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## Manufacture Declaration for EN50438:2007

**Omnik New Energy Co., Ltd** here by confirms that the product lines:

**Omniksol-13K-TL**

**Omniksol-17K-TL**

**Omniksol-20K-TL**

Are in conformity with the EN50438:2007 Requirement for the connection of micro-generators in parallel with public low-voltage distribution networks.

The test results are summarized in the **Enclosure 1** of this declaration .



(Product manger)

**Enclosure 1**  
**Test results sheet**

**Power quality**

<b>Harmonic current emission</b>								
	<b>Maximum permissible harmonic current as per EN61000-3-12 ClassA</b>							
Harmonic	2nd	3rd	5th	7th	9th	11th	13th	15th≤n≤39th
Limit	1.08	2.3	1.14	0.77	0.4	0.33	0.21	0.15a)(15/n)
Test value	0.42	0.12	0.13	0.10	0.05	0.07	0.05	<limit of EN 61000-3-2

a)50% or some other declared value close to the midpoint between minimum and maximum.

<b>Voltage fluctuations and flicker</b>				
	<b>Maximum permissible voltage fluctuation(express as a percentage of nominal voltage at100% power) and flicker as per EN 61000-3-11</b>			
	Starting	Stopping	Running	
Limit	3.3%	3.3%	Pst=1.0	Plt=0.65
Test value	0.65%	0.55%	0.45	0.34

<b>Power factor</b>			
Protection limit	<b>+0.95-0.95 at three voltage levels</b>		
	210V	230V	250V
Test value	0.9967	0.9977	0.9987

### Grid monitoring

#### Under/ Over frequency

Parameter	Under frequency		Over frequency	
	Frequency	Time	Frequency	Time
Protection limit (EN 50438 Annex A)	48Hz	0.5s	50.5Hz	0.5s
Actual setting	48Hz	0.5s	50.5Hz	0.5s
Trip value (test result)	48.01Hz	0.482s	50.49Hz	0.313s

#### Under / Over voltage

Parameter	Under frequency			Time	Over frequency			Time
	Voltage				Voltage			
	L1-N	L2-N	L3-N		L1-N	L2-N	L3-N	
Protection limit (EN 50438 Annex A)	230V-10%			0.5s	230V+10%			0.5s
Actual setting	207.0V			0.5s	253.0V			0.5s
Trip value(test result)	207.1V			0.489s	252.9V			0.416s

#### LoM

Output power level a)	Min.	Medium	Max.
Trip setting clearance time	0.5s	0.5s	0.5s
Trip value clearance time	0.435s	0.286s	0.418s

a) Indicative values are shown for minimum, medium and maximum power levels.

#### Fault level contribution

Short-circuit current at micro-generator terminals
0.0480kA