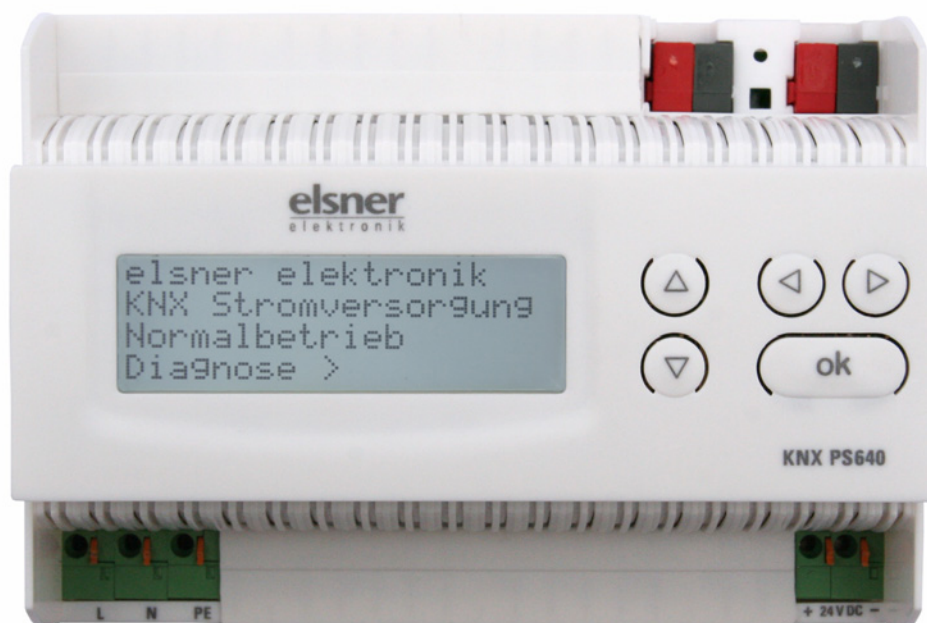




# Power Supply System

## KNX PS640



## Technical Data and Installation Notes



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The Power Supply System KNX PS640 delivers a 29 V bus voltage for the KNX system and 24 V DC supply voltage for 24 V devices. Special operating conditions such as short circuit, overvoltage, overload or excess temperature are recorded and may be read off on the display. The present power discharge is displayed as well. It is possible to reset the connected bus devices directly by means of the key pad.

### Functions:

- Delivers a **29 V KNX bus voltage** (reduced), output current max. 640 mA, short-circuit proof
- Delivers **24 V DC** (not reduced), output current max. 150 mA
- **Reset** of a line directly on the device
- Record of operating hours, overload, external overvoltage, internal overvoltage, short circuit and excess temperature
- Display of operating data bus voltage, bus current and temperature of the device
- The display may be shown in German, English, Spanish or Dutch

## Technical data

Housing:	Plastic material
Colour:	White
Mounting:	Snap-on fitting on mounting rails
Protection category:	IP 20
Dimensions:	approx. 123 x 89 x 61 (W x H x D, mm), 7 width units
Weight:	approx. 370 g
Ambient temperature:	Operation -5...+45 °C, storage -25...+70°C
Ambient air humidity:	max. 95% RH, avoid bedewing
Operating voltage:	230 V AC , 50 Hz
Outputs:	<ul style="list-style-type: none"> <li>• KNX bus voltage 29 V (reduced), Output current max. 640 mA, short-circuit proof</li> <li>• 24 V DC (not reduced), Output current max. 150 mA</li> </ul>

The following standards have been considered for the evaluation of the product in terms of electro magnetic compatibility:

Transient emissions:

- EN 60730-1:2000 Section EMV (23, 26, H23, H26) (threshold category: B)
- EN 50090-2-2:1996-11 + A1:2002-01 (threshold category: B)
- EN 61000-6-3:2001 (threshold category: B)

Interference resistance:

- EN 60730-1:2000 Section EMV (23, 26, H23, H26)
- EN 50090-2-2:1996-11 + A1:2002-01
- EN 61000-6-1:2004

The product has been tested for the above mentioned standards by an accredited EMV laboratory.

# Installation and Commissioning

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**Attention! Mains voltage! The legal national regulations must be complied with.**



Installation, inspection, commissioning and troubleshooting of the power supply system must only be carried out by a competent electrician. Disconnect all lines to be assembled, and take safety precautions against accidental switch-on.

The power supply is exclusively intended for appropriate use. With each inappropriate change or non-observance of the instructions for use, any warranty or guarantee claim will be void.

