit

Input: Pin=1.5kW fps=50Hz  
Vps=85Vac ~ 264Vac

Output: Vo=420Vdc

PWM: fsw=100kHz

Gate Drive: Vd=10V  
R source=5Ω  
R sink=2Ω

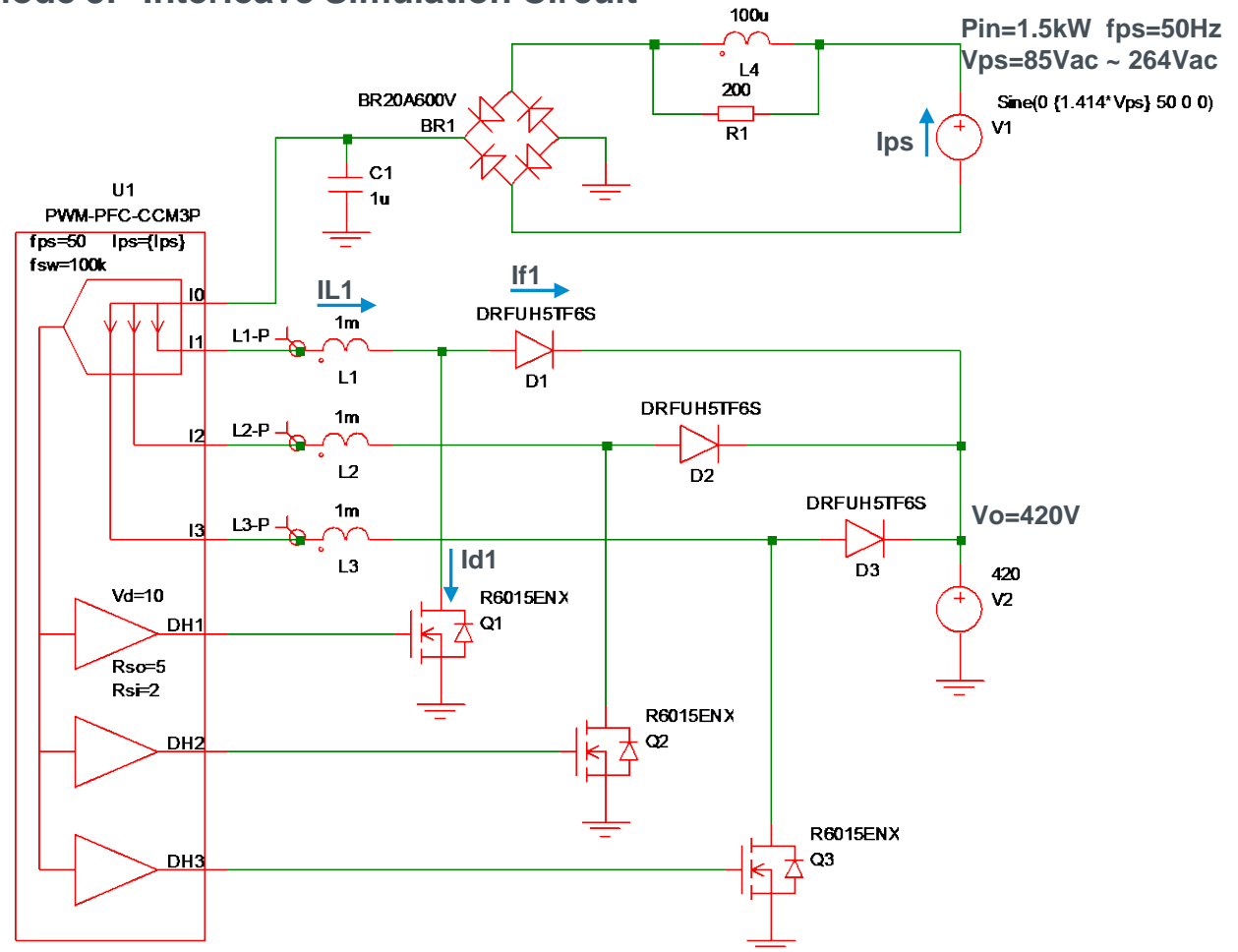
Q1,2,3: R6015ENX  
MOSFET (600V 15A)

