flow PHASE 0	**Output Inverter Application**	1200 V / 50 A

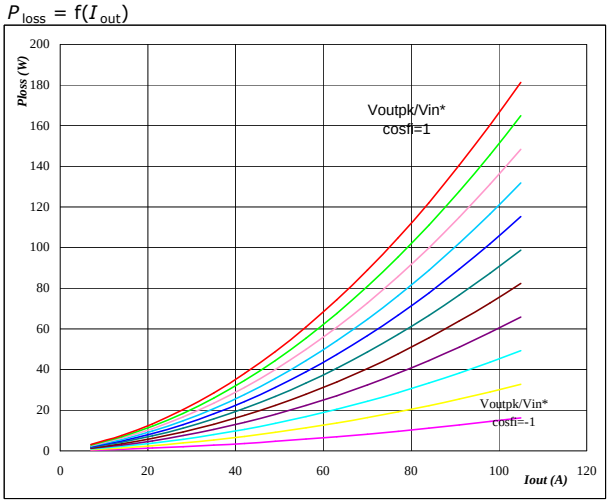
General conditions

Half Bridge SPWM		
V_{GEon}	=	15 V
V_{GEoff}	=	-15 V
R_{gon}	=	8 Ω
R_{goff}	=	8 Ω

Figure 1 IGBT

Typical average static loss as a function of output current

$P_{loss} = f(I_{out})$



At

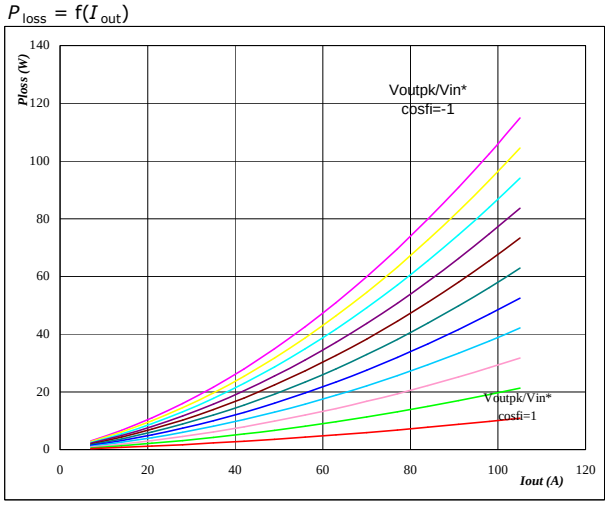
T_j = 150 °C

Mi*cosfi from -1 to 1 in steps of 0,2

Figure 2 FWD

Typical average static loss as a function of output current

$P_{loss} = f(I_{out})$



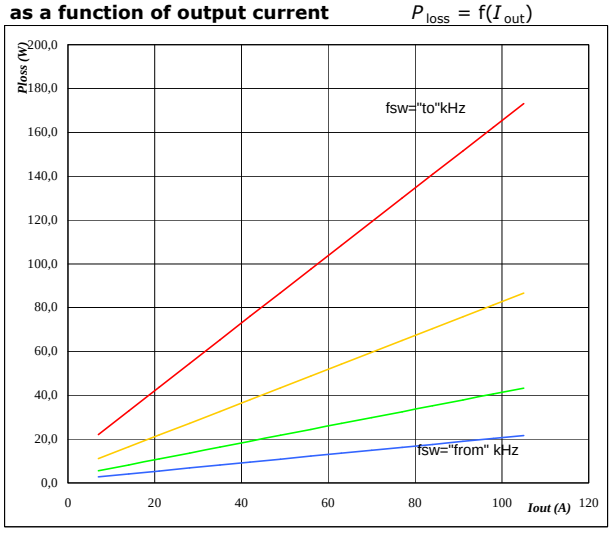
At

T_j = 150 °C

Mi*cosfi from -1 to 1 in steps of 0,2

Figure 3 IGBT

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



At

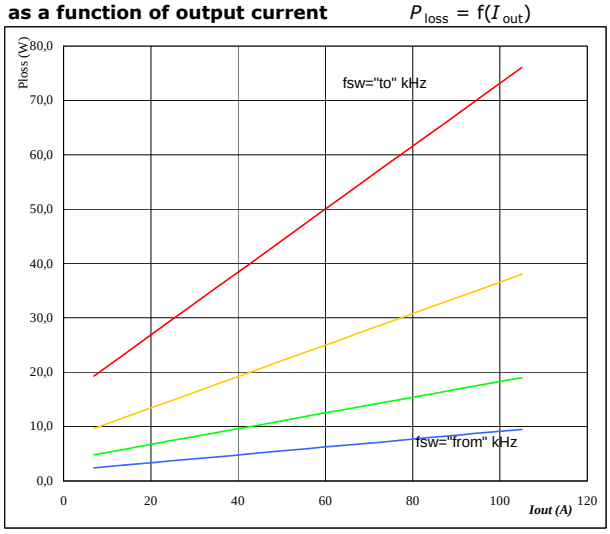
T_j = 150 °C

DC-link = 600 V

