

## IMPEDANCE AT 175 HZ

The French network operator ERDF uses a ripple control signal with a frequency of 175 Hz for evaluation of the feed-in tariff in its electricity grid.

In order to assess the compatibility with the ripple control signal, ERDF requires the impedance values of the generators feeding to the grid.

To carry out the assessment Samil Power determined the impedance values (R, X, | Z |) for its different inverter series at a frequency of 175 Hz.

The table on page 2 of this document lists the values for the different inverter types.

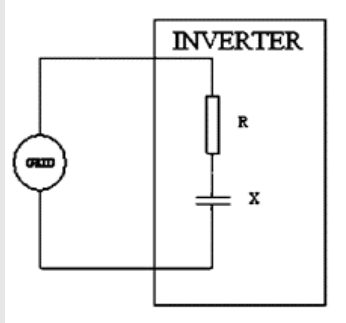
**Samil Power GmbH (Germany), 2014-05-22**



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## Impedance at 175 Hz in ohm ( $\Omega$ )

Inverter type	Series connection			Inverter output voltage
				
	X	R	Z	
SolarRiver 1100 / 1600TL	-67.22	0.39	67.22	230V
SolarRiver 1700 / 2300 / 3000TL	-30.94	0.37	30.94	230V
SolarRiver 3300 / 3500 / 3680 / 3700 / 4400 / 5200TL	-20.94	0.21	20.94	230V
SolarRiver 1100 / 1600 / 2100 / 2600TL-S	-18.83	0.15	18.83	230V
SolarRiver 3400 / 4000 / 4500 / 5000 / 5200 / 6000TL-D	-16.67	0.35	16.67	230V
SolarLake 10000 / 12000 / 15000 / 17000TL	-18.36	0.51	18.37	3 x 400V
SolarLake 5500 / 7000 / 8500 / 10000TL-PM	-20.30	0.59	20.31	3 x 400V
SolarLake 12000 / 15000 / 17000 / 20000TL-PM	-13.67	0.39	13.67	3 x 400V
SolarLake 25000 / 30000TL-PM	-9.90	0.18	9.90	3 x 400V

