



# Smart outlets for smart phones

## Mains outlet with integrated USB connector

SASCHA DEHLEN – The USB interface has rapidly become a very popular global standard that is supported by many commercial enterprises and governmental organizations. So pervasive is this handy connector that the typical household will now have multiple devices that rely on it for data transfer and battery charging: Phones, smartphones, tablets, MP-3 players, digital cameras and satellite navigation devices all

sport this ubiquitous connector. However, a problem arises when the time comes to recharge these accessories: Where is the charger? This is often coupled with the dilemma of determining which domestic appliance should then be unplugged to make way for the charger, once found. These problems are done away with by Busch-Jaeger's SCHUKO® mains outlet with integrated USB connector.

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## 1 The Busch-Jaeger SCHUKO USB outlet

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## 2 The Busch-Jaeger USB power supply

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In many countries, the SCHUKO mains power outlet on the wall represents a comforting and stable aspect of technology that has remained unchanged for decades while the technology that uses the power it channels has evolved at a dizzying pace. It might seem like a typical mature product that would remain forevermore untouched by further innovation, but Busch-Jaeger has now changed the face, literally, of the domestic power outlet by marrying it with the most popular connector of the past half-century – the universal serial bus (USB) → 1.

This prize-winning innovation does away with the need to have individual transformers and USB cables plugged into household outlets – the USB charging point is simply always there.

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### Title picture

Innovation is at its most dramatic when it touches things that have remained unchanged for decades. Equipping the humble domestic power outlet with a USB charging facility is a good example.

Devices can now be recharged conveniently and without unplugging domestic appliances. The flush-mounted USB SCHUKO outlets deliver up to 700 mA charging current and feature child protection. Because the form factor matches existing SCHUKO outlets exactly, upgrading to the new USB outlet is easy.

### Two further innovations

The company has developed two companion USB charging products for the USB SCHUKO outlet – a USB power supply and a USB charging station. These are also flush-mounted units.

The Busch-Jaeger USB power supply provides two USB connectors for charging purposes → 2. It uses the standard

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Busch-Jaeger has changed the face, literally, of the domestic outlet by marrying it with the most popular connector of the past half-century – the USB.

cover found on TAE telephone outlets and users can configure either two 700 mA connectors or one 1,400 mA connector depending on the charging requirements of the device attached (tablets, for instance, can be power-hungry devices.)

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### 3 The Busch-Jaeger USB charging station

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With the Busch-Jaeger USB charging station, charging capability is supplied via a flexible cable with a micro-USB connector that can deliver up to 1,400 mA of charging current. The micro-USB interface has been chosen as it is the most popular connector standard globally and it also conforms to EU standards. The charging station also provides a convenient holder for the smartphone that is to be charged → 3. The holder has an antislip surface to keep the phone secure should it vibrate.

#### Awards

Several international prizes have been conferred on the Busch-Jaeger SCHUKO USB outlet: it won the Dutch 2013 Rexel Innovation Prize and the prestigious ETOP Innovation Award – a distinction bestowed by the exhibition organizer VNU Exhibitions Europe and the Dutch electrical organization “Federatie Elektrotechniek” at the 2013 Elektrotechniek trade fair in Utrecht.

Further, the SCHUKO USB outlet received the Audience Choice Award in September 2013 at the design pavilion

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### 4 IFA Audience choice award

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Busch-Jaeger SCHUKO USB outlet was recipient of the Audience Choice Award in September 2013 at the design pavilion of the IFA trade fair.

of the IFA trade fair in Berlin → 4. This award aims to raise the profile of design and usability for both users and manufacturers.

Unusually for an ABB or Busch-Jaeger product, and as an indication of its wide appeal, the SCHUKO USB outlet recently had its own prime-time television commercial spot on German national television.

The USB connector itself is not only becoming ubiquitous, it is being developed further: A reversible version is planned (the current, nonreversible, design was chosen for economy) and a next-generation USB interface should be able to deliver 100 W – replacing power cords in some applications. All this means that USB connectivity will become even more prevalent in the domestic setting and the integration of USB technology into household appliances and infrastructure will become not just a matter of convenience, but one of necessity. The SCHUKO USB outlet is the first step in that direction.

Because the form factor matches existing SCHUKO outlets exactly, upgrading to the new USB outlet is easy.

#### Sascha Dehlen

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