fsw from 4 kHz to 32 kHz in steps of factor 2

Figure 4 FWD

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



At

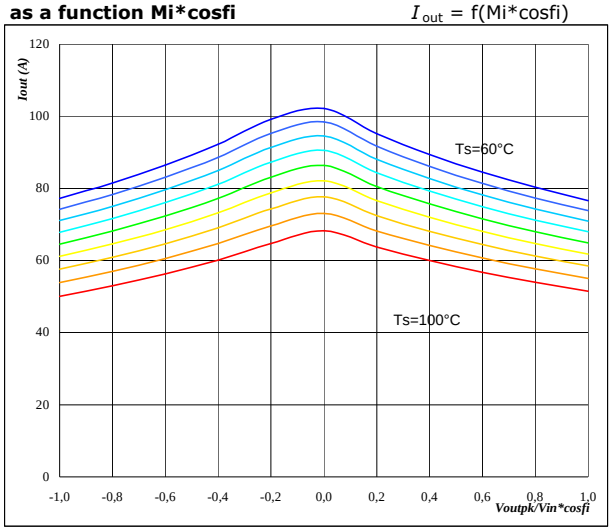
T_j = 150 °C

DC-link = 600 V

fsw from 4 kHz to 32 kHz in steps of factor 2

Figure 5 Phase

Typical available 50Hz output current as a function Mi*cosfi I_{out} = f(Mi*cosfi)



At

T_j = 150 °C

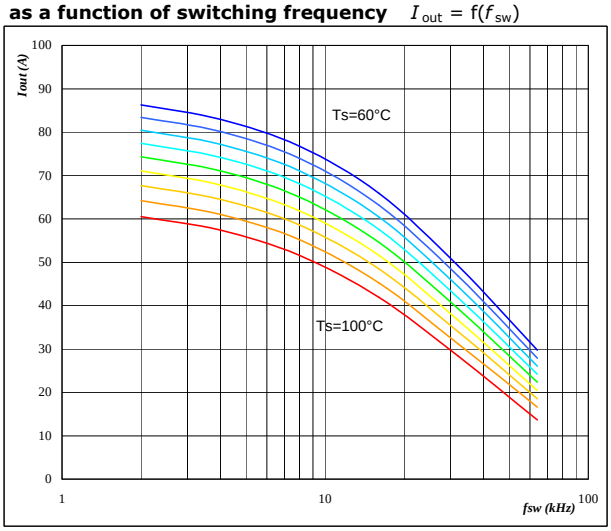
DC-link = 600 V

f_{sw} = 8 kHz

Ts 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 I_{out} = f(f_{sw})



At

T_j = 150 °C

DC-link = 600 V

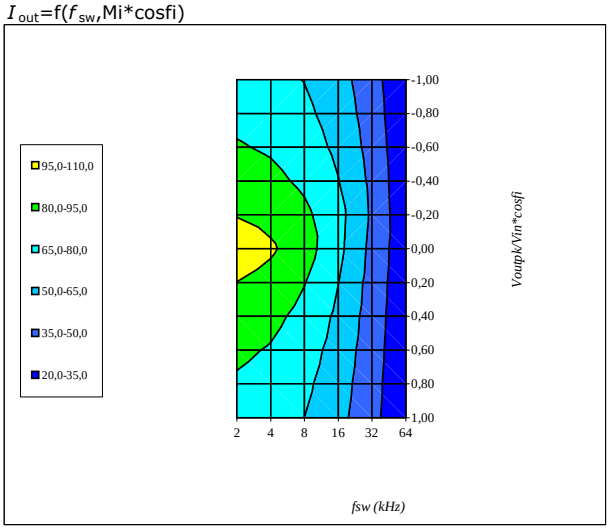
Mi*cosfi = 1

Ts from 60 °C to 100 °C in steps of 5 °C

Figure 7 Phase

Typical available 50Hz output current as a function of Voutpk/Vin*cosfi and switching frequency

