

# ABB i-bus® KNX

## Outputs

1) = The number of ballasts is limited by the protection with B16/ B20 circuit-breakers.

2) = For multiple element lamps or other types, the number of electronic ballasts must be determined using the peak inrush current of the electronic ballasts.

3) = The maximum peak inrush current may not be exceeded.

4) = Not intended for AC3 operation, see Technical Data for maximum AC3 current.

The following table provides an overview of the rated values, switching performance, lamp loads or the number of lamps, which can be connected to a contact:

	SA/S 4.6.1.1	SA/S 2.6.2.1 SA/S 4.6.2.1	SA/S 2.10.2.1 SA/S 4.10.2.1	SA/S 2.16.2.1 SA/S 4.16.2.1	SA/S 2.16.5.1 SA/S 4.16.5.1	SA/S 2.16.6.1 SA/S 4.16.6.1
	SA/S 8.6.1.1	SA/S 8.6.2.1	SA/S 8.10.2.1	SA/S 8.16.2.1	SA/S 8.16.5.1	SA/S 8.16.6.1
	SA/S 12.6.1.1	SA/S 12.6.2.1	SA/S 12.10.2.1	SA/S 12.16.2.1	SA/S 12.16.5.1	SA/S 12.16.6.1
<b>I<sub>n</sub> rated current (A)</b>	6 A	6 AX	10 AX	16 A	16/20 AX C-Load	16/20 AX C-Load
<b>U<sub>n</sub> rated voltage (V)</b>	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC	250/440 V AC
<b>AC1 operation (cos φ = 0.8) DIN EN 60947-4-1</b>	6 A	6 A	10 A	16 A	20 A	20 A
<b>AC3 operation (cos φ = 0.45) DIN EN 60947-4-1</b>	6 A	6 A	8 A	- <sup>4)</sup>	16 A	16 A
<b>C-Load switching capacity</b>	-	-	-	-	20 A	20 A
<b>Fluorescent lighting load AX to EN 60669-1</b>	6 A (35 μF) <sup>3)</sup>	6 AX (140 μF) <sup>3)</sup>	10 AX (140 μF) <sup>3)</sup>	16 A (70 μF) <sup>3)</sup>	20 AX (200 μF) <sup>3)</sup>	20 AX (200 μF) <sup>3)</sup>
<b>Minimum switching capacity</b>	10 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V	100 mA/12 V
<b>DC current switching capacity (resistive load)</b>	6 A/24 V =	6 A/24 V =	10 A/24 V =	16 A/24 V =	20 A/24 V =	20 A/24 V =
<b>Mechanical service life</b>	> 10 <sup>7</sup>	> 3 x 10 <sup>6</sup>	> 3 x 10 <sup>6</sup>	> 3 x 10 <sup>6</sup>	> 10 <sup>6</sup>	> 10 <sup>6</sup>
<b>Electronic endurance to IEC 60947-4-1:</b>						
- Rated current AC1 (240 V/0.8)	100,000	100,000	100,000	100,000	100,000	100,000
- Rated current AC3 (240 V/0.45)	15,000	30,000	30,000	30,000	30,000	30,000
- Rated current AC5a (240 V/0.45)	15,000	30,000	30,000	30,000	30,000	30,000
<b>Incandescent lamp load at 230 V AC</b>	1,200 W	1,380 W	2,500 W	2,500 W	3,680 W	3,680 W
<b>Fluorescent lamp T5 / T8:</b>						
- Uncorrected	800 W	1,380 W	2,500 W	2,500 W	3,680 W	3,680 W
- Parallel compensated	300 W	1,380 W	1,500 W	1,500 W	2,500 W	2,500 W
- DUO circuit	350 W	1,380 W	1,500 W	1,500 W	3,680 W	3,680 W
<b>Low-voltage halogen lamps:</b>						
- Inductive transformer	800 W	1,200 W	1,200 W	1,200 W	2,000 W	2,000 W
- Electronic transformer	1,000 W	1,380 W	1,500 W	1,500 W	2,500 W	2,500 W
<b>Halogen lamp 230 V</b>	1,000 W	1,380 W	2,500 W	2,500 W	3,680 W	3,680 W
<b>Dulux lamps:</b>						
- Uncorrected	800 W	1,100 W	1,100 W	1,100 W	3,680 W	3,680 W
- Parallel compensated	800 W	1,100 W	1,100 W	1,100 W	3,000 W	3,000 W
<b>Mercury-vapour lamps:</b>						
- Uncorrected	1,000 W	1,380 W	2,000 W	2,000 W	3,680 W	3,680 W
- Parallel compensated	800 W	1,380 W	2,000 W	2,000 W	3,000 W	3,000 W
<b>Sodium-vapour lamps:</b>						
- Uncorrected	1,000 W	1,380 W	2,000 W	2,000 W	3,680 W	3,680 W
- Parallel compensated	800 W	1,380 W	2,000 W	2,000 W	3,000 W	3,000 W
<b>Max. peak inrush-current I<sub>p</sub> (150 μs)</b>	200 A	400 A	400 A	400 A	600 A	600 A
<b>Max. peak inrush-current I<sub>p</sub> (250 μs)</b>	160 A	320 A	320 A	320 A	480 A	480 A
<b>Max. peak inrush-current I<sub>p</sub> (600 μs)</b>	100 A	200 A	200 A	200 A	300 A	300 A
<b>Number of electronic ballasts (T5/T8, single element):<sup>2)</sup></b>						
<b>18 W (ABB ballasts 1 x 18 SF)</b>	10 ballasts	23 ballasts	23 ballasts	23 ballasts	26 <sup>3)</sup> ballasts	26 <sup>3)</sup> ballasts
<b>24 W (ABB ballasts 1 x 24 CY)</b>	10 ballasts	23 ballasts	23 ballasts	23 ballasts	26 <sup>3)</sup> ballasts	26 <sup>3)</sup> ballasts
<b>36 W (ABB ballasts 1 x 36 CF)</b>	7 ballasts	14 ballasts	14 ballasts	14 ballasts	22 ballasts	22 ballasts
<b>58 W (ABB ballasts 1 x 58 CF)</b>	5 ballasts	11 ballasts	11 ballasts	11 ballasts	12 <sup>3)</sup> ballasts	12 <sup>3)</sup> ballasts
<b>80 W (Helvar EL 1 x 80 SC)</b>	3 ballasts	10 ballasts	10 ballasts	10 ballasts	12 <sup>3)</sup> ballasts	12 <sup>3)</sup> ballasts

