

## USE OF FRONIUS INVERTERS WITH THE APID PID RECOVERY SYSTEM (ANTI-PID-SYSTEM)

### Fronius International GmbH

hereby confirms that the below listed inverters (table 1) may be used together with the above mentioned device without voiding our commitments as stipulated in our Fronius warranty terms and conditions, provided that:

- / the described settings are fulfilled (see table 1) and
- / by following all relevant instructions (Installation Instructions, Operating Instructions, Safety Instructions, ...).

This authorization relies on tests, carried out and documented by Elettrograf s.r.l. (manufacturer of APID).

Inverter types	SETTINGS of the APID system <sup>1</sup>	
	Max. permitted output voltage <sup>1</sup> (voltage between each pole and ground) [Vdc]	threshold voltages <sup>1</sup> (voltages to turn off / on the APID system) [Vdc] + delay / [Vdc] + delay
Fronius Symo 3.0-3-S	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 3.7-3-S	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 4.5-3-S	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 3.0-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 3.7-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 4.5-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 5.0-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 6.0-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 7.0-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 8.2-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 10.0-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 12.5-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 15.0-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 17.5-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Symo 20.0-3-M	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Primo 3.0-1	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Primo 3.5-1	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Primo 3.6-1	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Primo 4.0-1	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Primo 4.6-1	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Primo 5.0-1	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Primo 5.0-1 AUS	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Primo 6.0-1	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Primo 8.2-1	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Eco 25.0-3-S	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay
Fronius Eco 27.0-3-S	500 Vdc (no AUTO mode) *	OFF <sup>2</sup> = 80 Vdc + 60sec delay / ON = 60 Vdc + 10min delay

\* The inverter splits the dc voltage nearly symmetrical to ground, no higher voltage to ground than 500Vdc will occur.

<sup>1</sup> See user and installation manual of the APID system!  
<sup>2</sup> OFF values are allowed to get increased when usefull.

Table 1 : Fronius inverters and required settings of the APID system as a condition for compatibility.

Important!



SHIFTING THE LIMITS

When using the accelerated regeneration (APID manual, top of page 10 - To speed up the regeneration ....) the DC disconnect (from the inverter) has to stay switched off the whole time!

Fronius declines any responsibility for any direct or indirect damage, injury or losses, arising or resulting from any malfunction, misuse, wrong setting or defect, apart of the scope of our warranty terms and conditions.

Fronius reserves the right, to resign this approval at any time, with immediate effect and without any information, for example if the technology or device shows disadvantageous effects for inverters or other parts of the system, or if new features interfere in any way.

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A handwritten signature in blue ink that reads "Thomas Mühlberger".

DI Thomas Mühlberger  
Head of Solution Management