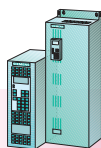


SIMOVERT MASTERDRIVES Motion Control

Technical data



Compact and chassis units



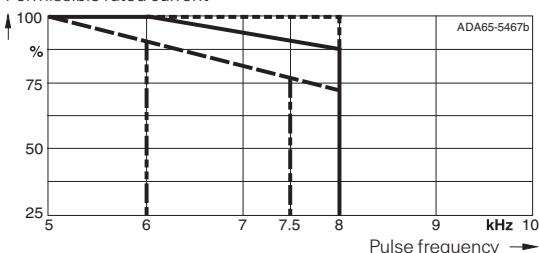
Compact PLUS units

Converters/inverters

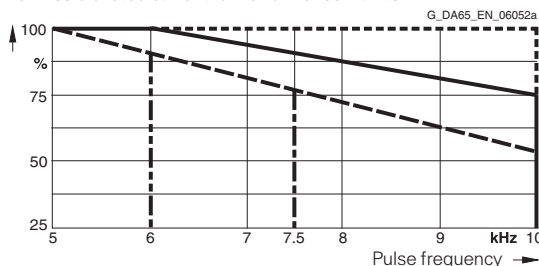
	Compact PLUS units	Compact and chassis units
Rated voltage		
Line voltage	3-ph. 380 V AC (–15 %) to 480 V AC (+10 %)	3-ph. 380 V AC (–15 %) to 480 V AC (+10 %)
DC link voltage	510 V DC (–15 %) to 650 V DC (+10 %)	510 V DC (–15 %) to 650 V DC (+10 %)
Output voltage	3-ph. 0 V AC to 0.86 x line voltage	3-ph. 0 V AC to 0.86 x line voltage
Output voltage, inverter	3-ph. 0 V AC to 0.64 x DC link voltage	3-ph. 0 V AC to 0.64 x DC link voltage
Rated frequency		
Line frequency	50/60 Hz (±6 %)	50/60 Hz (±6 %)
Output frequency/max. digital resolution	0 Hz to 400 Hz/0.001 Hz	0 Hz to 400 Hz/0.001 Hz
Pulse frequency	5 kHz to 8 kHz ²⁾ P2: 2.5 to 10 kHz ¹⁾	5 kHz to 8 kHz ¹⁾²⁾ P2: 2.5 to 10 kHz ¹⁾
Rated motor output	0.55 kW (0.75 HP) to 18.5 kW (25 HP)	2.2 kW (3 HP) to 250 kW (335 HP)
Load class II to EN 60 146-1-1		
Base load current	0.91 x rated output current	0.91 x rated output current
Short-time current	3 x rated output current	–
Short-time duration	250 ms	–
Short-time cycle	1 s	–
Overload current	1.6 x rated output current	1.6 x rated output current ³⁾
Overload duration	30 s (10 % of the cycle time)	30 s (10 % of the cycle time) ³⁾
Overload cycle time	300 s	300 s
Power factor ⁴⁾		
• fundamental	≥ 0.98	≥ 0.98
• overall	0.93 to 0.96	0.93 to 0.96
Efficiency	0.90 to 0.98	0.96 to 0.98

Reduction curves

Permissible rated current

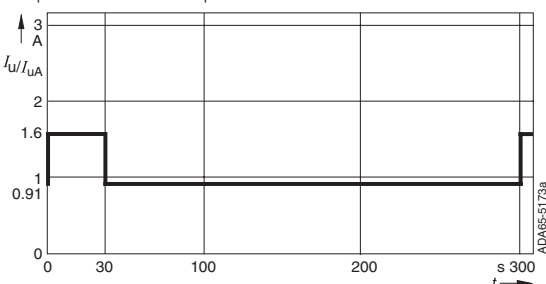


Permissible rated current for Performance 2 units



Overload characteristic

Output current/rated output current



Max. pulse frequency, depending on output and enclosure size

..... for Compact PLUS units

8 kHz
(up to 10 kHz with Performance 2)

———— for type A, B, C and D units,
chassis ratings 45 kW (60 HP) and 55 kW (75 HP)
(up to 10 kHz with Performance 2)

——— chassis ratings with 75 kW (100 HP) and 90 kW (120 HP)

8 kHz
(up to 10 kHz with Performance 2)

——— chassis ratings with 110 kW (150 HP) and 132 kW (175 HP)

——— chassis ratings with 160 kW (215 HP) and 200 kW (270 HP)
6 kHz

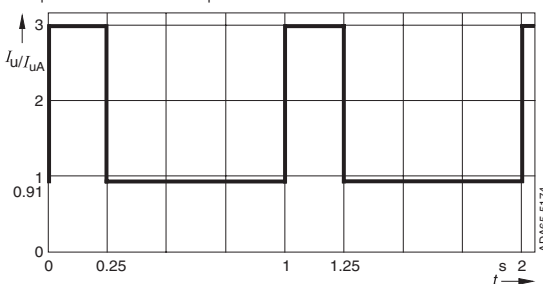
For the 250 kW (335 HP) unit, only 5 kHz is possible.

From firmware version 2.1 and upwards with Performance 2, a pulse frequency of 2.5 kHz for higher outputs is also possible.

These units can be delivered on request with up to 710 kW (952 HP).

Short-time characteristic for Compact PLUS units

Output current/rated output current



The short-time overload capacity of the Compact PLUS units is additionally limited by the $I^2 t$ -calculation (overload characteristic).

1) See reduction curves.

2) For standard units, the pulse frequency is limited to 8 kHz due to processor utilization, with Performance 2 to 10 kHz.

3) 1.36 x rated output current for 200 kW (270 HP) and 250 kW (335 HP) units with 60 s overload duration.

4) With a $V_D = 2\%$ commutating reactor.