3-Phase 4-Wire PS Inverter Po=6kW

3-Phase 4-Wire PS Inverter Simulation Circuit

Input: Vin=200Vdc + 200Vdc

Output: Po=6kW 50Hz
115/200Vac 17.32Aac

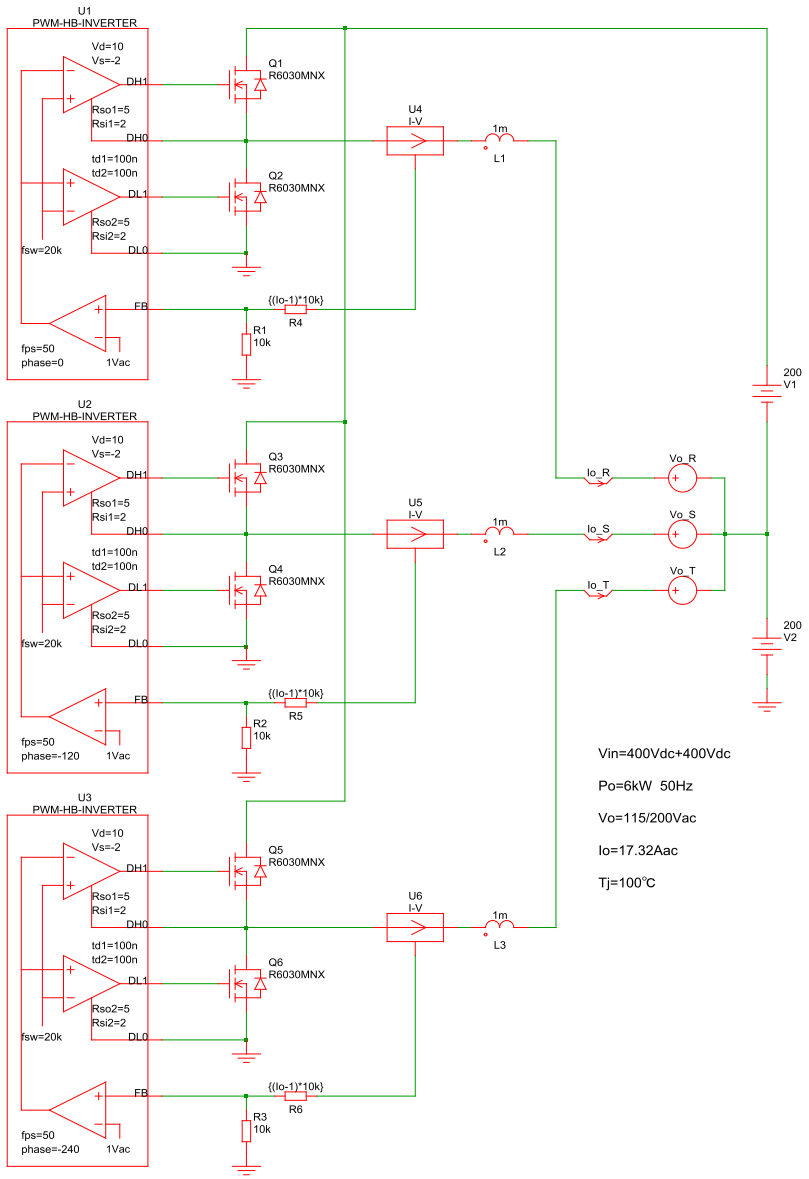
PWM: fsw=20kHz
td1=100ns
td2=100ns

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

Q1,2,3,4,5,6: R6030MNX
Si MOSFET (600V 30A)

