

## Type Certificate for Generation Unit

<b>Manufacturer</b>	<b>Power-One Italy S.P.A.</b> Via S. Giorgio, 642; 52028 – Terranuova Bracciolini (AR), Italy
<b>Description</b>	<b>Quality management system:</b> ISO 9001:2015 <b>Type :</b> <b>TRIO-20.0-TL-OUTD-400 &amp; TRIO-27.6-TL-OUTD-400 families</b> <b>Rated active / apparent power:</b> 20.0 kW/22.3 kVA & 27.6 kW/30.7 kVA <b>Rated AC voltage / -frequency:</b> 400 V/50 Hz <b>Software version:</b> DSP-DC/DC: ≥A030; DSP-Inv.: ≥B045; μP: ≥C057
<b>Topics of Assessment</b>	Power quality Active and reactive power regulation Reactive power capacity Dynamic grid support Grid protection Computer model validation
<b>Guidelines</b>	BDEW guideline “Generation Plant connected to the Medium-Voltage Network 2008”; /BDEW-MSR/ supplement of January 2013 /BDEW-MSR E2013/; /FGW TR8/ Rev. 05; /FGW TR4/ Rev. 05; /FGW TR3/ Rev. 21.
<b>Basis for Assessment</b>	Evaluation Report of the Grid Compliance for a Generating Unit ZG18027.02.01 Model validation report ZN11102.02.01
<b>Declaration/ Validity</b>	The experts of the certification body confirm with their signature that the listed generation units are capable of fulfilling the requirements according to the specified guidelines above, with the following exception: The unit does not provide an extra test terminal. The unit can be set to reactive current factor from $k=0$ to $k=3$ This certificate will accompany these generation units and is valid until 17.06.2023, assuming that no significant modifications at the generation units are performed and that the manufacturer’s quality management system is current.



Varel, 18.06.2018



R. Klosse  
(Executive expert of  
certification body)

WindGuard  
Certification