

Perfect dimming. Less is more.

¹ Trouble-free dimming behaviour depends on the transformer used. Recommended Philips transformer: Philips Primeline 70 W (1 – 2 lamps per transformer).

The Busch-Dimmer® LED is also suitable for dimming selected Osram and Ledon LED lamps.

^A Rotary dimmer control element

^B Touch dimmer control element

^C Presence tech / Presence tech DualLINE

^D Comfort timer

Busch-Jaeger



Article number

6523 U-500
2-wire dimmer
rotary dimmer

6524 U-500
3-wire dimmer
touch dimmer

Load type

R, LC

R, L, C

LED power

2 – 100VA

2 – 100VA

Philips

	MASTER LEBbulb 8W	A60/E27	8 Watt 470lm	8 pieces	8 pieces
	MASTER LEDbulb 12W	A60/E27	12 Watt 806lm	8 pieces	8 pieces
	MASTER LEDbulb 17W	A67/E27	17 Watt 1055lm	6 pieces	6 pieces
	MASTER LEDcandle 4W	B35/E14	4 Watt 250lm	20 pieces	20 pieces
	MASTER LEDluster 4W	P45/E14	4 Watt 250lm	20 pieces	20 pieces
	MASTER LED PAR20 6,5–50 W	PAR20/E27	6,5 Watt ≈ 430lm	14 pieces	14 pieces
	MASTER LEDspot 4–35 W	GU10	4 Watt ≈ 300lm	20 pieces	20 pieces
	MASTER LEDspot 5,5–50 W	GU10	5,5 Watt ≈ 300lm	16 pieces	16 pieces
	MASTER LEDspot 7W	MR16/GU5.3	7 Watt ≈ 400lm	14 pieces	14 pieces
	MASTER LEDspot 10W	MR16/GU5.3	10 Watt ≈ 400lm	10 pieces ¹	10 pieces

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The listed KNX dimmers are basically suitable for dimming Philips retrofit LED lamps (LEDi), but the following points must be considered for the proper operation.

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Article number

6197/12-101-500
6197/13-101-500

6197/14-101-500

6197/15-101-500

Load type

R, L, C

R, L, C

R, L, C

Philips



MASTER LEDbulb 12W MV 806

A60/E27

12 Watt
806lm

1-15 pieces

1-6 pieces

1-15 pieces



MASTER Glow LEDbulb 8W

A60/E27

8 Watt
470lm

1-10 pieces

1-10 pieces

1-12 pieces



MASTER LED PAR20

PAR20/E27

7 Watt
280lm

1-10 pieces

1-10 pieces

1-12 pieces



MASTER LEDspot 7W

MR16/GU5.3

7 Watt
≈330lm

12 pieces with 3 electronic transformers 105 VA.
Please consider manufacturer instructions.



MASTER LEDspot 10W

MR16/GU5.3

10 Watt
≈400lm

12 pieces with 3 electronic transformers 105 VA.
Please consider manufacturer instructions.



MASTER LEDspot 6W

GU10

6 Watt
≈300lm

1-10 pieces

1-10 pieces

1-10 pieces

Please consider these advices when using a KNX dimmer in combination with LEDs:

1. Operation mode of the dimmers:

The maximum load is depending on the charging current of a lamp, so the indicated number of lamps per channel is not transferable on lamps with similar power.

The operation mode has to be set manually on leading edge operation via PowerTool.

2. Channel bundling:

It is not recommended to bundle channels (connecting outputs parallel) in order to raise the load. LEDs should be connected individually.

3. Number of LEDs per channel:

In general you can never utilize the full load of an incandescent lamp when using a LED.

Rule of thumb: In case of using LED, the max. load should not exceed one-fifth to one-sixth of the indicated load for an incandescent lamp.

Retrofit LEDs have a very high inrush current, which is many times higher than the one of an incandescent lamp, because of the integrated ballast in the lamps. This must be considered.

Example: In case the dimmer indicates a max. load of 100W for incandescent lamps, the max. load for LED should not exceed 20W.

4. Dimming curve / dimming run of LEDs:

The dimming curve of an incandescent lamp is not the same as the one of an LED.

A LED reaches 100 % of the max. brightness faster, which results in the fact that in the upper dimming range (beyond 70 % of max. brightness) it is not possible to recognize any change in brightness anymore.

Preventive measure:

Limit upper dimming range to 80 % of max. brightness via PowerTool.

5. LED flickering in lower dimming section:

Retrofit LEDs have small ballasts, which require a min. voltage. According to the connected LED and load-sided output voltage (< 100 – 120 V) at the dimming channel, soft flickering effects may occur. Some LEDs cannot be dimmed as low as incandescent lamps.

