PFC Critical Current Mode 3P-Interleave Pin=600W

Input: Pin=600W fps=50Hz
Vps=85Vac ~ 264Vac

Output: Vo=420Vdc

fsw(max): fmax=200kHz

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

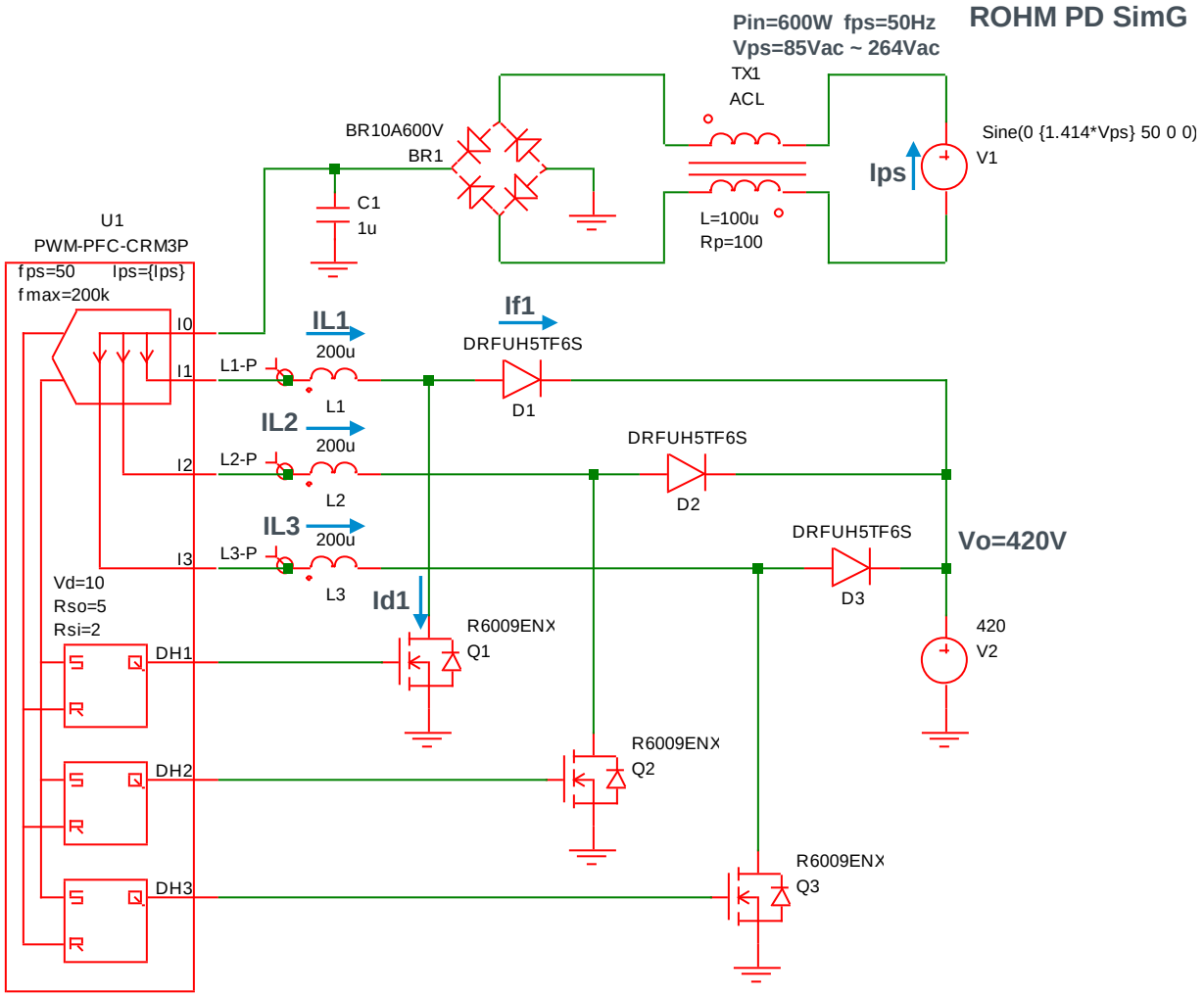
Q1,2,3: R6009ENX
MOSFET (600V 9A)
D1,2,3: RFUH5TF6S
FRD (600V 5A)

