

## ABB i-bus® KNX

KNX Power Supply, 160 mA/320 mA/640 mA, MDRC

SV/S 30.160.1.1, 2CDG110044R0011, SV/S 30.320.1.1, 2CDG110066R0011,  
SV/S 30.640.3.1, 2CDG110067R0011



### Product description

KNX power supplies generate and monitor the KNX system voltage (SELV). The bus line is decoupled from the power supply by an integrated choke.

The voltage output is short-circuit and overload protected.

The two-color LED indicates device output status.

Device type SV/S 30.640.3.1 has an additional 30 V DC short-circuit and overload protected voltage output that can be used to power an additional bus line (in combination with a separate choke).

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### Technical data

|                                                                      |                                                                |                                                                                                                         |                              |                     |
|----------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|
| Supply                                                               | Supply voltage U <sub>s</sub>                                  | 85...265 V AC, 50/60 Hz                                                                                                 |                              |                     |
|                                                                      | Power consumption                                              | Normal operation                                                                                                        | Maximum                      |                     |
|                                                                      | - SV/S 30.160.1.1                                              | 6.6 W                                                                                                                   | 21 W                         |                     |
|                                                                      | - SV/S 30.320.1.1                                              | 12.5 W                                                                                                                  | 30 W                         |                     |
|                                                                      | - SV/S 30.640.3.1                                              | 24 W                                                                                                                    | 55 W                         |                     |
|                                                                      | Power loss                                                     | Normal operation                                                                                                        | Maximum                      |                     |
|                                                                      | - SV/S 30.160.1.1                                              | 1.8 W                                                                                                                   | 4.4 W                        |                     |
|                                                                      | - SV/S 30.320.1.1                                              | 2.5 W                                                                                                                   | 6 W                          |                     |
|                                                                      | - SV/S 30.640.3.1                                              | 4 W                                                                                                                     | 9 W                          |                     |
|                                                                      | Outputs                                                        | KNX voltage output I <sub>1</sub>                                                                                       | 1 line with integrated choke |                     |
| Rated voltage U <sub>N</sub>                                         |                                                                | 30 V DC +1/-2 V, SELV                                                                                                   |                              |                     |
| Minimum distance between 2 SV/S in one line                          |                                                                | 200 m (KNX bus line)                                                                                                    |                              |                     |
| Voltage output I2 (SV/S 30.640.3.1 only)                             |                                                                | without choke                                                                                                           |                              |                     |
| - Rated voltage U <sub>N</sub>                                       |                                                                | 30 V DC +1/-1 V, SELV                                                                                                   |                              |                     |
|                                                                      |                                                                | The voltage output without choke may only be used to power an additional bus line in combination with a separate choke. |                              |                     |
| Current                                                              |                                                                | Rated curr.                                                                                                             | Overload curr.               | Short-circuit curr. |
|                                                                      |                                                                | I <sub>N</sub>                                                                                                          | I <sub>OV</sub>              | I <sub>Sc</sub>     |
| - SV/S 30.160.1.1                                                    |                                                                | 160 mA                                                                                                                  | 0.3 A                        | 0.5 A               |
| - SV/S 30.320.1.1                                                    |                                                                | 320 mA                                                                                                                  | 0.5 A                        | 0.8 A               |
| - SV/S 30.640.3.1 (total current I <sub>1</sub> and I <sub>2</sub> ) | 640 mA                                                         | 0.9 A                                                                                                                   | 1.4 A                        |                     |
|                                                                      | Power failure buffering time                                   | 200 ms                                                                                                                  |                              |                     |
| Connections                                                          | KNX                                                            | Bus connection terminal                                                                                                 |                              |                     |
|                                                                      | Mains voltage input                                            | Screw terminal<br>0.2...2.5 mm <sup>2</sup> fine strand<br>0.2...4 mm <sup>2</sup> solid                                |                              |                     |
|                                                                      | Tightening torque                                              | Maximum 0.6 Nm                                                                                                          |                              |                     |
| Operating and display elements                                       | LED status (two-colored green/red)                             | Green: I < I <sub>OV</sub><br>Red: overload.<br>Red, flashing: short-circuit                                            |                              |                     |
| Degree of protection                                                 | IP 20                                                          | EN 60 529                                                                                                               |                              |                     |
| Protection class                                                     | II                                                             | EN 61 140                                                                                                               |                              |                     |
| Isolation category                                                   | Overvoltage category                                           | III under EN 60 664-1                                                                                                   |                              |                     |
|                                                                      | Pollution degree                                               | 2 under EN 60 664-1                                                                                                     |                              |                     |
| Temperature range                                                    | Operation                                                      | - 5 °C...+45 °C                                                                                                         |                              |                     |
|                                                                      | Storage                                                        | -25 °C...+55 °C                                                                                                         |                              |                     |
|                                                                      | Transport                                                      | -25 °C...+70 °C                                                                                                         |                              |                     |
| Ambient conditions                                                   | Maximum air humidity                                           | 93 %, no condensation allowed                                                                                           |                              |                     |
| Design                                                               | Modular installation device (MDRC)                             | Modular installation device, Pro M                                                                                      |                              |                     |
|                                                                      | Main dimensions (H x W x D)                                    | 90 x 72 x 64.5 mm                                                                                                       |                              |                     |
|                                                                      | Mounting width                                                 | 4 x 18 mm modules                                                                                                       |                              |                     |
|                                                                      | Mounting depth                                                 | 64.5 mm                                                                                                                 |                              |                     |
| Mounting                                                             | On 35 mm mounting rail                                         | EN 60 715                                                                                                               |                              |                     |
| Mounting position                                                    | As required                                                    |                                                                                                                         |                              |                     |
| Weight                                                               | Approx. 0.26 kg                                                |                                                                                                                         |                              |                     |
| Housing, color                                                       | Plastic housing, gray                                          |                                                                                                                         |                              |                     |
| Approvals                                                            | KNX under EN 50 090-1, -2                                      |                                                                                                                         |                              |                     |
| CE mark                                                              | In accordance with the EMC guideline and low voltage guideline |                                                                                                                         |                              |                     |
|                                                                      |                                                                |                                                                                                                         |                              |                     |

