REAL SMART HOME

REAL SMART HOME GmbH

**APP**MODULE

# KEBA KNX Connect

## Smart Home App Documentation

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# 1 INTRODUCTION

Thank you for your trust, and the purchase of the **KEBA KNX Connect**-Smart Home App for the BAB **APP**MODULE. With the **KEBA KNX Connect**-Smart Home App you can connect the KEBA KeContact P-30 charging station to the world of KNX via TCP in no time at all.

This documentation will help you get started with the Smart Home App and aims to improve your setup experience.

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## IMPORTANT INFORMATION ON THE OPERATING INSTRUCTIONS

We reserve the right continually improve the product. This entails the possibility that parts of this documentation might be out-of-date. You will find the latest information at:

www.bab-appmarket.de

This app is an independent product and has no legal connection with KEBA Group AG.
Neither **BAB** APP MARKET GmbH nor the developer owns the above trademark.
This smart home app may be used in conjunction with services provided by a third-party manufacturer or external provider. The respective manufacturer is responsible for data protection.

# 2 KEBA KNX CONNECT FUNCTIONAL OVERVIEW

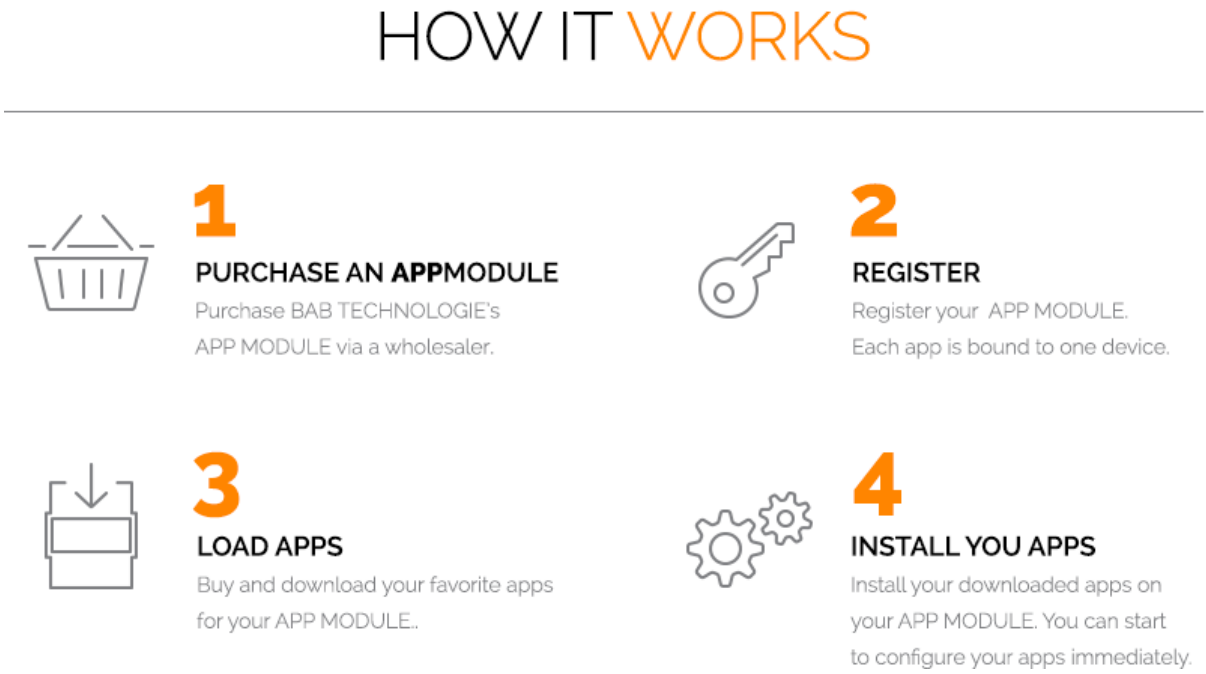
KEBA charging stations stand for simple and safe charging of electric vehicles. With «**KEBA KNX Connect**», you can integrate the intelligent wallboxes KeContact P30 of the C-series and X-series into the Smart Home in no time at all.
The app provides a lot of useful information for the use of intelligent scenarios. With this information, you can, for example, plan charging processes depending on your PV system, battery storage or a heat pump. Other functions, such as the evaluation of the RFID reader, complete the scope. In conjunction with other apps for the **APP**MODULE, you can connect your charging station to many components – for example, ekey fingerprints to unlock the station with your finger.

