

LED Driver 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: $300 \text{ W} : 15 \text{ W} \leq 20$ devices

LED Driver with different phase-cut dimmers

LCBI 15W 500mA BASIC phase-cut Ip (89800256) - Values for dimmers at full 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	1-20	4	3	Flicker, removed by using ZSL-UP ⁴
B-Ticino Magic SM9350S	SM9350S	leading	1-10	3	1	
Bull B6 GD100	G07D101	leading	1-16	3	1	
Busch & Jaeger 2247 U 500w/VA	2247-500	leading	1-16	3	1	
Busch & Jaeger 6513U-102 40-420w/VA	6513 U-102	trailing	1-14	2	1	Poor dim depth
Busch-Jaeger 6523U	6512-0-0306	leading	1-3	3	1	
Busch-Jaeger 6524U	6512-0-0311	leading	1-3	2	1	Poor dim depth
CHiNT NEW 7-C30510	121227E7	leading	1-16	3	2	Slight flicker at 75 mA
CLIPSAL 32E 450 UDM	32E450UDM	trailing	1-15	2	1	
CLIPSAL 32E 450CFLDM	32E450CFLDM	trailing	1-15	2	1	
CLIPSAL 32E 450LM	32E450LM	leading	1-15	3	1	
CLIPSAL 32E 450TM	32E450TM	trailing	1-15	2	1	
CLIPSAL 60TDM SaturnOneTouch	4061TD	trailing	1-11	2	1	
CLIPSAL C Bus 2 L5508D1A	10871212	leading	1-6 x 8 channel	4	3	Flashing at minimum
CLIPSAL	L5508D1A	universal	-	4	4	Not usable
Crabtree CRO-1w20 60-250w	CRO-1	leading	1-8	3	2	Slight flicker at 80 mA
D & C XHB 15w-150w		leading	1-5	3	1	Poor dim depth

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DIGINET	MMDM/PB#	leading	1-12#	2	1	
DIGINET	MEDM	leading	1-12#	2	1	
DUEWI D16601160-300w	D1 66011	leading	1-10	4	1	
DUEWI ET1 53850 20-300w	ET153850	trailing	1-10	2	2	Flicker at maximum
Elko 40 315 VA (315LE)	1471444	trailing	1-10	2	1	
Elko 400 GL1	1471450	leading	1-13	3	1	
Feller 30583 40 - 500w	30583	leading	1-16	3	1	
Feller 40600-Rc-FMI 61 20-300VA	548 290 000	trailing	1-10	2	1	
Feller 40600-RC-FMI 61 20-600VA	548 270 000	trailing	1-20	2	1	
Feller 40600-RL-FMI-61 40-600 VA	548 260 000	leading	1-20	3	1	
FUJIYAMA 600w	FJ159	leading	1-20	3	1	
GET 60w-400w	08-07-17	leading	1-13	3	1	
GET Transformer 60-400VA	07-07-26	leading	1-13	3	1	
JUNG 225 TDE Tronic Dimmer 20-525w	225 TDE	trailing	1-17	2	2	Slight flicker at 233 mA
KLEIN K513/UX20325w	K513/UX	trailing	1-10	2	1	
KOPP 80.33 40w-400w	059413051	leading	1-13	3	1	
KOPP 80.7820-275w	807813081	trailing	1-8	2	1	
Legrand ADW-ETL4	775903	trailing	1-13	2	1	
Legrand HPM 400L	21901B	leading	1-13	3	1	

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Legrand HPM 400T	21903B	trailing	1-13	2	1	
Legrand V8051	V8051	leading	1-20	3	1	
Lumic LM600	LM600	leading	1-20	3	1	
OPUS-852-095-20-315w	852-095	trailing	1-10	2	1	
Panasonic Max 300	WEG 57813	leading	1-10	3	1	
PEHA 433 HAB Tronic-Dimmer 20-315w	D 433 HAB O.A.	trailing	1-10	2	1	
RICHMOND 10w-600w	MP600TE	trailing	1-20	2	1	Slight flicker at 265 mA with two converters, poor dim depth
SIEMENS 5TC8 28420.600w 20-525VA	5TC8284	trailing	1-16	2	1	
Simon 45E101	52120342	leading	1-16	3	1	
TCL L2.0 (Legrand)		leading	1-20	3	1	
WICKES 60-400W	070619	leading	1-13	3	1	
Tridonic DSI - PCD/S	22 154 333	universal	1-25	-	-	no dimming function
Tridonic DALI - PCD/S	22 154 332	universal	1-25	-	-	no dimming function
Tridonic DALI - PCD 300 one4all	86 458 303	universal	1-7	2	1	
Tridonic DALI - PCD 1-300 one4all	28 000 441	universal	1-7	2	1	no proper switchDIM function
Tridonic DSI - PCD/S	22 154 333	universal	2-25	3	1	no proper turn on
Tridonic DALI - PCD/S	22 154 332	universal	2-25	2	1	no proper turn on

