



ABB-free@home®
Making home automation
easier than ever

Work made easy



Installation and commissioning has never been easier. From start to finish, ABB-free@home® makes home automation easy. It saves electricians valuable time and gives them a competitive advantage. Simply impressive.



Contents



The solution

Comfortable home automation	08
Total network	10
Scene control	14
Intelligent technology	16
Successfully winning customers	18

Installation and commissioning

The superior system	22
Comparably little effort	24
Fast configuration via an app	26
An assured future and environmentally friendly	28

The possibilities

Comfort, safety and efficiency	32
Easy control of all functions	34

The range



Why do I need a new system?

Delivering home automation that is easy to understand and future-proof is important to builders. And electricians can now support them thanks ABB-free@home® due to its numerous advantages. From installation to configuration, through to an effective interface via an app.







Twice as easy For commissioning and configuration

Numerous advantages all in one. ABB-free@home® combines all the useful functions of comfortable home automation and is easy to work with at a system level. It is simpler to commission – saving you valuable working hours.



Ready to start immediately

To become familiar with the system takes no time at all. It is easy to understand and self-explanatory due to the assistance function – the wizard. The straightforward, interactive online seminar available in the office or at home can be followed by experts or novices. This will prepare you to appear at your customer's premises as an expert in modern home automation.



Adjustment made easy

Configuration and operation of ABB-free@home® is as easy as surfing the internet – thanks to the free app. No additional software is required. The settings and adjustments can be made either by you or the customer with every commercially available computer or tablet – with an HTML5, independent of platform.

Total network

Blinds, lights, heating, air-conditioning, door communication

Comfortable right from the start. It begins with commissioning and continues later when used as a part of daily life. With ABB-free@home® all applications in and around the house are amazingly easy to combine.

Blinds

Whether blind, roller blind, awning or roller door – with the ABB-free@home® home automation, sun protection and energy saving could not be easier. Opening and closing as well as adjustment of lamella can be controlled with a switch, ABB-free@homeTouch or app for smartphone or tablet. In addition, a conventional weather station for protection during a storm, a timer or astro function can be used. It automatically adjusts the blind according to sunrise and sunset.

- » Flexible options for control
- » Storm, rain and wind protection which responds to the weather
- » Simple operation
- » Optimized energy efficiency due to improved insulation
- » Optional timing



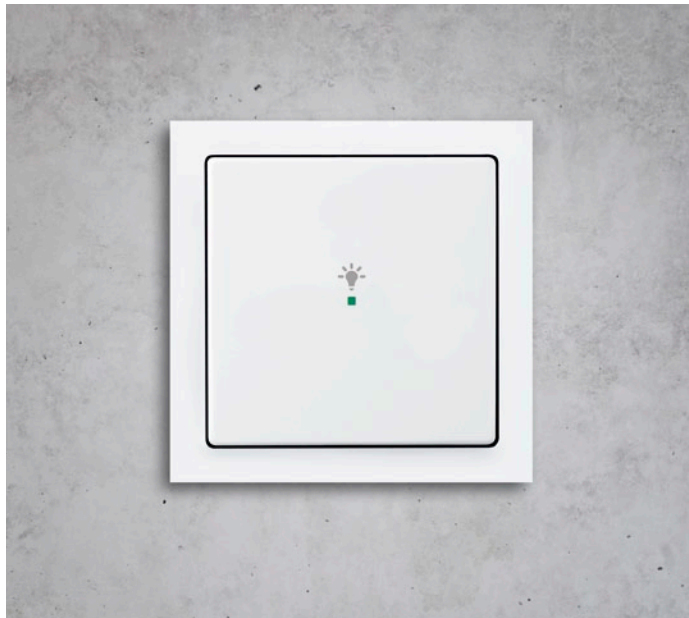
Blind switch

Ready for all operating modes. With either a short or long press of the button for roller blinds, exterior blinds or awnings as well as adjustment of lamella. Together with a wind sensor the roller blinds, exterior blinds and awnings close up completely and are locked during high wind.

Light control

Life begins with light. With ABB-free@home® it can be optimally used, whether for illuminating individual rooms or the entire house. For example, with striking light scenes – for different moods and to suit the occasion. A pleasant side effect here is the cost-saving and environmentally friendly use of energy.

- » Easy to adjust light scenes
- » Central or remote control
- » Fast activation of emergency lighting
- » Support of energy efficiency
- » Flexible use



Dimmer and movement detector

With ABB-free@home®, rooms or entire buildings can be illuminated according to your requirements. Each situation receives suitable light – whether striking light scenes or emergency lighting. All lights are switched on at once.

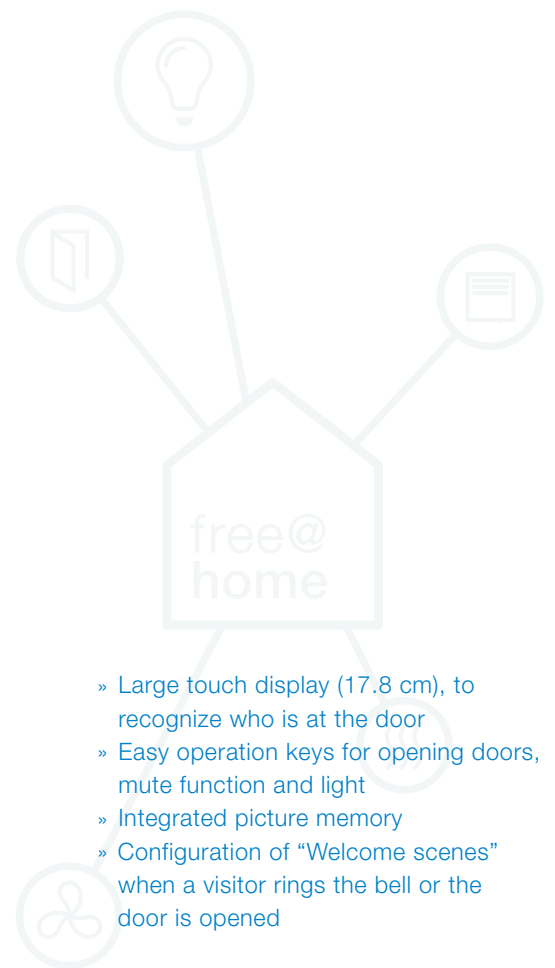


Heating and air-conditioning

Providing comfort and energy-saving. The optimum room temperature can be adjusted with ABB-free@home® individually or according to the specific requirement, depending on the time of day and the function of the room. In ECO mode, the temperature is automatically lowered at night or when the house is empty. The heating can be automatically shut off when a window is open. This reduces the consumption of energy – whether for conventional heaters or under-floor heating.

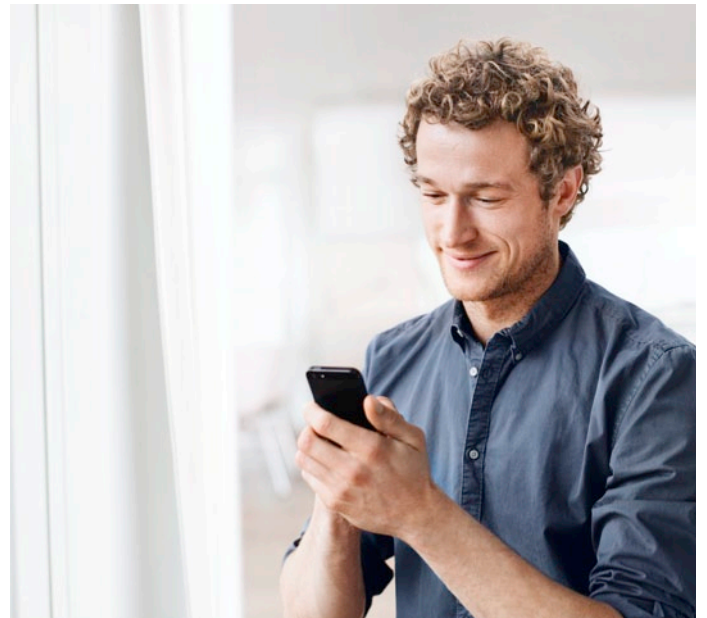
- » Heating to suit specific requirements
- » For heaters or under-floor heating
- » Support of energy efficiency
- » ECO mode
- » Local operation or remote controlled via app for smartphone and tablet
- » Automatic deactivation when a window is open





Door communication

Most welcome. The ABB-Welcome door communication system can be integrated into ABB-free@home®. The door communication and home automation can be used together with ABB-free@homeTouch 7".* For example, the light switches on when the doorbell rings to see visitors more clearly. And for reasons of safety, the video camera records pictures of visitors at the door when no one is home.



