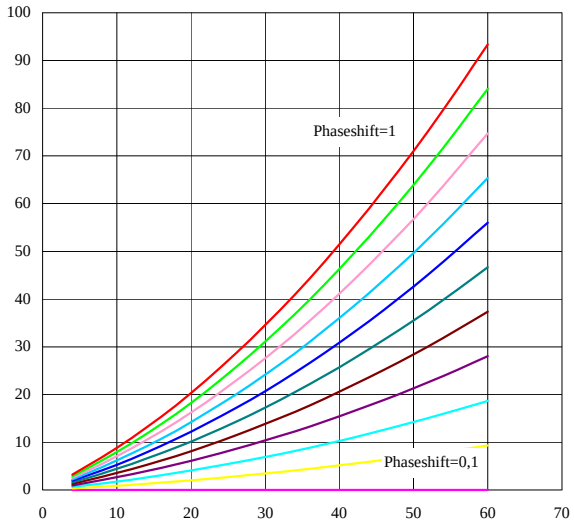
Output inverter application

Phase shifted ZVS, Vgeon= 15 V Vgeoff=0V Rgon= 4 ohms Rgoff= 2 ohms

Figure 1. Typical static loss of shifted switch as a function of output current

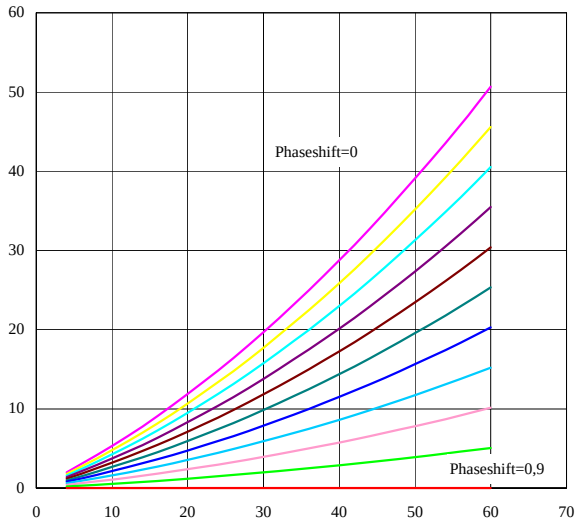
IGBT Ploss=f(Iout)



Conditions: Tj=125°C
Phaseshift parameter Phaseshift from 0,10 to 1,00 in 0,10 steps

Figure 2. Typical static loss of shifted switch as a function of output current

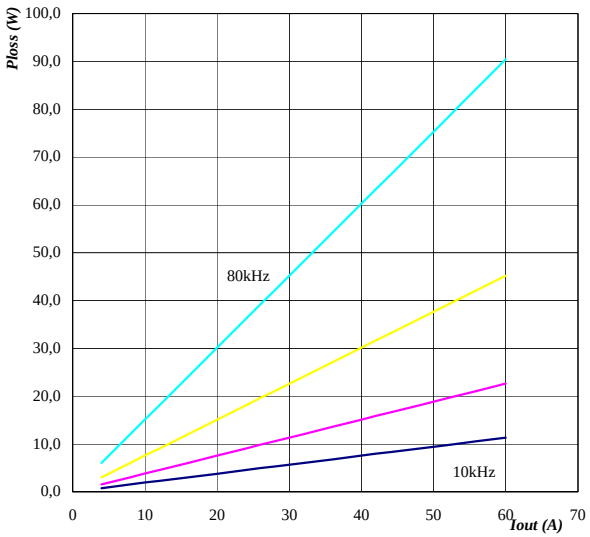
FRED Ploss=f(Iout)



Conditions: Tj=125°C
Phaseshift parameter Phaseshift from 0,00 to 0,90 in 0,10 steps

