Easergy TH110

Installation and Operation Manual

NVE62740 Rev D 07/2016





1 Legal Information

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Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.

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2 Important notes

Electrical equipment should be installed, operated, serviced, and maintained only by qualified staff. **Schneider Electric** assumes no responsibility if the rules are not respected.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipments and their installation, and has received safety training to recognize and avoid the hazards involved.

2.1 General for symbols

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists, which will result in personal injury if the instruction are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



This is the symbol used for wireless communication based on radio frequency technologies. It could be combined to the safety alert symbol when a minimum distance is required.

A DANGER



DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

AWARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

ACAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury. The safety alert symbol shall not be used with this signal word.

2.2 Diffusion

ACAUTION

The aim of this publication is to enable the Easergy TH110 sensor to be installed correctly within validated equipment

NOTICE

Total or partial reproduction of this manual is prohibited and only agents Schneider Electric have an exclusive right to use.

Safety rules

3 Safety rules

A A DANGER



HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Read and understand this guide before performing any installation or maintenance with the sensor Easergy TH110 then the guides according to the switchgear and controlgear where the Easergy TH110 will be installed to identify the associated precaution. If the installation and user guides of the switchgear and controlgear do not cover the integration of the Easergy TH110, a contact to the manufacturer of the switchgear is required.

All parts of this Easergy sensor have been qualified and certified according to their respective standards and regulation and can't be replaced by any similar product not specified within this document. If the Easergy TH110 is used in a manner not specified by this document, the protection provided by the equipment may be impaired.

Check if the technical ratings of the Easergy sensor TH110 are adapted with the application (see § 7). The sensor must be installed where the temperature will be lower than the IEC limits in normal operation.

Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E or CSA Z462.

This equipment must only be installed and serviced by qualified electrical personnel.

Turn off all power supplying this equipment before working on or inside equipment.

Always use a properly rated voltage sensing device to confirm power is off.

Replace all devices, doors and covers before turning on power to this equipment.

Failure to follow these instructions will result in death or serious injury.

(1) A DANGER

EXPOSURE TO RADIO FREQUENCY

Read and understand this guide before performing any installation with the sensor Easergy TH110.

The Easergy sensor is an energy harvesting and wireless communication sensor using Zigbee 2.4GHz protocol IEEE802.15.4. The Easergy TH110 is a mobile device.

FCC: This device complies with FCC RF radiation exposure limits set forth for general population. This device must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

IC: This device complies with Industry Canada RF radiation exposure limits set forth for general population. This device must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. Le présent appareil est conforme aux niveaux limites d'exigences d'exposition RF aux personnes définies par Industrie Canada. L'appareil doit être installé afin d'offrir une distance de séparation d'au moins 20cm avec l'utilisateur, et ne doit pas être installé à proximité ou être utilisé en conjonction avec une autre antenne ou un autre émetteur.

Failure to follow these instructions will result in death or serious injury.

A DANGER

EXPOSURE TO CHEMICAL AGENT



CHEMICAL SOLVENT AND ALCOHOL FORBIDDEN

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

Safety rules

4 Cautions



TEMPERATURES OF NON TOUCHABLE HOT SURFACES

As the sensor can measure temperatures above 50°C, any accessibility to any de-energized part must be done with gloves as individual protection and when the temperature of this part will be lower than 50°C.

Failure to follow these instructions can result in injury.

5 Notices

NOTICE

Before servicing the Easergy sensor TH110 shall be paired with its concentrator.



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

"NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Any change or modification of the product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

6

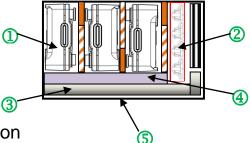
6 Installation

① Check the delivery of the Easergy TH110 sensors

- Check that the reference printed on the label matches with the delivery and is corresponding with the purchase order.
- Remove the Easergy TH110 sensors and accessories from the packaging.

Ref	Detail	Qty
	Easergy TH110 sensor	
(1)	D minut	3
	NVE52868	
_	Panduit self-locking head MTHH-C316	
2		4
	NVE52873	
	Fixing & self gripping tape L=565mm &	
3	W=16mm	3
)	NVE52871	
	Quick start guide	4
4	NVE61600	1
	Packaging	1
(5)	NVE52874	1





- ② Check the delivery of the ferromagnetic ribbon
- The ferromagnetic ribbon shall be ordered separately. The reference to order is EMS59441.
- Remove the ferromagnetic ribbon from the packaging and check that it has not been damaged.