Picture directly on the display

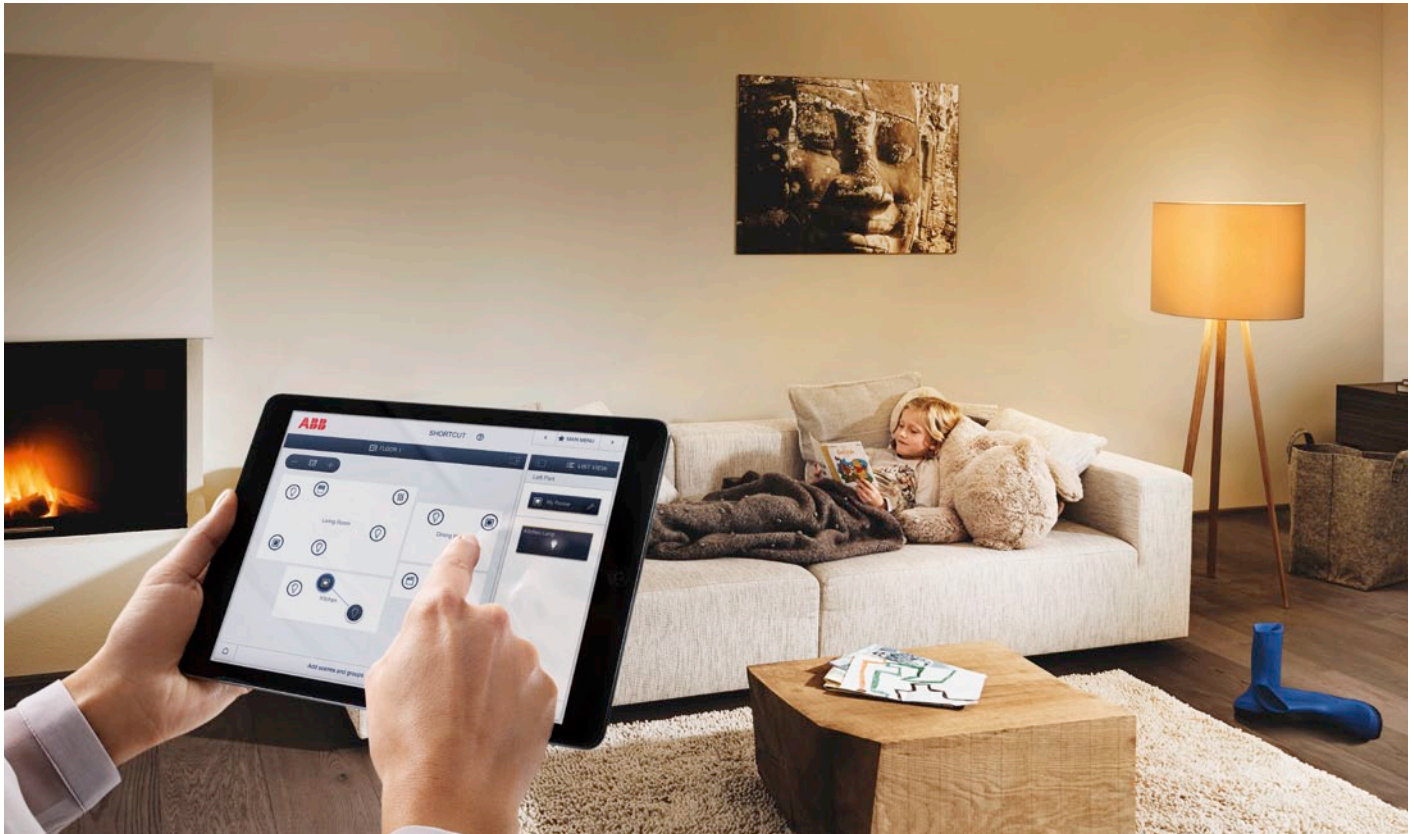
Practical and convenient. The picture of the video camera can be displayed on the tablet or smartphone via the Welcome app. This allows visitors who ring the bell to be recognized even when you are not at home (requires ABB-Welcome IP gateway).

* Different views: Home automation and door communication.

Atmosphere at the touch of a button

Scene control

Fast change of scene. A single click on the switch, on the ABB-free@homeTouch, smartphone or tablet is enough to call up a complete scene. For example, the living room can be turned into a home cinema within just a few seconds. The roller blinds close. The lights in the room are dimmed. This comfort can be turned into reality with ABB-free@home® in every room.

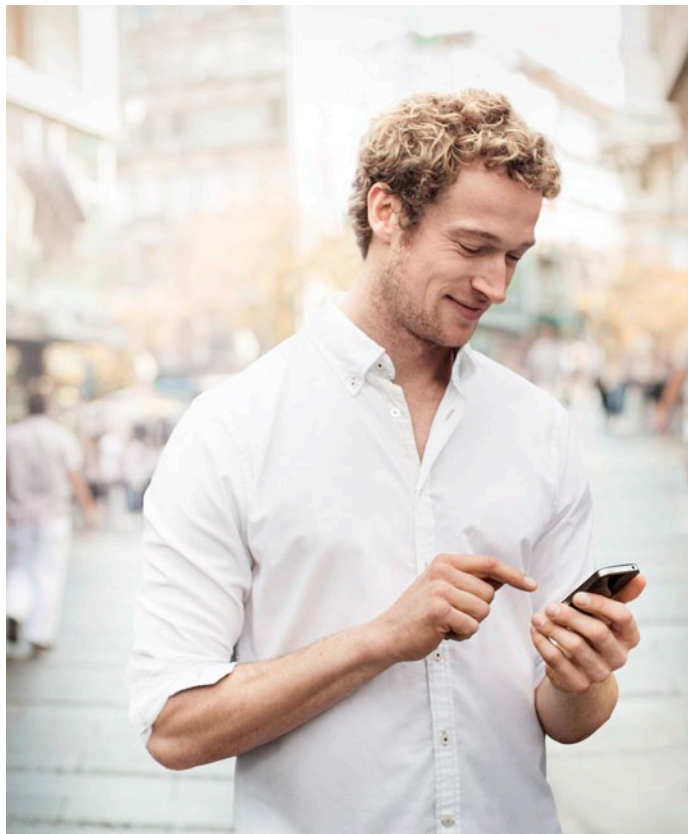


The perfect evening after a day at work

ABB-free@home® prepares a pleasant reception for your customers when they come home from work. With a colourful display of light and ambient room temperature. Precisely the right atmosphere for relaxing. To create or change your own individual scenes is child's play with ABB-free@home®. The intelligent assistance function, the wizard, helps to put the desired functions together. If you need to you can simultaneously activate the cooker hood in the kitchen and the lights at the dining table, as just one example.

Heating and air-conditioning

A pleasant stay. With ABB-free@home®, rooms can be adjusted to a pleasant temperature even before entering them. Here the ECO function is very economical and environmentally friendly. It lowers the temperature automatically at specific times – such as at night or to suit the working patterns of those in the home.



Remote control for everything

Always a good feeling. The presence simulation of ABB-free@home® records the weekly sequence of the devices. This means that its response can be exactly the same whether the residents are present or absent. The function can be activated and changed by the residents from anywhere. Whether on a business trip, on holiday or



while shopping around the corner. With the app on the smartphone, remote control and a safety check of the entire home is possible from anywhere in the world. Here the appropriate remote control access must, for example, be configured via a dynamic DNS service.