After unpacking the device, check immediately for any mechanical damages. In case of transport damage, this must immediately notified to the supplier.

**If damaged, the power supply system must not be put into operation.**



If an operation without risk may supposedly not be guaranteed, the plant must be put out of operation and be secured against accidental operation.

The power supply system must only be operated as stationary system, i.e. only in a fitted state and after completion of all installation and start-up works, and only in the environment intended for this purpose.

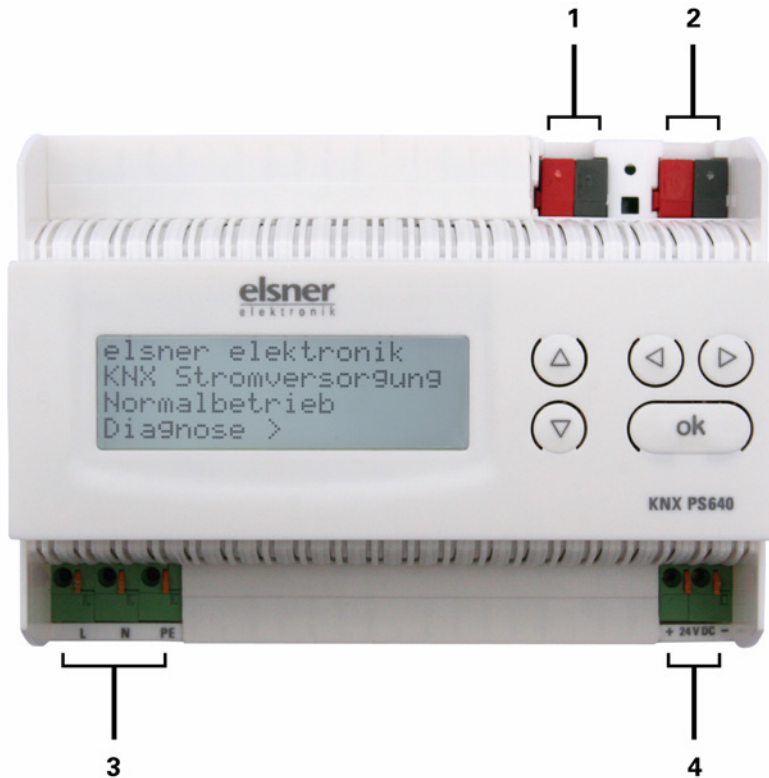
Elsner Elektronik does not assume any liability for changes in standards after publication of this instruction manual.

## Installation

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Observe the correct installation. Incorrect installation may destroy the power supply system or connected electronic devices.

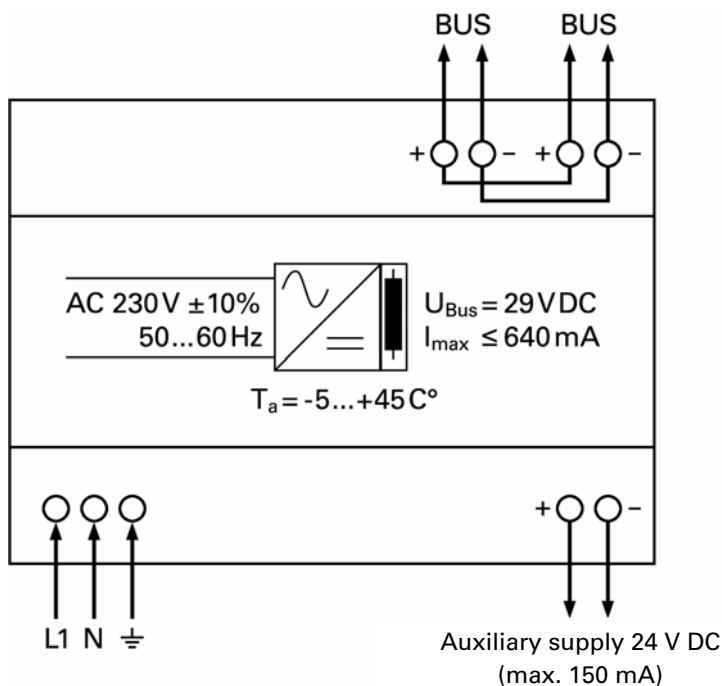
## Housing



- 1 Bus (KNX terminal +/-)
- 2 Bus (KNX terminal +/-)
- 3 Input operating voltage 230 V AC, L / N / PE
- 4 Output direct current voltage 24 V DC, +/-