3 Pairing of the sensor Easergy TH110

- Before installation, any sensor must be paired with its associated Zigbee green power access point.
- By default the sensor is in pairing mode to be paired with any opened access point as soon as sensor is powered on.

4 Installation of the sensor Easergy TH110

NOTICE: Mechanical parts

Ref 1) Thermal sensor TH110 embedding the thermistor in contact with the measured part Ref 2) Tie lock: Panduit MTHH-C316 A and

ferromagnetic ribbon

Ref 3) Fixing: Self gripping tape with buckle. Tape

width: 16 mm

Ref 4) Tools: Hellermann Tyton ref MK9SST or

Phoenix contact ref 1212610

DANGER

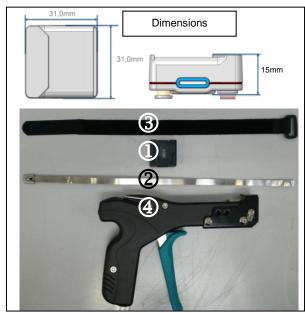


- a) See clause on Safety rules §2 of this document.
- b) Check your individual protection. Gloves for metallic parts are required in addition of any other need by the application.
- c) Put the HV functional unit on a mode enabling its accessibility to install the sensor according to the customer and Schneider Electric procedures.
- 1) Prepare your products and tool.
 - ①: Thermal sensor
 - ②: Tie lock and ferromagnetic ribbon
 - 3: Fixing & self gripping tape
 - 4: Tool (Phoenix) to close the ferromagnetic ribbon
- To note the sensor number and its position within HV functional unit (Functional unit number, Busbar or CB up or CB down or Cable) and the associated phase reference. To note the Zigbee source ID. It is used to check if the sensor is paired with the access point (RF receiver).
- After a check and cleaning deposit if any over the ferromagnetic ribbon Ref 2, prepare the length of this ferromagnetic ribbon Ref 2 according to the peripheral dimension of the measured part + 100mm. Take one end of the cut banding and bend back it on 13mm.
- Take a self-locking head Panduit MTHH-C316 and slide it the entire length of the band until it reaches the bend.
- 5) Introduce the flat tail of the ferromagnetic ribbon Ref 2 inside the Easergy TH110 through the opening.

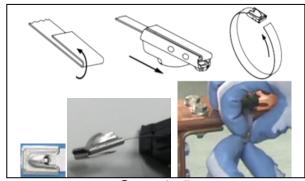
NOTICE

Due to a softness metallic ribbon pay attention avoid any deformation before introduction within the tie lock and the sensor





Steps 1 - 2 - 3



Steps 4 - 5



Step 6 - 7

6) Install the Easergy TH110 sensor within the HV switchgear where the thermal measurement is required. Then bend the flat tail of the ferromagnetic ribbon Ref 2 to close the loop when introduced through the tie lock.

Position of the sensor:

- To prioritize a top side of the flat or round bar
- To prioritize horizontal installation.
- The thermistor shall be at the closest position of the connection.
- The position shall be in accordance to the installation prescribed within installation guide of the electrical equipment.

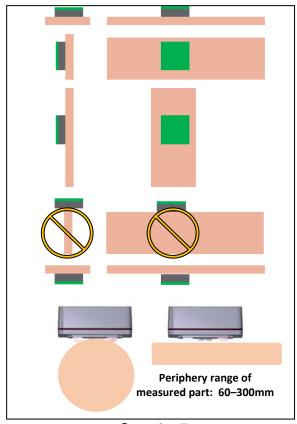
NOTICE

Due to interlock on CB, attention shall be paid to avoid any damage when the sensor is installed in arms of some CB: To avoid this potential issue the sensor shall be installed at the bottom side of the top arms or the upper side of the bottom arms.