Simply smart With intelligent technology

Home automation is now easier than ever – with ABB-free@home®. With the installation via two-wire line as well as configuration via an app, the system is future-proof. It ensures electricians greater success and easier operation for end customers – without extra effort.

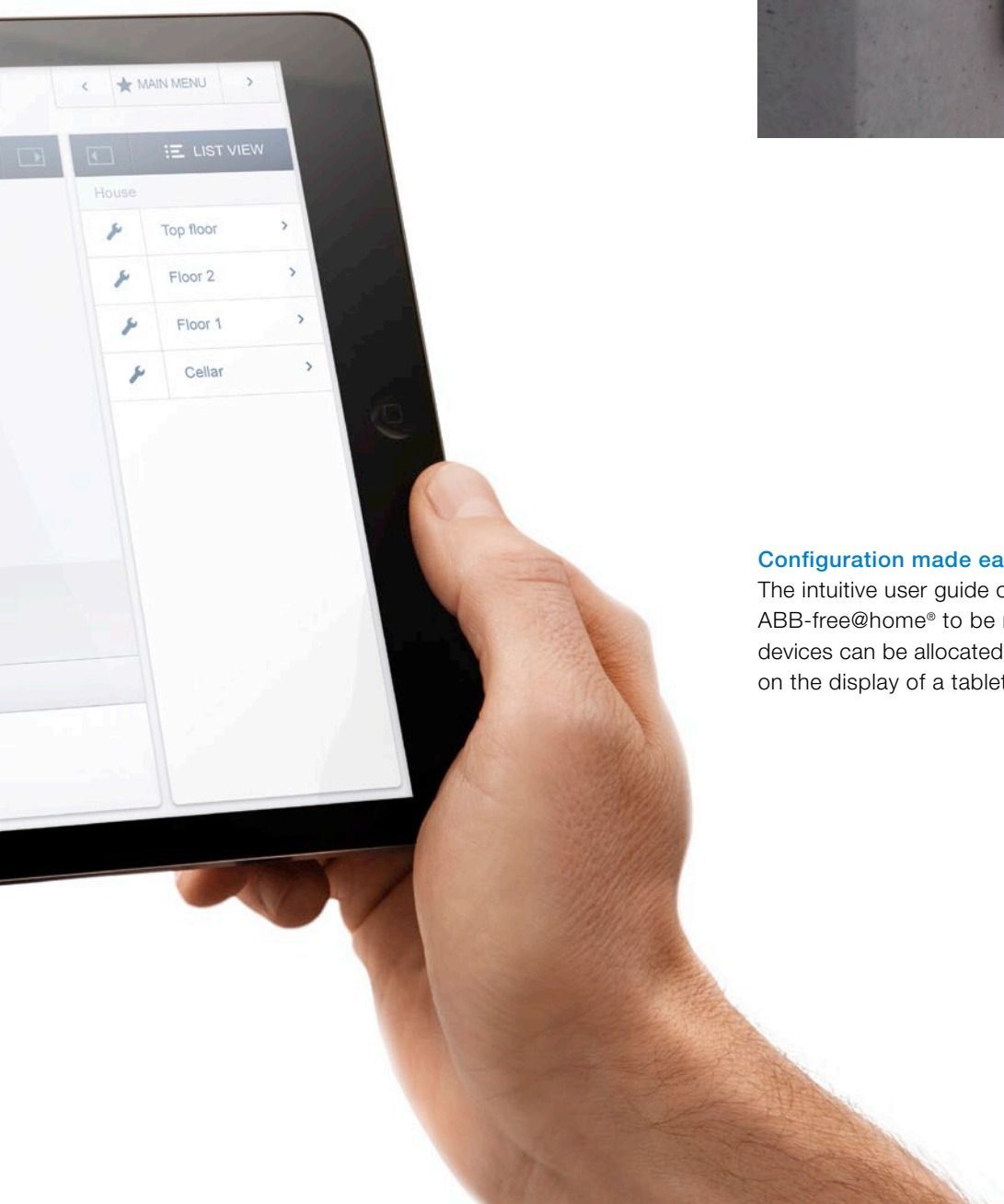


Everything is possible

The unique user interface has been developed specially for ABB-free@home®. It can be used via the internet browser on a PC or laptop as well as on smartphones and tablets. An app which adapts the user surface to the mobile operation (iOS/Android) has been developed specially for use with smartphones or tablets.



- » Easy to install
- » Easy to configure
- » Easy to change later
- » Intuitive operation

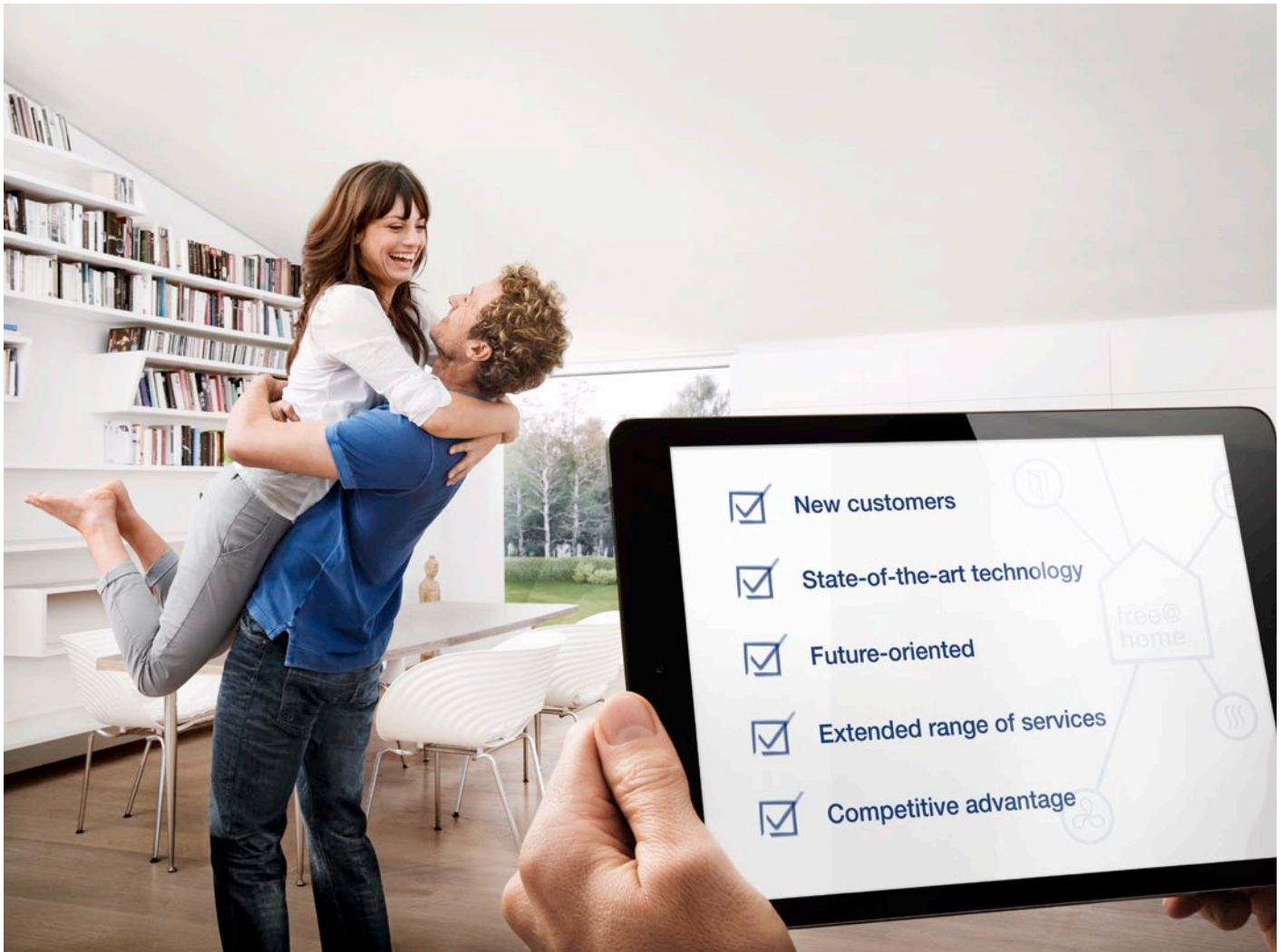


Configuration made easy

The intuitive user guide of the app allows all settings of ABB-free@home® to be made very quickly. All available devices can be allocated to the respective floors and rooms on the display of a tablet or computer and activated.

