



Manufacturer's Declaration

Multi-Stage Overvoltage Monitoring

All SMA PV inverters listed below are equipped with three-stage overvoltage monitoring for safe grid disconnection. This will ensure the following: the greater the voltage deviation from the nominal voltage, the faster the PV inverters are disconnected from the grid. The table below shows the two required disconnection times in accordance with UL 1741.

Nominal voltage (V_{nom})	Overvoltage protection (stage 1, 110% to 120% V_{nom})		Overvoltage protection (stage 2, > 120% V_{nom})	
	RMS value [V]	Disconnection time	RMS value [V]	Disconnection time
208.0	228.8 to 249.6	< 1,000 ms	> 249.6	< 160 ms
240.0	264.0 to 288.0	< 1,000 ms	> 288.0	< 160 ms
277.0	304.7 to 332.4	< 1,000 ms	> 332.4	< 160 ms

Example: SB 6000US-12

Furthermore, according to the table below, the PV inverters are equipped with a third stage of overvoltage monitoring which is, however, not required by UL 1741.

Nominal voltage (V_{nom})		Transient voltage protection (not required)		
RMS value [V]	Peak value [V]	RMS value [V]	Peak value [V]	Disconnection time
208.0	294.1	291.2	411.8	< 0.5 ms
240.0	339.4	336.0	475.1	< 0.5 ms
277.0	391.7	349.0	493.6	< 0.5 ms

Example: SB 6000US-12

With transformer	Transformerless
SB 2000HF-US	SB 3000TL-US
SB 2500HF-US	SB 4000TL-US
SB 3000HF-US	SB 5000TL-US
SB 3000-US	SB 6000TL-US
SB 3800-US	SB 7000TL-US
SB 4000-US	SB 8000TL-US
SB 5000-US	SB 9000TL-US
SB 6000-US	SB 10000TL-US
SB 7000-US	SB 11000TL-US
SB 8000-US	

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