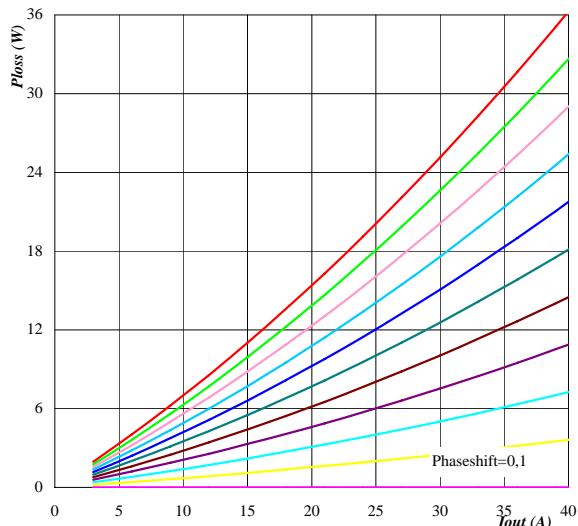


**Output inverter application**

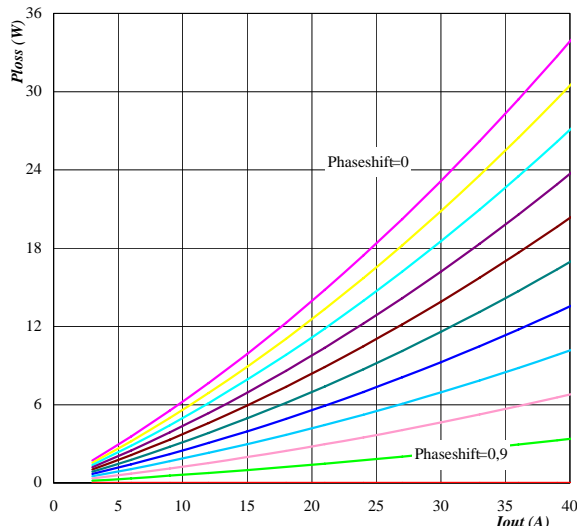
Phase shifted ZVS,  $V_{geon}= 15\text{ V}$   $V_{geoff}=0\text{V}$   $R_{gon}= 6\text{ ohms}$   $R_{goff}= 1\text{ ohms}$

**Figure 1. Typical static loss of shifted switch as a function of output current**  
IGBT  $P_{loss}=f(I_{out})$



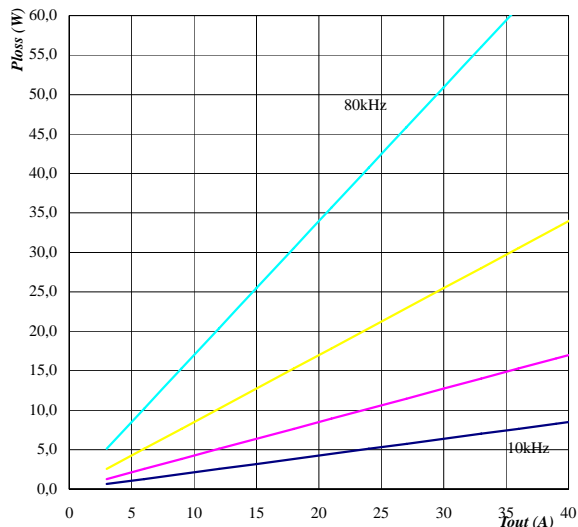
Conditions:  $T_j=125^\circ\text{C}$   
Phaseshift parameter Phaseshift from 0,10 to 1,00 in 0,10 steps