D1,2,3: RFUH5TF6S  
FRD (600V 5A)

L1,2,3: 1mH  
L4: 100uH

BR1: 600V 20A

Tj=-25°C ~ 125°C



SIMetrix SPICE Simulation Data File



PFC Continuous Current Mode 3P-Interleave Pin=1.5kW.sxsch

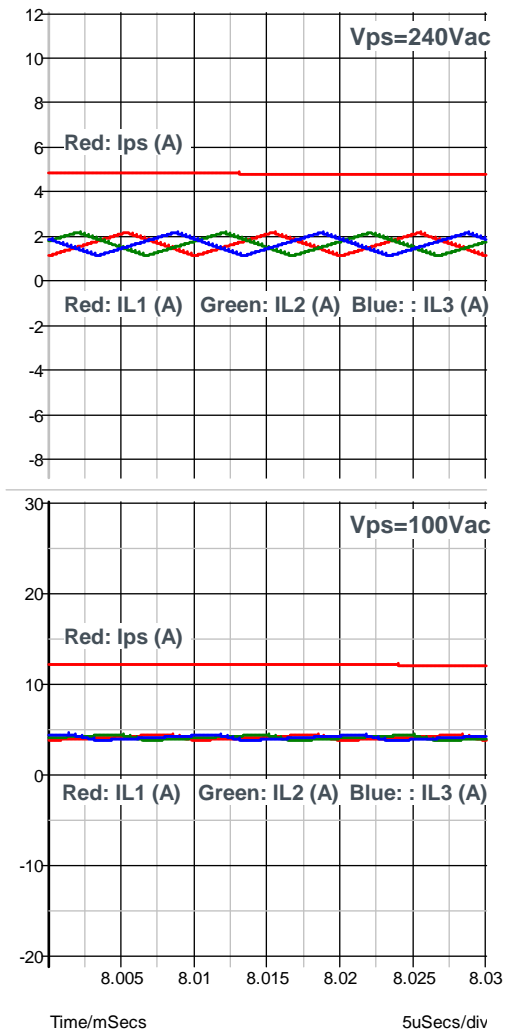
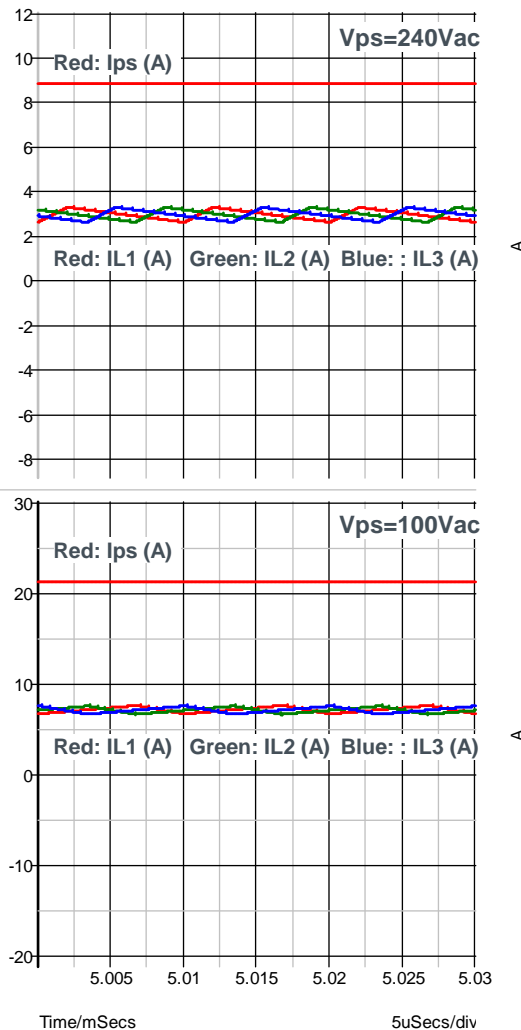
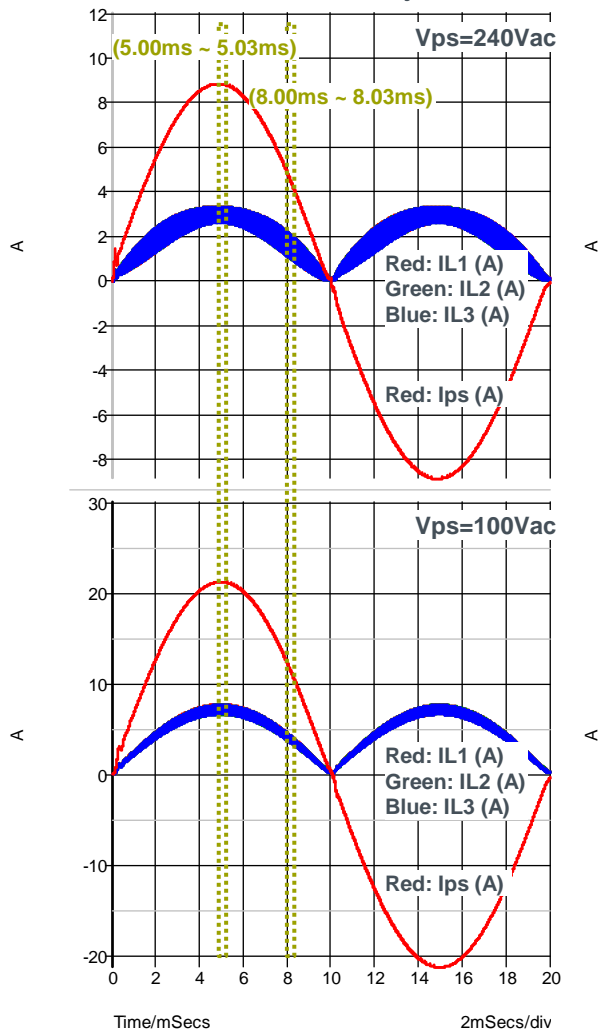
# Simulation Waveform 1

