4.8 EMC and power quality

1) Switching operations	informative

Note:

Test according to FGW TG3, Rev. 25, chapter 4.3.2

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Case of switching operation	Switch-on at $P_{available}$ < 10%P_n			
Max. number of switching operations, N_{10}	20			
Max. number of switching operations, N_{120}	240			
Grid impedance angle, ψ_k	30°	50°	70°	85°
Flicker step factor, $k_f(\psi_k)$	0,12	0,10	0,06	0,05
Voltage change factor, $k_u(\psi_k)$	0,18	0,16	0,14	0,11

Case of switching operation	Switch-on at $P_{available}$ = 100%P_n			
Max. number of switching operations, N_{10}	20			
Max. number of switching operations, N_{120}	240			
Grid impedance angle	30°	50°	70°	85°
Flicker step factor, $k_f(\psi_k)$	0,47	0,37	0,23	0,12
Voltage change factor, $k_u(\psi_k)$	1,03	0,81	0,51	0,24

Case of switching operation	Service disconnection at rated power			
Max. number of switching operations, N_{10}	1			
Max. number of switching operations, N_{120}	12			

Description of service disconnection procedure:	1. Shutdown the unit using Start/Stop control (used for testing. This represents the worst case inrush current during the whole procedure) 2. Turn off the AC switch between the unit and the power grid 3. Turn off both DC switches			
Grid impedance angle	30°	50°	70°	85°
Flicker step factor, $k_f(\psi_k)$	0,11	0,09	0,05	0,03
Voltage change factor, $k_u(\psi_k)$	1,04	0,82	0,51	0,24