L1,2,3: 1mH

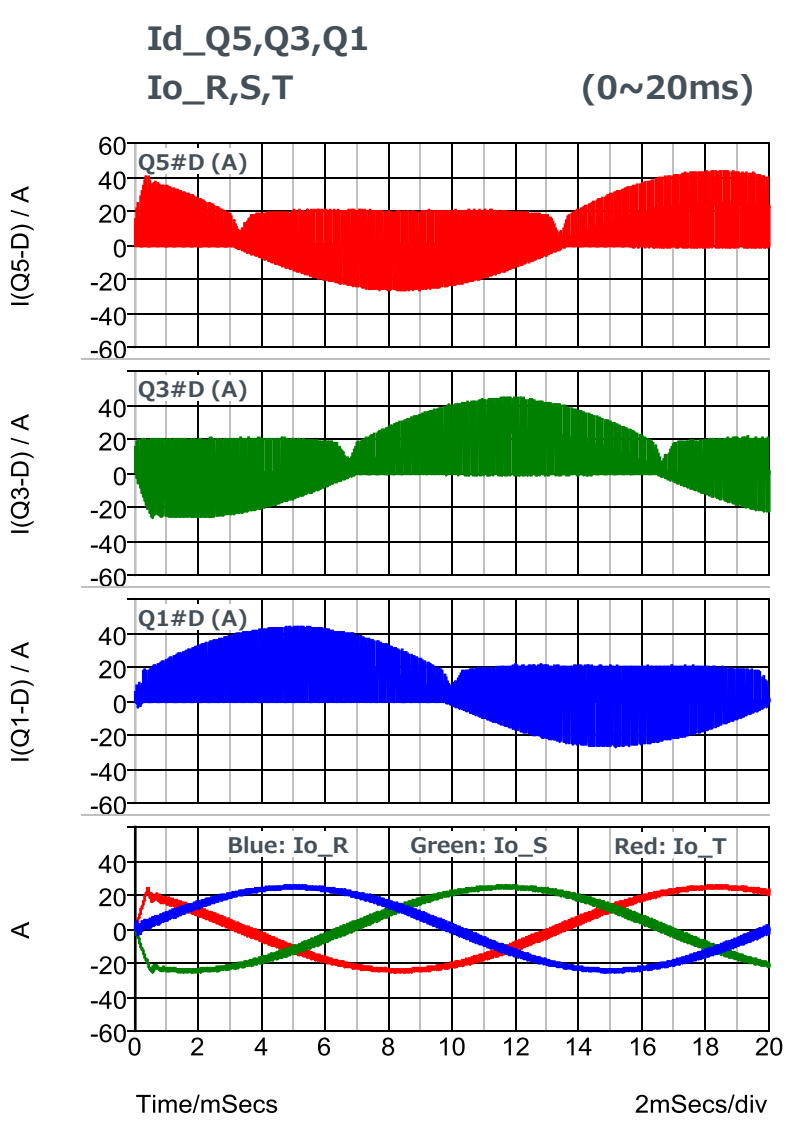
Tj=100℃

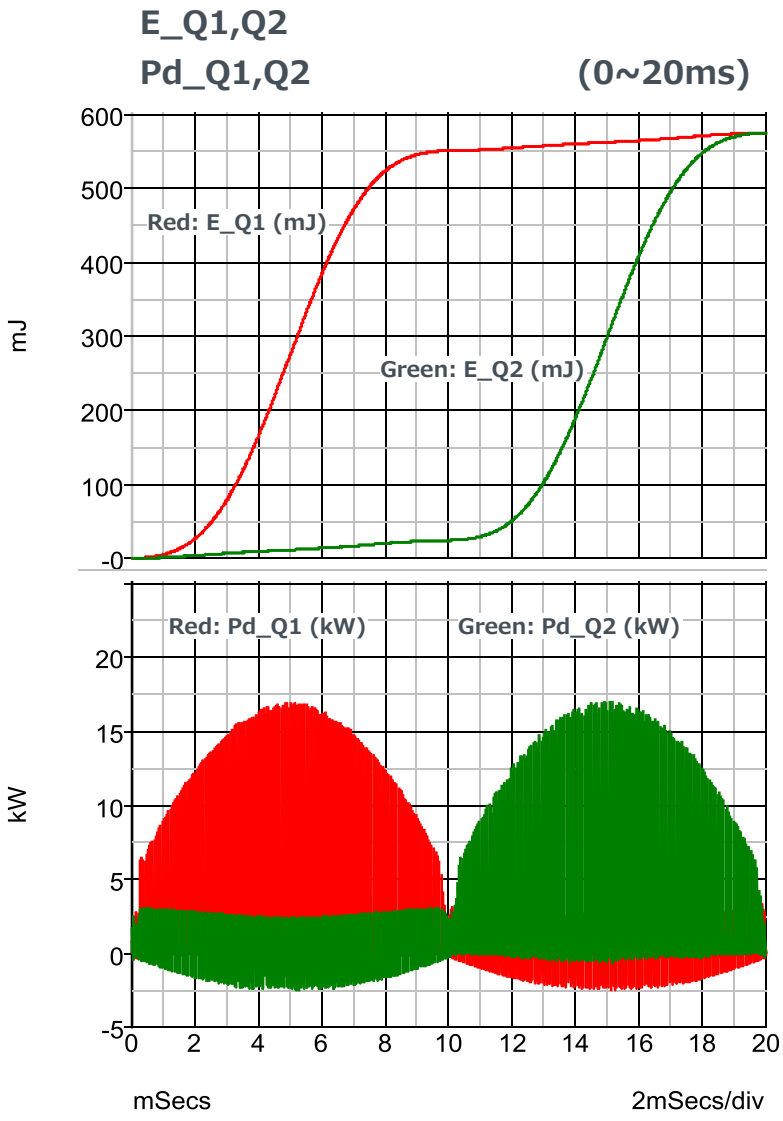