ROHM PD SimG

**IL1,IL2,IL3 Ips** Pin=1.5kW Vo=420V  
Tj=100°C

**Expansion (5.00ms ~ 5.03ms)**

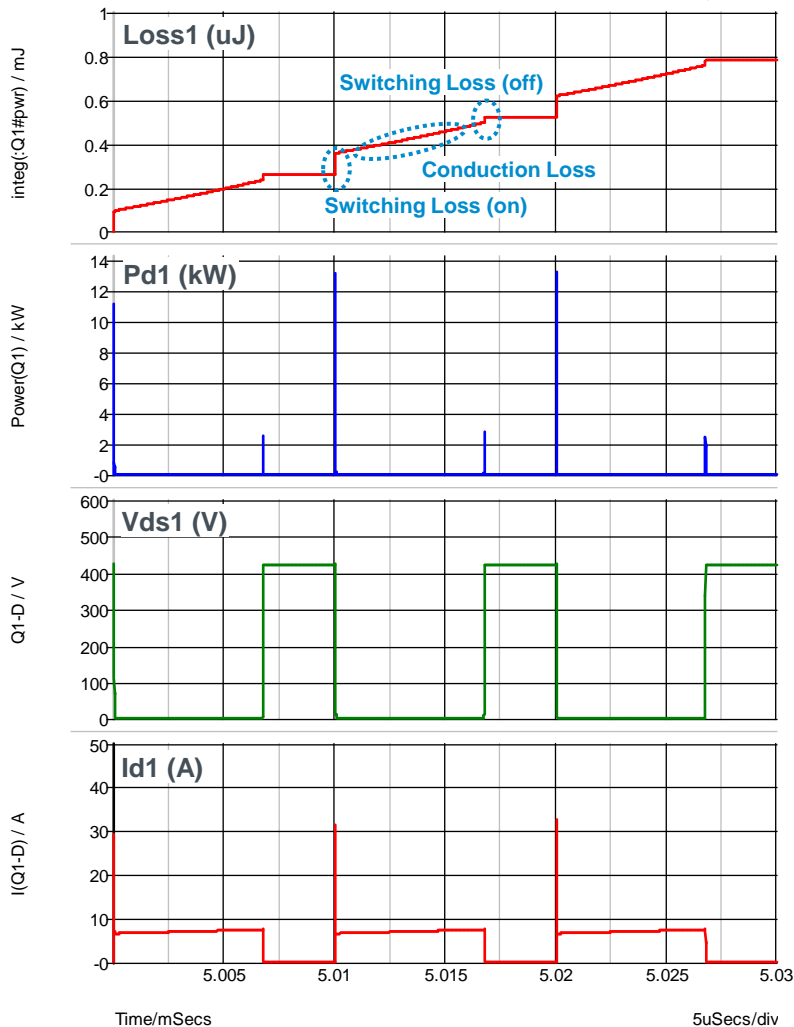
