

LED Drivers with different phase-cut dimmers

CAUTION!

The maximum number of LED Drivers per dimmer is defined by the power of the LED Driver and the dimmer:

- _ The total power of all connected LED Drivers must not exceed 50 % of the power of the dimmer.

Example:

- _ Power of dimmer: 600 W -> 50 % power: 300 W
- _ Power of LED Driver: 15 W
- _ Maximum number of LED Drivers: $300 \text{ W} : 15 \text{ W} = < 20$ devices

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Values for dimmers at full load

Product name	Article number	Dimmer type ¹	LED Drivers per dimmer	Noise rating	Flicker rating ³	Other issues ⁴
Amacher 03 5012 60- 600w	435 HAN	leading-edge	1-12	4	1	
B-Ticino Magic SM9350S	SM9350S	leading-edge	1-6	3	1	
Bull B6 GD100	G07D101	leading-edge	1-10	3	1	
Busch & Jaeger 2247 U 500w/VA	2247-500	leading-edge	1-10	3	1	
Busch & Jaeger 6513U-102 40-420w/VA	6513 U-102	trailing-edge	1-8	2	1	Poor dim depth
Busch-Jaeger 6523U	6512-0-0306	leading-edge	1-2	3	1	
Busch-Jaeger 6524U	6512-0-0311	leading-edge	1-2	2	1	
CHiNT NEW 7-C30510	121227E7	leading-edge	1-10	3	1	
CLIPSAL 32E 450 UDM	32E450UDM	trailing-edge	1-9	2	1	
CLIPSAL 32E 450CFLDM	32E450CFLDM	trailing-edge	1-9	2	1	
CLIPSAL 32E 450LM	32E450LM	leading-edge	1-9	3	1	
CLIPSAL 32E 450TM	32E450TM	trailing-edge	1-9	2	1	
CLIPSAL 60TDM SaturnOneTouch	4061TD	trailing-edge	1-7	2	1	
CLIPSAL C Bus 2 L5508D1A	10871212	leading-edge	1-4 x 8 channel	4	1	Flicker with 2 converters, removed by ZSL-UP ⁴
Crabtree CRO-1w20 60-250w	CRO-1	leading-edge	1-5	3	1	
D & C XHB 15w-150w		leading-edge	1-3	3	1	

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DUEWI D16601160-300w	D1 66011	leading-edge	1-6	4	1	
DUEWI ET1 53850 20-300w	ET153850	trailing-edge	1-6	2	1	
Elko 40 315 VA (315LE)	1471444	trailing-edge	1-6	2	1	
Elko 400 GL1	1471450	leading-edge	1-8	3	1	
Feller 30583 40 - 500w	30583	leading-edge	1-10	3	1	
Feller 40600-Rc-FMI 61 20-300VA	548 290 000	trailing-edge	1-6	2	1	
Feller 40600-RC-FMI 61 20-600VA	548 270 000	trailing-edge	1-12	2	1	
Feller 40600-RL-FMI-61 40-600 VA	548 260 000	leading-edge	1-12	3	1	
FUJIYAMA 600w	FJ159	leading-edge	1-12	3	1	Flicker with 2 converters, removed by ZSL-UP ⁴
GET 60w-400w	08-07-17	leading-edge	1-8	3	1	
GET Transformer 60-400VA	07-07-26	leading-edge	1-8	3	1	Flicker with 2 converters, removed by ZSL-UP ⁴
JUNG 225 TDE Tronic Dimmer 20-525w	225 TDE	trailing-edge	1-10	2	1	
KLEIN K513/UX20325w	K513/UX	trailing-edge	1-6	2	1	Poor dim depth
KOPP 80.33 40w-400w	059413051	leading-edge	1-8	4	1	
KOPP 80.7820-275w	807813081	trailing-edge	1-5	2	1	
Legrand ADW-ETL4	775903	trailing-edge	1-8	2	1	
Legrand HPM 400L	21901B	leading-edge	1-8	3	1	
Legrand HPM 400T	21903B	trailing-edge	1-8	2	1	