SIMetrix SPICE Simulation Data File

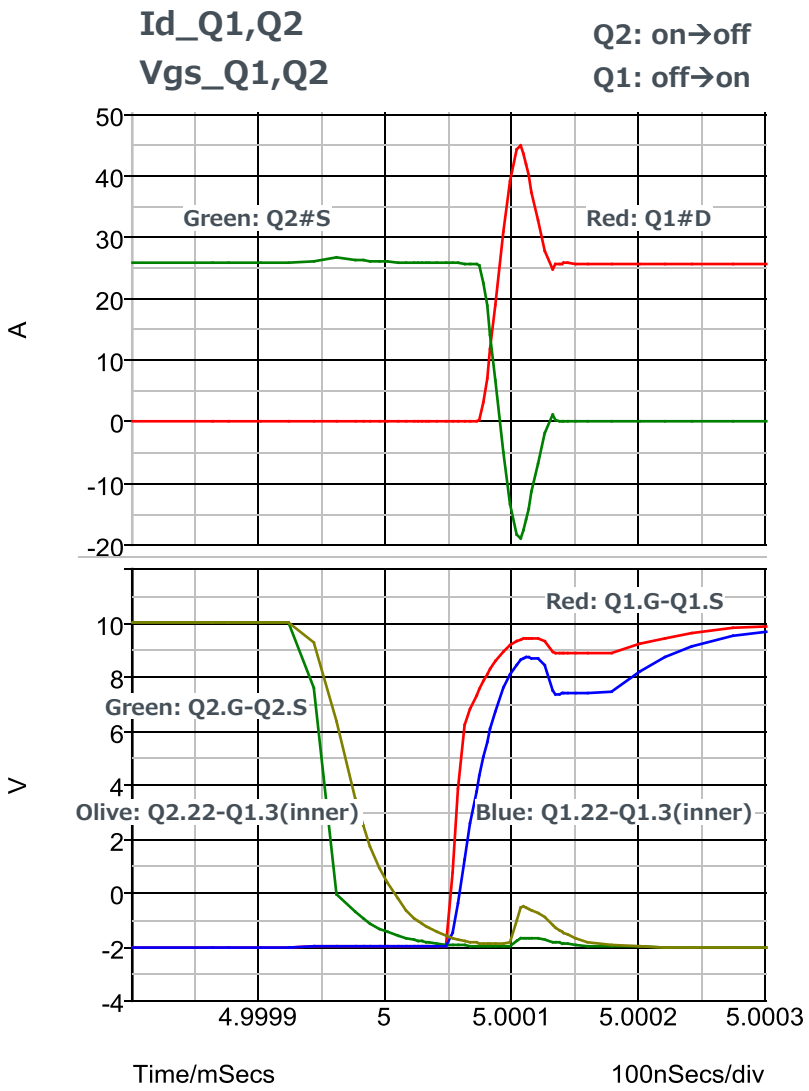
DC-AC 3-Phase 4-Wire PS Inverter Po=6kW.wxsch

