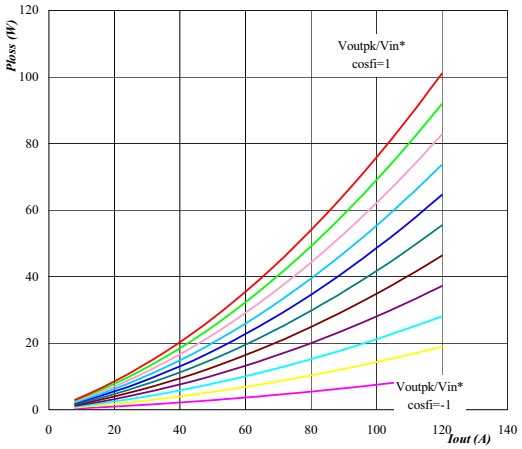
Output inverter application

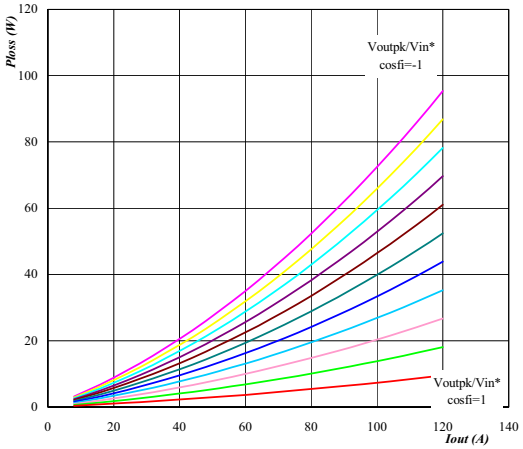
General conditions: H bridge SPWM Vgeon 15 V
Vgeoff 0 V
Rgon= 4 ohms Rgoff= 4 ohms

Figure 1. **Typical avarage static loss as a function of output current**
IGBT Ploss=f(Iout)



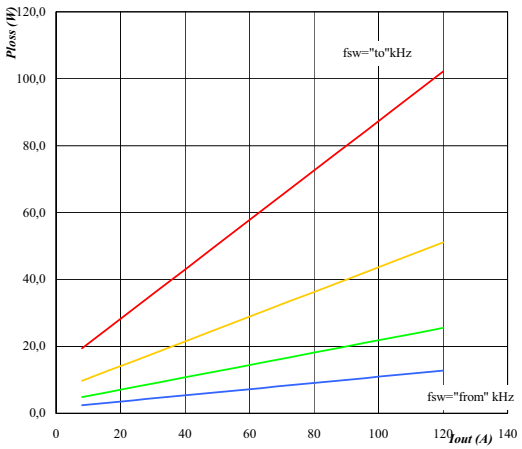
Conditions: Tj= 150 °C
Ratio of output peak to input DC voltage parameter
Voutpk/Vin*cosfi from -1 to 1
in 0,2 steps

Figure 2. **Typical avarage static loss as a function of output current**
FRED Ploss=f(Iout)



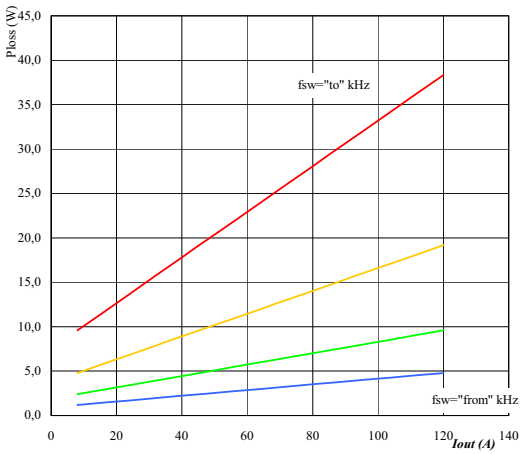
Conditions: Tj= 150 °C
Ratio of output peak to input DC voltage parameter
Voutpk/Vin*cosfi from -1 to 1
in 0,2 steps

Figure 3. **Typical avarage switching loss as a function of output current**
IGBT Ploss=f(Iout)



Conditions: Tj= 150 °C
DC link= 400 V
Switching freq. parameter fsw from 4 kHz to 32 kHz
in * 2 steps

Figure 4. **Typical avarage switching loss as a function of output current**
FRED Ploss=f(Iout)



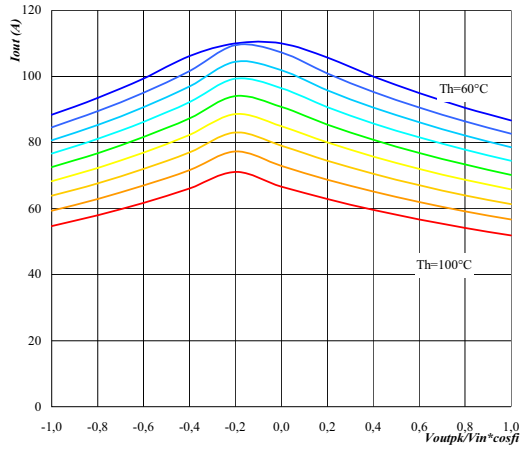
Conditions: Tj= 150 °C
DC link= 400 V
Switching freq. parameter fsw from 4 kHz to 32 kHz
in * 2 steps

