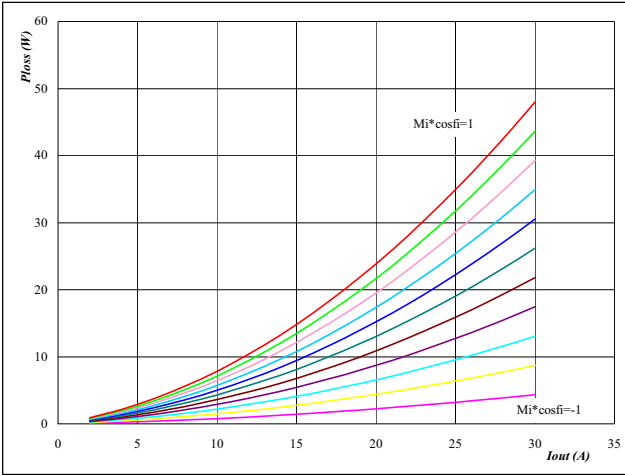


General conditions	
3phase SPWM	
V_{GEon}	= 15 V
V_{GEoff}	= -15 V
R_{gon}	= 4 Ω
R_{goff}	= 4 Ω

Figure 1 IGBT

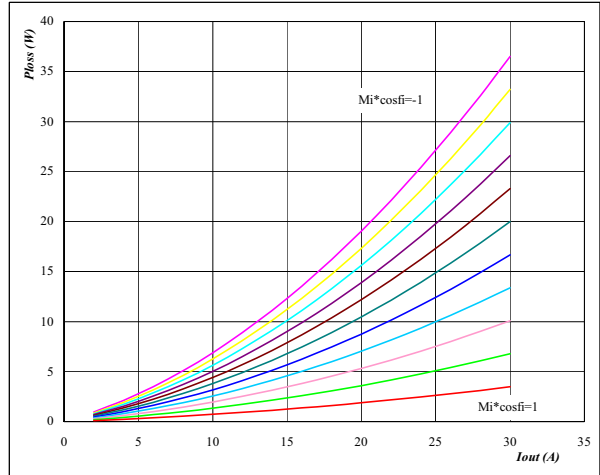
Typical average static loss as a function of output current
 $P_{loss} = f(I_{out})$



$T_j = 125^\circ\text{C}$
 $Mi \cdot \cos\phi_i$ from -1 to 1 in steps of 0,2

Figure 2 FRED

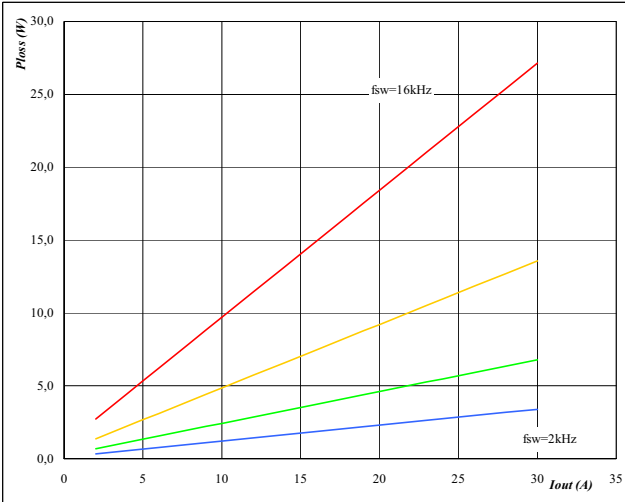
Typical average static loss as a function of output current
 $P_{loss} = f(I_{out})$



$T_j = 125^\circ\text{C}$
 $Mi \cdot \cos\phi_i$ from -1 to 1 in steps of -0,2

Figure 3 IGBT

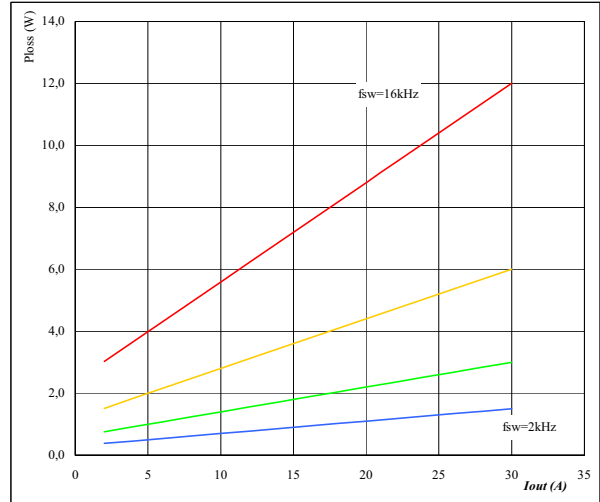
Typical average switching loss as a function of output current
 $P_{loss} = f(I_{out})$



