



SHIFTING THE LIMITS

Wels, July 24th 2015

CONFORMITY WITH REQUIREMENTS FROM BARBADOS

Fronius International GmbH

confirms that the inverters

- / **Fronius Galvo 1.5-1 – 3.1-1** (SN: 26394598 or higher)
- / **Fronius Primo 3.0-1 – 8.2-1** (SN: 26486904 or higher)
- / **Fronius Symo 3.0-1 – 20.0-3** (SN: 26478336 or higher)

fulfill the requirements on inverters from BL&P from the document "Requirements for Grid Interconnection of Renewable Energy Systems" as approved by the Fair Trading Commission, June 19th 2015".*

5. Technical interconnection requirements:

The inverters fulfill the German VDE-AR-N-4105 rule - "Power Generation Systems Connected to the Low Voltage Distribution Network" in Setup DE.

The voltage and frequency protection settings can be changed to meet the requirements in 5.6 and 5.7 (Table 3 and Table 4):*

Following settings have to be done (using the setup INT 50Hz):

Parameters	Value	Time
Overvoltage Outer Limit	276 V	0,2 sec
Overvoltage Inner Limit	253 V	1 sec
Undervoltage Inner Limit	207 V	11 sec
Undervoltage Outer Limit	115 V	0,2 sec
Overfrequency Inner Limit	53,3 Hz	0,2 sec
Underfrequency Inner Limit	46,7 Hz	0,2 sec
Reconnect Voltage max	253 V	
Reconnect Voltage min	202,4 V	
Reconnect Frequency max	50,1 Hz	
Reconnect Frequency min	49,9 Hz	

The inverter fulfils the requirement 5.8. It detects an island condition and ceases to energize the grid within a maximum of five seconds after the formation of an island.

* A deviation to 5.7 (Table 4) is that the frequency ride through is extended to the over/under frequency trip limits.

Frequency ride Trough	46,7 Hz – 53,3 Hz	infinite
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Over/under frequency trip limits can also be set to 47.5 Hz and 52.5 Hz if preferred by the authority.

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