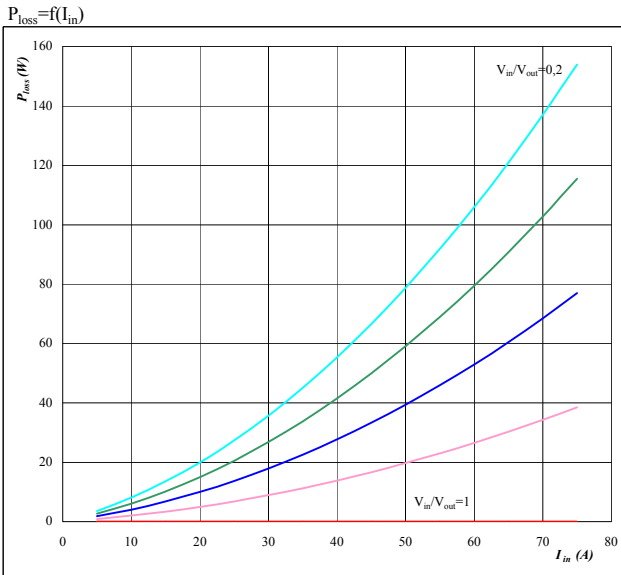
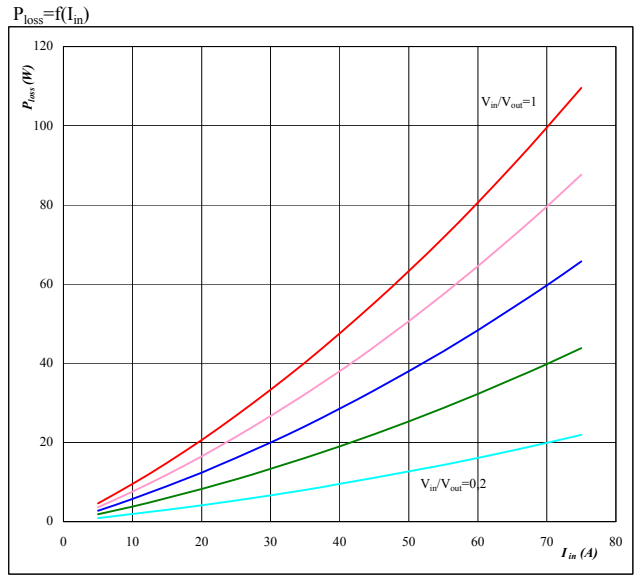


General conditions

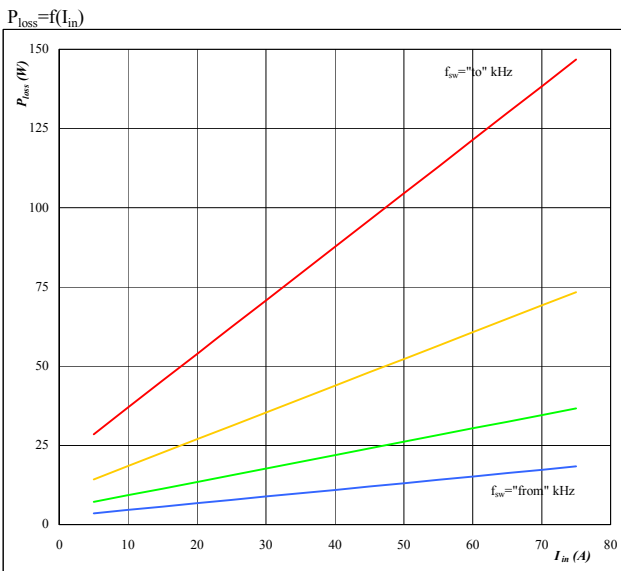
BOOST	
V_{GEon}	= 15 V
V_{GEoff}	= 15 V
R_{gon}	= 8 Ω
R_{goff}	= 8 Ω

Figure 1. INPUT BOOST IGBT
Typical average static loss as a function of input current I_{RMS}


