

PFC Continuous Current Mode 1P Pin=500W

PFC Continuous Current Mode 1P Simulation Circuit

Input: Pin=500W fps=50Hz
Vps=85Vac ~ 264Vac

Output: Vo=420Vdc

PWM: fsw=100kHz

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

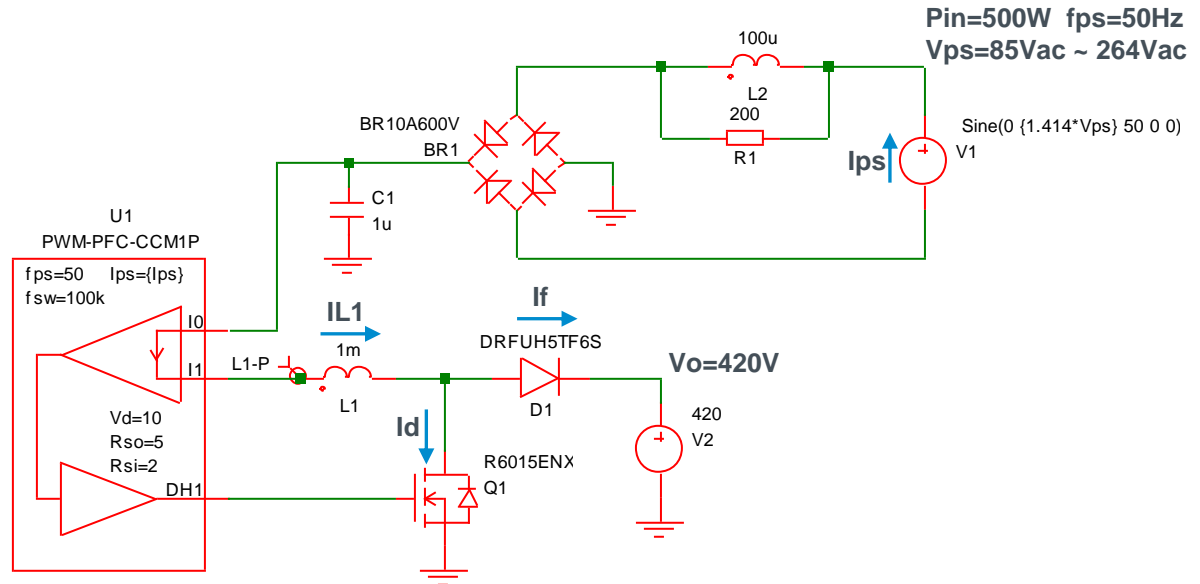
Q1: R6015ENX
MOSFET (600V 15A)

D1: RFUH5TF6S
FRD (600V 5A)