**Expansion (8.00ms ~ 8.03ms)**



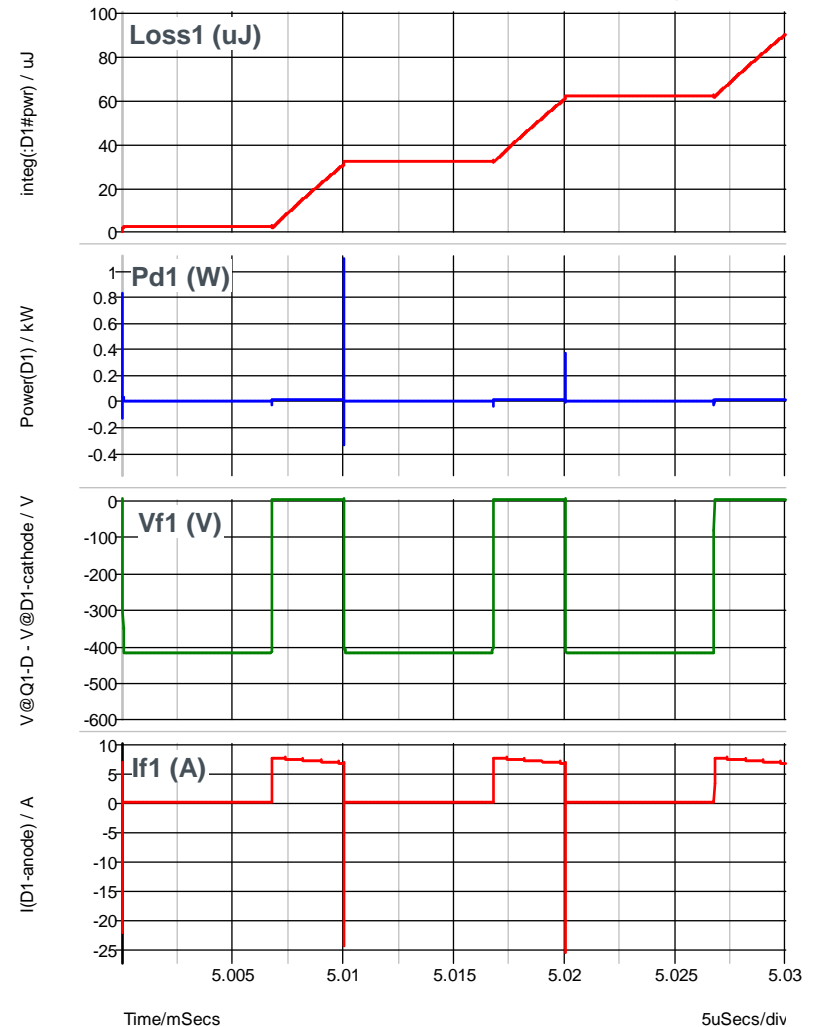
# Simulation Waveform 2

ROHM PD SimG

