

CKC Certification Services, LLC

NB 0976

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TYPE EXAMINATION CERTIFICATE 2014/30/EU ElectroMagnetic Compatibility

Certificate Issued to:

Certificate Holder: **Schneider Electric Solar Inverters USA, Inc.**

3700 Gilmore Way
Burnaby, BC V5G4M1
Canada

Application ID: **97944-14-EU**

Product Identification:

Model Number(s): *Device Name(s):*

Conext Core XC680 **PV Inverter**
Conext Core XC630 **PV Inverter**
Conext Core XC540 **PV Inverter**

Assessment Scope and Summary:

<i>Essential Requirements:</i>	<i>Standards</i>	<i>Result of Evaluation</i>
<i>Annex I, 1(a), Emissions</i>	EN 61000-6-4 (2007) +A1	Conforms
<i>Annex I, 1(b), Immunity</i>		Not Evaluated

Conditions / Restrictions:

None

Based on the evidence presented in the provided technical documentation, in accordance with Annex III of Council Directive 2014/30/EU and the mutual recognition of their conformity, CKC Certification Services, LLC., Notified Body 0976, asserts the above determination regarding the equipment identified herein. Provided it is otherwise confirmed that the product also conforms with any other applicable Directives¹, the manufacturer (or the European authorized representative) shall affix CE-mark to each conforming product.

Acceptance Date: **August 3, 2016**

Expiration Date: **August 2, 2018**



Steve Behm, Authorized Signatory

¹ 765/2008/EC Article 30.3

Compliance of this product is the sole responsibility of the manufacturer or their European authorized representative. This opinion only relates to the documents provided at time of assessment and does not replace the text of the Directive. In legal disputes the text of the Directive, or its implementation in National legislation, takes precedence.

ANNEX A

Equipment Details:

	Production Level		Environment
<input checked="" type="checkbox"/>	Finished appliance	<input type="checkbox"/>	Residential / Light Industrial
<input type="checkbox"/>	Sub Assembly	<input checked="" type="checkbox"/>	Industrial
<input type="checkbox"/>	Other	<input type="checkbox"/>	Controlled EMC

Evaluation performed via:

- Harmonized Standards without deviations
- Harmonized Standards with deviations
- Requirements Defined by Notified Body

Assessment of essential requirements to EMC Directive Annex I, Article 1(a).

While the essential requirements were directly applied in accordance with EN 61000-6-4 (2007)+A1, the test procedures utilized deviate from the specified test procedures.

Deviations:

Test Procedure	Deviation	Comments
EN 55016-2-3	Assessment of radiated emissions during in-situ measurements.	Equivalent

Testing was performed on the XC680 configured with optional IEC 62109 hardware. This configuration was determined by the manufacturer to represent compliance for the XC680, XC630 and XC540 both with and without optional hardware.

Based on the evidence presented in the provided technical documentation, in accordance with Annex III of Council Directive 2014/30/EU, it is the opinion of CKC Certification Services, LLC., Notified Body 0976 that the above procedural deviations meet the essential requirements of the directive as applied using all required tests and the prescribed limits of the harmonized standard.

Discussion of Analysis

The measurement procedure for radiated emissions in accordance with EN 61000-6-4 (2007)+A1 is EN 55016-2-3 (2010) +A1 +A2 in which the measurement distance for in-situ testing is the distance from the measurement antenna to the periphery of the building into which the equipment is installed. The test report, 97944-9A, utilized a worst-case approach by using a measurement distance from the outside of the equipment enclosure using a simulated installation. Since these PV Inverter enclosures are not weather protected, the equipment will require secondary enclosures or building structure to protect the equipment. Therefore, the emissions from the equipment were higher than would be if the measurements had been performed at an actual installation.

In order to provide more realistic measurement results, the measurement data were corrected for concrete building attenuation based upon the results of the attenuation survey of *IEEE Standard 473, IEEE Recommended Practice for an Electromagnetic Site Survey (10 kHz to 10 GHz)* (1985), Section 5.3. The attenuation factor from Figure 9 (shown below) was used as a basis for this correction. Attenuation due to additional free-space path loss from the equipment to the interior of the enclosure is not taken into consideration because the physical size of such a structure is unknown, however this factor would serve only to decrease the overall emissions measurements.

It is the opinion of CKC Certifications Services, LLC. that the equipment identified herein meets the EMC performance requirements of EN 61000-6-4:2007+A1 when enclosed and installed within structures providing similar attenuation factors.

Excerpt from IEEE 473 (1985), Figure 9

