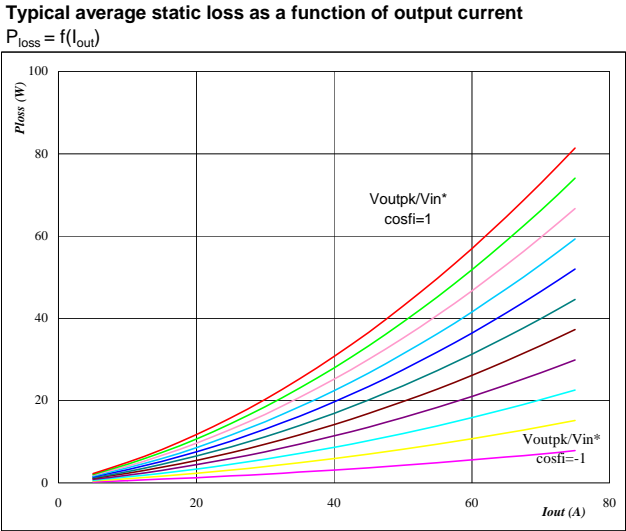


flowPACK 1H H-Bridge Application 600V/50A

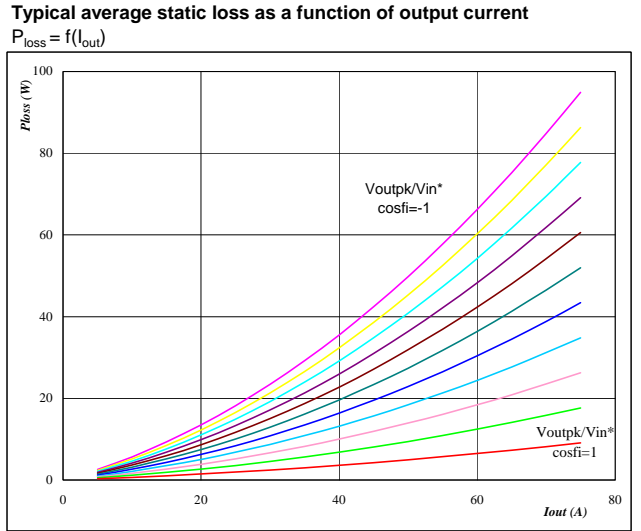
General conditions
H Bridge SPWM
 $V_{GEon} = 15\text{ V}$
 $V_{GEoff} = -15\text{ V}$
 $R_{gon} = 8\ \Omega$
 $R_{goff} = 8\ \Omega$

Figure 1 IGBT



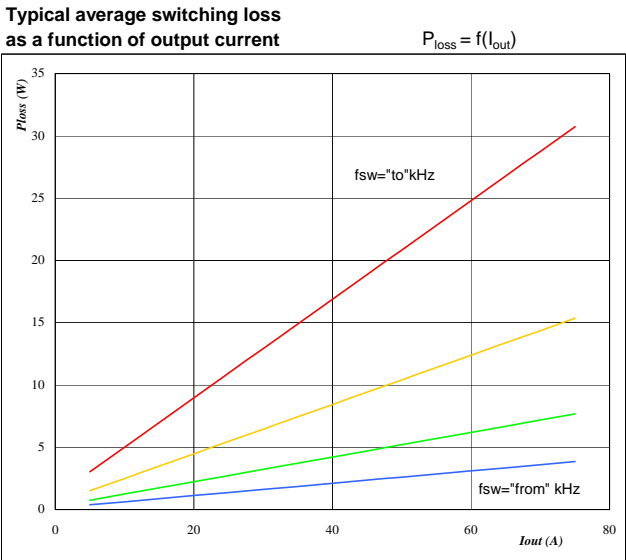
At
 $T_j = 125\ \text{°C}$
 $M_i \cdot \cos\phi_i$ from -1 to 1 in steps of 0,2

Figure 2 FWD



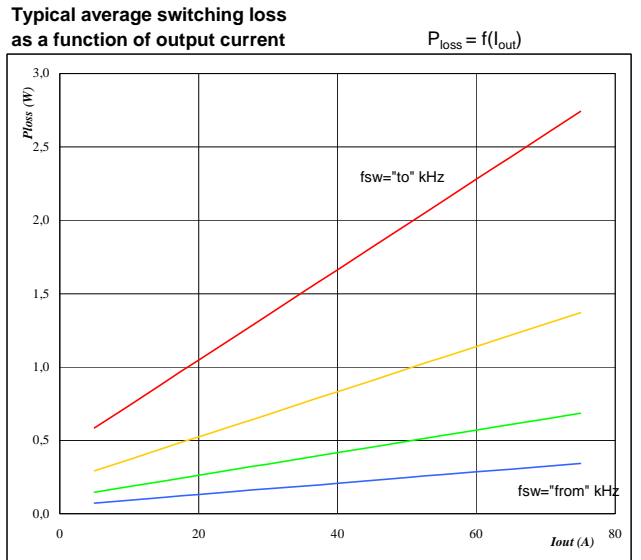
At
 $T_j = 125\ \text{°C}$
 $M_i \cdot \cos\phi_i$ from -1 to 1 in steps of 0,2