**Q1\_Loss1, Pd1, Vds1, Id1** Pin=1.5kW Vps=100Vac  
Vo=420V Tj=100°C

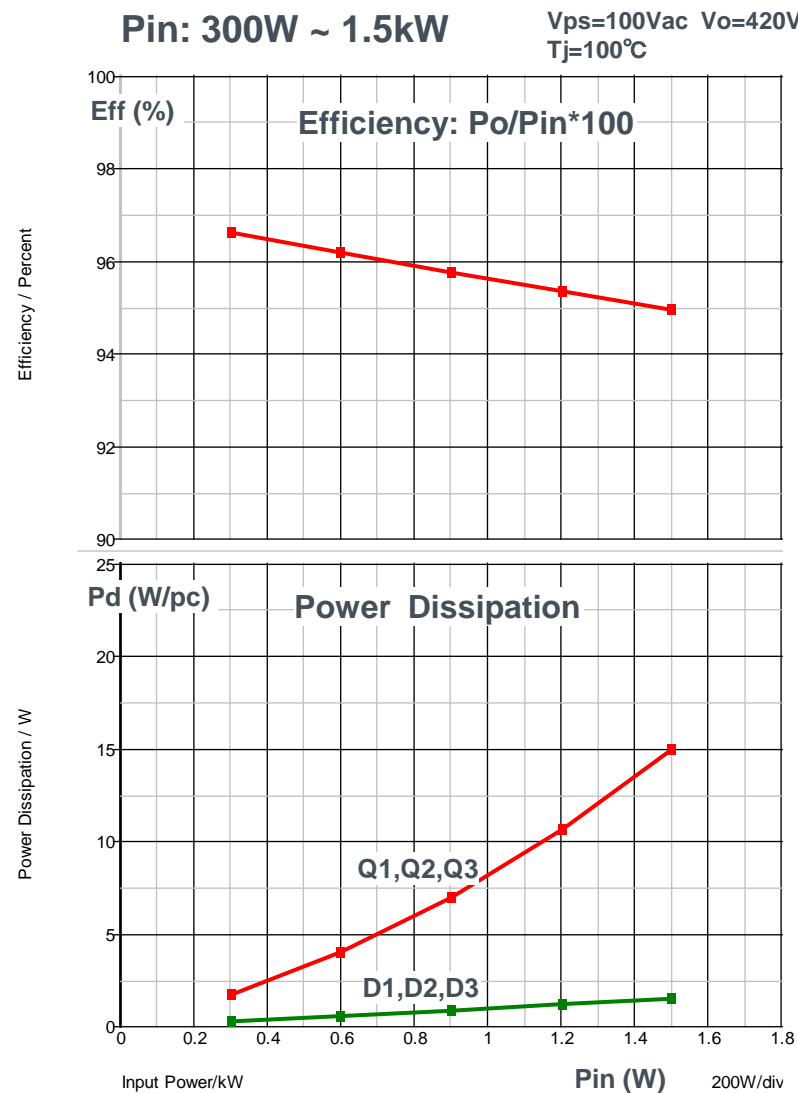
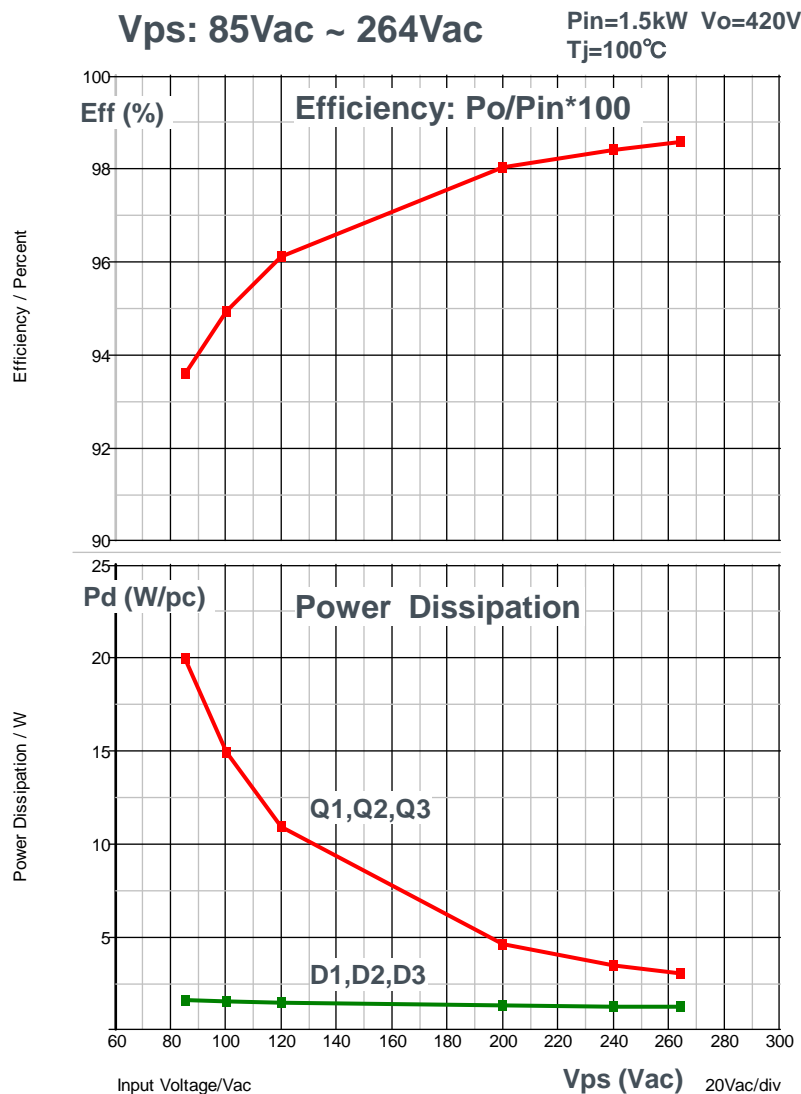


