# STATEMENT FOR MICRO-PRODUCTION CONNECTION

The following micro-production facilities are undersigned to connect to existing orders.

**Applicant:**

Name:

Address:

Telephone:

**Installer:**

Name:

Address:

Telephone:

E-mail:

**Installation Data:**

Power Type: ■Solar ☐Wind ☐Water ☐Bioindustries

Facility Model: SG33CX

Capacity: 33kVA/kW

Efficiency: Max. 98.3%

Max. AC current: 55.2A

Type-Examination: ■Yes ☐No

Protective Parameters:

| **Power Protection Settings (found in the inverter typ-testing-protocol)** | | **Set value** | | **Recommended value** | |
|---|---|---|---|---|---|
| | | **Time** | **Level** | **Time** | **Level** |
| Over voltage (step 2) | | 0,1 s | 255,3 V | 60 s | 255,3 V |
| Over voltage (step 1) | | 0,1 s | 264,5 V | 0,2 s | 264,5 V |
| Under voltage | | 0,1 s | 195,5 V | 0,2 s | 195,5 V |
| Overfrequency | | 0,1 s | 52 Hz | 0,5 | 51 |
| Underfrequency | | 0,1 s | 47 Hz | 0,5 | 47 |
| Protection against unwanted island operation | | NA | | 0,15 s | |
| **Power quality values** | | **Value** | **Recommended limit** | | |
| Flicker values max 16 A | $P_{st}$ | NA | 0,35 | Flicker calculated according to EN 61000-3-3 | |
| | $P_{lt}$ | NA | 0,25 | | |
| Flicker values > 16 A | $P_{st}$ | 0,29 | 0,35 | Flicker calculated according to: ☐☐EN 61000-3-3 ☐☐EN 61000-3-11 | |
| | $P_{lt}$ | 0,28 | 0,25 | | |

## Frequency Response Settings

| Items | Yes/No | Reference |
|---|---|---|
| Can the system remain connected within the following frequency range: | | EIFS 2018:2 3rd chptr §1 |
| At least 30 minutes within the frequency range 47.5 - 48.5 Hz? | Y | |
| At least 30 minutes within the frequency range 48.5 - 49.0 Hz? | Y | |
| Unlimited in frequency range 49.0 - 51.0 Hz? | Y | |
| At least 30 minutes within the frequency range 51.0 - 51.5 Hz? | Y | |
| Does the facility meet the requirement to remain connected to the network and operate at frequency change rates up to 2.0 Hz / s? [1] | Y | EIFS 2018:2 3rd chptr §2 |
| Can the plant reduce its active power output when frequency exceeds 50.5 Hz? | Y | EIFS 2018:2 3rd chptr §3 |
| Does the plant meet the statistic factor[2] requirement of 8%? | Y | EIFS 2018:2 3rd chptr §4 |
| Reduced output power from the system by maximum 3.0 percent per Hz at frequencies lower than 49.0 Hz? | Y | EIFS 2018:2 3rd chptr §7 |
| Automatic reconnection of the system takes place only within frequency range 47.5 - 50.1 Hz | Y | EIFS 2018:2 3rd chptr §8 |
| If yes to the above, certify that connection is made first when the network frequency has been within this range continuous for at least 3 minutes? | Y | EIFS 2018:2 3rd chptr §8 |
| The plant meets the requirement for an increase in output active power at automatic connection according to: | | EIFS 2018:2 3rd chptr §9 |
| <49.9 Hz - Increased rate of output active power not limited | Y | |
| 49.9–50.1 Hz - Increased rate of output active power is maximum 10 percent of rated output per minute | Y | |
| > 50.1 Hz - Increase of output active power does not occur | Y | |
| | **Value** | |
| Enter the lowest active power output (in kW) that the plant can be controlled down to over frequency | 3 | EIFS 2018:2 3rd chptr §5 |

[1] The value of the frequency change rate should be measured at the connection point and calculated over a period of 0.5 s.

[2] The statistic factor is the ratio between a frequency change and the change in output power expressed as a percentage. The frequency change is expressed as a ratio between current frequency and nominal frequency. The output power is expressed as a ratio between rated power and output power at over-frequency on the grid. At control of output power due to over-frequency, the static factor is calculated based on the installed power of the system. According to section 6 of EIFS 2018: 2.

It is hereby certified that the above information is correct:

_____

Signature Printed name

_____

City Date