L1,2,3: 200uH

BR1: 600V 10A

TX1: LPF 500uH // 100Ω

Tj=-25℃ ~ 125℃

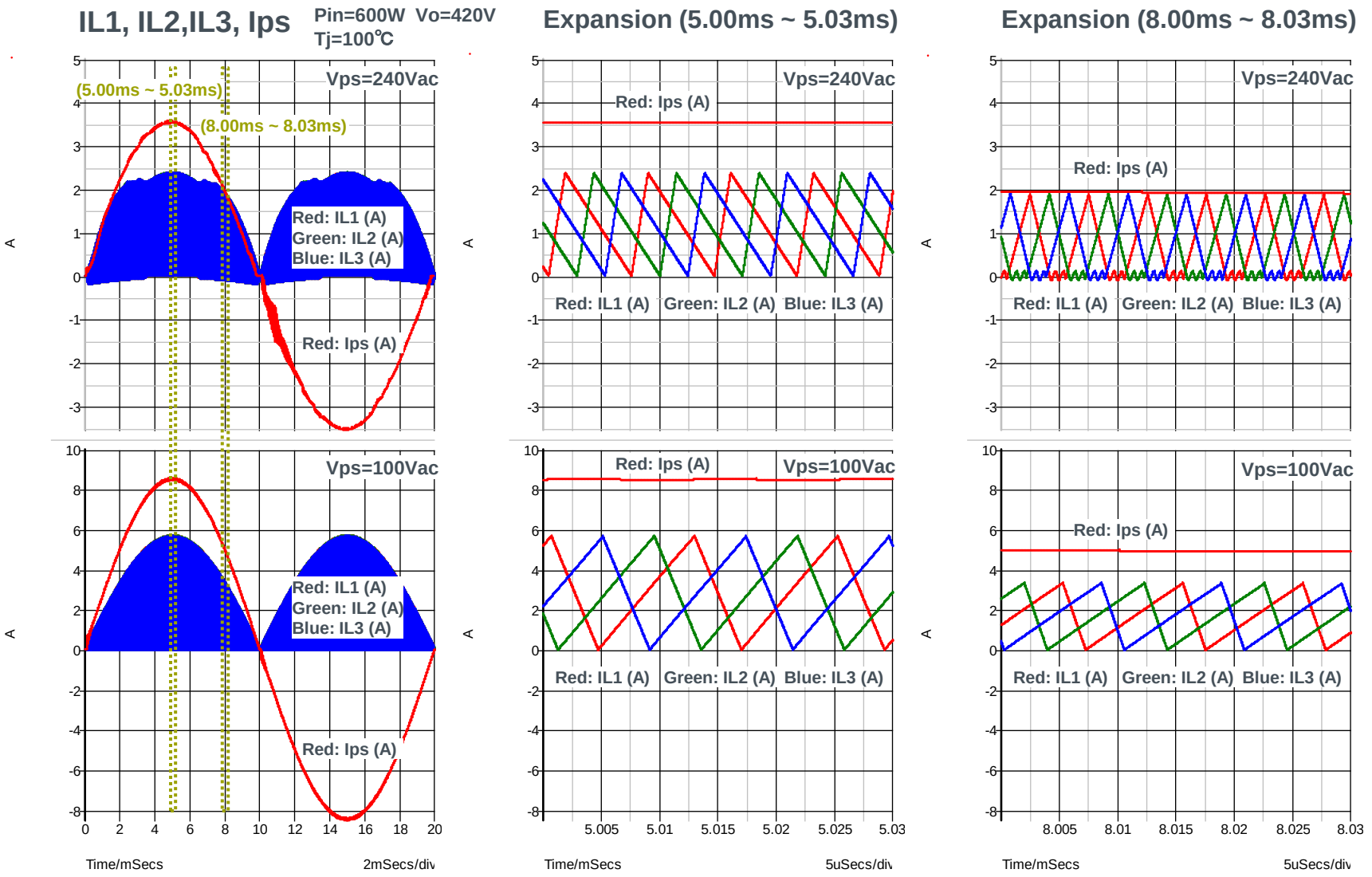


SIMetrix SPICE Simulation Data File

PFC Critical Current Mode 3P-Interleave Pin=600W.sxsch

Simulation Waveform 1

ROHM PD SimG