Figure 3 IGBT



At
 $T_j = 125\ \text{°C}$
DC link = 320 V
fsw from 4 kHz to 32 kHz in steps of factor 2

Figure 4 FWD

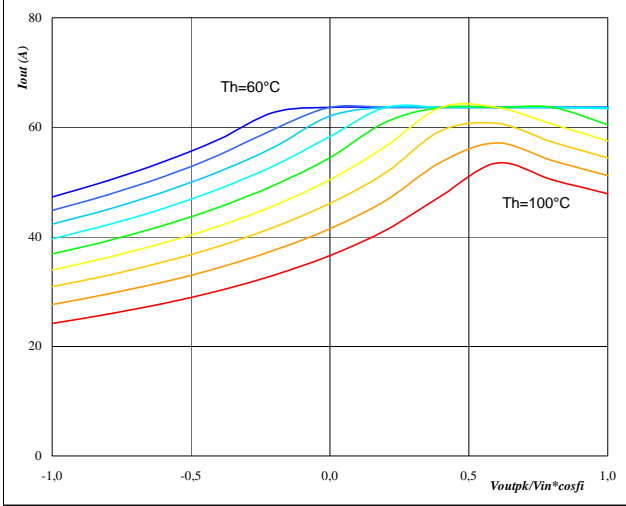


At
 $T_j = 125\ \text{°C}$
DC link = 320 V
fsw from 4 kHz to 32 kHz in steps of factor 2

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Figure 5 Phase

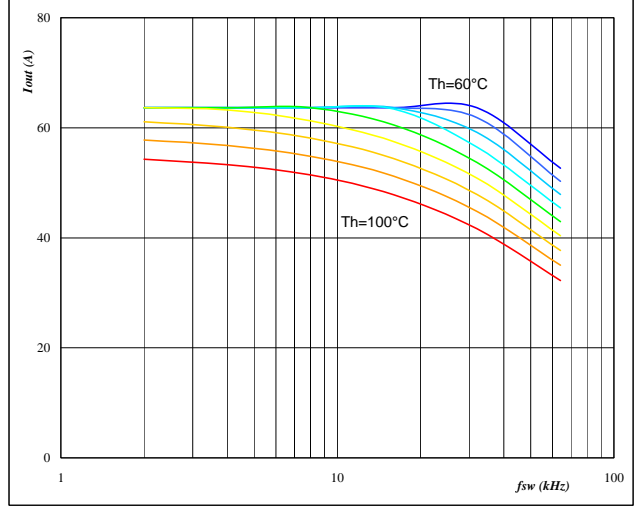
Typical available 50Hz output current as a function $M_i \cdot \cos\phi_i$



At
 $T_j = 125 \text{ } ^\circ\text{C}$
 DC link = 320 V
 $f_{sw} = 16 \text{ kHz}$
 Th from 60 °C to 100 °C in steps of 5 °C

Figure 6 Phase

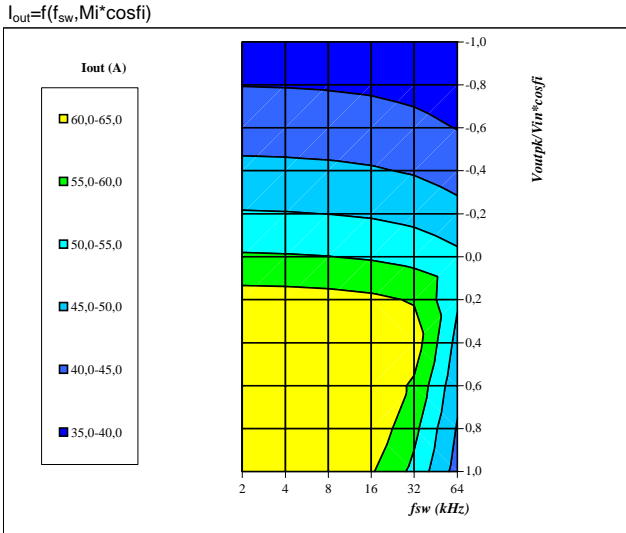
Typical available 50Hz output current as a function of switching frequency