## 2.1 HIGHLIGHTS

- Compatible with KeContact P30 of the C-Series and X-Series
- Easy transfer of charging information to the Smart Home
- Evaluation of the RFID reader
- Transfer detailed error information to KNX
- Activate charging station via KNX
- Activation and deactivation via KNX
- Defined energy quantities for charging processes
- Support of up to 8 stations (Pro version)

# 3 THE INNOVATIVE, MODULAR SMART HOME APP CONCEPT FOR THE BUILDING AUTOMATION

The innovative, modular Smart Home App concept for building automation. The **APP**MODULE brings the innovative, modular Smart Home App concept into building automation. You can mix and match any of the diverse applications that are available to ingrate third-party solutions. With these Smart Home Apps from the dedicated **BAB** APPMARKET, the **APP**MODULE becomes a tailor-made integration unit for your building automation.




Manufacturer of the **APP**MODULE BAB TECHNOLOGIE GmbH

Distribution of all Smart Home Apps for the **APP**MODULE BAB APPMARKET GmbH

Smart Home App developer REAL SMART HOME GmbH

## 3.1 INFORMATION ABOUT THE APPMODULE

Please refer to the separate product documentation of the **APP**MODULE for a detailed product description and setup instructions.

https://bab-tec.de/appmodule#downloads

**Product variants:**
The **APP**MODULE is available in three variants:

- **APP**MODULE KNX/TP – for stand-alone use on KNX/TP Bus
- **APP**MODULE EnOcean – for stand-alone use in the EnOcean wireless network
- **APP**MODULE IP – for use in an IP-based KNX installation (KNXnet/IP) or as extension for an EIB**PORT**

# 4 SMART HOME APP INSTALLATION / UPDATE

Please proceed as follows to install a Smart Home App.

1. Open the **APP**MODULE web page: Enter <IP Address of **APP**MODULE > into your browser's address bar and press Enter. The **APP**MODULE web interface will appear.

2. Log in with your user credentials. Please refer to the **APP**MODULE documentation for login details.

3. Click on the menu entry "App Manager"

4. You are now on the page where already installed Smart Home Apps are listed. The list will be empty if no Smart Home Apps have been installed. Click "Install App" in order to install a new Smart Home App.

5. Now click on "Select App"; a file selector window will appear. Choose the Smart Home App » **KEBA KNX Connect** « and click "OK".

The Smart Home App » **KEBA KNX Connect** « must first be downloaded from the **BAB** APPMARKET (www.bab-appmarket.de).

After the message "Installation successful" appears, click "OK". You are ready to configure the Smart Home App.

To update a Smart Home App manually you have to proceed as follows

1. To update an already installed Smart Home App, click on the App icon in the "App Manager".

2. The detail view of the Smart Home App appears. Click on "Update App" to select the Smart Home App package and start the update. The update version must be downloaded from the **BAB** APPMARKET.

After the message "Installation successful" appears, click "OK". The Smart Home App has been updated. Your instance configurations will remain unchanged.

The Smart Home App can also be updated directly in the web interface. Without having to download the Smart Home App from the **BAB**APPMARKET first.
In the “App Manager” available Smart Home App updates are reported

**Information**
To configurate the Smart Home App please use Google Chrome.

# 5 SMART HOME APP SETTINGS

KEBA charging stations stand for simple and safe charging of electric vehicles. With «**KEBA KNX Connect**», you can integrate the intelligent wallboxes KeContact P30 of the C-series and X-series into the Smart Home in no time at all.
The app provides a lot of useful information for the use of intelligent scenarios. With this information, you can, for example, plan charging processes depending on your PV system, battery storage or a heat pump. Other functions, such as the evaluation of the RFID reader, complete the scope. In conjunction with other apps for the **APP**MODULE, you can connect your charging station to many components – for example, ekey fingerprints to unlock the station with your finger.

## 5.1 KEBA KNX CONNECT

**Note**
After 60 minutes of inactivity, the browser session is automatically terminated. Any unsaved changes will be lost.

After inactivity of 60 minutes the browser session is automatically closed. Unsaved changes will be lost.

As soon as the Smart Home App is installed, you can create so called “Instance”. An Instance is one of several objects of the same class.

In order to create an instance, click on the symbol "Create Instance".

**Instance Name:**

Choose a name for this new instance.