- 7) Introduce the flat tail inside the pliers of the tool Ref 4: 1212610 (Phoenix Contact at right side) or to MK9SST (Hellermann Tyton at left side), then bend the extremity with an angle at 90° longer than 13mm.
- 8) The adjustable tension force is indicated by a scale in the handle area. Set the tool Ref 4 1212610 tool at grade 1.5 or the tool MK9SST at grade 1.5 (200N Max as tensile stress). Tense the ferromagnetic ribbon Ref 2.
- 9) Finish the tensile of the ferromagnetic ribbon Ref 2 with the tool Ref 4, and when the tension is at the setting value, the ferromagnetic ribbon Ref 2 is cut automatically with the tool Ref 4. The metallic ribbon can't assure the right tightening and must be covered by the fixing and self gripping tape.
- 10) To install the fixing and self gripping tape Ref 3 over the sensor Easergy TH110 Ref 1 and the ferromagnetic ribbon Ref 2 introduce the fixing and self gripping tape Ref 3 cut at the right length within the buckle then return the tape and tense it to avoid any sliding, then close the self gripping tape. To finish the installation cut the non gripped part with a scissor.



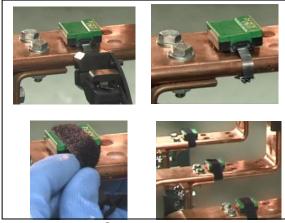
Check the installation according to the installation guide of the switchgear.



Step 6 - 7



Steps 8



Steps 9 - 10

7 Operation

7.1 General

The product Easergy TH110 is a wireless thermal sensor enabling energy harvesting and batteryless functions. It is intended to be used within indoor high and low voltage electrical distribution products or assemblies to monitor the temperatures of any live connection. The sensor shall be used with a Schneider-Electric access point having the function of concentrator of sensors, using Zigbee Green Power wireless communication protocol.

Easergy

7.2 Product technical datasheet

Main

Range of product

Product or component type	Indoor thermal sensor for wireless access point
Rated supply	Starting current: for energy harvesting 0.4A / cm of the peripheral AC live part (Battery less)
	Supply is not disturbed by temporary overvoltage within the limit of the HV or LV switchgear.
Complementary	
Voltage limit of the live and measured part	52kV
Induced voltage	15V max
Current limit of the live and measured part	5000A without exceeding the temperature rise limits
Range dimensions of live and measured part	Periphery range: 60 – 300 mm
Power consumption	20mA during radio transmission mode
	2μA max in sleeping mode
Wireless communication protocol	Zigbee green power at 2.4 GHz according to IEEE 802.15.4
Transmission period	60s
Connection type	See associated Zigbee concentrator (EBX 200, Sologate, E-gate,)
Marking	CE (cf applicable Directives)
Mounting support	Direct on live part or shielded insulation part by fixing tape
Height	14 mm
Depth	31 mm
Width	31 mm
Product weight	0.015 kg
Environment	
Environment Product certifications	CB IECEE ID: FR682889
	CB IECEE ID: FR682889 cBVus ID: CABA
	cBVus ID: CABA
	cBVus ID: CABA FCC ID: 2AHP8-097742
	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742
	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC
	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU
Product certifications	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC)
Product certifications	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC) EN / IEC 61010 2010
Product certifications	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC) EN / IEC 61010 2010 UL 61010 -1 2012 ETSI EN 300238 2012 V1.9.1 (§ 3.2 R&TTE Directive)
Product certifications Main standards	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC) EN / IEC 61010 2010 UL 61010 -1 2012
Product certifications Main standards Power emission	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC) EN / IEC 61010 2010 UL 61010 -1 2012 ETSI EN 300238 2012 V1.9.1 (§ 3.2 R&TTE Directive) IEEE 802.15.4 2013 EIRP=+5dBm
Product certifications Main standards Power emission	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC) EN / IEC 61010 2010 UL 61010 -1 2012 ETSI EN 300238 2012 V1.9.1 (§ 3.2 R&TTE Directive) IEEE 802.15.4 2013 EIRP= +5dBm 2-4-8-15kV (Direct & Indirect contact) according to EN/IEC 61000-4-2
Product certifications Main standards Power emission Resistance to electrostatic discharge	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC) EN / IEC 61010 2010 UL 61010 -1 2012 ETSI EN 300238 2012 V1.9.1 (§ 3.2 R&TTE Directive) IEEE 802.15.4 2013 EIRP= +5dBm 2-4-8-15kV (Direct & Indirect contact) according to EN/IEC 61000-4-2 2-4-8-15kV (in air) according to EN/IEC 61000-4-2
Product certifications Main standards Power emission	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC) EN / IEC 61010 2010 UL 61010 -1 2012 ETSI EN 300238 2012 V1.9.1 (§ 3.2 R&TTE Directive) IEEE 802.15.4 2013 EIRP= +5dBm 2-4-8-15kV (Direct & Indirect contact) according to EN/IEC 61000-4-2 2-4-8-15kV (in air) according to EN/IEC 61000-4-3
Product certifications Main standards Power emission Resistance to electrostatic discharge Resistance to electromagnetic fields	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC) EN / IEC 61010 2010 UL 61010 -1 2012 ETSI EN 300238 2012 V1.9.1 (§ 3.2 R&TTE Directive) IEEE 802.15.4 2013 EIRP= +5dBm 2-4-8-15kV (Direct & Indirect contact) according to EN/IEC 61000-4-2 2-4-8-15kV (in air) according to EN/IEC 61000-4-2 30V/m (80MHz5.7 GHz) according to EN/IEC 61000-4-3
Product certifications Main standards Power emission Resistance to electrostatic discharge	CBVus ID: CABA FCC ID: 2AHP8-097742 IC: 21245-097742 LV Directive 2014/35/EU EMC Directive 2004/108/EC RE Directive 2014/53/EU (R&TTE directive 1999/5/EC) EN / IEC 61010 2010 UL 61010 -1 2012 ETSI EN 300238 2012 V1.9.1 (§ 3.2 R&TTE Directive) IEEE 802.15.4 2013 EIRP= +5dBm 2-4-8-15kV (Direct & Indirect contact) according to EN/IEC 61000-4-2 2-4-8-15kV (in air) according to EN/IEC 61000-4-3