At
 $T_j = 125 \text{ } ^\circ\text{C}$
 DC link = 320 V
 $M_i \cdot \cos\phi_i = 1$
 Th from 60 °C to 100 °C in steps of 5 °C

Figure 7 Phase

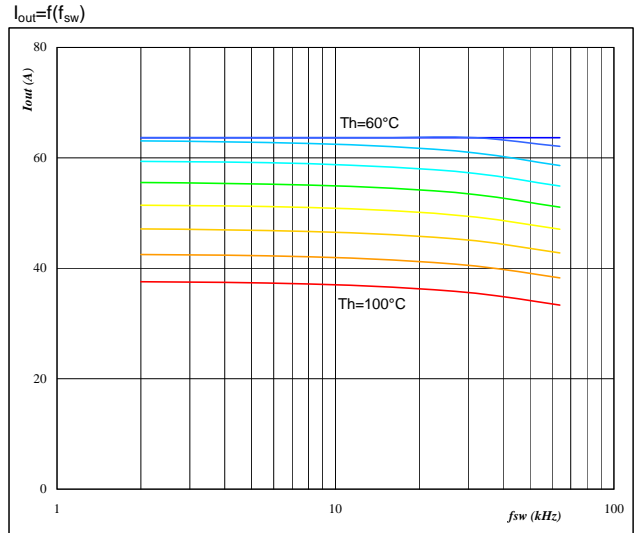
Typical available 50Hz output current as a function of $V_{outpk}/V_{in} \cdot \cos\phi_i$ and switching frequency



At
 $T_j = 125 \text{ } ^\circ\text{C}$
 DC link = 320 V
 $T_h = 80 \text{ } ^\circ\text{C}$

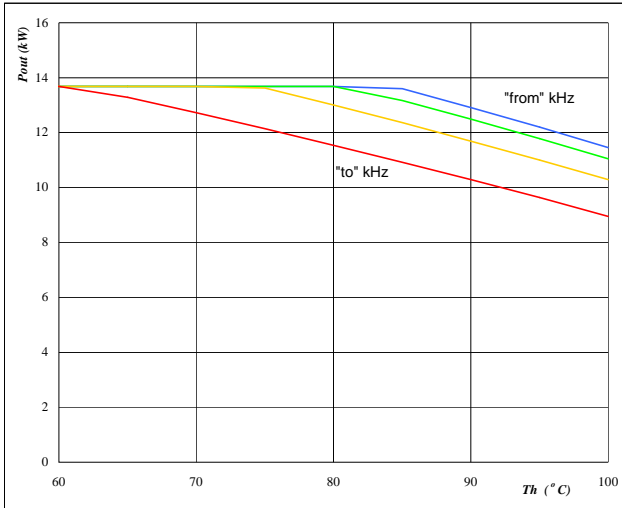
Figure 8 Phase

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



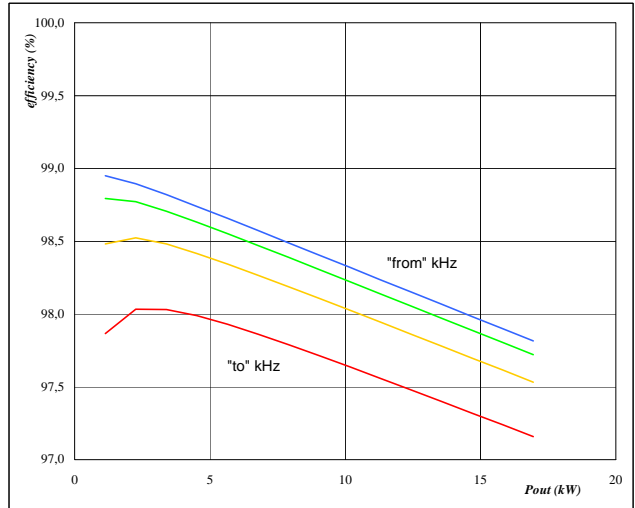
At
 $T_j = 125 \text{ } ^\circ\text{C}$
 DC link = 320 V
 $M_i \cdot \cos\phi_i = 0$
 Th from 60 °C to 100 °C in steps of 5 °C

Figure 9 Inverter

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


At
 $T_j = 125 \text{ } ^\circ\text{C}$
 DC link = 320 V
 $M_i = 1$
 $\cos\phi_i = 1$
 fsw from 4 kHz to 32 kHz in steps of factor 2

Figure 10 Inverter

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


At
 $T_j = 125 \text{ } ^\circ\text{C}$
 DC link = 320 V
 $M_i = 1$
 $\cos\phi_i = 1$
 fsw from 4 kHz to 32 kHz in steps of factor 2