Output inverter application

General conditions: H bridge SPWM Vgeon 15 V
Vgeoff 0 V

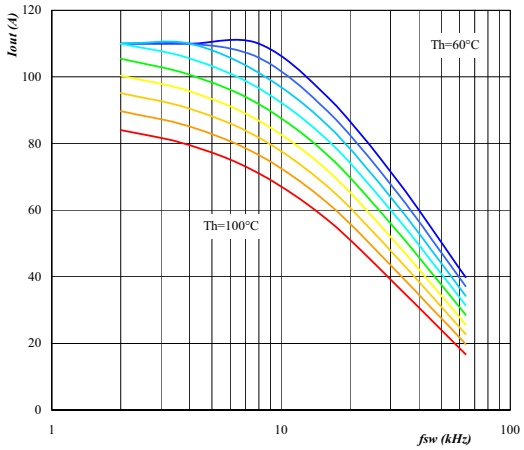
Rgon= 4 ohms Rgoff= 4 ohms

Figure 5. Typical available 50Hz output current as a function of Voutpk/Vin*cosfi
Phase Iout=f(Mi*cosfi)



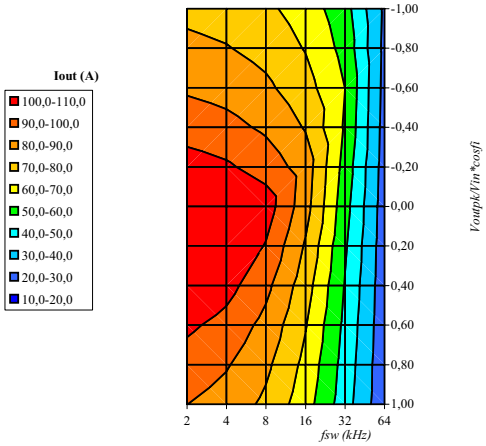
Conditions: Tj= 150 °C
DC link= 400 V
fsw= 18 kHz
Heatsink temp. parameter: Th from 60 °C to 100 °C in 5 °C steps

Figure 6. Typical available 50Hz output current as a function of switching frequency
Phase Iout=f(fsw)



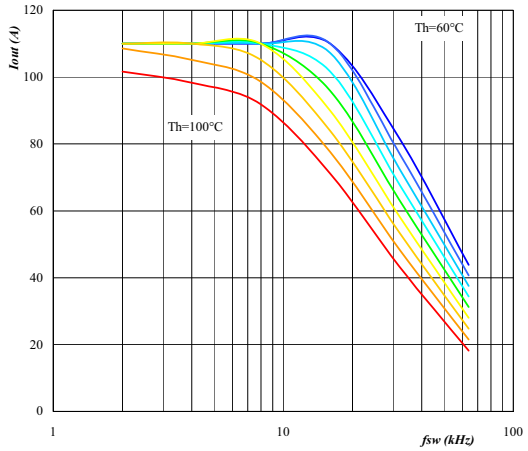
Conditions: Tj= 150 °C
Vout= 230 VAC
cosfi= 1
Heatsink temp. parameter: Th from 60 °C to 100 °C in 5 °C steps

Figure 7. Typical available 50Hz output current as a function of Voutpk/Vin*cosfi and fsw
Phase Iout=f(fsw,Voutpk/Vin*cosfi)



Conditions: Tj= 150 °C
DC link= 400 V
Th= 90 °C

Figure 8. Typical available 50Hz output current as a function of switching frequency
Phase Iout=f(fsw)



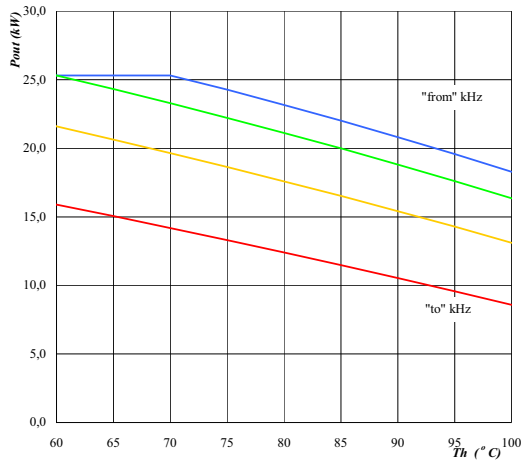
Conditions: Tj= 150 °C
DC link= 400 V
Voutpk/Vin*cosfi= 0
Heatsink temp. parameter: Th from 60 °C to 100 °C in 5 °C steps

Output inverter application

General conditions: H bridge SPWM Vgeon= 15 V Rgon= 4 ohms Rgoff= 4 ohms
Vgeoff= 0 V

Figure 9. Typical available electric output power as a function of heatsink temperature

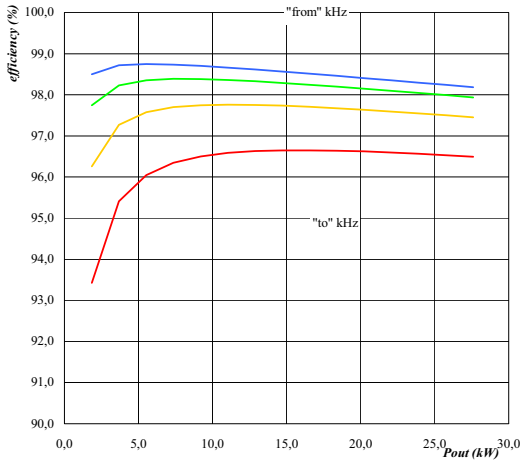
Inverter Pout=f(Th)



Conditions: Tj= 150 °C
DC link= 400 V
Vout= 230 VAC
cosfi= 1,00
Switching freq. parameter fsw from 4 kHz to 32 kHz
in * 2 steps

Figure 10. Typical efficiency as a function of output power

Inverter efficiency=f(Pout)



Conditions: Tj= 150 °C
DC link= 400 V
Vout= 230 VAC
cosfi= 1,00
Switching freq. parameter fsw from 4 kHz to 32 kHz
in * 2 steps

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