

PFC CCM Totem-Pole Synchro Vin=200V Iin=100A

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**Input : Vin=200Vac
Iin=100Aac**

Output : Vo=500Vdc

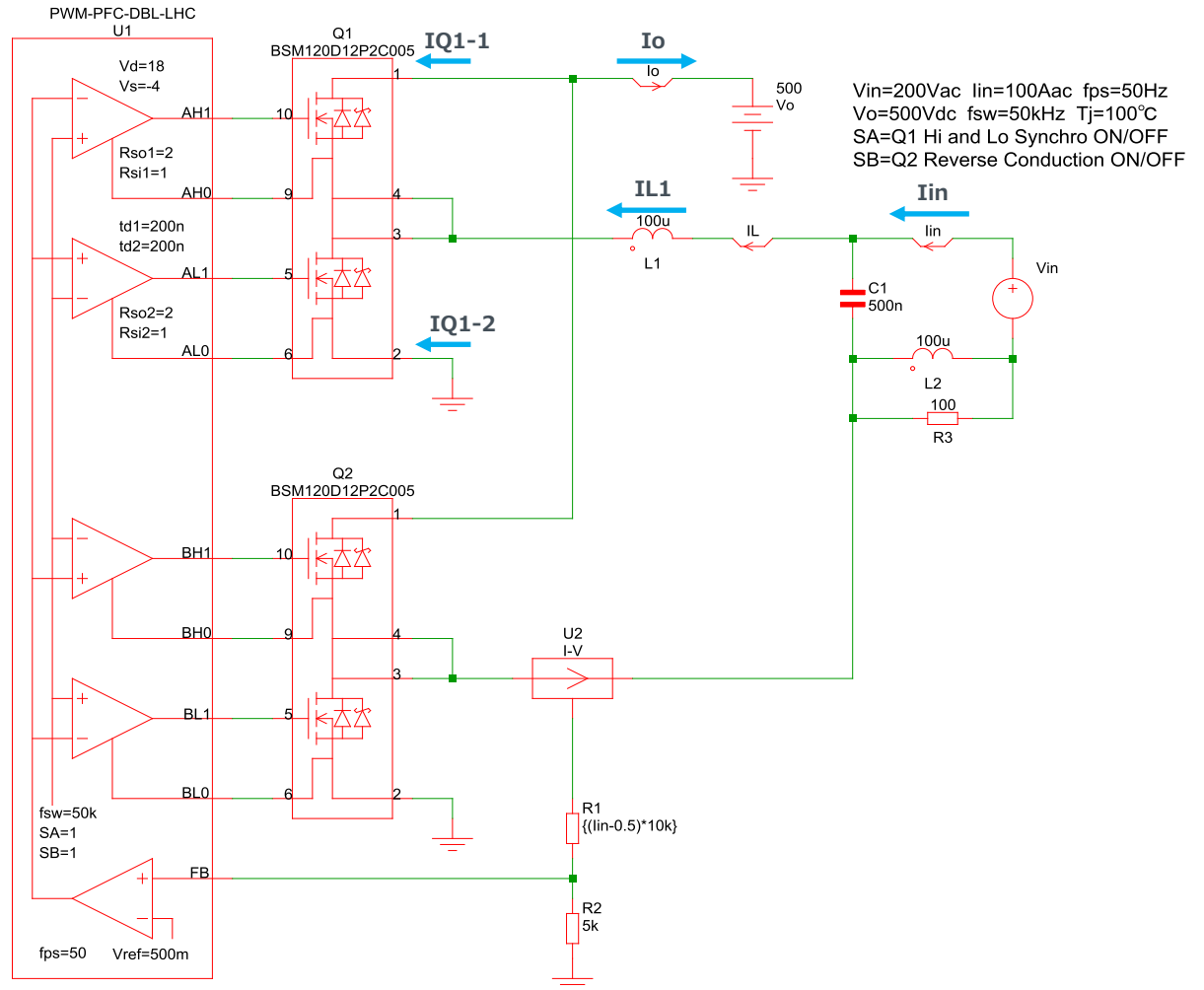
**Gate Drive : Vd=18V
R source=2Ω
R sink=1Ω**