L1: 1mH
L2: 100uH

BR1: 600V 10A

Tj=-25°C ~ 125°C



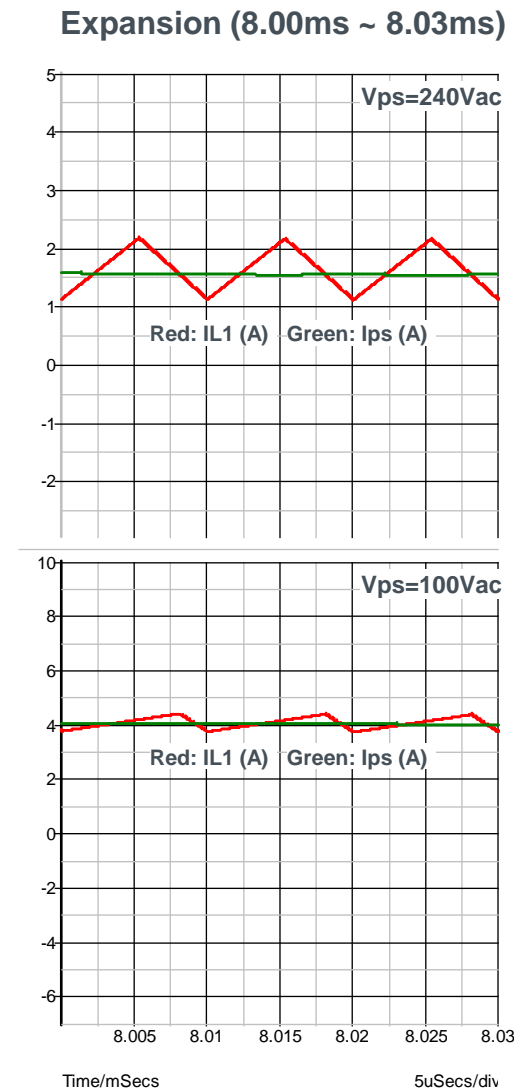
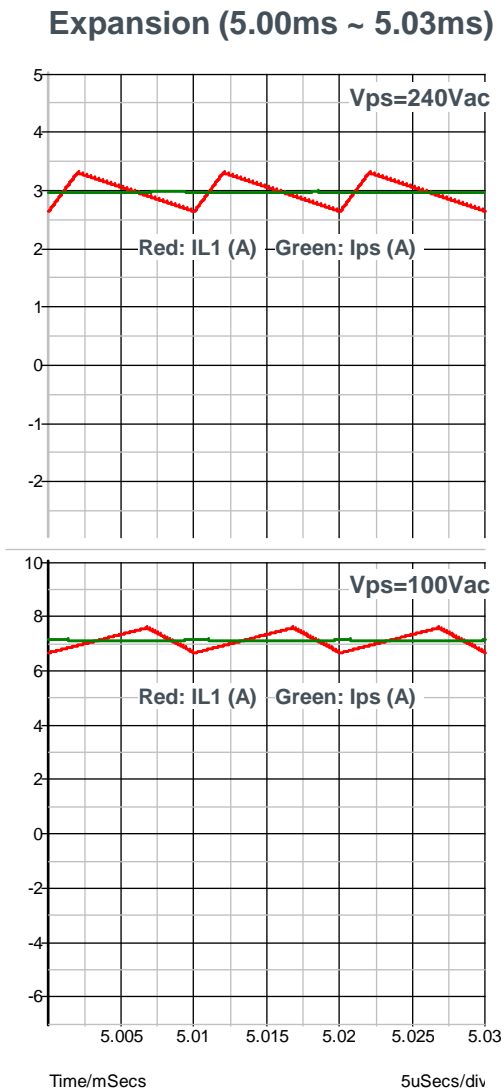
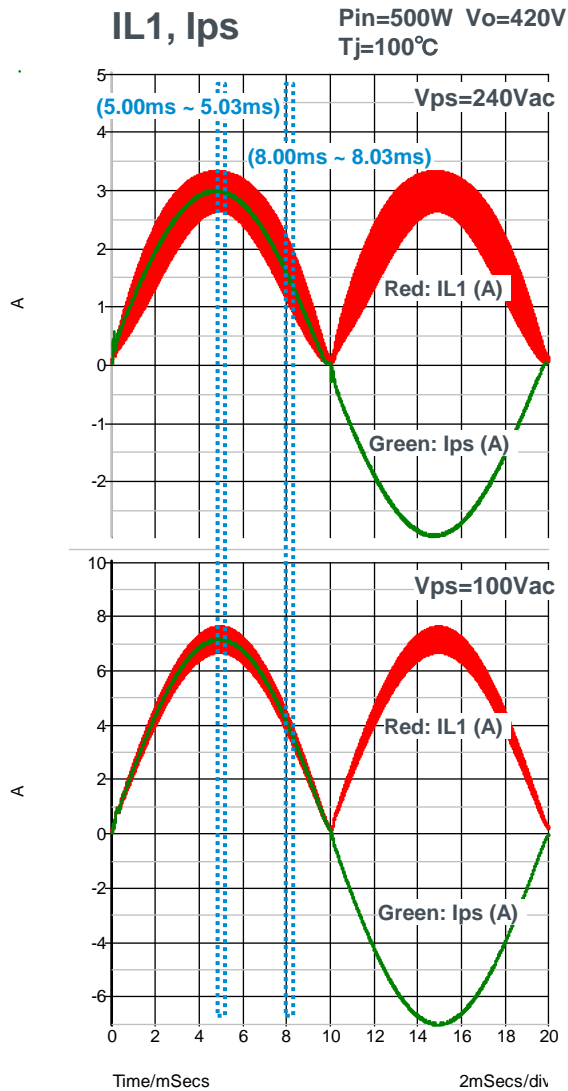
SIMetrix SPICE Simulation Data File



