

# Datasheet

## AQStation Dimmer

Typ: AQS Dimmer black

Order-No.: 90.00.100

Typ: AQS Dimmer white

Order-No.: 90.00.101



**ALTENBURGER**

ELECTRONIC GMBH

## 1 Function

The AQStation Dimmer is a phase-cut load dimmer intended for the dimming of high-voltage halogen lamps, low-voltage halogen lamps (via electronic transformers), power-LEDs (230 V), LED converters and incandescent light bulbs. The in-house Wi-Fi is used as a bus system. This enables the use of off-the-shelf smartphones and tablet computers running on Android or iOS to control and visualise AQStation devices.

The AQStation Dimmer can be controlled with its integrated push-button panel, peripheral push-button panels or the relevant AQStation App. For more information about the visualisation, scenes, groups and timer functions, see the AQStation App description available from [www.altenburger.de](http://www.altenburger.de) or [www.aqstation.de](http://www.aqstation.de).



## 2 Dimming, turning on/off

In the "OFF" mode, the dimmer adjusts the connected load down to almost 0. The load is not cut off from the network (disengaged function/no galvanic separation). A command made with a panel push-button triggers the programmed switch-on value. A command made through the App icon causes the value to rise from 0% to 100%. Using the App, you can set the initial value (between 0 and 100%) of the dimmer in the case of a blackout. The factory-set initial value is 0%. Using the App and the control push-buttons, you can adjust the dimmers between 0 and 100%. The control push-button has the following functions: On/Off/Brighter/Darker.

## 3 Connectible loads

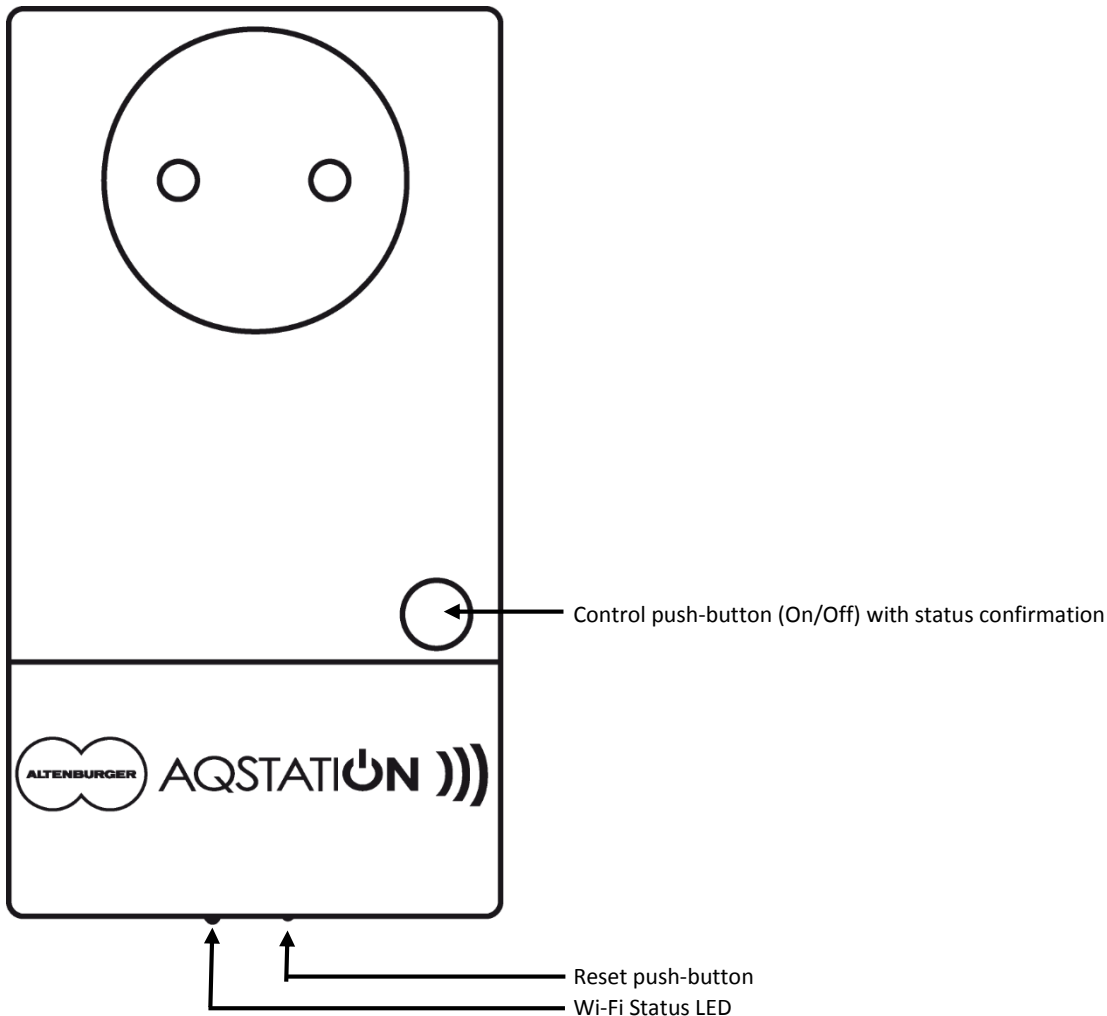
Using the dimmer, you can control loads (ohmic loads, e.g. incandescent light bulbs) and capacitive loads (e.g. electronic transformers) within a range of 15W/VA to 350W/VA. The total capacity of the connected load may not exceed the maximum load of the dimmer. The power dissipation and  $\cos \varphi$  of the electronic transformers should be taken into account as well. Also, the dimmer's maximum output current may not be exceeded. You may not connect the outputs of multiple dimmers.