Greater success

Delivering a competitive advantage



More and more builders need future-proof, easy home automation. Until now, this meant increased work on the part of electricians. With ABB-free@home® customer needs can now be met without any great effort and new customers brought on board thanks to the benefits the system offers.



Up-to-date

Ready for tomorrow. With ABB-free@home® you can offer your customers state-of-the-art technology. With this system you expand your range of services and have a clear advantage over your competitors. This applies today and in the future as technology develops at a pace.

Excellent business opportunities are waiting

Today, home automation touches everyday life. Here computers and smartphones have shown the way. Business is booming. One factor that is very important for your customers is energy efficiency. And here ABB-free@home® offers electricians huge opportunities for greater success.

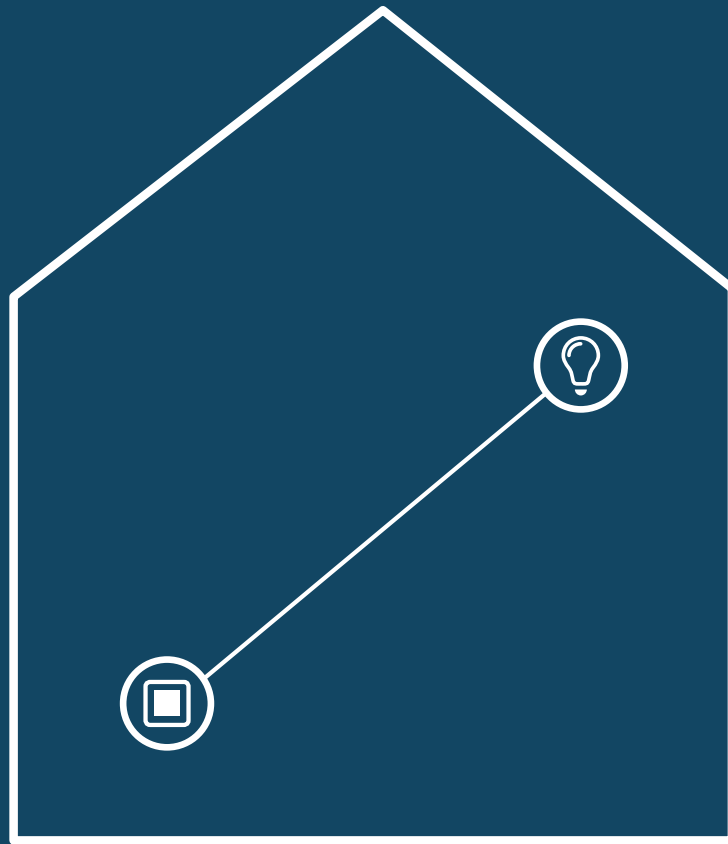
The time is now. With ABB-free@home®, electricians can now successfully enter the home automation sector.



It's that easy?

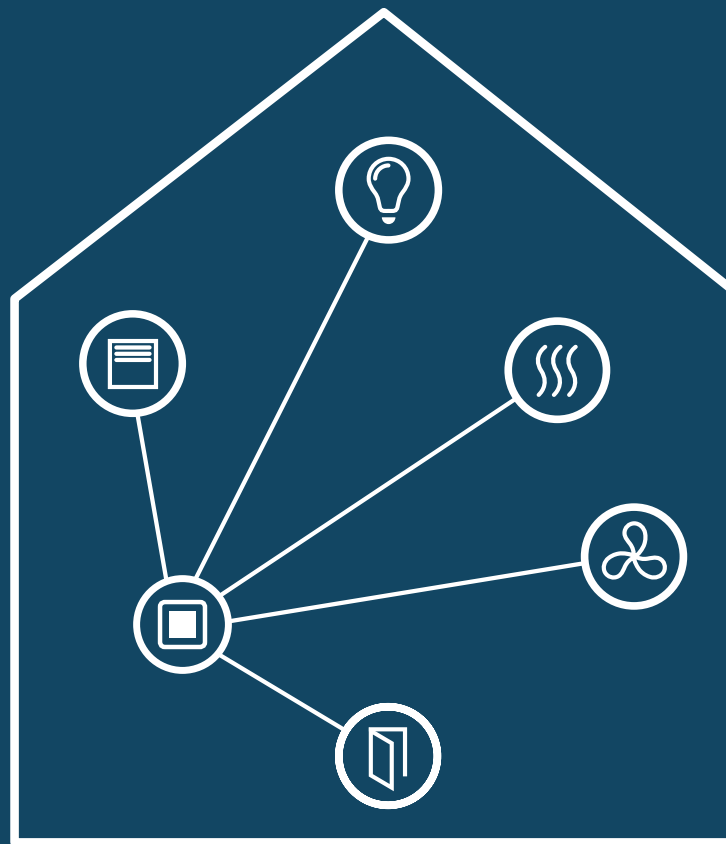
Total home automation in just a few steps. And thanks to its simplicity, with ABB-free@home®, project planning and commissioning move much faster than with conventional systems. It saves valuable working hours. And this reduced effort can pay off in a very short time.





Easier in comparison The superior system

Simply better. Up to now, the simultaneous control of different functions, such as blinds, lights, heating, air-conditioning and door communication, has required extensive effort. With ABB-free@home® networked home automation has now been made easy and installation takes very little time.



Perfectly connected

The two-wire bus technology makes the installation of ABB-free@home® as easy as possible. The cable can be fed through the same duct as the power cable. However, totally new possibilities open up when combining different functions. This allows the nerve center of the ABB-free@home® system, the System Access Point, to be combined with different sensors. These will then adjust blinds, light, heating, air-conditioning or door communication.

Free and flexible

The functions can be fully customized according to the requirements of your customer. All settings can be easily changed later via the app – even by a layman. This allows the home automation to be easily adapted to changing living situations or to a changed use of the rooms.

Simply less effort

This saves valuable working hours

As easy as ever. Only few components are required for the installation of ABB-free@home®. For the direct activation of light, the entire system only requires a bus cable in green, the sensor/actuator unit, a power supply and a System Access Point for programming.



01



02



03



04



05

The System Access Point

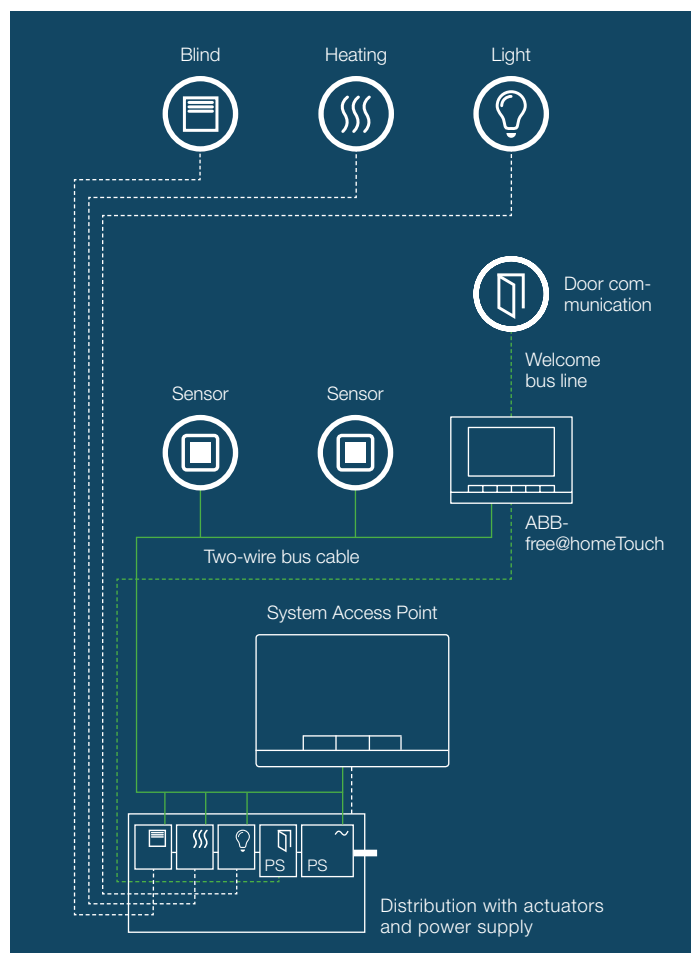
The System Access Point is the nerve center of the ABB-free@home® system. It provides access for computer, tablet or smartphone via WLAN. This allows the functions of the system to be defined and remote controlled – even after installation. The System Access Point can also be combined with a network router – via LAN or WLAN. Just connect and you're done. For convenience, the System Access Point makes its own WLAN and the software necessary for project planning and commissioning available. This makes you independent from the structural conditions and no additional software is required. As soon as you are finished with programming you can save the status and restore it again at any time.