Connections 3 and 4 are suitable for solid conductors up to 1.5 mm<sup>2</sup> or conductors with fine wires

## Scheme



# Operation

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## Starting Position

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```
elsner elektronik
KNX Power Supply
Normal Operation
Diagnostics >
```

The following may be read off and set on the display of the power supply system KNX PS640:

- Reset of a line
- Recall of the data memory with operating hours, overcharge, external electrical surge, internal electrical surge, short circuit and excess temperature
- Recall of the operating data bus voltage, bus current and temperature
- Language of display

The display is dimmed after 60 seconds if during this period no key is pressed.

## Line reset

---

Standard screen:

```
elsner elektronik
KNX Power Supply
Normal Operation
Diagnostics >
```

Press key ▷ once.

```
Line Reset      > █
Data Memory >
Operating Data >
Language
```

Press key ▷ once more in order to get into the sector "Line reset".

```
Reset: Yes      █
      No
      30 seconds
Reset not active!
```

Move the cursor (flashing rectangle at right edge) to the desired setting with the keys ∇ or △ and confirm with key **ok**.

**Yes:** Reset is activated. The line is switched to neutral and shorted. The basic setting displays: "Reset is active!"

**No:** Reset not activated. The power supply system works in normal operation.

30 seconds: A reset of 30 seconds is started. Afterwards, the line is supplied with voltage as usual. During the reset state, which lasts 30 seconds, the basic setting displays: "Reset active: XX sec" (countdown).

With key ◀, you return to the previous menu level.

## Data memory

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Standard screen:

```
elsner elektronik
KNX Power Supply
Normal Operation
Diagnostics >
```

Press key ▶ once.

```
Line Reset >
Data Memory > █
Operating Data >
Language >
```

Move the cursor (flashing rectangle at right edge) to the "Data memory" menu with the keys ▼ and ▲ and confirm with key ▶.

```
Hours of Operation > █
Overload >
Ext. Overvoltage >
Int. Overvoltage >
```

```
Short circuit >
Excess Temperat. >
```

Move the cursor to the desired menu with the up and down keys and press key ▶.

## Operating hours

---

```
Run time: 0 years
          0 day 0 hrs.

< = Back
```

The operating hours of the power supply system are displayed in years, days and hours.

With key ◀ you return to the previous menu level.

## Overload

---

```
Overload detected
0 times. Duration:
0 day, 0 hrs, 0 min
< = Back
```

The number of overload incidents and the total time in days, hours and minutes are displayed.

With key ◀ you return to the previous menu level.

## External Overvoltage

---

```
External Overvoltage
was detected
0 times.
< = Back
```

The number of external overvoltage incidents is displayed.

With key ◀ you return to the previous menu level.

## Internal Overvoltage

---

```
Internal Overvoltage
was detected
0 times.
< = Back
```

The number of internal overvoltage incidents is displayed.

With key ◀ you return to the previous menu level.

## Short Circuit

---

```
A short at the bus
was detected
0 times.
< = Back
```

The number of short circuit incidents at the bus is displayed.

With key ◀ you return to the previous menu level.

## Excess Temperature

---

```
Excess Temperature
on the board
was detected
0 times!
```

The number of excess temperature incidents on the circuit board of the device is displayed.

With key ◀ you return to the previous menu level.

## Operating data

---

Standard screen:

```
elsner elektronik
KNX Power Supply
Normal Operation
Diagnostics >
```

Press key ▶ once.

```
Line Reset >
Data Memory >
Operating Data > █
Language >
```

Move the cursor (flashing rectangle at right edge) to the “Operating Data” menu with the keys ▾ and ▴ and confirm with key ▶.

```
Bus Voltage 29.4 V
Bus Current 320 mA
Temperature 42.1°C
```

The current values of

- Bus voltage
  - Bus current
  - Temperature on the circuit board of the device
- are displayed.

With key ◀ you return to the previous menu level.

## Language

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Standard screen:

```
elsner elektronik
KNX Power Supply
Normal Operation
Diagnostics >
```

Press key ▶ once.

```
Line Reset >
Data Memory >
Operating Data >
Language > █
```

Move the cursor (flashing rectangle at right edge) to the “Language” menu with the keys ▼ and ▲ and confirm with the key ▶.

```
Sprache : Deutsch █
Language : English
Idioma : Espanol
Taal : Hollands
```

Move the cursor to the desired language with the up and down keys and press the key **ok**. The display automatically jumps to the previous menu in the desired language. With key ◀ you get back by one menu level to the basic setting.