**Comment:**

Insert a description what this instance does.

**Note on communication with the Modbus Gateway:**
After an interruption of the network connection, e.g. by restarting the charging station, failure of the power supply, or similar, the KEBA KNX Connect App reconnects automatically under normal circumstances.
Nevertheless, this should be checked and, if necessary, the corresponding instance of the app should be restarted.

## 5.2 CONNECTION PARAMETERS

**Charging Station IP Address**

Enter IP address of the charging station to connect to.

**Port number (0-1024):**

Enter the TCP port number of the charging station to connect to.

**Modbus Unit ID (0-255)**

Enter the Unit/ Slave ID of the Modbus device to which a connection it to be established.

# 5.3 POLLING INTERVALL CONFIGURATION

**Polling interval in seconds (global) (1–3600)**

The Modbus polling default interval defines at which interval the value is read via the Modbus TCP gateway.

**Enable multiple polling intervals**

Check this option to activate and configure multiple polling interval levels (slow, medium, fast) for the application. Each tab can be associated with one of the options, if you don't select anything, the global polling interval used.

**Polling interval in seconds (slow) (1–3600)**

The slow Modbus polling interval defines in which interval the value will be read via the Modbus TCP gateway.

**Polling interval in seconds (medium) (1–3600)**

The Modbus polling medium interval defines in which interval the value will be read via the Modbus TCP gateway.

**Polling interval in seconds (fast) (1–3600)**

The Modbus polling fast interval defines in which interval the value will be read via the Modbus TCP gateway.

# 5.4 CHARGING STATION INFORMATION

**Product Type**

Enter the charging station type. e.g.: KC-P30.

**Serial Number**

Enter the serial number of the charging station, e.g.: 18416854.

**Firmware version**

Enter the firmware version of the charging station, e.g.: 3.10.14.

**Supported current**

Enter the max. supported current of the charging station, e.g.: 32A.

**Device series**

Enter the current series of the charging station, e.g.: C-Series.

**Energy Meter**

Enter the energy meter type of the charging station. e.g.: Standard, not calibrated.

**Get information (button)**

When creating a new instance, user can retrieve charging station information by pressing this button.

Information
Please enter all charging station connection parameters (IP-address, port number and device ID) before retrieving information.

# 5.5 INFORMAITON ON GOING OPERATIONS

This section contains the charging station elements which should be read data from. Define a group address for each element.

**Total energy consumption in kWh (EIS 9 4 Byte FP)**

Define the group address for Total energy consumption of the charging station.

**Charging State (EIS 14 0–255)**

Define the group address for State of the charging station.

- 0: Start-up of the charging station
- 1: The charging station is not ready for charging. The charging station is not connected to an electric vehicle, it is blocked by the authorization function or another mechanism
- 2: The charging station is ready to charge and is waiting a reaction from the electric vehicle
- 3: A charging process is active
- 4: An error has occurred
- 5: The charging process is temporarily interrupted because the temperature is too high or the wall box is in suspended mode.

**Cable State (EIS 14)**

Define the group address for State of the charging cable.

- 0: No cable is plugged in
- 1: Cable is connected to the charging station (not to the electric vehicle)
- 3: Cable is connected to the charging station and locked (not to the electric vehicle)
- 5: Cable is connected to the charging station and the electric vehicle (not locked)
- 7: Cable is connected to the charging station and the electric vehicle and locked (charging).

**Error code (EIS 15)**

Define the group address for Error code of the charging station.

- 0: No error
- 1: Specific error code. The displayed value is hexadecimal.
  E.g., hex = 40000, this stands for error group 4.

**Current Phase 1 in A (EIS 5 2 Byte FP)**

Enter the group address for measured current value on phase 1 in A.

**Current Phase 2 in A (EIS 5 2 Byte FP)**

Enter the group address for measured current value on phase 2 in A.

**Current Phase 3 in A (EIS 5 2 Byte FP)**

Enter the group address for measured current value on phase 3 in A.

**Real power in W (EIS 5 2 Byte FP)**

Enter the group address for the active power of the charging station.

**Voltage Phase 1 in V (EIS 10 0–65535)**

Enter the group address for measured voltage value on phase 1 in V.

**Voltage Phase 2 in V (EIS 10 0–65535)**

Enter the group address for measured voltage value on phase 2 in V.