The actuators and sensors

Actuators for switching, dimming and control are available for ABB-free@home®. The flush-mounted binary inputs also allow the integration of conventional sensors, such as window contacts, for example. Push-buttons, room temperature controllers and movement detectors are available as sensors.

-
- 01 System Access Point
-
- 02 Sensor, 1gang
-
- 03 Switch actuator, 4gang
-
- 04 Binary input, 2gang, flush-mounted
-
- 05 Power supply
-

Central control

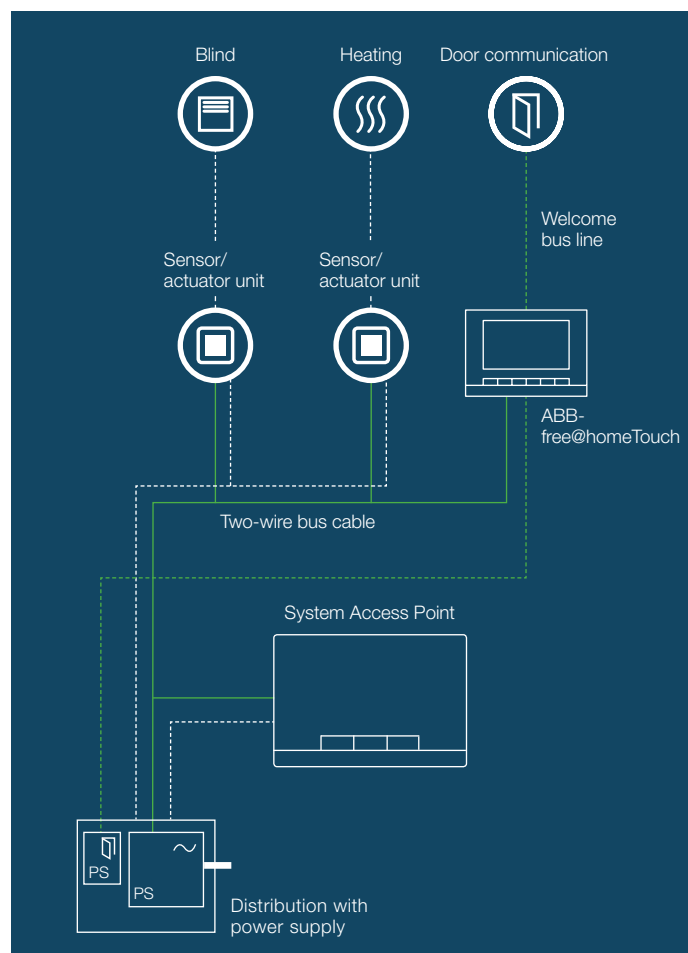


Central installation distributor with DIN rail mounting actuator

The installation of central DIN rail mounting actuators in the switch cabinet makes the installation of the sensors even easier – as only the bus line is located in the flush-mounted box. With this method, the costs for each channel can be reduced.



Decentralized control



Sensor/actuator unit for decentralized control

All in one. In case of the sensor/actuator unit, both the sensor and actuator are located in a single device to save space. The basic function of the unit is pre-configured, which makes programming the basic function unnecessary – but possible if required. The 230-Volt line is wired as usual.

Sensor/actuator unit

The sensor/actuator unit combines a control element and, for example, a switch actuator in one flush-mounted housing. It is installed in the same way as a flush-mounted switch. The device has already been pre-programmed: which means that the light can be switched on directly after installation – without programming. The sensor/actuator unit can, of course, be freely re-configured via the user interface, just like all other sensors and actuators.

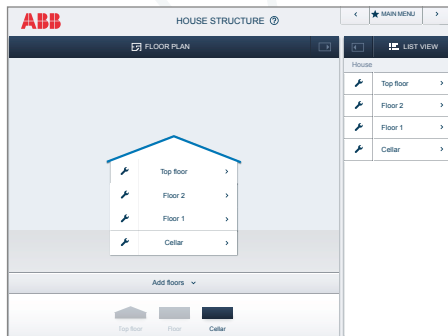
Simply faster

With configuration via an app



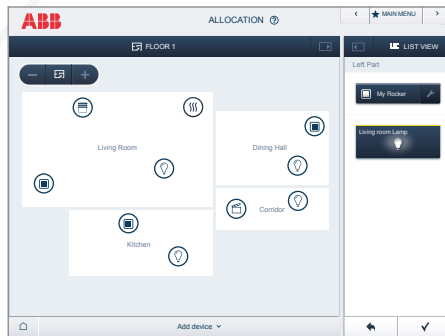
Easy to operate. The configuration via the ABB-free@home® app is easy to understand and fast. To start with, all available devices in the rooms are activated via the display of the tablet or laptop. Then the settings can be made. Brighter or darker. Warmer or cooler. Save. Open and close. Earlier or later. Finished.

- » Pre-programmed All-off button
- » Free app for iOS and Android
- » Easy to understand
- » Intelligent assistance function, the wizard



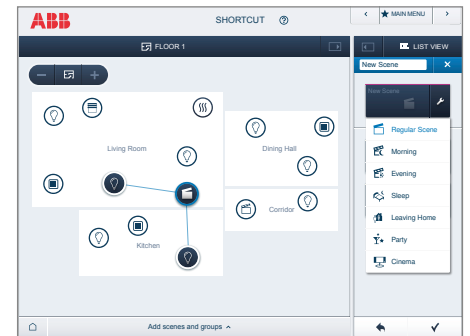
First step – the house

First, the floor plan with floors and rooms is created.



Second step – the allocation

The sensors are integrated in the app in the floor plan and are allocated in the system.



Third step – linking

And finally, the elements can be combined as needed.

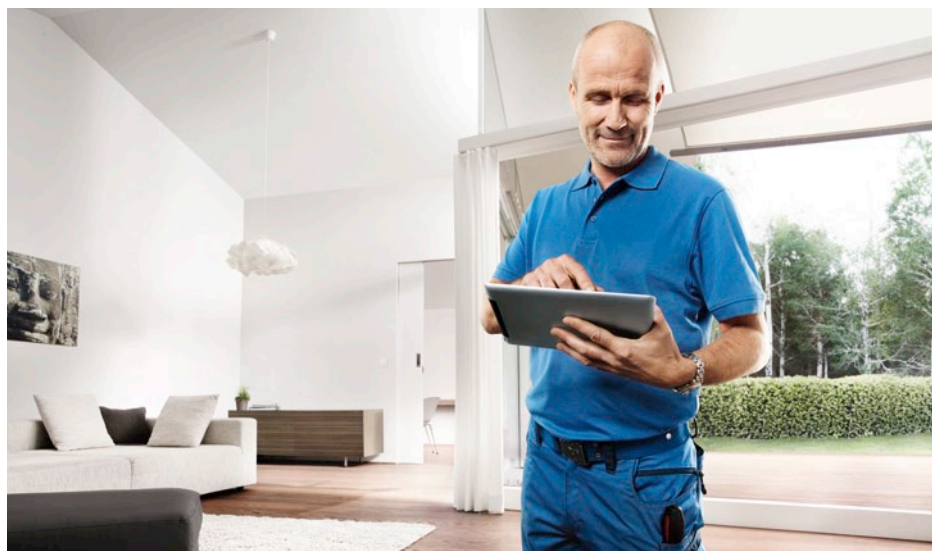


Simple setup and modification

With the ABB-free@home® app scenes can be set as desired. Here the assistance function helps. For example, lamps and a specific position of the blind plus room temperature can be called up at the touch of a button.