# ABB i-bus® KNX

## Outputs

- = Function is supported
- = Function is not supported
- 1) = See special ABB i-bus® KNX devices of the HVAC area, e.g. Blower actuator FCL/S or Fan Coil actuator FCA/S.

The following table provides an overview of the functions possible with the Switch Actuators and their application programs:

	SA/S 4.6.1.1	SA/S 2.6.2.1 SA/S 4.6.2.1	SA/S 2.10.2.1 SA/S 4.10.2.1	SA/S 2.16.2.1 SA/S 4.16.2.1	SA/S 2.16.5.1 SA/S 4.16.5.1	SA/S 2.16.6.1 SA/S 4.16.6.1
	SA/S 8.6.1.1	SA/S 8.6.2.1	SA/S 8.10.2.1	SA/S 8.16.2.1	SA/S 8.16.5.1	SA/S 8.16.6.1
	SA/S 12.6.1.1	SA/S 12.6.2.1	SA/S 12.10.2.1	SA/S 12.16.2.1	SA/S 12.16.5.1	SA/S 12.16.6.1
Type of installation	MDRC	MDRC	MDRC	MDRC	MDRC	MDRC
Number of outputs	4/8/12	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12
Module width (space unit)	4/6/8	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12	2/4/8/12
Manual operation	-	■	■	■	■	■
Contact position display	-	■	■	■	■	■
I <sub>n</sub> rated current (A)	6 A	6 AX	10 AX	16 A	16/20 AX C-Load	16/20 AX C-Load
Current detection	-	-	-	-	-	■
<b>Switch function</b>						
- ON/OFF delay	■	■	■	■	■	■
- Staircase light	■	■	■	■	■	■
- Warning before end of staircase lighting	■	■	■	■	■	■
- Staircase lighting time set via object	■	■	■	■	■	■
- Flashing	■	■	■	■	■	■
- Switch response can be set (N.O./N.C.)	■	■	■	■	■	■
- Thresholds	■	■	■	■	■	■
<b>Current detection</b>						
- Threshold value monitoring	-	-	-	-	-	■
- Measured value detection	-	-	-	-	-	■
<b>Function Scene</b>						
■	■	■	■	■	■	■
<b>Function Logic</b>						
- Logic AND function	■	■	■	■	■	■
- Logic OR function	■	■	■	■	■	■
- Logic XOR function	■	■	■	■	■	■
- Gate function	■	■	■	■	■	■
<b>Priority object/forced operation</b>						
■	■	■	■	■	■	■
<b>Heating/fan control</b>						
- Switch ON/OFF (2 point control)	■	■	■	■	■	■
- Cyclical fault monitoring	■	■	■	■	■	■
- Automatic purging	■	■	■	■	■	■
Fan Coil control <sup>1)</sup>	■	■	■	■	■	■
<b>Special functions</b>						
- Default position on bus voltage failure/recovery	■	■	■	■	■	■
- Status messages	■	■	■	■	■	■