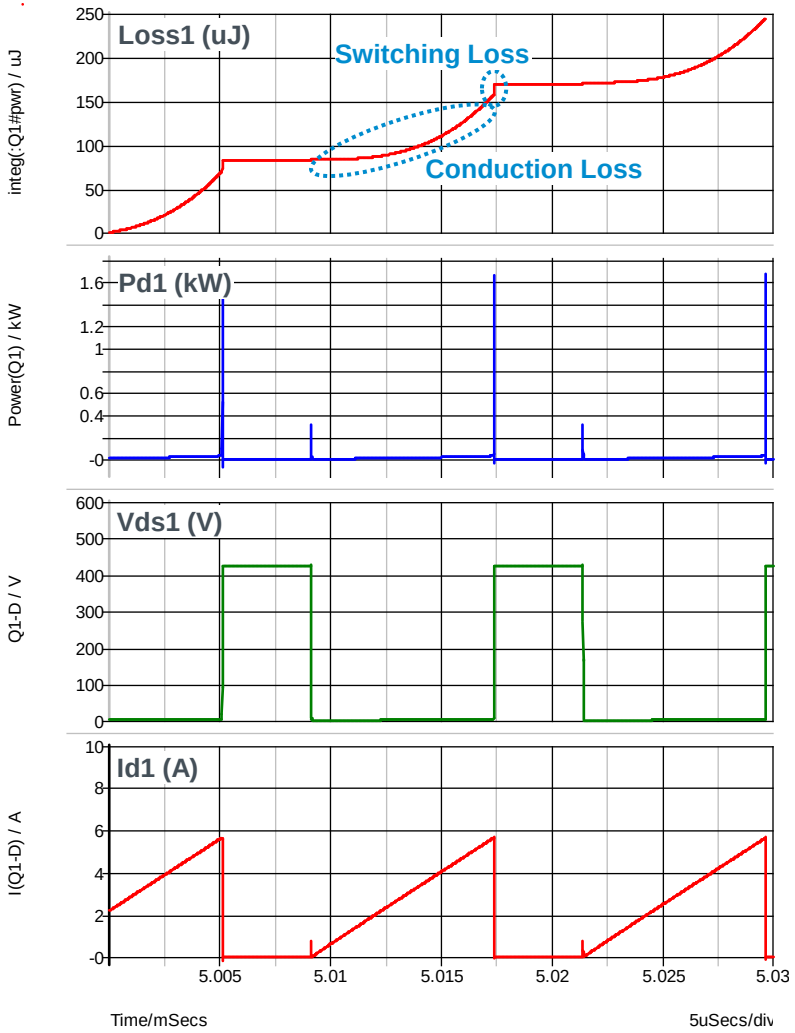


Simulation Waveform 2

ROHM PD SimG

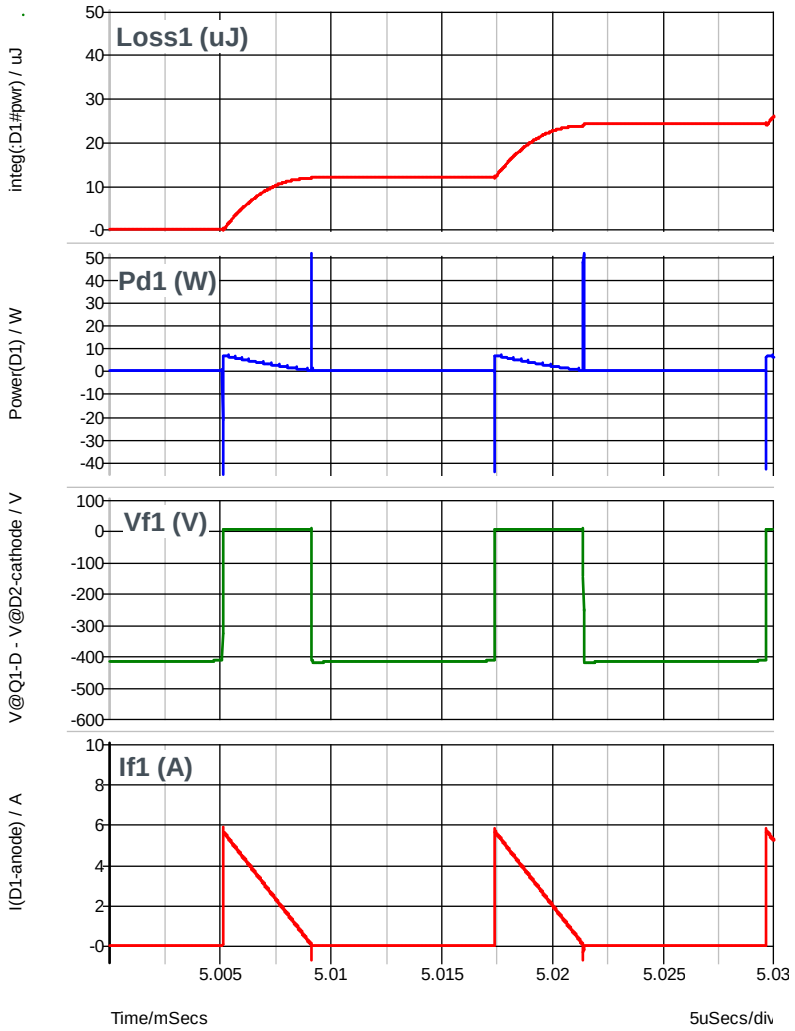
Q1_Loss1, Pd1, Vds1, Id1

Pin=600W Vps=100Vac
Vo=420V Tj=100℃



D1_Loss1, Pd1, Vf1, If1

Pin=600W Vps=100Vac