**Figure 2. Typical static loss of shifted switch as a function of output current**  
FRED  $P_{loss}=f(I_{out})$



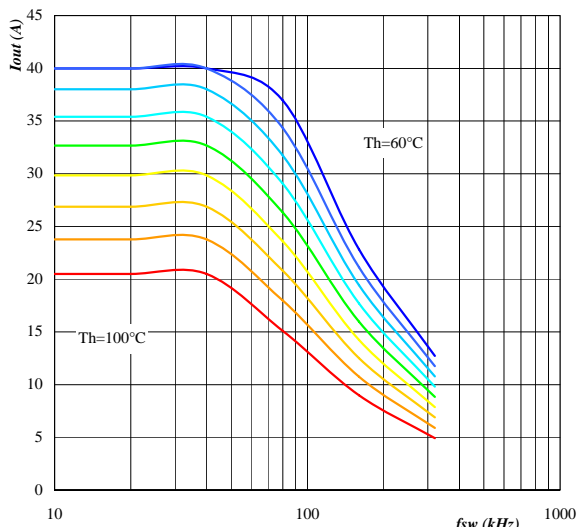
Conditions:  $T_j=125^\circ\text{C}$   
Phaseshift parameter Phaseshift from 0,00 to 0,90 in 0,10 steps

**Figure 3. Typical switching loss as a function of output current**  
IGBT  $P_{loss}=f(I_{out})$



Conditions:  $T_j=125^\circ\text{C}$   
 $I_{outpk}/I_{out}= 1,3$  DC link= 320 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  $I_{out}=f(fsw)$



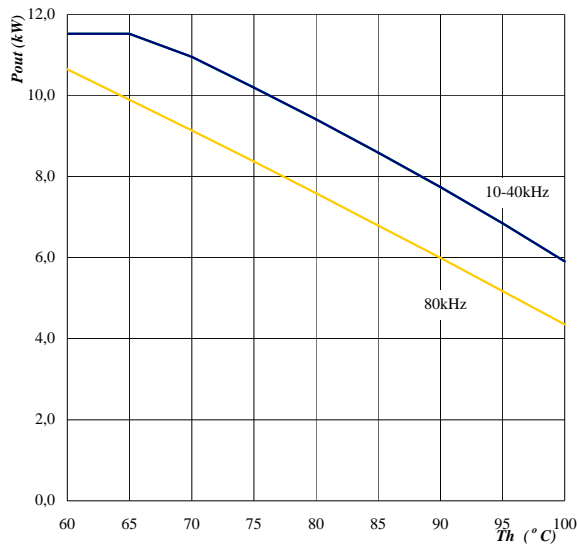
Conditions:  $T_j=125^\circ\text{C}$   
 $I_{outpk}/I_{out}= 1,3$  DC link= 320 V  
Phaseshift= 1  
Heatsink temp.  $T_h$  from 60 °C to 100 °C  
parameter in 5 °C steps

### Output inverter application

Phase shifted ZVS,  $V_{geon}= 15\text{ V}$   $V_{geoff}=0\text{V}$   $R_{gon}= 6\text{ ohms}$   $R_{goff}= 1\text{ ohms}$

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

*Inverter*  $P_{out}=f(T_h)$

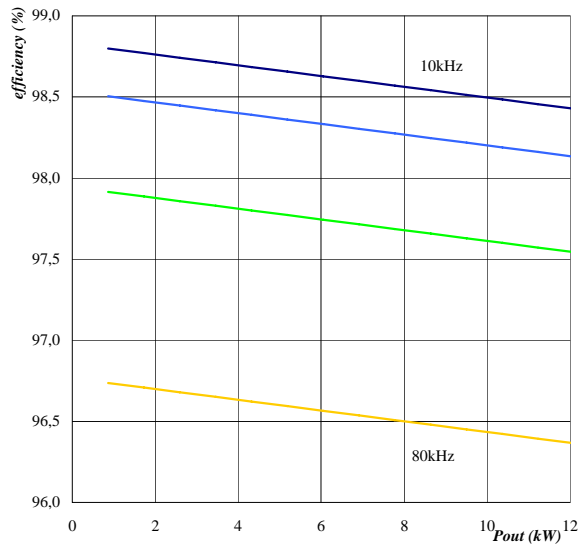


Conditions:  $T_j=125\text{C}$   
 $I_{outpk}/I_{out}= 1,3$  DC link= 320 V  
 Phaseshift= 1

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

**Figure 6. Typical efficiency as a function of output power**

*Inverter* efficiency=f(P<sub>out</sub>)



Conditions:  $T_j=125\text{C}$   
 $I_{outpk}/I_{out}= 1,3$  DC link= 320 V  
 Phaseshift= 1

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