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Legrand V8051	V8051	leading-edge	1-12	3	1	
Lumic LM600	LM600	leading-edge	1-12	3	1	
OPUS-852-095-20-315w	852-095	trailing-edge	1-6	2	1	
Panasonic Max 300	WEG 57813	leading-edge	1-6	3	1	Flicker with 2 converters, removed by ZSL-UP ⁴
PEHA 433 HAB Tronic-Dimmer 20-315w	D 433 HAB O.A.	trailing-edge	1-6	2	1	
RICHMOND 10w-600w	MP600TE	trailing-edge	1-12	2	1	Poor dim depth
SIEMENS 5TC8 28420.600w 20-525VA	5TC8284	trailing-edge	1-10	2	1	
Simon 45E101	52120342	leading-edge	1-10	3	1	
TCL L2.0 (Legrand)		leading-edge	1-12	3	1	
Tridonic DSI - PCD/S	22 154 333	universal	1-16	-	-	no function with one LCBI
Tridonic DALI - PCD/S	22 154 332	universal	1-16	-	-	no function with one LCBI
Tridonic DALI - PCD 300 one4all	86 458 303	universal	1-5	1	1	-
Tridonic DALI - PCD 1-300 one4all	28 000 441	universal	1-5	2	1	no proper function when turning on, after a moment it is working
Tridonic DSI - PCD/S	22 154 333	universal	2-16	2	1	no proper turn on -> flicker
Tridonic DALI - PCD/S	22 154 332	universal	2-16	2	1	no proper turn on -> flicker
Tridonic DALI - PCD 300 one4all	86 458 303	universal	2-5	1	1	-

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Tridonic DALI - PCD 1-300 one4all	28 000 441	universal	2-5	2	1	no proper switchDIM function
WICKES 60-400W	070619	leading-edge	1-8	3	1	

Explanation:

1. Dimmer types: leading-edge, trailing-edge, universal
2. Noise rating: 1 (very little noise) -> 4 (strong noise).
Noise rating was only carried out for full load. Values for minimum load are less critical. For reference refer to full load.
3. Flicker rating: 1 (no flicker) -> 4 (strong flicker)
4. Other issues: description of the issue.
ZSL-UP is an additional circuit that can improve the dimming behaviour of specific lamps.

LED Drivers with different phase-cut dimmers

Values for dimmers at minimum load

Product name	Article number	Dimmer type ¹	LED Drivers per dimmer	Noise rating ²	Flicker rating ³	Other issues ⁴
Amacher 03 5012 60- 600w	435 HAN	leading-edge	1-12	tbd. ⁵	1	
B-Ticino Magic SM9350S	SM9350S	leading-edge	1-6	tbd.	1	
Bull B6 GD100	G07D101	leading-edge	1-10	tbd.	1	
Busch & Jaeger 2247 U 500w/VA	2247-500	leading-edge	1-10	tbd.	1	
Busch & Jaeger 6513U-102 40-420w/VA	6513 U-102	trailing-edge	1-8	tbd.	1	Poor dim depth
Busch-Jaeger 6523U	6512-0-0306	leading-edge	1-2	tbd.	1	
Busch-Jaeger 6524U	6512-0-0311	leading-edge	1-2	tbd.	1	
CHiNT NEW 7-C30510	121227E7	leading-edge	1-10	tbd.	2	Flicker at turn-on
CLIPSAL 32E 450 UDM	32E450UDM	trailing-edge	1-9	tbd.	1	
CLIPSAL 32E 450CFLDM	32E450CFLDM	trailing-edge	1-9	tbd.	1	
CLIPSAL 32E 450LM	32E450LM	leading-edge	1-9	tbd.	1	
CLIPSAL 32E 450TM	32E450TM	trailing-edge	1-9	tbd.	1	
CLIPSAL 60TDM SaturnOneTouch	4061TD	trailing-edge	1-7	tbd.	1	
CLIPSAL C Bus 2 L5508D1A	10871212	leading-edge	1-4 x 8 channel	tbd.	1	Flicker with 2 converters, removed by ZSL-UP ⁴
Crabtree CRO-1w20 60-250w	CRO-1	leading-edge	1-5	tbd.	1	
D & C XHB 15w-150w		leading-edge	1-3	tbd.	1	