Figure 3. Typical switching loss as a function of output current

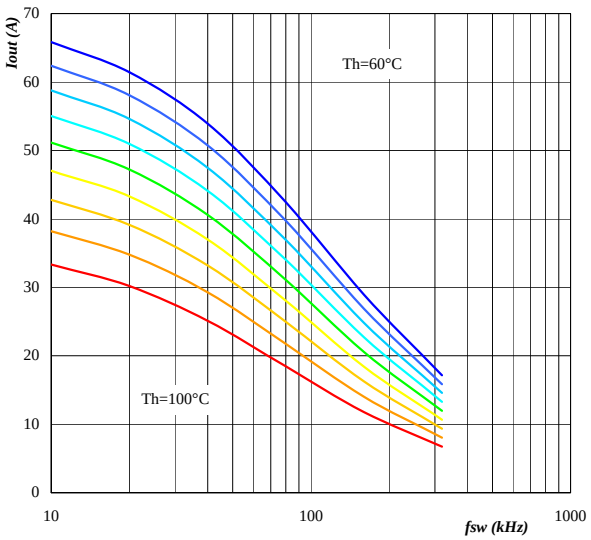
IGBT Ploss=f(Iout)



Conditions: Tj=125C
Ioutpk/Iout= 1,3 DC link= 300 V
Phaseshift= 1
Switching freq. fsw from 10 kHz to 80 kHz
parameter in * 2 steps

Figure 4. Typical available output current as a function of switching frequency

Phase Iout=f(fsw)



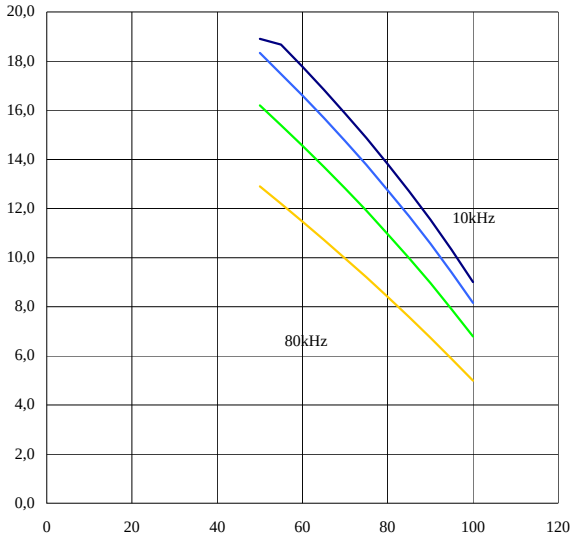
Conditions: Tj=125C
Ioutpk/Iout= 1,3 DC link= 300 V
Phaseshift= 1
Heatsink temp. Th from 60 °C to 100 °C
parameter in 5 °C steps

Output inverter application

Phase shifted ZVS, Vgeon= 15 V Vgeoff=0V Rgon= 4 ohms Rgoff= 2 ohms

Figure 5. Typical available electric peak output power as a function of heatsink temperature

Inverter Pout=f(Th)

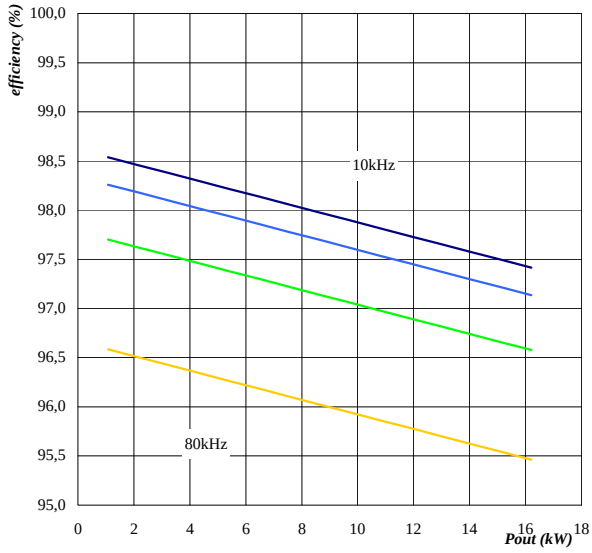


Conditions: Tj=125C
Ioutpk/Iout= 1,3 DC link= 300 V
Phaseshift= 1

Switching freq. parameter fsw from 10 kHz to 80 kHz in * 2 steps

Figure 6. Typical efficiency as a function of output power

Inverter efficiency=f(Pout)



Conditions: Tj=125C
Ioutpk/Iout= 1,3 DC link= 300 V
Phaseshift= 1

Switching freq. parameter fsw from 10 kHz to 80 kHz in * 2 steps