$T_j = 125^\circ\text{C}$
DC link = 600 V
fsw from 2 kHz to 16 kHz in 2 steps

Figure 4 FRED

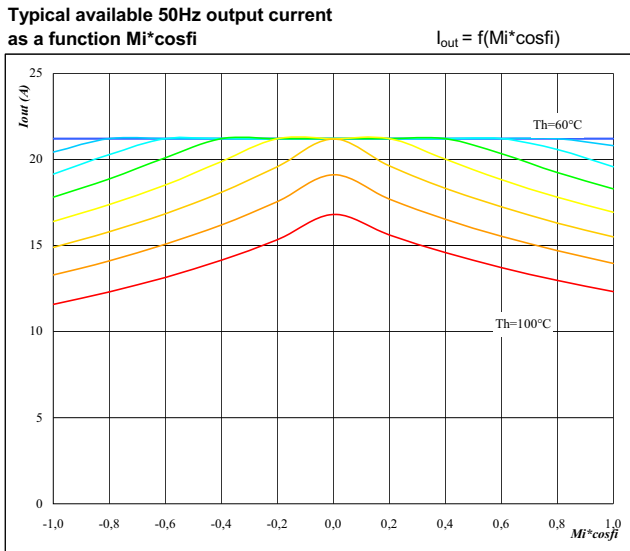
Typical average switching loss as a function of output current
 $P_{loss} = f(I_{out})$



$T_j = 125^\circ\text{C}$
DC link = 600 V
fsw from 2 kHz to 16 kHz in 2 steps

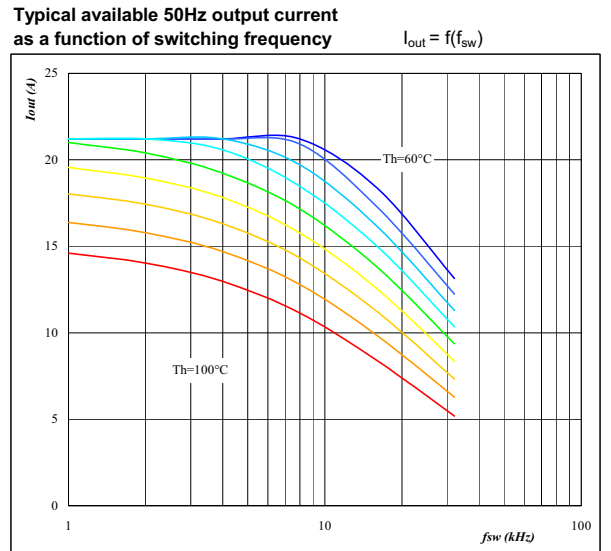
Output Inverter Application

Figure 5 Typical available 50Hz output current as a function $Mi \cdot \cos\phi_i$ Phase



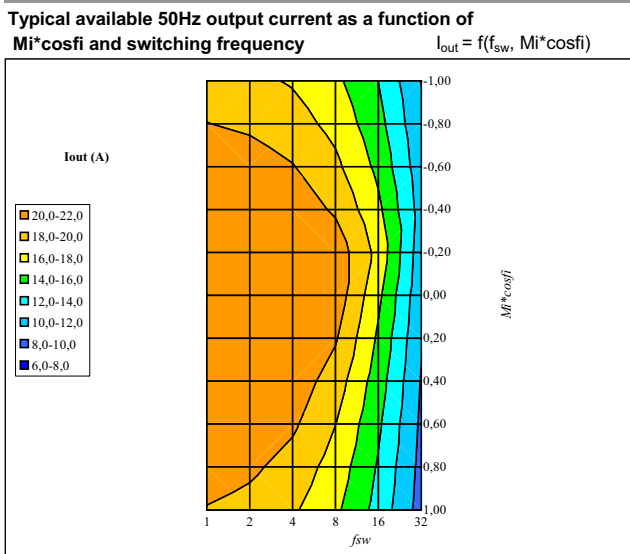
$T_j = 125$ °C
DC link = 600 V
 $f_{sw} = 4$ kHz
 T_h from 60 °C to 100 °C in steps of 5 °C

Figure 6 Typical available 50Hz output current as a function of switching frequency Phase



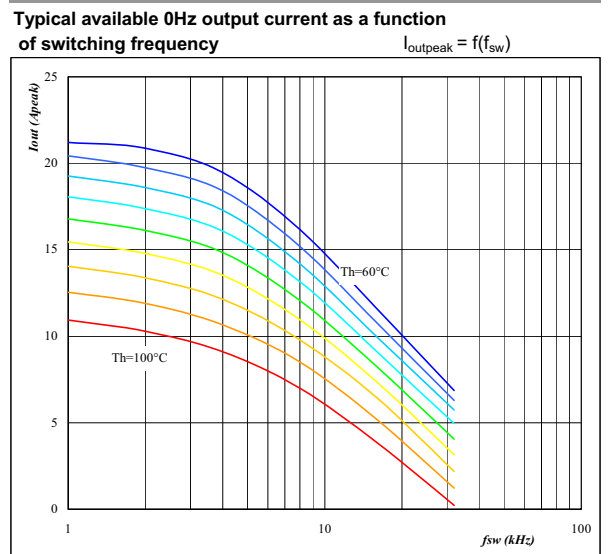
$T_j = 125$ °C
DC link = 600 V
 $Mi \cdot \cos\phi_i = 0,8$
 T_h from 60 °C to 100 °C in steps of 5 °C