Electronic transformers may be connected to the dimmers on the mains (primary) side only. Their loads must comply with the manufacturer's data and they must be designed for appropriate mains electricity. Open-loop operation is not allowed. Electronic transformers may be connected only when they are designed for phase-cut operation. The operation of conventional transformers or inductive loads is generally not allowed, as it might damage the dimmer or the transformers beyond repair.

## 4 Load output

- Electronic current limitation (short-circuit current)
- Downward adjustment when maximum allowed temperature is exceeded
- Switching off when the temperature is too high (thermal cut-off, permanent)
- Switching off when the current is too high (microfuse, permanent)
- Switching off when voltage peaks are too high (inductive load), switching ON again after disconnection of supply voltage

## 5 Overview



## 6 Technical data

Designation	AQStation Dimmer
Type	AQS Dimmer
Order Number	black: 90.00.100 white: 90.00.101
Supply Voltage	230V~ 50Hz, DC not allowed
Protection	external 16A, internal microfuse
Mounting form	Rail housing
Dimensions, weight	WxDxH= 121x66x56mm, approx. 200 gr.
Internal displays	1x green LED (Wi-Fi mode) 1x green LED (switch mode) on control push-buttons
Internal controls	1x push-button for the manual control (on/off, brighter/darker) 1x reset push-button (factory settings, including Wi-Fi)
Wi-Fi	2.4 GHz 802.11n
Operating temperature	0°C ... +30°C
Power consumption	< 1.5 W
Protection class	I (electrical grounding)
Protection category	IP 20
Degree of contamination	2 (dry non-conductive)
Dimmer output	350W/VA (max. 1.5A~) <ul style="list-style-type: none"> <li>- Electronic current limitation (short-circuit current)</li> <li>- Downward adjustment when maximum allowed temperature is exceeded</li> <li>- Switching off when the temperature is too high (thermal cut-off, permanent)</li> <li>- Switching off when the current is too high (microfuse, permanent)</li> <li>- Switching off when voltage peaks are too high (inductive load), switching ON again after disconnection of supply voltage</li> </ul>
Loading capacity	max. 350W/VA (max 1.5 A~) ohmic load, capacitive load (incandescent light bulbs, electronic transformers)
Qualification	CE, RoHS, WEEE

### ALTENBURGER ELECTRONIC GMBH

Schloßweg 5  
77960 Seelbach

Phone: +49 7823 5090  
Fax +49 7823 50997

info@altenburger.de  
<http://www.altenburger.de>  
<http://www.aqstation.de>

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