

# ABB i-bus® KNX

## Outputs – Combi Switch Actuators

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.

5) = Max. load current per device:  
8-fold = 100 A,  
16-fold = 160 A,  
24-fold = 200 A

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:

	SAH/S 8.6.7.1	SAH/S 8.10.7.1	SAH/S 8.16.7.1
	SAH/S 16.6.7.1	SAH/S 16.10.7.1	SAH/S 16.16.7.1
	SAH/S 24.6.7.1	SAH/S 24.10.7.1	SAH/S 24.16.7.1
<b>Range</b>	Combi	Combi	Combi
<b>I<sub>n</sub> rated current (A)<sup>3)</sup></b>	6 A	10 A <sup>5)</sup>	16 A <sup>5)</sup>
<b>U<sub>n</sub> rated voltage (V)</b>	230 V AC	230 V AC	230 V AC
<b>AC1 operation (cos φ = 0.8) acc. to EN 60947-4-1</b>	6 A	10 A	16 A
<b>AC3 operation (cos φ = 0.45) acc. to EN 60947-4-1</b>	6 A	6 A	6 A
<b>C-Load switching capacity (200 μF)</b>	–	–	–
<b>Fluorescent lighting load AX acc. to EN 60669-1</b>	6 AX (140 μF) <sup>3)</sup>	10 AX (140 μF) <sup>3)</sup>	10 AX (140 μF) <sup>3)</sup>
<b>Minimum switching capacity</b>	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 =	6 A/24 V =
<b>Mechanical service life</b>	> 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/cos φ = 0.8)	100,000	100,000	100,000
– Rated current AC3 (240 V/cos φ = 0.45)	6,000	6,000	6,000
<b>Incandescent lamp load at 230 V AC</b>	1,200 W	1,200 W	1,200 W
<b>Fluorescent lamp T5 / T8:</b>			
– Uncorrected	800 W	800 W	800 W
<b>Low-voltage halogen lamps:</b>			
– Inductive transformer	800 W	800 W	800 W
– Electronic transformer	1,000 W	1,000 W	1,000 W
<b>Halogen lamp 230 V</b>	1,000 W	1,000 W	1,000 W
<b>Mercury-vapour lamps:</b>			
– Uncorrected	1,000 W	1,000 W	1,000 W
– Parallel compensated	800 W	800 W	800 W
<b>LED lamps/energy-saving lamps</b>	250 W	250 W	250 W
<b>Rated motor power</b>	1,380 W	1,380 W	1,380 W
<b>Max. peak inrush-current I<sub>p</sub> (150 μs)</b>	200 A	200 A	200 A
<b>Max. peak inrush-current I<sub>p</sub> (250 μs)</b>	160 A	160 A	160 A
<b>Max. peak inrush-current I<sub>p</sub> (600 μs)</b>	100 A	100 A	100 A
<b>Number of ballasts (T5/T8, single element):<sup>2)</sup></b>			
<b>18 W (ABB ballasts 1 x 18 SF)</b>	10 ballasts	10 ballasts	10 ballasts
<b>24 W (ABB ballasts 1 x 24 CY)</b>	10 ballasts	10 ballasts	10 ballasts
<b>36 W (ABB ballasts 1 x 36 CF)</b>	7 ballasts	7 ballasts	7 ballasts
<b>58 W (ABB ballasts 1 x 58 CF)</b>	5 ballasts	5 ballasts	5 ballasts
<b>80 W (Helvar EL 1 x 80 SC)</b>	3 ballasts	3 ballasts	3 ballasts

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## Outputs – Combi Switch Actuators

- = Function is supported
- = Function is not supported

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

	SAH/S 8.6.7.1 SAH/S 16.6.7.1 SAH/S 24.6.7.1	SAH/S 8.10.7.1 SAH/S 16.10.7.1 SAH/S 24.10.7.1	SAH/S 8.16.7.1 SAH/S 16.16.7.1 SAH/S 24.16.7.1
<b>Range</b>	Combi	Combi	Combi
Type of installation	DIN-Rail	DIN-Rail	DIN-Rail
Number of outputs (Switch [Blind])	8 [4]/16 [8]/24 [12]	8 [4]/16 [8]/24 [12]	8 [4]/16 [8]/24 [12]
Module width (space unit)	4/8/12	4/8/12	4/8/12
Manual operation	■	■	■
Switching position indication	■	■	■
I <sub>n</sub> rated current (A)	6 A	10 A	16 A
Current measurement	-	-	-
<b>Switch function</b>			
- Central On/Off	■	■	■
- Staircase lighting	■	■	■
- Staircase lighting advance warning	■	■	■
- Change staircase lighting time via group object	■	■	■
- Flashing	■	■	■
- Selection of N.O./N.C. contact	■	■	■
- Switching on/off delay	■	■	■
<b>Energy Function</b>	-	-	-
<b>Load control integration</b>	■	■	■
<b>Priority objects/forced operation/blocking</b>	■	■	■
<b>Function Scene</b>	■	■	■
<b>Blind/shutter function</b>			
- Central up/down/position/stop	■	■	■
- Blind/shutter control	■	■	■
- Wind/Rain/Frost alarm	■	■	■
- Automatic sun protection	■	■	■
- Parameterizable reversing time	■	■	■
- Reference movement	■	■	■
- Travel range limitation	■	■	■
- Adjustable delay time for drives	■	■	■
<b>Function Logic (independent of output)</b>			
- Logic AND function	■	■	■
- Logic OR function	■	■	■
- Logic exclusive OR function	■	■	■
- Gate function	■	■	■
- 1 bit Inverter	■	■	■
<b>Function Threshold (independent of output)</b>	■	■	■
<b>Additional functions</b>			
- Request status values	■	■	■
- Template parameter windows	■	■	■
- Reaction on bus voltage failure/recovery	■	■	■
- Advanced status group objects	■	■	■