I_{out}=f(f_{sw},Mi*cosfi)



At

T_j = 150 °C

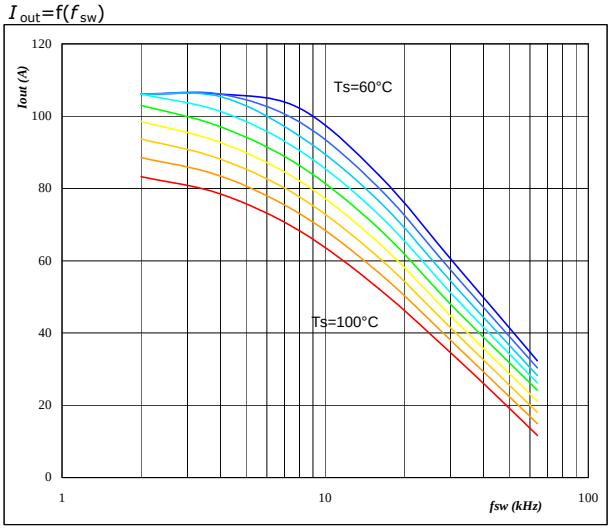
DC-link = 600 V

T_s = 80 °C

Figure 8 Phase

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

I_{out}=f(f_{sw})



At

T_j = 150 °C

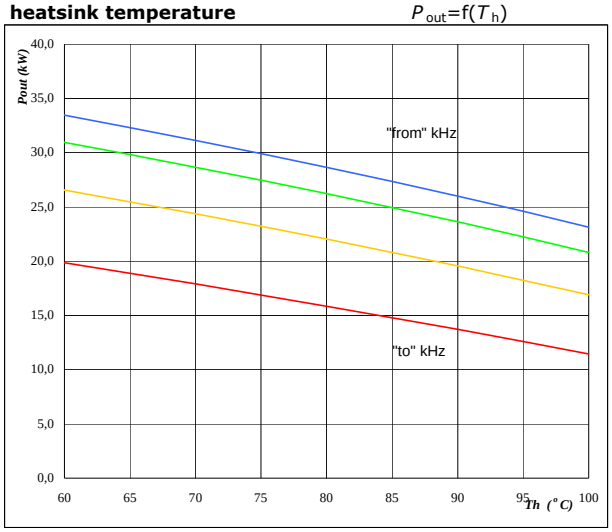
DC-link = 600 V

Mi*cosfi = 0

Ts 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 $P_{out}=f(T_h)$



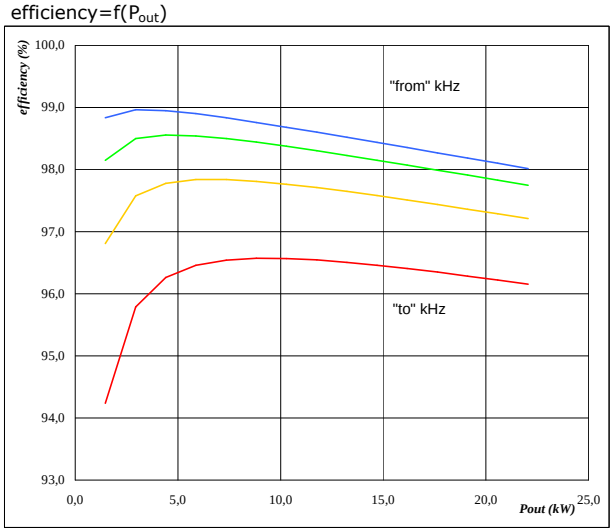
At

T_j =	150	°C
DC-link =	600	V
Mi =	1	
cosfi =	1	

fsw from 4 kHz to 32 kHz in steps of factor 2

Figure 10 Inverter

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



At

T_j =	150	°C
DC-link =	600	V
Mi =	1	
cosfi =	1	

fsw from 4 kHz to 32 kHz in steps of factor 2