Figure 7 Typical available 50Hz output current as a function of $Mi \cdot \cos\phi_i$ and switching frequency Phase



$T_j = 125$ °C
DC link = 600 V
 $T_n = 80$ °C

Figure 8 Typical available 0Hz output current as a function of switching frequency Phase

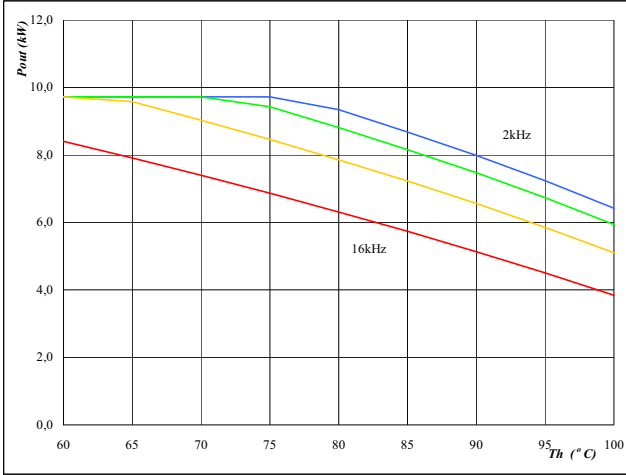


$T_j = 125$ °C
DC link = 600 V
 T_h from 60 °C to 100 °C in steps of 5 °C

Output Inverter Application

Figure 9 Inverter

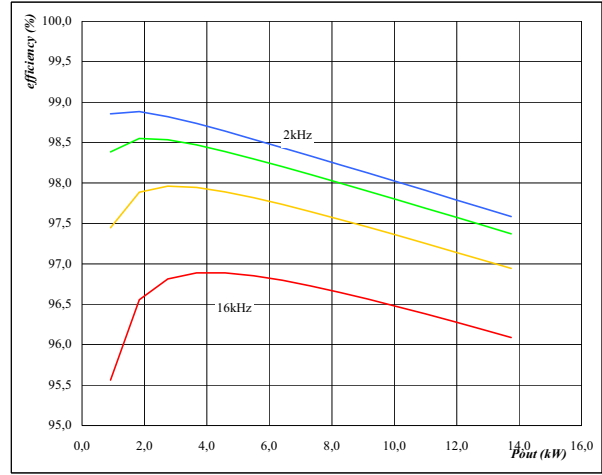
Typical available peak output power as a function of heatsink temperature
 $P_{out}=f(T_h)$



$T_j = 125 \text{ } ^\circ\text{C}$
DC link = 600 V
 $M_i = 1$
cosfi = 0,80
fsw from 2 kHz to 16 kHz in 2 steps

Figure 10 Inverter

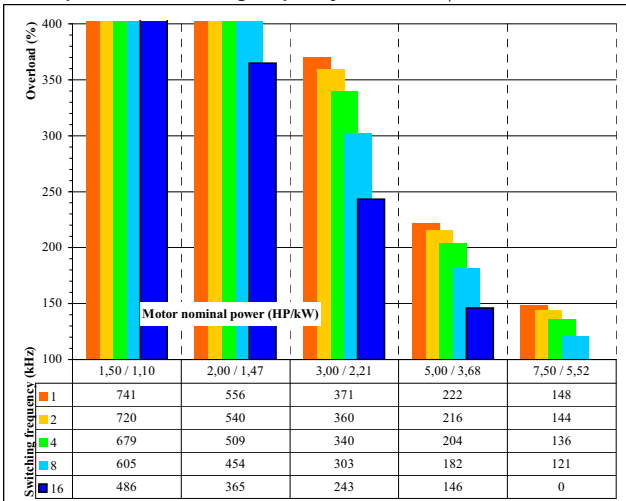
Typical efficiency as a function of output power
efficiency=f(P_{out})



$T_j = 125 \text{ } ^\circ\text{C}$
DC link = 600 V
 $M_i = 1$
cosfi = 0,80
fsw from 2 kHz to 16 kHz in 2 steps

Figure 11 Inverter

Typical available overload factor as a function of motor power and switching frequency
 $P_{peak} / P_{nom}=f(P_{nom}, f_{sw})$



At
 $T_j = 125 \text{ } ^\circ\text{C}$
DC link = 600 V
 $M_i = 1$
cosfi = 0,8
fsw from 1 kHz to 16 kHz in 2 steps
 $T_h = 80 \text{ } ^\circ\text{C}$
Motor eff = 0,85