

Quick guide: Setting Grid Parameters according to AS/NZS 4777.2:2015*

*According to network operators requirements on Fronius SnapINverters Galvo, Primo, Symo, Eco



SHIFTING THE LIMITS

White Paper

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Gender-specific wording refers equally to female and male form.

1 GENERAL

The Fronius SnapINverter range of inverters delivered to Australia are designed to have the country specific setup activated upon installation of the inverter. All inverters installed in Australia should be set to country setup “AU” upon commissioning.

The current settings embedded in the country setup “AU” conform to the older but still current AS4777.3:2005 Standard, Clause 6.3.

There are however some DNSP’s (utilities) that request the settings to meet the new AS/NZS 4777.2:2015 Standard or have their own network specific grid protection settings. Some also request the activation of power quality functions of the inverter such as Reactive Power Control.

This document provides a “quick guide” on how to set the voltage protection & reactive power settings located in the hidden Service Menus according to the requirements requested by distribution network providers (DNSP). For more detailed information regarding the Service Menu settings, please request the Service Menu Manual from Fronius Australia Technical Support.

The hidden Service Menus on the Fronius SnapINverters (Galvo, Primo, Symo, ECO) are accessed via the inverter’s display with use of a password. The voltage & reactive power settings are a part of the ‘PROFI’ service menu and require the use of a password that is issued by Fronius Technical Support upon the completion of the “*Request_for_Access_code_Grid_parameters_Fronius_Inverters*” form. Once this form has been completed and logged, Fronius Technical Support will issue the password.

Fronius Australia Technical Support
Email: PV-Support-Australia@fronius.com
Phone: 03 8340 2910

Note!

Any altered grid parameter settings need to be approved by the corresponding DNSP!

2 SETTINGS

Before performing the following settings the inverter must have to have the latest software version installed. The latest USB version for all the SnapINverter range can be downloaded from the Fronius website here: http://www.fronius.com/cps/rde/xchg/SID-D8B2A594-F670E8D4/fronius_australia/hs.xsl/25_7671.htm

In some cases the Country Setup will need to be re-loaded after the software update is completed.

2.1 Enter the hidden ‘PROFI’ menu



Press the 3rd button 5 times

Type in the access code for the hidden **PROFI** menu*



*Available only upon request from Fronius Technical Support.

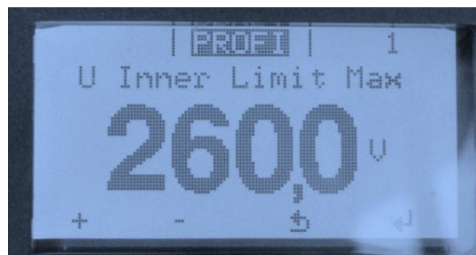
2.2 Setting max Voltage limits according to AS/NZS 4777.2:2015

Fronius inverters provide grid voltage settings in 3 stages, therefore the following voltage limits can be set

- **Stage 1**, max overvoltage 260V, trip time 1 - 2 sec
- **Stage 2**, max overvoltage 265V, trip time 0.2 sec
- **Stage 3**, max sustained voltage 258V, trip time 3 sec (10 min average voltage limit)

Stage 1:

Go to tab "**U Inner Limit Max**" and enter **260V**

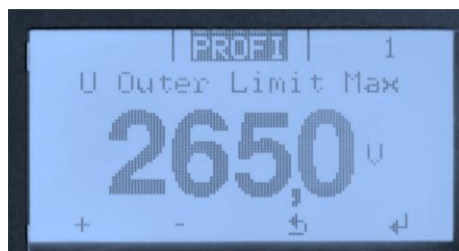


Go to tab "**U IL Max TripTime**" and enter **100cyl (cycles)**



Stage 2:

Go to tab "**U Outer Limit Max**" and enter **265V**



Go to tab “**U OL Max TripTime**” and enter **10cyl (cycles)**



Stage 3:

Go to tab “**U Longtime Limit**” and enter **258V**

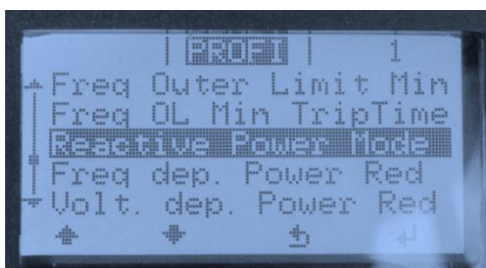
The new 10 minutes average voltage setting was introduced due to the new AS/NZS 4777.2 which can be found under tab “U Longtime Limit”.



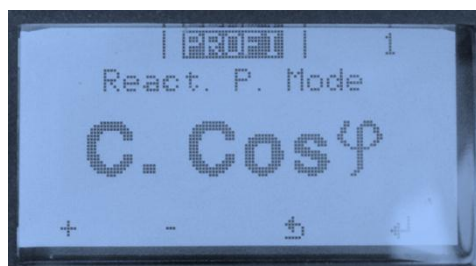
Set the max voltage limit according to the DNSP’s requirements

2.3 Setting a fixed power factor

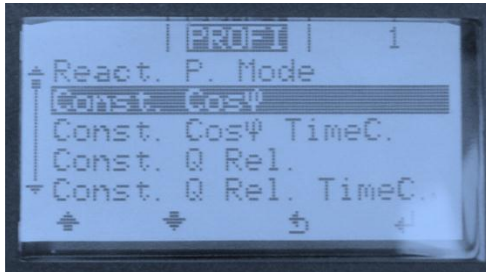
Go to menu tab “**Reactive Power Mode**”



Under the menu tab “**React. P. Mode**” select “**C. Cosφ**” (= constant cos phi) and press enter.



Under the menu tab "**C. Cos ϕ** " set the required value.



- + Leading value
- Lagging value

For more detailed information see the operation manual available on the product specific page on www.fronius.com.au