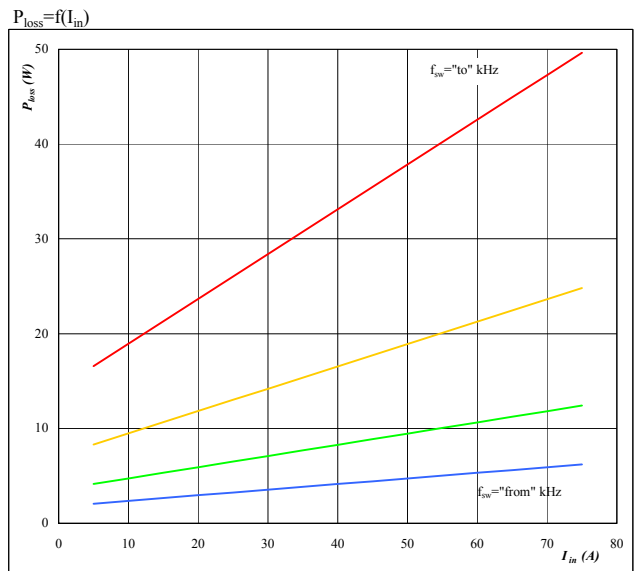
Conditions: $T_j = 150$ °C
 Ratio of input DC voltage to output DC voltage
 parameter: V_{in}/V_{out} from 0,2 to 1,0
 in 0,2 steps

Figure 2. INPUT BOOST FWD
Typical average static loss as a function of input current I_{RMS}


Conditions: $T_j = 150$ °C
 Ratio of input DC voltage to output DC voltage
 parameter: V_{in}/V_{out} from 0,2 to 1,0
 in 0,2 steps

Figure 3. INPUT BOOST IGBT
Typical average switching loss as a function of input current


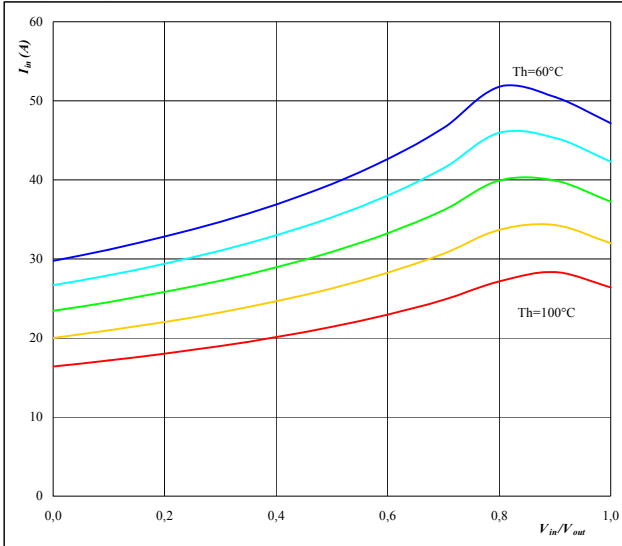
Conditions: $T_j = 150$ °C
 $V_{out} = 350$ V
 Sw. freq. fsw from 4 kHz to 32 kHz
 in steps of factor 2

Figure 4. INPUT BOOST FWD
Typical average switching loss as a function of input current


Conditions: $T_j = 150$ °C
 $V_{out} = 350$ V
 Sw. freq. fsw from 4 kHz to 32 kHz
 in steps of factor 2

flowBOOST 0 DC Boost Application 600 V/75 A
Figure 5. per PHASE
Typical available input current as a function of
 V_{in}/V_{out}

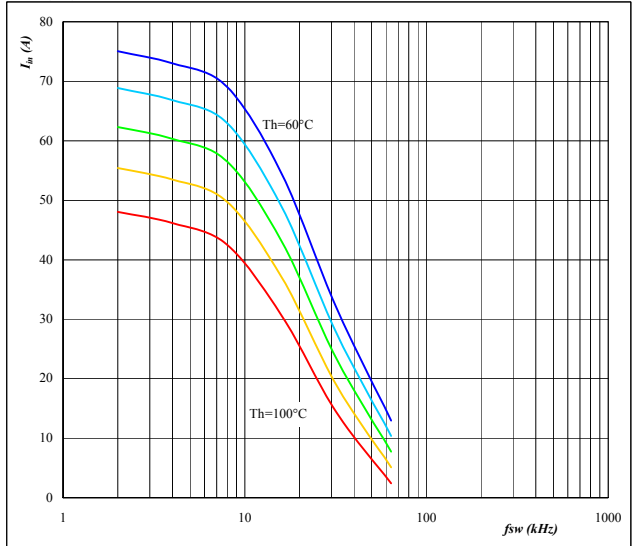
$I_{in} = f(V_{in}/V_{out})$



Conditions: $T_j = T_{jmax} - 25^\circ\text{C}$
 DC link= 350 V $f_{sw} = 20$ kHz
 parameter: Heatsink temp.
 Th from 60 °C to 100 °C
 in 10 °C steps

Figure 6. per PHASE
Typical available input current as a function of switching frequency

