

Wels, May 4<sup>th</sup> 2021

## REQUIREMENTS CYPRUS PV SYSTEMS > 200 KW

### Fronius International GmbH

hereby confirms that the Fronius inverters

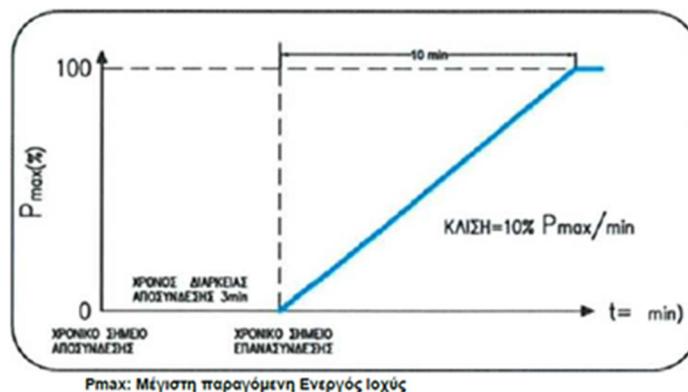
- / Fronius Symo 10.0-3-M – 20.0-3-M
- / Fronius Eco 25.0-3-S – 27.0-3-S
- / Fronius Tauro Eco 50-3 – 100-3
- / Fronius Tauro 50-3

do fulfil the following requirements of the document “ΠΑΡΑΡΤΗΜΑ 1: ΤΕΧΝΙΚΟΣ ΟΔΗΓΟΣ; ΕΦΑΡΜΟΓΗ ΣΥΜΨΗΦΙΣΜΟΥ ΛΟΓΑΡΙΑΣΜΩΝ (NT BILLING) ΜΕ ΤΗ ΧΡΗΣΗ ΣΥΣΤΗΜΑΤΩΝ ΠΑΡΑΓΩΓΗΣ ΗΛΕΚΤΡΙΣΜΟΥ ΑΠΟ ΑΠΕ ΓΙΑ ΙΔΙΑ ΚΑΤΑΝΑΛΩΣΗ ΣΕ ΕΜΠΟΡΙΚΕΣ ΚΑΙ ΒΙΟΜΗΧΑΝΙΚΕΣ ΜΟΝΑΔΕΣ”. For that, they are equipped with a Setup CY2, which has the following functions preconfigured:

#### Interface Protection:

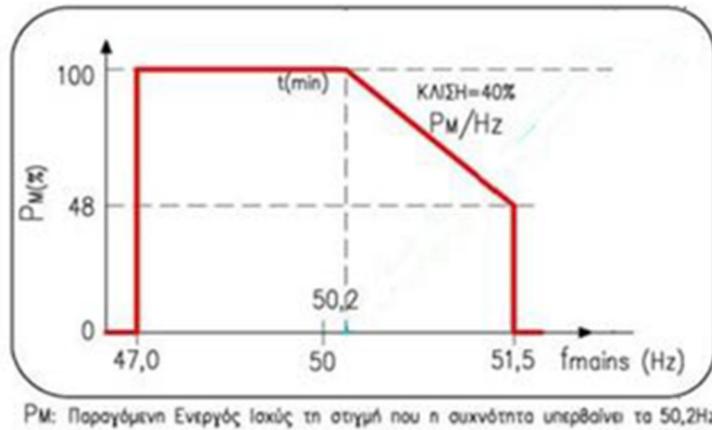
Parameter	Value	Trip time
Undervoltage protection limit	0,9 Un	1,7 s
Overvoltage protection limit	1,15 Un	200 ms
Underfrequency protection limit	47 Hz	200 ms
Overfrequency protection limit	51,5 Hz	200 ms

Startup/Reconnection Time	180 s
Reconnection/Startup Gradient	10 %/min



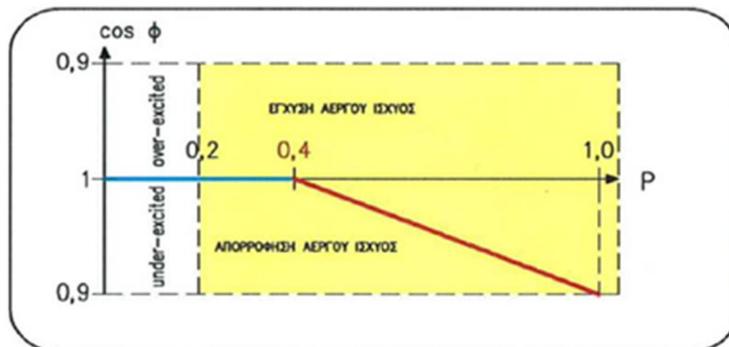
The Anti Islanding function of the inverters has been verified according to IEC 62116, the disconnection time for Anti Islanding is < 1.000 ms.

**Active power reduction at overfrequency P(f)** according to the following figure:

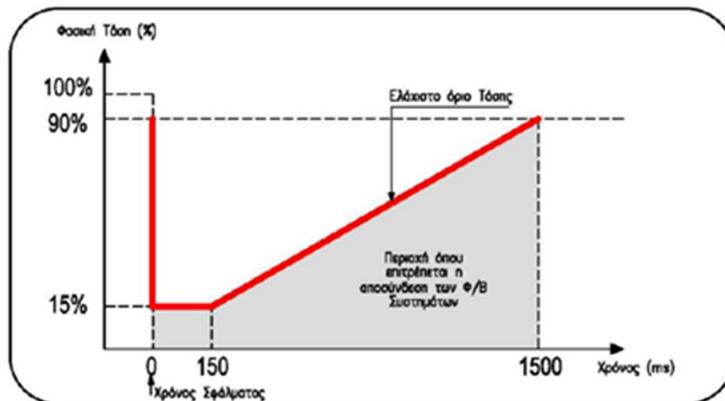


The limit below of which the frequency must be reduced to, for the over-frequency derating to be terminated and the normal operation to be restored is set at 50,10 Hz.  
Following restoration of normal operating conditions, the output active power will be increased at a rate of 10 % of the maximum available generation per minute.

**Reactive power mode Cos phi = f(P)** according to the following figure:



**Low voltage fault ride through** according to the following figure:





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A handwritten signature in blue ink, reading "Bernhard Kossak".

Bernhard Kossak, MSc  
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