

CERTIFICATE

Number: 2127786.01



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

Products : plug-in adapter
Trade name : PLUGWISE
Types/models : Circle, Circle+

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 IEC 60884-1:2002 + A1:2006; IEC 60884-2-5:1995; NEN 1020:1987 + A2:2004; DIN VDE 0620-1:2005 + A1:2009 (Draft); EN 60730-1:2000 + A12:2003 + A13:2004 + A1:2004 + A14:2005 + A16:2007 + C11:2007 + A2:2008
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2111754

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

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

This certificate is issued on: 9 June 2010 and expires upon withdrawal of one of the above mentioned standards.

KEMA Quality B.V.

drs. G.J. Zoetbrood
Managing Director

H.R.M. Barends
Certification Manager

ACCREDITED BY
THE DUTCH COUNCIL
FOR ACCREDITATION



© Integral publication of this certificate is allowed

SPECIFICATION OF THE CERTIFIED PRODUCT

Product data

product	:	plug-in adapter
trade name	:	PLUGWISE
types	:	Circle, Circle+
rated current	:	16 A
rated input	:	3680 W
rated voltage	:	230 V~
kind of load	:	16 A : resistance 4 A : inductive (motor) 1 AX : fluorescent lamp
kind of actuating	:	ZigBee-MESH-netork
kind of disconnection	:	relay ; micro-gap
earthing	:	plug and socket-outlet part provided with site-earthing contacts
design	:	safety socket-outlet (with shutters)
standard sheets	:	III : socket-outlet part IV or VII : plug part
description	:	body of thermoplastic material, provided with electronics
markings	:	are shown on the body

Additional information

The Circle is a basic element of the Plugwise system. It is a plug which is easily placed between the wall socket and the plug of the appliance. The smart plug 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 graphs. From your computer you can wirelessly switch the connected appliances on and off, either manually or automatically through pre-set switching schedules. The plug also contains a stand-by killer function.

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

List of components

Component	trade name	type/model	approval mark ¹⁾
Printed wire board (main)	AME	APM (Circle+) BPM (Circle)	*
Printed wire board (receiver)	AME	EM 250	*
Relay	Hongfa	JQX-115F 005-1H3A(555) 5Vdc / 16A-250V	*

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

TESTS

Test requirements

IEC 60884-1:2002 + A1:2006

IEC 60884-2-5:1995

NEN 1020:1987 + A2:2004

DIN VDE 0620-1:2005 + A1:2009 (Draft)

EN 60730-1:2000 + A12:2003 + A13:2004 + A1:2004 + A14:2005 + A16:2007 + C11:2007 + A2:2008

Test result

The test results are laid down in KEMA Quality test file 2127786.01.

Remarks

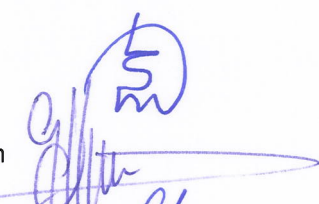
This certificate replaces our certificate 2111754.01 dated 5 June 2009 and is also partly based on the results of that certificate.

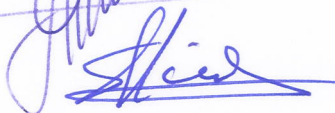
Conclusion

The examination proved that all test requirements were met

Tested by : T.J. Overklift Vaupel Kleyn 

L.S.M. Mooi

Checked by : J.C. Hendriksen 

E. Stoel 

Factory location

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