**Voltage Phase 3 in V (EIS 10 0–65535)**

Enter the group address for measured voltage value on phase 3 in V.
**Specification of the maximum charging current in A (EIS 5 2 Byte FP)**

Enter the group address for the maximum charging current of the charging station.

**Max supported charging current in A (EIS 5 2 Byte FP)**

Enter the group address for the maximum current value that can be supported by the charging station hardware.

**Current power factor (cos phi) in 0.1% (EIS 5 2 Byte FP)**

Enter the group address for the current power factor (cos phi) of the charging station.

**Charged energy in kWh (EIS 9 4 Byte FP)**

Enter the group address for the transferred energy of the current charging process.

## 5.6 CONTROL

This section contains the charging station elements which should be write data to. Define a group address for each element.

**Enable/Disable Charger (EIS 1)**

Enter the group address to set the charging station to enabled or disabled. An active charging process will be stopped.

- 0: Disabled
- 1: Enabled)

**Energy limit for charging in kWh (EIS 5 2 Byte FP)**

Enter the group address to set the energy transfer for the current or the next charging process. Once this value is reached, the charging process will stop.

# 6 ATTACHMENT

## 6.1 DATAPOINT TYPES

| Function | EIS type | Data point type | Typical value | Data | Identifier |
|---|---|---|---|---|---|
| **Switching** | EIS 1 | DPT 1.yyy | [0] = Off \| FALSE; [1] = On \| TRUE | 1 Bit | 1-bit |
| **Relative Dimming** | EIS 2 | DPT 3.yyy | **„Dimming steps“**:<br>[[0],[2…7]] Darker [2, 4, 8, 16, 32, 64] -Steps and<br>[[1],[2…7]] Brighter [2, 4, 8, 16, 32, 64]-Steps<br>**„Start/Stop Diming“**:<br>[0,8] Stop; [1] Darker und [9] Brighter | 4 Bit | 4-bit |
| **Time** | EIS 3 | DPT 10.yyy | hh:mm:ss | 3 Byte | Time |
| **Date** | EIS 4 | DPT 11.yyy | dd:mm:yyyy | 3 Byte | Date |
| **Floating point number (short)** | EIS 5 | DPT 9.yyy | -671 088,64 … 670 433,28 | 2 Byte | 2-byte float value |
| **Percent, Position, Brightness, …** | EIS 6 | DPT 5.yyy | 0 … 100% | 1 Byte | 8-bit unsigned value |
| **Blinds Drive/adjust** | EIS 7 | DPT 1.yyy | [0] = up; [1] = down<br>When driving [0,1] = stop | 1 Bit | 1-bit |
| **Priority** | EIS 8 | DPT 2.yyy | [0], [1] Switch on, off;<br>[3] = Forced off;<br>[4] = Forced on | 2 Bit | 1-bit controlled |
| **IEEE Floating point number (long)** | EIS 9 | DPT 14.yyy | 4-Octet float value;<br>IEEE 754 | 32 Bit | 4-byte float value |
| **Counter 16 Bit Unsigned** | EIS 10u | DPT 7.yyy | 0 … 65.535 | 16 Bit | 2-byte unsigned value |
| **Counter 16 Bit Signed** | EIS 10 | DPT 8.yyy | -32.768 … 32.767 | 16 Bit | 2-byte signed value |
| **Counter 32 Bit Unsigned** | EIS 11u | DPT 12.yyy | 0 … 4.294.967.295 | 32 Bit | 4-byte unsigned value |
| **Counter 32 Bit Signed** | EIS 11 | DPT 13.yyy | -2.147.483.648 … 2.147.483.647 | 32 Bit | 4-byte signed value |
| **Access control** | EIS 12 | DPT 15.yyy | Access data | 4 Byte | Entrance access |
| **ASCII Character** | EIS 13 | DPT 4.yyy | Char | 1 Byte | Character |
| **Counter 8 Bit Unsigned** | EIS 14u | DPT 5.yyy | 0 … 255 | 8 Bit | 8-bit unsigned value |
| **Counter 8 Bit Signed** | EIS 14 | DPT 6.yyy | -128 … 127 | 8 Bit | 8-bit signed value |
| **String** | EIS 15 | DPT 16.yyy | 14 Characters | 14 Byte | Character string |

EIB/KNX devices exchange fixed prescribed data formats with each other. These are defined in types.
The old designations of the types are EIS (EIB Interworking Standard). The new designations are DPT (Data Point Type)