PFC Continuous Current Mode 1P Pin=500W.sxsch

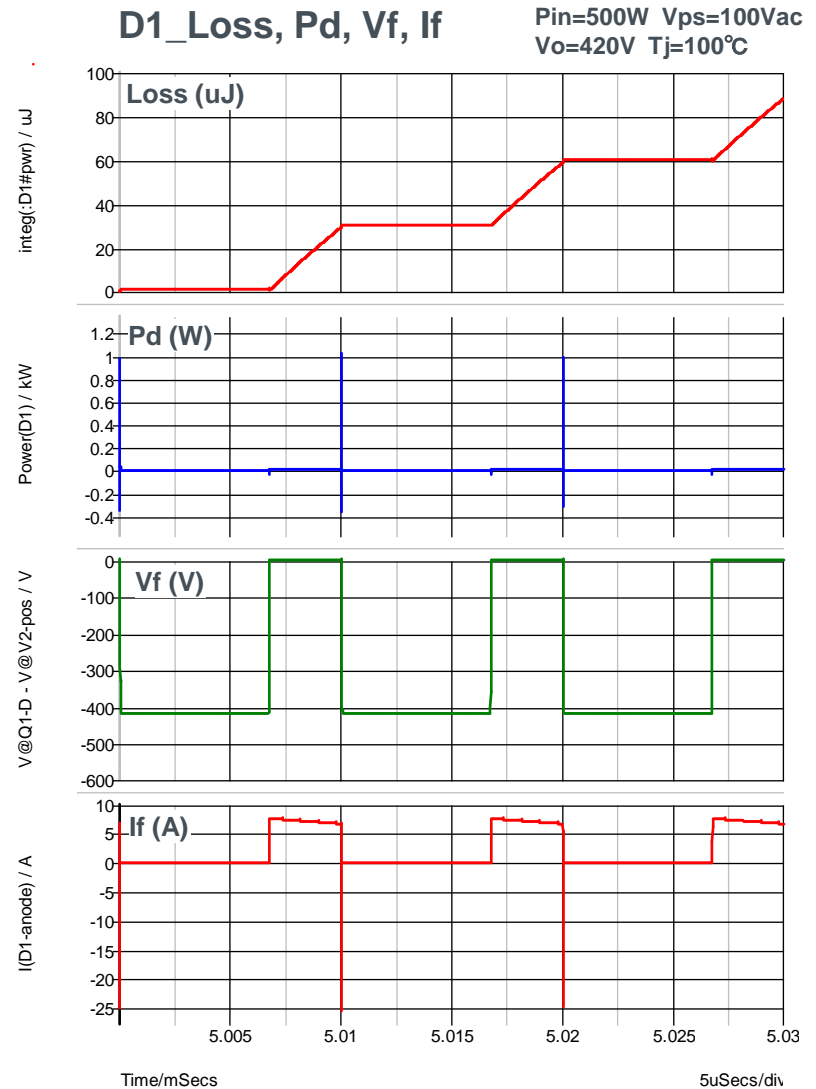
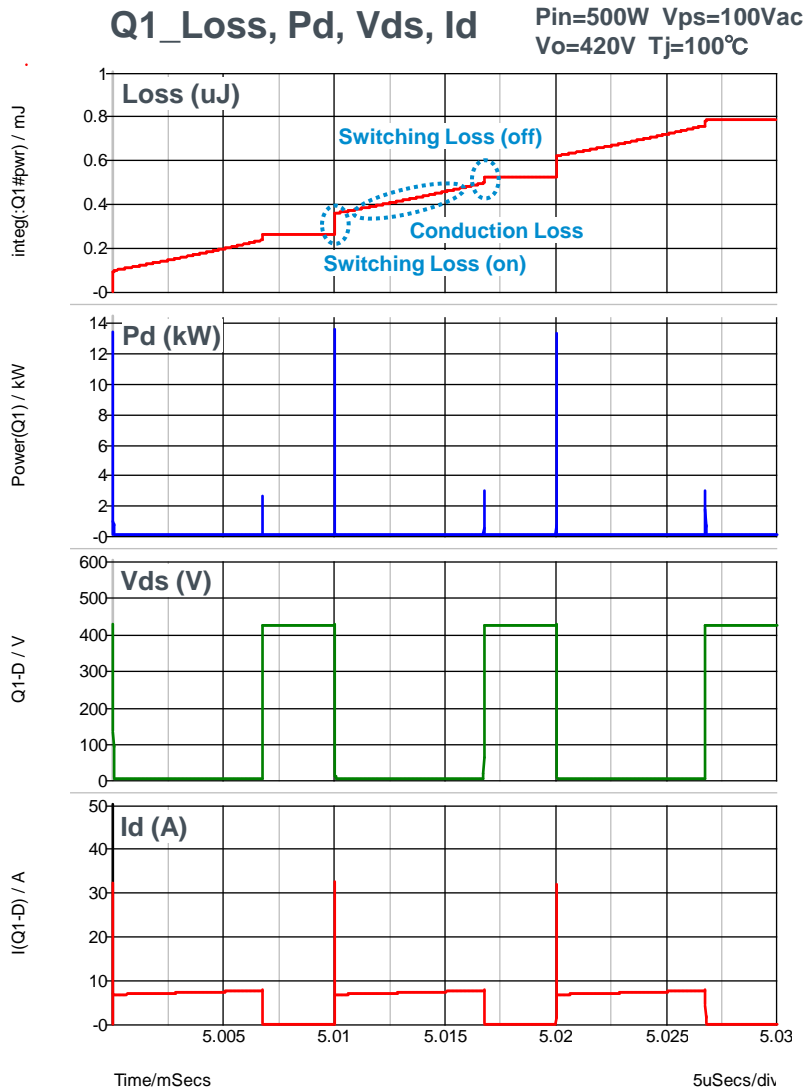
Simulation Waveform 1