**Q1,Q2 : BSM120D12P2C005
SiC Power Module
(1200V 120A)**

L1,L2 : 100uH

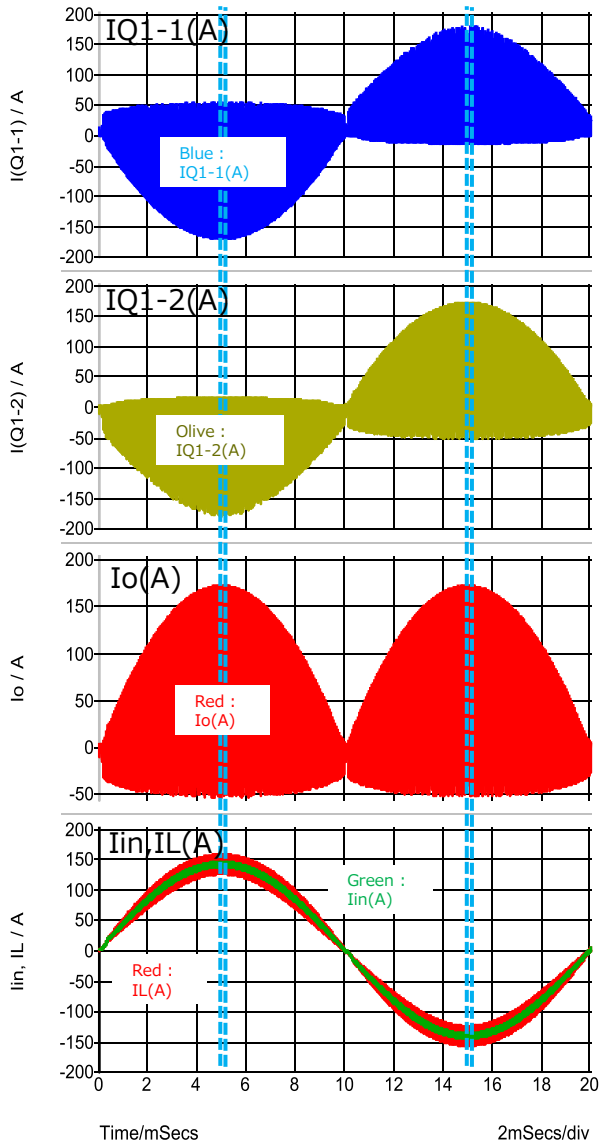
C1 : 500nF

Tj=100°C

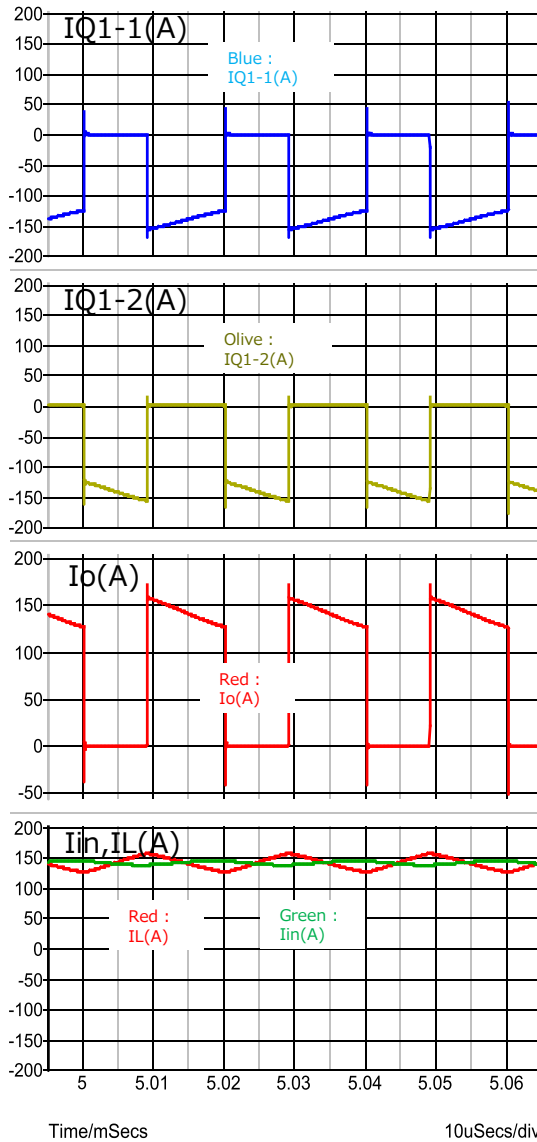


Simulation Waveform

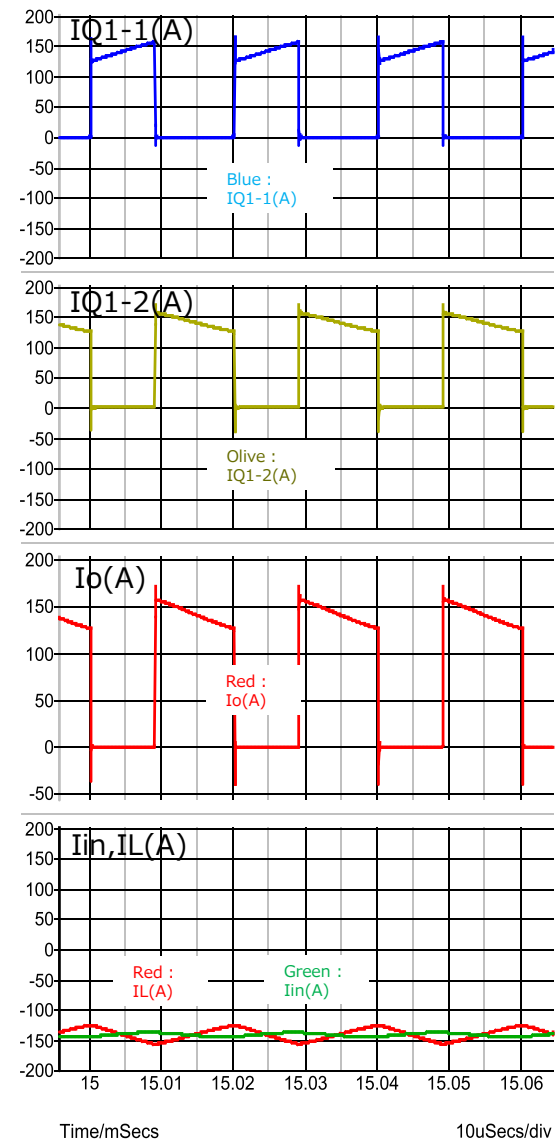
I_{Q1} , I_o , I_{in} , I_L $V_{in}=200V_{ac}$ $I_{in}=100A_{ac}$
 $V_o=500V_{dc}$ $T_j=100^{\circ}C$