Vo=420V Tj=100℃

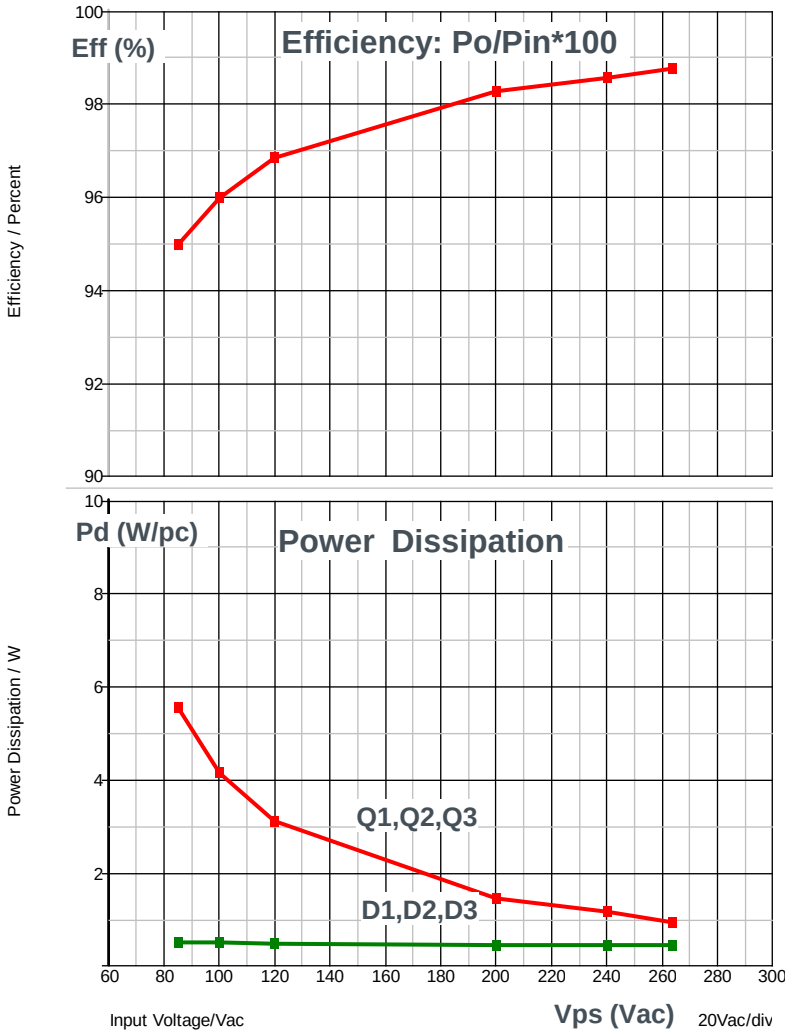


Efficiency, Power Dissipation 1

ROHM PD SimG

Vps: 85Vac ~ 264Vac

Pin=600W Vo=420V
Tj=100℃



Pin: 120W ~ 600W

Vps=100Vac Vo=420V
Tj=100℃

Efficiency, Power Dissipation 2

ROHM PD SimG