Operation

	300A/m Continue EN/IEC 61000-4-8
Pulse magnetic field immunity	1000A/m Pulse EN/IEC 61000-4-9
Damped oscillatory magnetic field immunity	30A/m (0.1 & 1 MHz) EN/IEC 61000-4-10
Electrical fast transient/burst immunity	4kV 1 min EN/IEC 61000-4-4
	2kV 5min (Marine) EN/IEC 61000-4-4
Damped oscillatory wave immunity	3kV (CM - 100kHz & 1MHz) EN/IEC 61000-4-18
	2.5kV (CM - 3MHz, 10MHz, 30MHz) EN/IEC 61000-4-18
Surge immunity	0.5-1-2-4kV (Common mode) EN/IEC 61000-4-5
	0.5-1-2-4kV (Differential mode) EN/IEC 61000-4-5
Immunity to conducted RF disturbances	30V Continuous (0 – 150kHz) EN/IEC 61000-4-16
	300V Short duration (0 - 150kHz) EN/IEC 61000-4-16
Ambient air temperature for operation	-2580°C Any live and measured parts shall be lower than IEC limits (115°C Max)
Accuracy	+/-1°C between -25°C80°C and +/-2°C outside the range.
Measured temperature for operation (live and measured part)	-25115°C for 80°C at maximum ambient temperature -25125°C for 40°C at maximum ambient temperature 150°C max (limited time)
Ambient air temperature for storage	-4070°C
Relative humidity	1095 % over a period of 24h condensation may occasionally occur
- Total To Hallianty	in operation
	1090 % over a period of one month condensation may occasionally occur in operation
IP degree of protection	IP54 IEC 60529
Mechanical impact	IK07 IEC 62262 (Exposed side vs Measuring side)
Pollution degree	2 IEC 61010-1
Operating altitude	02000 m
Storage altitude	03000 m
Vibrations sinusoidal during transport	5-8Hz Ampl 7.5mm, 8-200Hz 2g, 200-500Hz 4g 20 cycles Test Fc according to IEC 60068-2-6 (2M3 according to IEC 60721-3-2)
Vibrations random during transport	10-2000Hz 0,1g/Hz 30 min/axe according to IEC 60068-2-64
Shocks	3 shocks 2 directions 3 axes 40g 6ms (Ea) according to IEC 60068-2-27 (2M3)
	1000 shocks 2 directions 3 axes 20g 16ms (Ea) according to IEC 60068-2-27
Free falls	2m 2 free falls according to IEC 60068-2-31
Vibrations sinusoidal in operation (Installed on bar)	5-500Hz 1g 1cycle (10min) 3mm Test Fc according to IEC 60068-2-6 (3M5 according to IEC 60721-3-3)
Shocks in operation (Installed on bar)	3 shocks 3 directions 10g 11ms (Ea)according to IEC 60068-2-27 (3M5 according to IEC 60721-3-3)
Glow-wire flammability withstand	650°C
Maximum distance between sensor and the access point	100m in free field unobstructed
	25m when the components are separated by one layer of metal
	10m when the components are separated by two layers of metal
Offer Sustainability	
Sustainable offer status	In progress
RoHS (date code: YYWW)	In progress
	p. 0 q. 000
REACH	
REACH	Reference not containing SVHC above the threshold. Candidate list June 2015.
Product environmental profile Product end of life instructions	Reference not containing SVHC above the threshold.