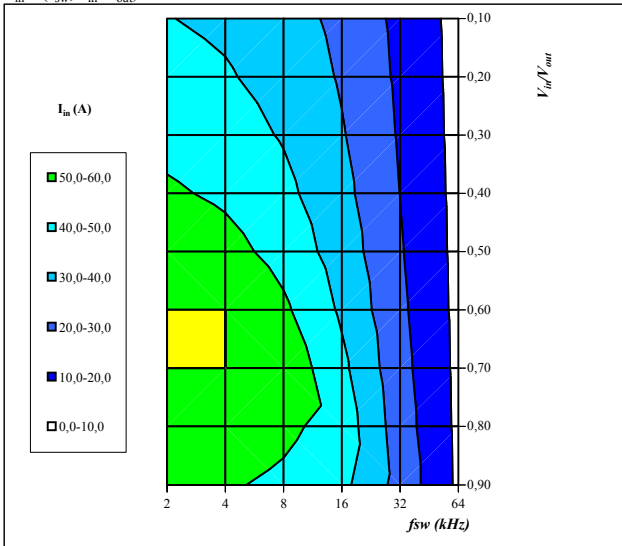
$I_{in} = f(f_{sw})$



Conditions: $T_j = T_{jmax} - 25^\circ\text{C}$
 DC link= 350 V $V_{in} = 250$ V
 parameter: Heatsink temp.
 Th from 60 °C to 100 °C
 in 10 °C steps

Figure 7. per PHASE
Typical available input current as a function of
 f_{sw} and V_{in}/V_{out}

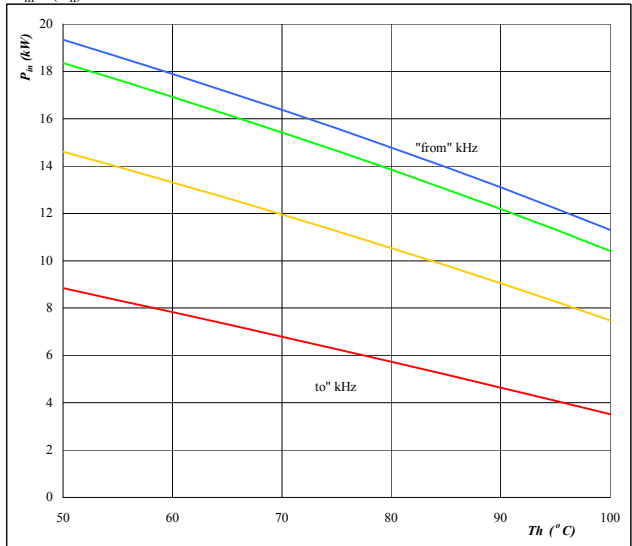
$I_{in} = f(f_{sw}, V_{in}/V_{out})$



Conditions: $T_j = T_{jmax} - 25^\circ\text{C}$
 DC link= 350 V
 Th= 80 °C

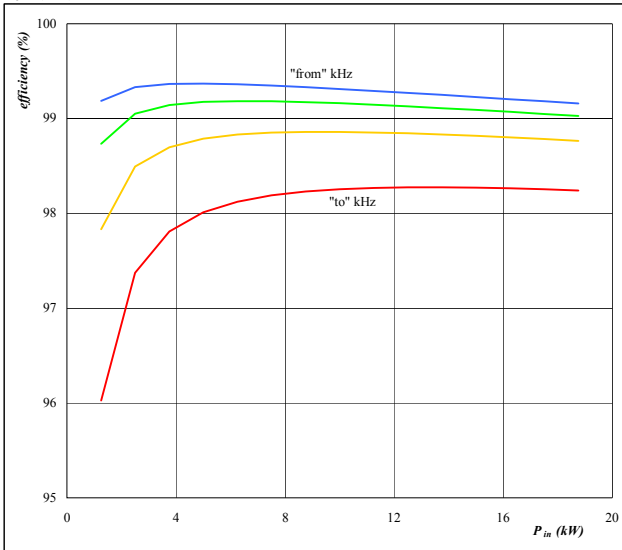
Figure 8. per PHASE
Typical available electric input power as a function of heatsink temperature

$P_{in} = f(T_h)$



Conditions: $T_j = T_{jmax} - 25^\circ\text{C}$
 $V_{in} = 250$ V DC link= 350 V
 Sw. freq. f_{sw} from 4 kHz to 32 kHz

<i>flow</i> BOOST 0	DC Boost Application	600 V/75 A
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Figure 9. per PHASE
Typical efficiency as a function of input power
 $\eta = f(P_{in})$


Conditions: $T_j = T_{jmax} - 25^\circ\text{C}$
 Vin 250 V DC link= 350 V
 parameter:
 Sw. freq. fsw from 4 kHz to 32 kHz