

# INSTALLATION CERTIFICATE

V3.3 Thank you for installing the Smart X! This certificate is used to validate the compliance and correct operation of the installation. All fields are mandatory. If all the validation boxes (see reverse side) are checked, the installation is complete: **please send this certificate (photo or scan, front and back) within 24 hours to support@smart-impulse.com imperatively with the requested photographs** which will help for maintenance issues. **Access to the data will only be possible after receiving these documents.** Thank you!

## INSTALLATION INFORMATION

### Installation manager

Name SURNAME	
Telephone	
e-mail	

Organisation	
Site name	
Installation date	

## INSTALLED HARDWARE



- Smart X: please fill only 'Smart X or Multi-sensor kit channel A'.  
Smart X + Multi-sensor kit (if installed): fill all measurement points.
- Nb of measured conductors per phase / Total nb of conductors per phase: ex 2/4 (2 mains\* per phase encircled by current sensors on the 4 mains per phase for the main switchboard). \*or busbars.

**Smart X**  
 MAC 5C:CF:7F **D3:E1:56**  
<http://smartx.si/d3e156>  
 CE Cat. IV 300 V

**MAC address**

**Voltage connection**

(last 6 digits, Ex: D3:E1:56)

(3-phase lead, 1-phase lead or bridge lead)

Smart X Multi-sensor kit channel A			Multi-sensor kit channel B		Multi-sensor kit channel C			
Name of the circuit	Nb of measured conductors per phase (Ex: 2)	Total Nb of conductors per phase (Ex: 4)	Name of the circuit	Nb of measured conductors per phase (Ex: 1)	Total Nb of conductors per phase (Ex: 2)	Name of the circuit	Nb of measured conductors per phase (Ex: 1)	Total Nb of conductors per phase (Ex: 2)
<i>(Ex: Main switchboard – TR1)</i>			<i>(Ex: Capacitor bank)</i>			<i>(Ex: Photovoltaic)</i>		

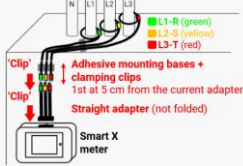
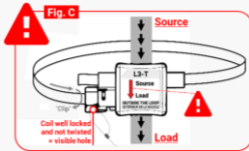
### Comments and reservations regarding the installation

# ≡ INSTALLATION VALIDATION

I certify that the installation complies with the recommendations of the user guide and that I have validated, for each installed measurement point (each Smart X and each channel of the multisensor kit), the compliance points below.

If any points remain non-compliant despite the application of the corrective actions proposed, or for any installation with a single-phase power supply or Δ delta network without distributed neutral, contact Smart Impulse directly on +44 (0) 20 3695 6840 for remote support and validation.

## 1. CONFORMITY OF THE INSTALLATION



- The **capacitor banks** or **electrical production units** (eg photovoltaic) connected to the electrical panel are isolated with a Smart X or a multi-sensor kit
- The **order of the current sensors** corresponds to the order of the phases identified on the installation (phases 1, 2, 3. Note: Neutral not measured).
- The **direction of the sensors** is respected and identical for the 3 phases (colored arrow outside the loop pointing from the source to the load, except reverse direction for a capacitor bank which is subtracted)
- The **sensor loops** are spaced from each other and **locked with the provided sensors seals**, they are not intertwined or twisted.
- The **adapter** connecting the sensors to the Smart X **remains straight (not folded)**. Adhesive bases strengthen the installation.
- If a multisensory kit is installed: **The number of measured conductors** is proportionally the same on each channel (ex: half of the cables measured on channels A, B and C)

## 2. MEASUREMENT

To validate the measurement, please go to the **2<sup>nd</sup> page of the Smart X** using the arrows on the touch screen and **check, for each phase of each installed measuring point, the values below:**

**⚠ The measurement can only be validated via the Smart X screen if it is powered via a three-phase lead in 'star' configuration. In other cases, the data displayed will be incorrect. For a multisensor kit, this check must be carried out on each channel independently (channel A connected alone, then B alone, then C alone) then on the whole (channels A, B, C connected together).**

SmartX-D3E156		09:04	
	I(A)	P(kW)	PHI
L1	292	68	-7
L2	332	75	-12
L3	307	71	-11

- I > 5A and balanced on the 3 phases** (phase difference  $\leq \pm 30\%$ ) ⚙ Otherwise, check the connections and make sure that the measured load is operating (Force the capacitor banks to consume if necessary).
- P > 0 kW and  $-50^\circ \leq \text{PHI} \leq +30^\circ$** , except for capacitor banks ( $P \sim 0$  kW and  $-120^\circ \leq \varphi \leq -60^\circ$ ) and electrical production units ( $-5^\circ \leq \varphi \leq +5^\circ$ ) ⚙ Otherwise, first check the direction and order of the sensors.  
- 2 invalid phases: swap the 2 corresponding current sensors.  
- 3 invalid phases: shift all sensors by one phase.
- P balanced on the 3 phases** (phase difference  $\leq \pm 30\%$ ) ⚙ Otherwise, check the connection of the magnetic connectors. If a meter exists on the same perimeter, check the consistency of the displayed values.

## 3. COMMUNICATION

Please go to the **3<sup>rd</sup> page of the Smart X** and check the 'COM' status below.

Conf	ART-1P-L1+	▲	
Soft	v2.15.0	Boot	v0.4.50
Data	OK	Flash	OK
Com	INTERNET OK		
Wifi	-67 dBm		

- 'INTERNET OK'**  
⚙ If 'ROUTER NOK' (router not detected) or 'WIFI LOW' is displayed on the screen of the Smart X, move the router closer to the Smart X.  
⚙ If 'WIFI OK' is displayed (Smart X connected to the router but not to the Internet), check that the router is connected to the 3G/4G (if not, move the router to an area with better 3G/4G coverage) or to the local network (otherwise contact your IT department), depending on the selected option.

## 4. PHOTOGRAPHS



- The following **photographs** have been carried out for each measurement point and will be sent to Smart Impulse: Smart X meter, Multi-sensor kit (if installed), Current sensors (arrow visible), Connection of the power supply, Smart Router, Wide plan of the switch room after installation.

Overall, the installation has been:

**Very complex**

**Very simple**