8 Maintenance

8.1 General

A DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Any operation of maintenance shall be carried out under safe operation. We strongly recommend to read the clause on Safety rules §2 of this document before any intervention.

Failure to follow these instructions will result in death or serious injury.

8.2 Periodical maintenance

If needed, contact the nearest **Schneider Electric** services center. We strongly recommend that you carry out at regular intervals (at least roughly every 2 years) a few operating cycles on the switching devices, the fixing of the Easergy TH110 sensor should be checked. If any the self gripping tape shall be replaced, removing the old one and installing a new one as defined by the clause of this document (Clause 5, sub-clause 4). In harsh conditions (aggressive atmosphere, dust, temperature greater than 40°C), please consult the nearest **Schneider Electric** services center.

ACAUTION

INJURY

To replace a sensor, the tape over the sensor shall be removed and the soft ferromagnetic ribbon can be cut with a **scissor**. Cutter is forbidden.

Failure to follow these instructions can result in injury or equipment damage.

9 Anomalies / solutions table

Dysfonctions	Expected solutions
Sensor is not visible by the access point.	Check if the dysfunction is also valid for any other sensor.
	Check if the sensor was already visible by the access point.
	Check if the measured part is energized, to energize the sensor.
	Check if the measured part is energized with a current over the starting current value.
	Check if the sensor is known by any other access point.
	Check if the distance between the sensor and the access
	point according to the number of enclosure layers.
Measurement is not received by the access point.	Check if the sensor is paired with the access point.
Measurement is near to the ambient temperature but measurement is abnormal compared to the measurement of an adjacent phase.	Check if the associated phase is loaded and balanced with the adjacent phase.
	Check if the sensor is well fixed at the right position. If it is not possible to check please, call the nearest Schneider Electric center.
Measurement is above the limits.	Check if the ambient temperature is lower than the upper limit of the service conditions.
	Check if the load of the equipment is lower than the rated current of the monitored equipment.
	Check the measured part, applying safety procedure.

10 Environnemental impacts

10.1 Product environmental profile

The EIME (Environmental Impact and Management Explorer) software, version V3, and its database, version 5.4 were used to assess the product environmental profile (PEP). The assumed service life of the product is 20 years with an utilization rate based on the mission profile of the Easergy TH110 and the electrical power model used is European. The scope of the analysis was limited to the Easergy TH110 sensor and its accessories to be supplied and fixed. The environmental impacts were analysed for the Manufacturing (M) phases, including the processing of raw materials, and for the Distribution (D) and Utilisation (U) phases. Easergy TH110 is compliant with the RoHS directive. RoHS restricts the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment.

10.2 Product Overview

The range is RoHS compliant: as the product of the range are designed in accordance with the RoHS Directive (European Directive 2002/95/EC of 27 January 2003), they can be incorporated without any restriction within an assembly or an installation submitted to this Directive. RoHS restricts the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment. Easergy TH110 is compliant with the RoHS directive.

10.3 End of life

At end of life, the products of the Easergy TH110 sensor shall be dismantled to facilitate the recovery of the various constituent materials.

10.4 Recycling

Schneider Electric is committed to a long term environmental approach. As part of this, the Easergy TH110 sensor has been designed to be environmentally friendly, notably in terms of the product's recyclability. The materials used are identified in product environmental profile (PEP) analysis and easily separable. It has been carried out in conformity with ISO 14040 "Environmental management: life cycle assessment - principle and framework".

At the end of its life, Easergy TH110 can be processed, recycled and its materials recovered in conformity with the draft European regulations on the end-of-life of electronic and electrical products.

TH110	Personal notes	

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As standards, specifications, and designs change from time to time, please ask for confirmation of the information given in this publication.

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