

CERTIFICATE

Number: 2134414.01

Issued to:
Applicant:
Plugwise B.V.
Wattstraat 56
2171 TR, Sassenheim, The Netherlands



Manufacturer/Licensee:
Plugwise B.V.
Wattstraat 56
2171 TR, Sassenheim, The Netherlands

Product(s) : Controller
Trade name(s) : PLUGWISE
Type(s)/model(s) : Stealth and Stealth+

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

KEMA Quality hereby declares that the above-mentioned product has been certified on the basis of:
a type test according to the standard EN 60730-1:2000 + A1:2004 + A2:2008 + A12:2003 + A13:2004
+ A14:2005 + A16:2007

- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2134414

KEMA Quality hereby grants the right to use the ENEC KEMA-KEUR certification mark.

The ENEC KEMA-KEUR certification mark may be applied to the product as specified in this certificate for the duration of the ENEC KEMA-KEUR certification agreement and under the conditions of the ENEC KEMA-KEUR certification agreement.

This certificate is issued on: 18 October 2010 and expires upon withdrawal of one of the above mentioned standards.

KEMA Quality B.V.

drs. G.J. Zoetbrood
Managing Director

H.L. Schendstok
Certification Manager

ACCREDITED BY
THE DUTCH COUNCIL
FOR ACCREDITATION



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SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

product	:	controller
trade name	:	PLUGWISE
types	:	Stealth, Stealth+
rated current	:	16(4) A, resistive and motor load 1 AX, fluorescent lamp
ratings	:	110 V~, 1760 W 230 V~, 3680 W
pattern number	:	1
temperature limit	:	T35
kind of actuating	:	ZigBee-MESH-netork
kind of disconnection	:	relay ; micro-gap
frequency of operation	:	10.000 operating cycles
earthing	:	no connecting for earthing
terminals	:	screw terminals
degree of pollution	:	2
degree of protection	:	IP00
material group	:	IIIa
tracking resistance	:	250 V
rated impulse withstand voltage	:	2500 V
markings	:	are shown on the body

Additional information

Due to the fact that the Stealth will get warm during normal use, the maximum current of 16A will be lower when the Stealth is used in a conduit box. The Stealth is also tested with 10A in a box with the dimensions 70 x 70 x 50 mm.

The Stealth is provided with enclosure which provides basic insulation only and shall not be used independently. Supplementary insulation shall be realized in the end-appliance or by the installer. As special product for OEM-usage, the Stealth can be delivered without enclosure as Stealth PCB.

The Stealth is a basic element of the Plugwise system. The Stealth measures the energy consumption of the connected appliance and stores the data in its own memory. Additionally it can switch the appliance on and off. Energy-consumption data are transmitted to the Plugwise software, installed on your PC via a wireless Zigbee-MESH-network. The energy usage-data of the connected appliance are subsequently processed by the software into clear overviews and graph. From your computer you can wirelessly switch the connected appliances on and off, either manually or automatically through pre-set switching schedules.

The Stealth+ contains additional characteristics within the network, apart from the basic functions of the Stealth. The Stealth+ functions as a coordinator in the build-up of the Plugwise network. It keeps track of those Stealth's which are part of the network and communicates this information to the Stick in the computer.

TESTS

Test requirements

EN 60730-1:2000 + A1:2004 + A2:2008 + A12:2003 + A13:2004 + A14:2005 + A16:2007

Test result

The test results are laid down in KEMA Quality test file 2134414.01.

Conclusion

The examination proved that all test requirements were met.

Tested by : L.S.M. Mooi

Checked by : E. Stoel



Factory location

Applied Micro Electronics "AME" bv
ESP 100, 5633 AA, Eindhoven
The Netherlands

List of components

Component	trade name	type/model	approval mark ¹⁾
printed wire board (main)	AME	APM (Stealth+) BPM (Stealth)	*
printed wire board (receiver)	AME	EM 250	*
relay	Hongfa	JQX-115F 005-1H3A(555) 5Vdc / 16(4)A - 1AX / 250V	*
relay	Hongfa	HF115FD 005-1H3A 5Vdc / 16(4)A - 1AX / 250V	*

¹⁾ * indicates a component tested as part of the appliance

ENEC/KEMA-KEUR CONTRACT



Contract number: 2134414

Parties:

KEMA Quality B.V., having its seat in ARNHEM, Nederland, hereinafter to be referred to as "KEMA"
and

Plugwise B.V., having its seat in SASSENHEIM, Nederland, hereinafter to be referred to as "The
Other Party",

have come to the following agreement:

- 1 KEMA hereby grants The Other Party the right to use the ENEC/KEMA-KEUR certification mark and additional specification as depicted in the ENEC/KEMA-KEUR certificates presented to it in relation to the products and standards specified in such certificates.
- 2 This contract is subject to the last version of the General Terms and Conditions for the Performance of Assessment and Certification Services, which in accordance with the relevant quotation or order confirmation form an inseparable part of this contract.
- 3 The Other Party shall pay KEMA an agreed compensation for contract costs, depending on the number of product types and/or production locations.
- 4 The Other Party shall co-operate in checks and inspections which KEMA considers necessary and see to it that KEMA or its representative is granted access to the appropriate production location(s). Inspections shall be charged on the basis of the rates then applicable. Invoices will be sent to the addresses of the production locations in question.
- 5 This contract shall become effective as per the date of presenting the first certificate.

Thus duly agreed, drafted and signed in duplicate:

For Plugwise B.V.:

Sassenheim (place)

16-9-2010 (date)

 (signature)

drs. R.G.J. Sanders (name)

Product Manager (title)

For KEMA Quality B.V.:

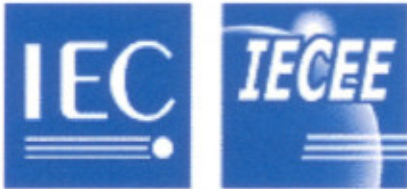
Arnhem

21-09-2010 (date)

 (signature)

drs. G.J. Zoetbrood

Managing Director



Test Report issued under the responsibility of:

KEMA Quality
a DEKRA company

**TEST REPORT
IEC 60730-1
Automatic electrical controls for household and similar use**

Report reference No.	2134414.50-QUA/DCC
Date of issue	2010-10-14
Total number of pages	62
CB Testing Laboratory	KEMA Quality B.V.
Address	Utrechtseweg 310, 6812 AR, Arnhem, The Netherlands
Applicant's Name	Plugwise B.V.
Address	Wattstraat 56, 2171 TR, Sassenheim, The Netherlands
Test specification	
Standard	IEC 60730-1:1999 (3 rd Edition) + A1:2003 + A2:2007
Test procedure	CB
Procedure deviation	N.A
Non-standard test method	N.A
Test Report Form	IEC60730_1E
TRF originator.	Electrosuisse
Master TRF (date)	Dated 2008-07

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Test item description	:	controller
Trade Mark	:	Plugwise
Manufacturer	:	Plugwise B.V. Wattstraat 56, 2171 TR, Sassenheim, The Netherlands
Model /Type reference	:	Stealth, Stealth+
Ratings	:	110 V~, 16(4) A, 1AX, 1760 W 230 V~, 16(4) A, 1AX, 3680 W