Preventive measure:

Limit lower dimming range via PowerTool.

Result:

LED cannot be dimmed as low as an incandescent lamp.

6. Ripple control signal stability:

Nearly with every LED flickering can occur several times a day. However this is not a dimmer problem at all. It is rather related to the ballasts. The dimmer has already a ripple control signal filter.

7. According to IEC 61000-3-2 there are necessary measurements to increase the connection load when exceeding 25W/VA. E.g. using harmonic wave filters.

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¹ In the lower dimming range it may come to slight flickering/unsteady light. Recommendation: Limit the lower dimming range via the device parameters.

² Lamps may emit very slight noise.

³ Lamps may have an afterglow when switched off.

⁴ With these lamps always operate the dimmer with trailing edge control (setting via the device parameters)

⁵ Recommended Philips transformer: Primaline 70W (1–2 lamps per transformer)

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Philips					Per channel
	MASTER LEDbulb 7W	E27	7 Watt 470lm	8 pieces	12 pieces
	MASTER LEDbulb 12W	E27	12 Watt 860lm	7 pieces	7 pieces
	MASTER LEDbulb 13W	E27	13 Watt 1055lm	4 pieces	6 pieces
	MASTER LEDbulb 20W	E27	20 Watt 1521lm	4 pieces	4 pieces
	MASTER LEDbulb 8W	E27	8 Watt 470lm	10 pieces ¹	
	MASTER LEDspot 8-50W 8718291 68243100	GU10	8 Watt 1800cd		10 pieces ¹
	Masters LEDspot 6W-50W	GU10	6 Watt 1000cd	14 pieces ¹	14 pieces
	MASTER LEDspot 4-35W	GU10	4 Watt 700cd	20 pieces ^{1, 3}	20 pieces ^{1, 3}
	MASTER LEDspot 8-50W 8718291 68231800	GU10	8 Watt 1800cd	7 pieces ²	10 pieces ²
	Masters LEDspot LV 7-35W	GU5.3	7 Watt 1050cd	12 pieces ^{2, 4, 5}	12 pieces ^{2, 4, 5}
	Masters LEDspot LV 10-50W	GU5.3	10 Watt 1500cd	8 pieces ^{1, 2, 4, 5}	8 pieces ^{1, 4, 5}
	Masters LEDspot MV D 6-50 W	GU10	6 Watt	10 pieces ¹	10 pieces ¹
	MASTER LEDcandle D 4-25 W	E14	4 Watt 250lm	20 pieces ^{1, 2}	20 pieces ^{1, 2}
	MASTER LEDbulb 12-60W	E27	12 Watt 806lm	7 pieces	7 pieces
	MASTER LEDspot LVD 10-50W	GU5.3	10 Watt 980mA	8 pieces ^{1, 4, 5}	10 pieces ^{1, 2, 4, 5}
	MASTER LEDspot LVD 7-35W	GU5.3	7 Watt 650mA	12 pieces ^{1, 4, 5}	12 pieces ^{1, 4, 5}

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⁵ Recommended transformer: Electronic transformer OSRAM "Maus"105VA

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Megaman					Per channel
	MM21016 LED Classic LG1511dv	E27	11 Watt 810lm	8 pieces	8 pieces
	MM27442 LED LP2307dDG	GU10	7 Watt 500 lm	12 pieces	12 pieces
	MM17522 LED LR2008d	GU10	8 Watt 480 lm	10 pieces ³	10 pieces ³
	MM27222 LED ER1708d	GU5.3	8 Watt 400 lm	10 pieces ¹	10 pieces ^{3,5}

OSRAM

	LED Parathom Classic A 75	E27	14.4 Watt 1055 lm	6 pieces ¹	6 pieces ²
	LED Parathom Classic B 25 4 008321 994042	E14	3.8 Watt 250lm	21 pieces ²	8-21 pieces ²
	LED Parathom Classic B 25 4 008321 979230	E14	3.8 Watt 250lm	21 pieces ²	7-21 pieces ²
	LED Parathom PAR16 4 008321 881816	GU10	3 Watt 130lm	7 pieces	17 pieces
	LED Parathom PAR16 4 008321 882035	GU10	5 Watt 260lm	10 pieces	16 pieces
	LED Parathom MR16	GU5.3	6.4 Watt 365lm	11 pieces ^{1,5}	12 pieces ⁵
	LED Parathom PRO Par16	GU10	6.8 Watt 350lm	12 pieces	12 pieces