**D1\_Loss1, Pd1, Vf1, If1** Pin=1.5kW Vps=100Vac  
Vo=420V Tj=100°C



# Efficiency, Power Dissipation 1

## ROHM PD SimG

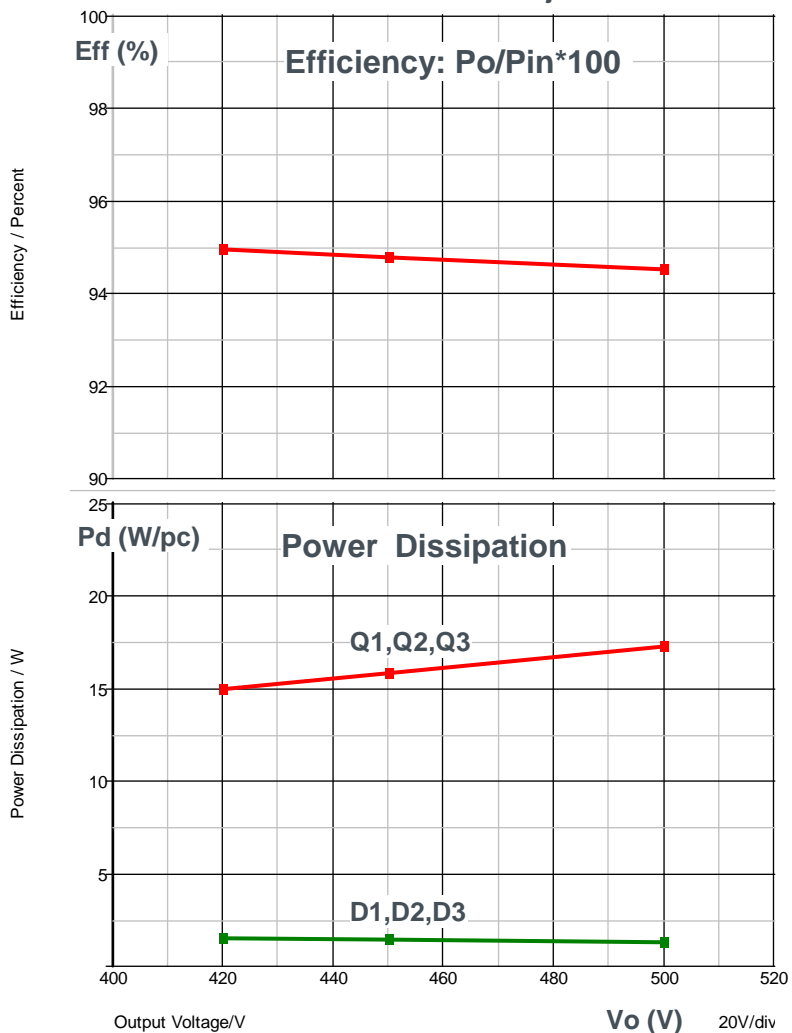


# Efficiency, Power Dissipation 2

## ROHM PD SimG

**Vo: 420V ~500V**

Pin=1.5kW Vps=100Vac  
Tj=100°C



**Tj: -25°C ~ 125°C**

Pin=1.5kW Vps=100Vac  
Vo=420V