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DUEWI D16601160-300w	D1 66011	leading-edge	1-6	tbd.	1	
DUEWI ET1 53850 20-300w	ET153850	trailing-edge	1-6	tbd.	1	
Elko 40 315 VA (315LE)	1471444	trailing-edge	1-6	tbd.	1	
Elko 400 GL1	1471450	leading-edge	1-8	tbd.	1	
Feller 30583 40 - 500w	30583	leading-edge	1-10	tbd.	1	
Feller 40600-Rc-FMI 61 20-300VA	548 290 000	trailing-edge	1-6	tbd.	1	
Feller 40600-RC-FMI 61 20-600VA	548 270 000	trailing-edge	1-12	tbd.	1	
Feller 40600-RL-FMI-61 40-600 VA	548 260 000	leading-edge	1-12	tbd.	1	
FUJIYAMA 600w	FJ159	leading-edge	1-12	tbd.	1	Flicker with 2 converters, removed by ZSL-UP 4
GET 60w-400w	08-07-17	leading-edge	1-8	tbd.	1	
GET Transformer 60-400VA	07-07-26	leading-edge	1-8	tbd.	1	Flicker with 2 converters, removed by ZSL-UP 4
JUNG 225 TDE Tronic Dimmer 20-525w	225 TDE	trailing-edge	1-10	tbd.	1	
KLEIN K513/UX20325w	K513/UX	trailing-edge	1-6	tbd.	1	Poor dim depth
KOPP 80.33 40w-400w	059413051	leading-edge	1-8	tbd.	1	
KOPP 80.7820-275w	807813081	trailing-edge	1-5	tbd.	1	
Legrand ADW-ETL4	775903	trailing-edge	1-8	tbd.	1	

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Legrand HPM 400L	21901B	leading-edge	1-8	tbd.	1	
Legrand HPM 400T	21903B	trailing-edge	1-8	tbd.	1	
Legrand V8051	V8051	leading-edge	1-12	tbd.	1	
Lumic LM600	LM600	leading-edge	1-12	tbd.	1	Flicker with 2 converters, removed by ZSL-UP ⁴
OPUS-852-095-20-315w ???	852-095	trailing-edge	1-6	tbd.	1	
Panasonic Max 300	WEG 57813	leading-edge	1-6	tbd.	1	
PEHA 433 HAB Tronic-Dimmer 20-315w	D 433 HAB O.A.	trailing-edge	1-6	tbd.	1	
RICHMOND 10w-600w	MP600TE	trailing-edge	1-12	tbd.	1	Poor dim depth
SIEMENS 5TC8 28420.600w 20-525VA	5TC8284	trailing-edge	1-10	tbd.	1	
Simon 45E101	52120342	leading-edge	1-10	tbd.	1	
TCL L2.0 (Legrand)		leading-edge	1-12	tbd.	1	
Tridonic DALI-PCD 300 One4all	86458303	universal	1-6	tbd.	1	
WICKES 60-400W	070619	leading-edge	1-8	tbd.	1	

Explanation:

1. Dimmer types: leading-edge, trailing-edge, universal
2. Noise rating: 1 (very little noise) -> 4 (strong noise).
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3. Flicker rating: 1 (no flicker) -> 4 (strong flicker)
4. Other issues: description of the issue.
ZSL-UP is an additional circuit that can improve the dimming behaviour of specific lamps.
5. tbd. = to be defined, no rating results available yet