Everything is possible

The unique app has been developed specially for ABB-free@home®. It can be used on smartphones and tablets with the conventional operating systems iOS and Android. A computer or tablet is recommended for the initial commissioning of the ABB-free@home®.



A successful future With the assurance as a global player

Advantages. The benefits of ABB-free@home® speak for themselves. The easy installation, operation via an app and the assured future of the system are strong arguments for the forward-thinking electrician.



Reliable size

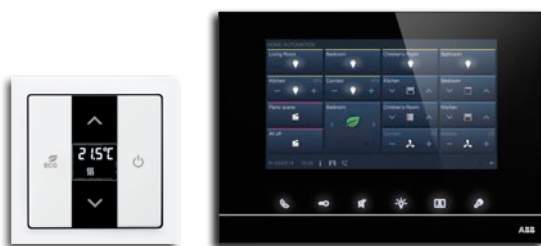
As global market leader for building systems technology, ABB offers electricians a comprehensive and unique product range. This includes light switches and system technology, building control as well as technology involving energy efficiency – modular, flexible and with an assured future. ABB products and solutions encircle the globe and cross the oceans on

the seabed. They can be found in households, offices and factories, in agriculture, in food packaging as well as in trains. Power and productivity for a better world. As a technology pioneer, you can rest assured that ABB will continue to invest in new functionality for ABB-free@home®.



Ideal for new buildings

ABB-free@home® requires no additional construction. The walls are already open for the electrical installation – which means that the bus cable can simply be added. The system needs no special cable routings or its own installed cable ducts. Easy to plan for electricians, because the conductor routing does not determine the function.



Manufactured with process reliability

ABB-free@home® is manufactured according to the international standard IEC EN 60669 and IEC EN 50428.



Environmentally friendly with certificate

All devices for ABB-free@home® are manufactured ecologically compatible – according to the RoHS ordinance.

The freedom to design

Creative possibilities for your customers

Liberating. As innovative home automation ABB-free@home® offers an endless number of possibilities for creative design. This allows the home to be equipped in line with endless personal concepts and preferences. Both today and in the future.





Simply smart

Whether comfort, safety or efficiency



Smart. ABB-free@home® transforms the house or the apartment into an intelligent home. Whether blinds, lights, heating, air-conditioning or door communication – comfort, safety and efficiency can finally be remote controlled. Via a switch on the wall or with a smartphone.



Many advantages for operation

More pleasant living. The ABB-free@home® home automation makes daily life easier. Blinds, lights, heating, air-conditioning and door communication can be controlled together: The smartphone becomes the remote control in the house. The blinds can be moved up and the radio in the kitchen can



Simply everything

Open for new ideas. With ABB-free@home® all functions in the house can be managed automatically – according to time plan, temperature and movement detector – or be called up at the touch of a button. And here, every combination of the various functions is possible.



Blind



Light



Heating



Air-conditioning



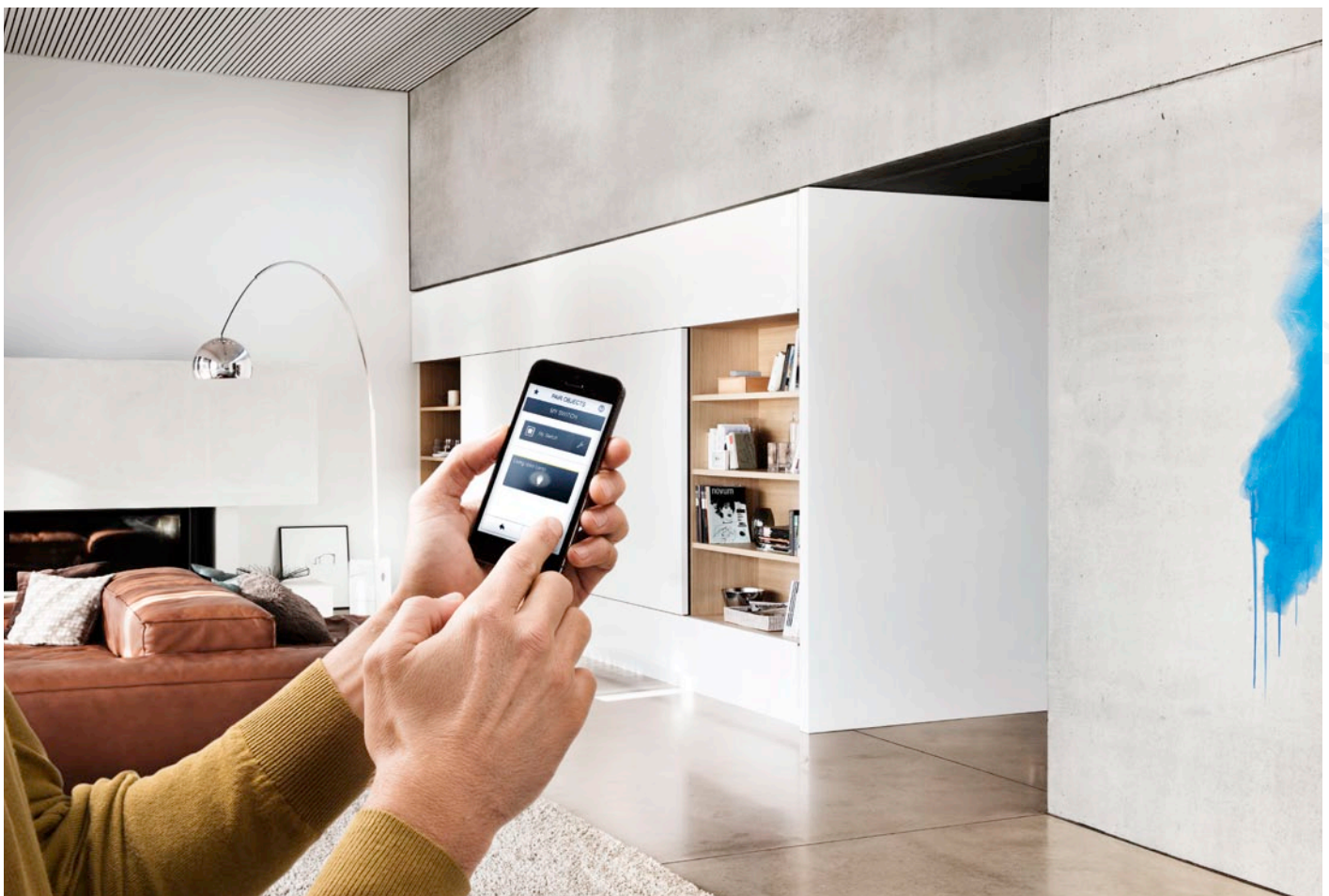
Door communication

be switched on with the touch of a button while you are still in bed – or all lights and devices are deactivated via a switch when leaving the house. Very convenient. Extremely comfortable. Very energy efficient. The setting of these scenes is as easy as can be – to suit the mood or situation.

Easily controlling everything

Blinds, lights, heating, air conditioning, door communication

Greater comfort, increased safety, greater energy efficiency. With ABB-free@home® daily life becomes easier in many ways. All functions in the house can be remote controlled totally according to personal preferences.



The pleasure of simplicity

Home automation with ABB-free@home® is fun for your customers. They can call up all functions individually – whether via switch, ABB-free@homeTouch or via app for smartphone or tablet. This makes a totally new feeling of freedom possible, with independence from space and time. From anywhere in the house or anyplace in the whole world, lights can be switched, blinds moved or rooms heated or cooled.

Programmed to simplicity.

The extremely user-friendly app of the ABB-free@home® makes home automation via smartphone or tablet as easy as surfing the internet. With this multifunction remote control you can also make changes later without any previous experience.