ROHM PD SimG



Simulation Waveform 2

ROHM PD SimG

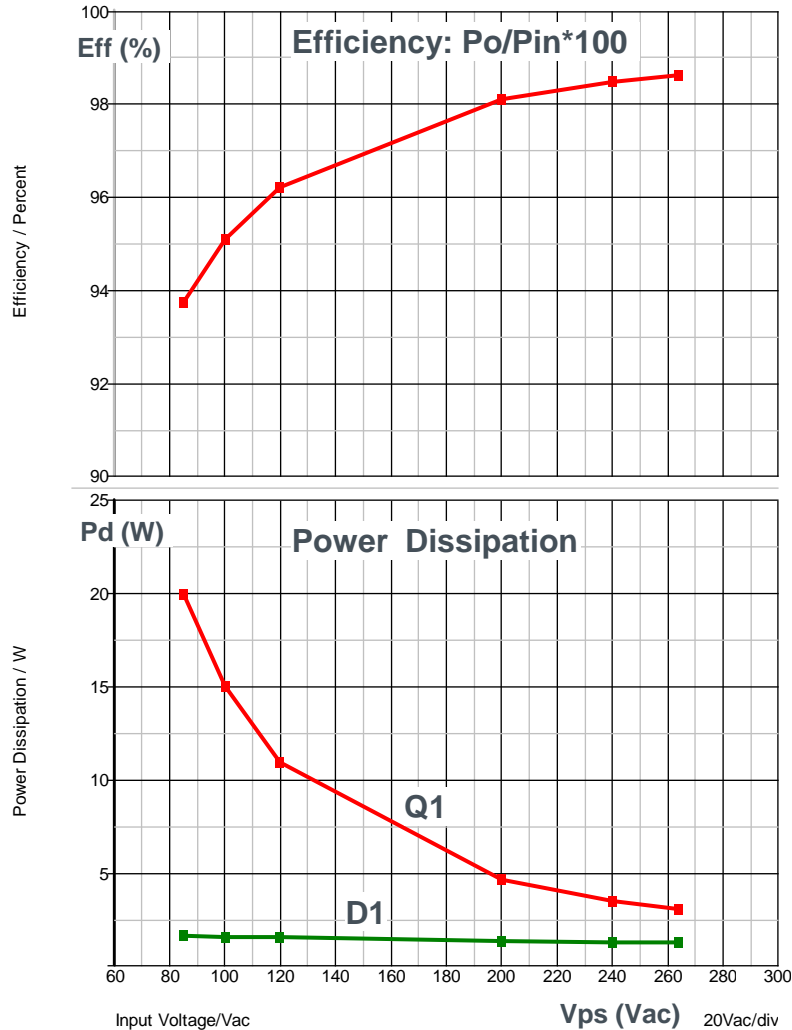


Efficiency, Power Dissipation 1

ROHM PD SimG

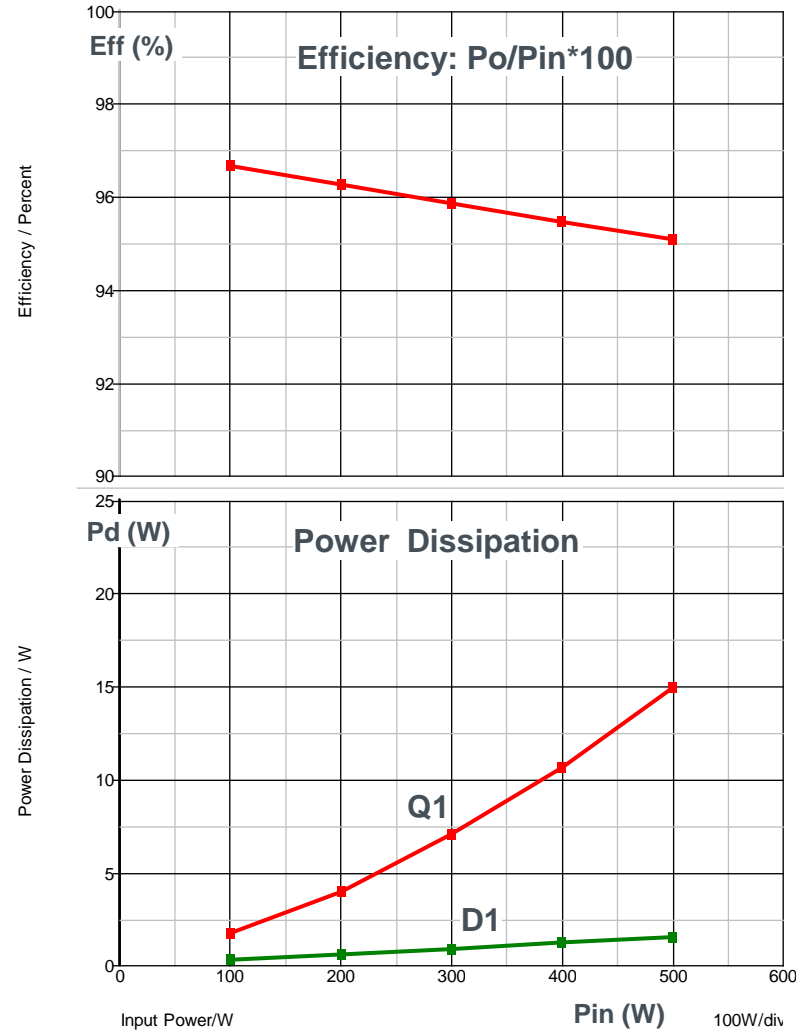
Vps: 85Vac ~ 264Vac

Pin=500W Vo=420V
Tj=100°C