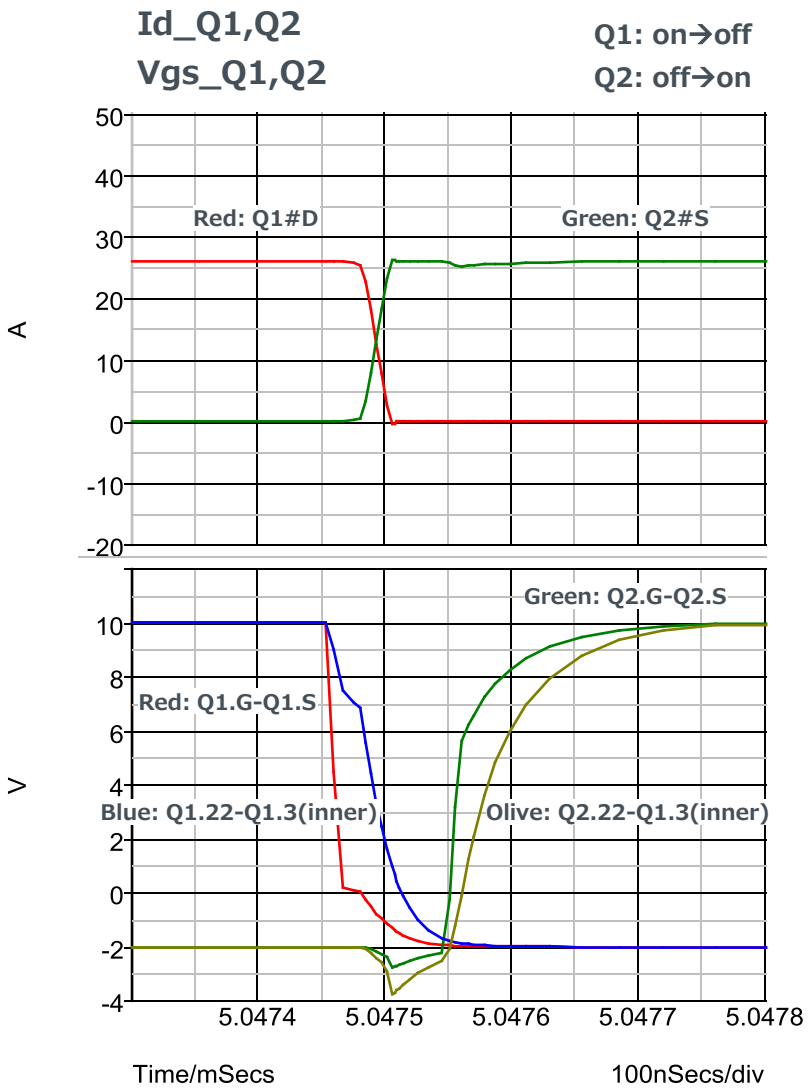
Simulation Waveform 1





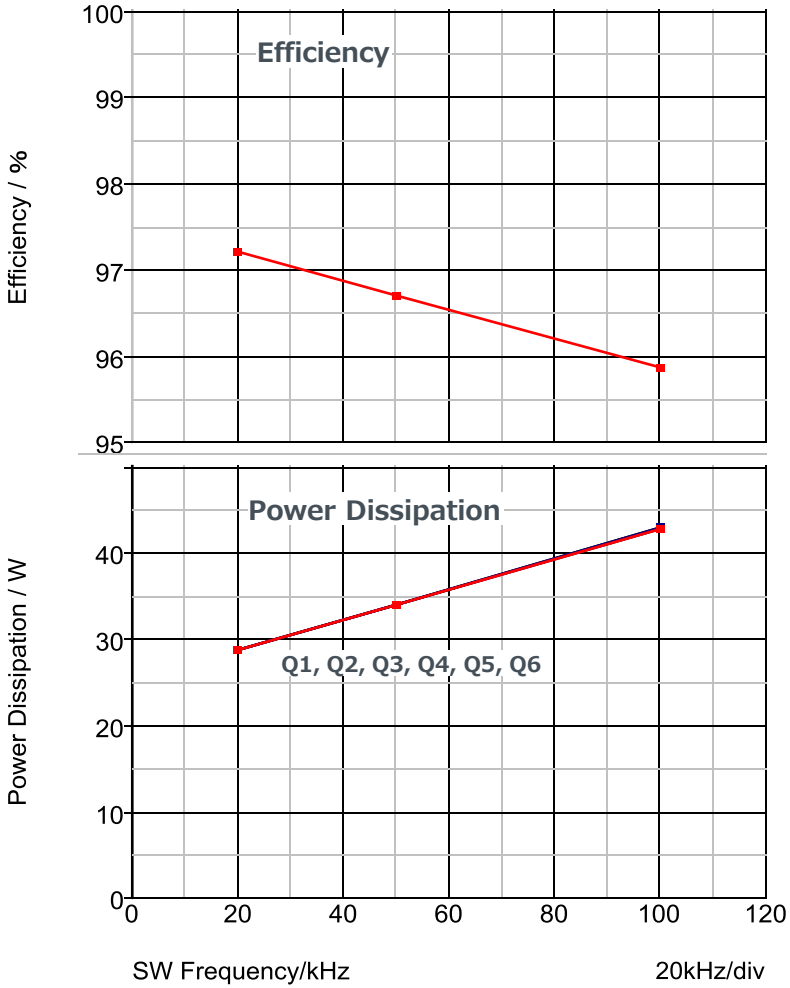
Simulation Waveform 2





Efficiency, Power Dissipation

fsw=20kHz~100kHz



Junction Temperature=-25℃~125℃