Fast change of scene

A single touch of the button on the switch, on the ABB-free@homeTouch, smartphone or tablet is enough to generate a complete scene. This allows a living room to be transformed in a matter of seconds to suit an occasion – for welcoming guests or for a pleasant evening of relaxation.



The All-off button

The easiest method for switching off – ABB-free@home® provides it with the All-off button. It is especially practical when leaving the house, through this button all networked devices in all rooms are switched off at the same time. This function is pre-programmed, making it simple to set up.



The range

Modularity makes everything possible



	System Access Point	ABB-free@homeTouch 7"
Article no.	SAP-S-1-84	DP7-S-6xx
Description	For commissioning and remote control of the ABB-free@home® system. Allows the execution of astro and time programs. Commissioning and remote control is executed via web interface or app. No additional commissioning software is required. Easy commissioning with WLAN ad-hoc mode. Connection to the home network via WLAN client mode or via CAT cable.	For ABB-free@home® and ABB-Welcome. For the central control of up to 16 configurable functions and display of the video image of an ABB-Welcome outdoor station. SD card slot for extension of the picture memory. Suitable as room temperature controller extension unit. For surface mounting.
Dimensions (H x W x D)	110 mm x 170 mm x 31 mm	155 mm x 218 mm x 29 mm
Technical data	Display elements: LED for status display Rated voltage: 230 V~ Rated frequency: 50 Hz/60 Hz Protection class of device: IP 20	Display size: 17.8 cm (7") Display resolution: 800 x 480 Display elements: TFT Touch Display Protection class of device: IP 30



	Rocker, 1gang	Rocker, 2gang
Article no.	SR-1-8x	SR-2-8x
Dimensions (H x W)	80 mm x 80 mm	80 mm x 80 mm
Program	future® linear	future® linear
Available with the following icons (blind, light, dimmer, scene)		



	Rocker, 1gang	Rocker, 2gang
Article no.	SR-1-21x	SR-2-21x
Dimensions (H x W)	81 mm x 81 mm	81 mm x 81 mm
Program	Reflex SI/Busch-Duro 2000® SI	Reflex SI/Busch-Duro 2000® SI
Available with the following icons (blind, light, dimmer, scene)		



	Movement detector	Movement detector
Article no.	MD-F-1.0.1-8x	MD-F-1.0.1-21x
Description	With select lens for detection with animal access. For automatic switching of ABB-free@home® actuators dependent on movement and brightness.	With select lens for detection with animal access. For automatic switching of ABB-free@home® actuators dependent on movement and brightness.
Dimensions (H x W)	80 mm x 80 mm	81 mm x 81 mm
Program	future® linear	Reflex SI/Busch-Duro 2000® SI
Technical data	Detection range: frontal 6 m, lateral 3 m Detection angle: 180° Brightness limit value: 1 – 500 lux Protection class of device: IP 20 Mounting depth: 9 mm	Detection range: frontal 6 m, lateral 3 m Detection angle: 180° Brightness limit value: 1 – 500 lux Protection class of device: IP 20 Mounting depth: 9 mm



	Room temperature controller	Room temperature controller
Article no.	CP-RTC-8x	CP-RTC-21x
Description	As cover for ABB-free@home® room temperature controller RTC-F-1.	As cover for ABB-free@home® room temperature controller RTC-F-1.
Dimensions (H x W)	80 mm x 80 mm	81 mm x 81 mm
Program	future® linear	Reflex SI/Busch-Duro 2000® SI



	Switch actuator sensor, 1/1gang	Dim actuator sensor, 1/1gang	Blind actuator sensor, 1/1gang
Article no.	SSA-F-1.1.1	SDA-F-1.1.1	SBA-F-1.1.1
Description	For switching 230 V~ consumers. With integrated switch actuator. Switching function is available also without prior programming (pre-configured). Only to be used in combination with ABB-free@home® 1gang rockers.	For dimming 230 V~ loads. With integrated universal dimming actuator for controlling different lamps. The dimming function is available also without prior programming (pre-configured). Only to be used in combination with ABB-free@home® 1gang rockers.	For controlling blind and awning motors. With integrated blind actuator. Blind function is available also without prior programming (pre-configured). Only to be used in combination with ABB-free@home® 1gang rockers.
Dimensions (H × W × D)	71 mm × 71 mm × 45 mm	71 mm × 71 mm × 45 mm	71 mm × 71 mm × 45 mm
Technical data	Outputs: 1× normally open contact, potential free Suitable for: ohmic Rated current: 10 A Rated power: 2300 W Suitable for: capacitive Rated current: 10 AX Protection class of device: IP 20 Mounting depth: 32 mm	Outputs: 1× dimming channel Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformers Rated power: 10–180 W/VA Suitable for: LEDi and energy-saving bulbs; typical Rated power: 2–80 W/VA Protection class of device: IP 20 Mounting depth: 32 mm	Outputs: 1× Change-over contacts/ normally open contact, potential-bound Rated power: 920 VA Rated current: 4 A Suitable for: Operating mode blind Protection class of device: IP 20 Mounting depth: 32 mm



	Binary input, 2gang, flush-mounted	Binary input, 4gang, flush-mounted
Article no.	BI-F-2.0.1	BI-F-4.0.1
Description	Conventional push-buttons or auxiliary contacts can be connected to 2 channels. The information of the contact enquiry can be used for activating ABB-free@home® actuators or for recording status information. The contact polling voltage is made available from the binary input itself. Extension of the connecting cables possible by a maximum of 10 m. Flush-mounted device for installation in a 60 mm device box or distribution box.	Conventional push-buttons or auxiliary contacts can be connected to 4 channels. The information of the contact enquiry can be used for activating ABB-free@home® actuators or for recording status information. The contact polling voltage is made available from the binary input itself. Extension of the connecting cables possible by a maximum of 10 m. Flush-mounted device for installation in a 60 mm device box or distribution box.
Dimensions (H × W × D)	39 mm × 40 mm × 12 mm	39 mm × 40 mm × 12 mm
Technical data	Inputs: 2 Polling voltage: 20 V~ Protection class of device: IP 20	Inputs: 4 Polling voltage: 20 V~ Protection class of device: IP 20



	Flush-mounted device Room temperature controller	Sensor unit, 1gang	Sensor unit, 2gang
Article no.	RTC-F-1	SU-F-1.0.1	SU-F-2.0.1
Description	Control element with room temperature control function for controlling commercially available actuating drives or analogue actuating drives (continuous controllers) in connection with HA-M-0.6.1, HA-M-0.12.1. With display of set-value temperature. Only to be used in combination with ABB-free@home® room temperature controller cover plates CP-RTC-xxx.	For transmitting switching, push-button, dimming and blind commands to an ABB-free@home® actuator. Only to be used in combination with ABB-free@home® 1gang rockers.	For transmitting switching, push-button, dimming and blind commands to an ABB-free@home® actuator. Only to be used in combination with ABB-free@home® 2gang rockers.
Dimensions (H x W x D)	71 mm x 71 mm x 30 mm	71 mm x 71 mm x 23 mm	71 mm x 71 mm x 23 mm
Technical data	Display elements: LCD Display showing operation modes Protection class of device: IP 20 Mounting depth: 14 mm	Control element: Switch contacts top/bottom Display elements: LED as light for orientation or display of switching state Protection class of device: IP 20 Mounting depth: 9 mm	Control element: Switch contacts top/bottom Display elements: LED as light for orientation or display of the switching state Protection class of device: IP 20 Mounting depth: 9 mm