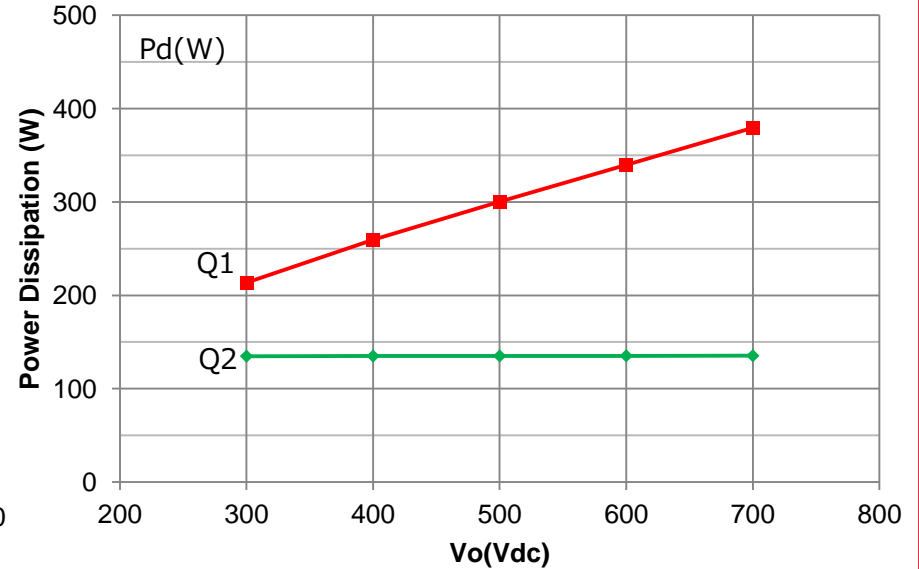
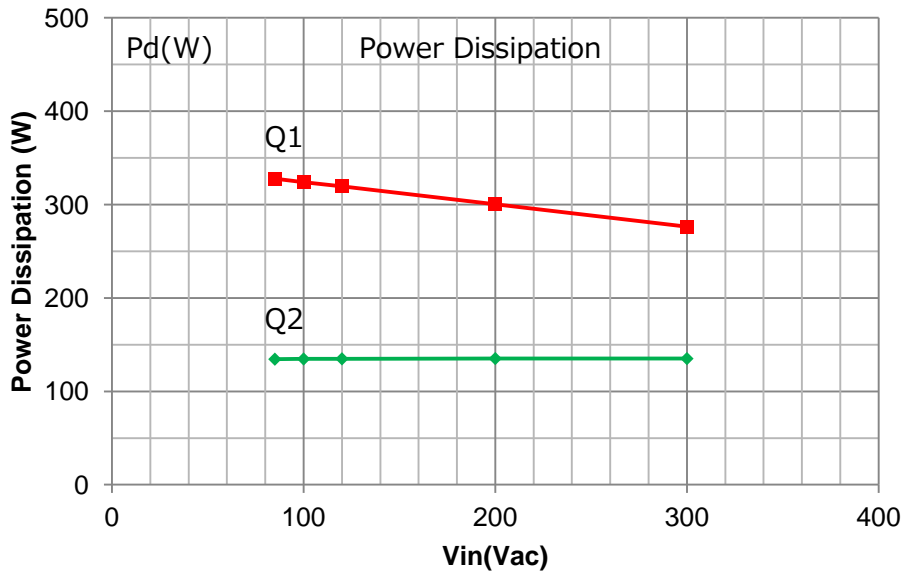
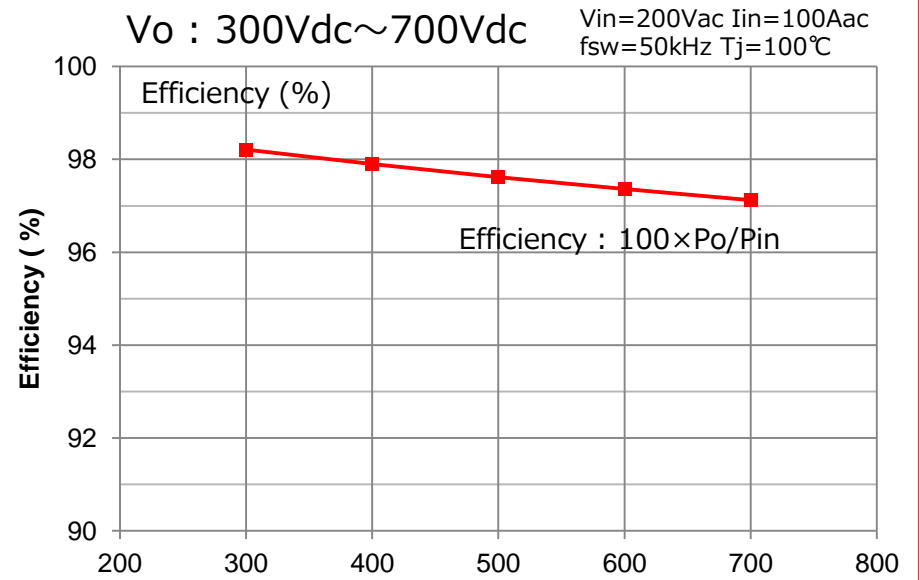
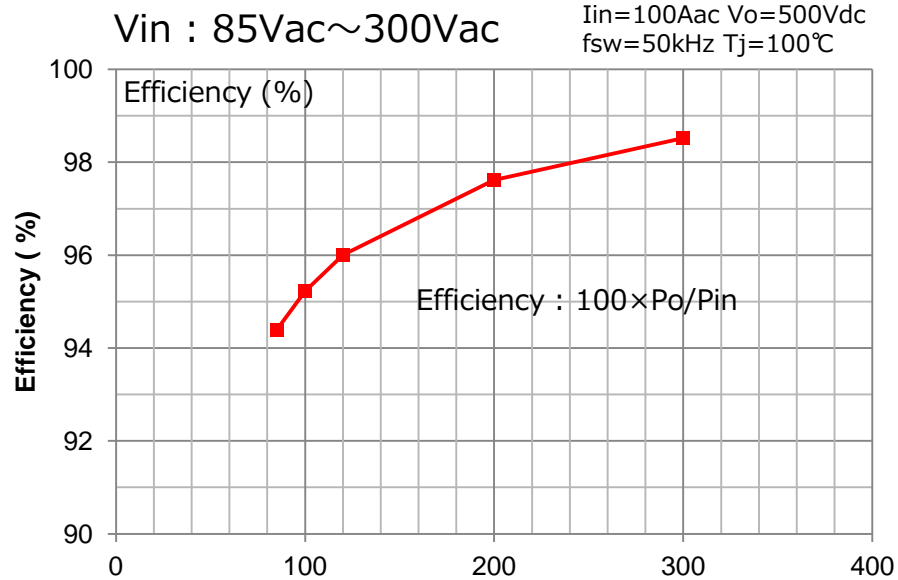
Expansion (5.00m~5.06ms)



Expansion (15.00m~15.06ms)



Efficiency, Power Dissipation 1



Efficiency, Power Dissipation 2