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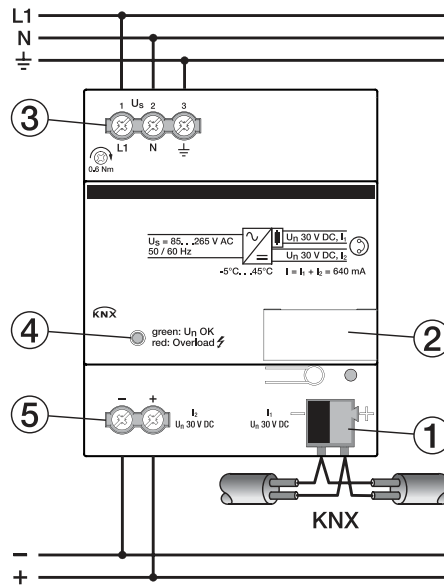
| Important                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| If the device overheats due to extended overload (> 100 °C in housing) it switches off automatically. The LED is off. The device can be switched on again only after it has been disconnected from the mains for 60 seconds and has cooled to operational temperature internally. Eliminate the cause of the overload before switching back on. |
| When commissioning the device, ensure that the rated current is not continuously exceeded.                                                                                                                                                                                                                                                      |
| The voltage output without choke ( $I_2$ ) is not electrically isolated from the KNX voltage output ( $I_1$ ). It may only be used to power an additional bus line in combination with a separate choke. It may not, for example, be used to power IP devices (see SELV guidelines).                                                            |
| Devices are designed for continuous operation. They are not approved for frequent switching on and off.                                                                                                                                                                                                                                         |

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## Connection schematic



2CDC072007F0013

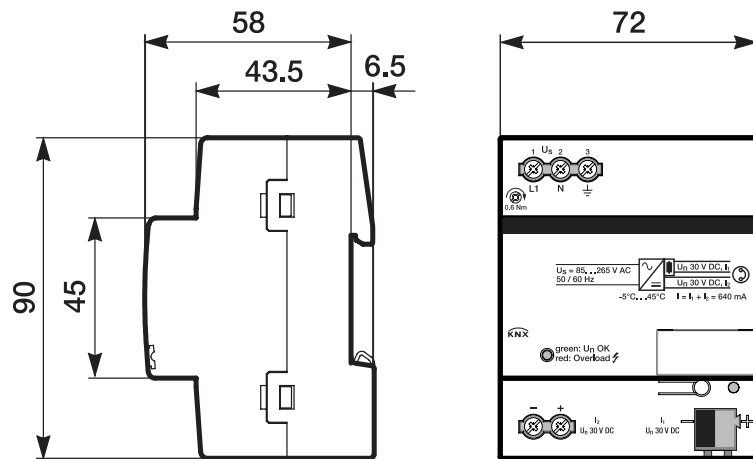
- 1 Bus connection terminal
- 2 Label carrier
- 3 Power supply connection  $U_s$
- 4 Status LED
- 5 Voltage output without choke,  $I_2$  (SV/S 30.640.3.1 only)

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### Dimension drawing



2CDC072013F0013

# Contact

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