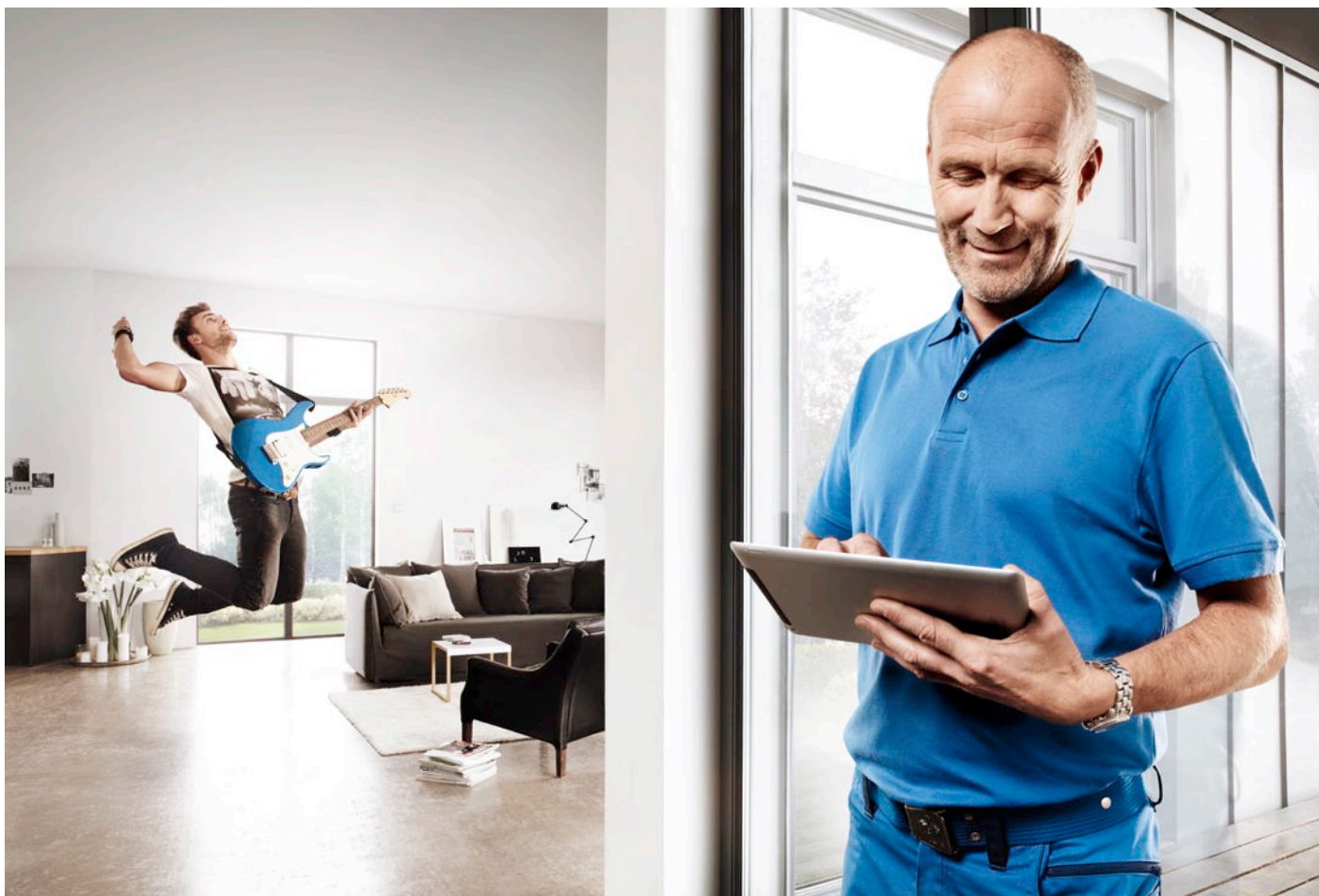
	Power supply	Binary input, 4gang
Article no.	PS-M-64.1.1	BI-M-4.0.1
Description	Power supply with integrated choke. Fast diagnosis due to LED display for operational readiness and errors.	Records AC/DC signals of 10 to 230 V via 4 channels. The information of the signal evaluation can be used for controlling ABB-free@home® actuators or for recording status information.
Dimensions (H x W x D)	90 mm x 72 mm x 64 mm	90 mm x 36 mm x 64 mm
Technical data	Display elements: Operational load/overload LED Rated voltage: 230 V~, +10 %/-15 % Secondary: 30 V, +2 V/-2 V Rated frequency: 50 Hz/60 Hz Outputs: 1 Rated current: 640 mA Protection class of device: IP 20 Module width: 4 MW	Inputs: 4 Protection class of device: IP 20 Module width: 2 MW



	Switch actuator, 4gang	Dimming actuator, 4gang
Article no.	SA-M-0.4.1	DA-M-0.4.1
Description	For switching 4 independent 230 V~ loads. Each contact has a manual operation function independent of auxiliary voltage for additionally displaying the contact setting.	Multi-channel universal dimming actuator for controlling LEDs, incandescent lamps, 230 V halogen lamps, low-voltage halogen lamps with conventional or electronic transformers, and dimmable energy-saving halogen lamps. For dimmable retrofit LED lamps (LEDi). Increasing the maximum load via channel bridging possible. The outputs can be switched parallel in any combination. Outputs automatically recognise the connected load. In addition, the operating mode can be selected manually. Status indication of the channels via LED.
Dimensions (H x W x D)	90 mm x 72 mm x 64 mm	90 mm x 144 mm x 64 mm
Technical data	Outputs: 4 Suitable for: AC1 Rated current: 16 A, at $\cos \varphi$ 0.8 Output voltage: 230 V~ Suitable for: AC3 Rated current: 8 A, at $\cos \varphi$ 0.45 Protection class of device: IP 20 Module width: 4 MW	Display elements: Outputs status indication via LED Rated voltage: 230 V~ Rated frequency: 50 Hz/60 Hz Outputs: 4x dimming channel Suitable for: 230 V incandescent lamps and low-voltage halogen lamps with conventional transformers or electronic transformers Rated power: 10–315 W/VA Suitable for: LEDi and energy-saving lamps; typical Rated power: 2–80 W/VA Protection class of device: IP 20 Module width: 8 MW



	Blind actuator, 4gang	Heating actuator, 6gang	Heating actuator, 12gang
Article no.	BA-M-0.4.1	HA-M-0.6.1	HA-M-0.12.1
Description	For controlling 4 independent blind or roller shutter drives. The outputs are inversely blocked. The bus can be connected via enclosed terminal block.	For controlling thermoelectric actuating drives in heating/cooling systems. The outputs are protected against short-circuit and overload.	For controlling thermoelectric actuating drives in heating/cooling systems. The outputs are protected against short-circuit and overload.
Dimensions (H x W x D)	90 mm x 72 mm x 64 mm	90 mm x 72 mm x 64 mm	90 mm x 144 mm x 64 mm
Technical data	Outputs: 4 Suitable for: AC3 Rated current: 6 A, at $\cos \varphi$ 0.45 Output voltage: 230 V~ Protection class of device: IP 20 Module width: 4 MW	Outputs: 6 Suitable for: ohmic Rated current: 160 mA Protection class of device: IP 20 Module width: 4 MW	Outputs: 12 Suitable for: ohmic Rated current: 160 mA Protection class of device: IP 20 Module width: 8 MW



Easy to learn With online workshops and tutorials

Exclusive for electricians. ABB-free@home® can be understood within just a few hours. For this reason ABB, in addition to a day's training, also offers an online workshop with video tutorials. In this workshop all functions and options are graphically explained.



Now scan the QR code to find out more about the advantages of ABB-free@home®.

<http://www.abb.com/freeathome>

Contact

A member
of the ABB Group

Busch-Jaeger Elektro GmbH
P.O. Box
58505 Lüdenscheid
Germany

Freisenbergstraße 2
58513 Lüdenscheid
Germany

www.BUSCH-JAEGER.com
info.bje@de.abb.com

Central sales service:

Phone +49 2351 956-1600
Fax +49 2351 956-1700

Note:

Reprinting and photomechanical reproduction is permitted only with our express approval.

The printed material from Busch-Jaeger to the best of our knowledge informs; it is, however, not legally binding. All illustrations and photos of the displayed products are not binding with regard to chromaticity, dimensions and equipment.

The majority of Busch-Jaeger products are registered trademarks.

All information in this catalogue is supplied without liability. Changes and updates which serve the purpose of progress are reserved.

All products in this printed material, which conform to CE directives, carry the appropriate identification on the package or on the product.

BJE 0001-0-1412/3.14/0502-D, dpi 407582