Pin: 100W ~ 500W

Vps=500Vac Vo=420V
Tj=100°C

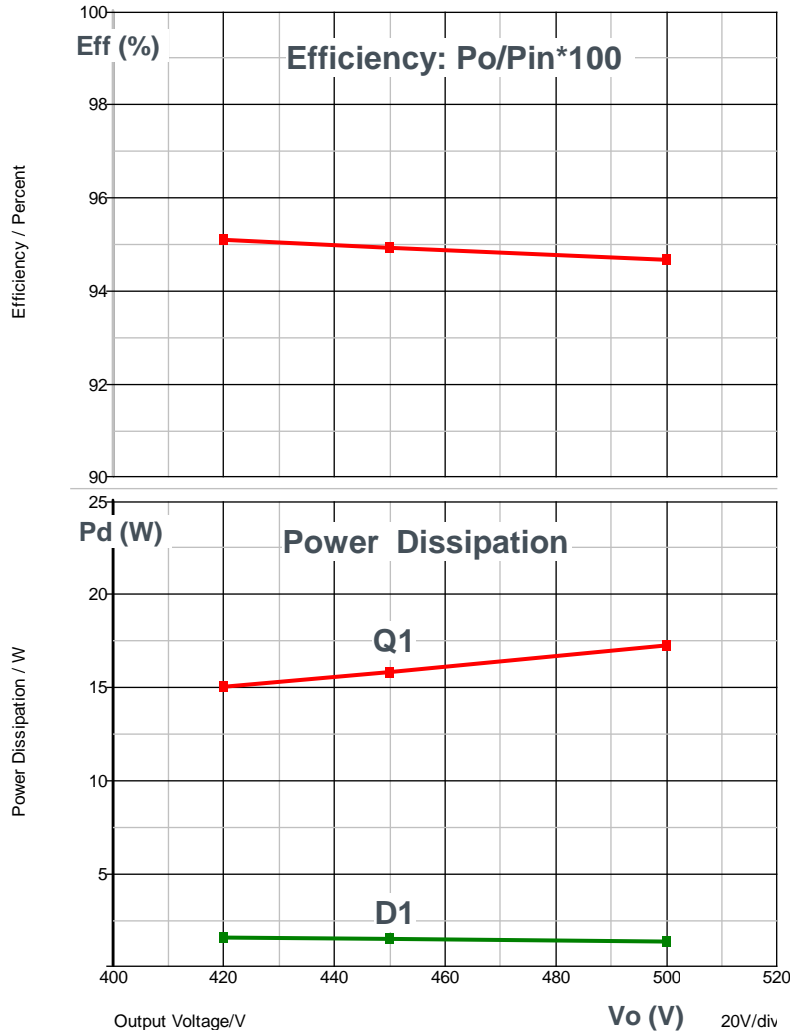


Efficiency, Power Dissipation 2

ROHM PD SimG

Vo: 420V ~500V

Pin=500W Vps=100Vac
Tj=100°C



Tj: -25°C ~ 125°C

Pin=500W Vps=100Vac
Vo=420V