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Tridonic DALI - PCD 300 one4all	86 458 303	universal	2-7	2	1	-
Tridonic DALI - PCD 1-300 one4all	28 000 441	universal	2-7	3	1	no proper switchDIM function

Explanation:

1. Dimmer types: leading-edge, trailing-edge, universal
2. Noise evaluation: 1 (very little noise) -> 4 (strong noise).
Noise evaluation was only carried out for full load. Values for minimum load are less critical. For reference refer to full load.
3. Flicker evaluation: 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 Driver with different phase-cut dimmers

LCBI 15W 500mA BASIC phase-cut Ip (89800256) - 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	2-20		4	Flicker at minimum current, not removed by using ZSL-UP ⁴
B-Ticino Magic SM9350S	SM9350S	leading	1-10		1	
Bull B6 GD100	G07D101	leading	1-16		3	Flicker at minimum
Busch & Jaeger 2247 U 500w/VA	2247-500	leading	1-16		1	
Busch & Jaeger 6513U-102 40-420w/VA	6513 U-102	trailing	2-14		4	Flicker, poor dim depth
Busch-Jaeger 6523U	6512-0-0306	leading	1-3		1	
Busch-Jaeger 6524U	6512-0-0311	leading	1-3		2	
CHiNT NEW 7-C30510	121227E7	leading	1-16		2	Slight flicker at 100 mA
CLIPSAL 32E 450 UDM	32E450UDM	trailing	1-15		1	Poor dim depth
CLIPSAL 32E 450CFLDM	32E450CFLDM	trailing	1-15		1	
CLIPSAL 32E 450LM	32E450LM	leading	1-15		2	Slight flicker at 120 mA
CLIPSAL 32E 450TM	32E450TM	trailing	1-15		1	Poor dim depth
CLIPSAL 60TDM SaturnOneTouch	4061TD	trailing	1-11		2	Slight flicker at 280 mA
CLIPSAL C Bus 2 L5508D1A	10871212	leading	1-6 x 8 channel		1	
CLIPSAL	L5508D1A	universal	-	4	4	Not usable
Crabtree CRO-1w20 60-250w	CRO-1	leading	1-8		1	
D & C XHB 15w-150w		leading	1-5		1	Poor dim depth

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DIGINET	MMDM/PB#	leading	1-18#	2	1	
DIGINET	MEDM	leading	1-18#	2	1	
DUEWI D16601160-300w	D1 66011	leading	1-10		2	Flicker at maximum, improves at lower settings
DUEWI ET1 53850 20-300w	ET153850	trailing	1-10		4	Flicker at maximum
Elko 40 315 VA (315LE)	1471444	trailing	1-10		1	
Elko 400 GL1	1471450	leading	1-13		1	
Feller 30583 40 - 500w	30583	leading	1-16		1	
Feller 40600-Rc-FMI 61 20-300VA	548 290 000	trailing	1-10		1	
Feller 40600-RC-FMI 61 20-600VA	548 270 000	trailing	1-20		1	
Feller 40600-RL-FMI-61 40-600 VA	548 260 000	leading	1-20		2	Slight flicker at 115 mA
FUJIYAMA 600w	FJ159	leading	1-20		3	Flicker at minimum current, not removed by using ZSL-UP ⁴
GET 60w-400w	08-07-17	leading	1-13		1	
GET Transformer 60-400VA	07-07-26	leading	1-13		1	
JUNG 225 TDE Tronic Dimmer 20-525w	225 TDE	trailing	1-17		1	Poor dim depth
KLEIN K513/UX20325w	K513/UX	trailing	1-10		1	Poor dim depth
KOPP 80.33 40w-400w	059413051	leading	1-13		1	
KOPP 80.7820-275w	807813081	trailing	2-8		4	Flicker at maximum, improves at lower settings, poor dim depth

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Legrand ADW-ETL4	775903	trailing	1-13		1	
Legrand HPM 400L	21901B	leading	1-13		1	
Legrand HPM 400T	21903B	trailing	1-13		1	
Legrand V8051	V8051	leading	1-20		2	Slight flicker at 210 mA
Lumic LM600	LM600	leading	1-20		2	Slight flicker at minimum
OPUS-852-095-20-315w	852-095	trailing	1-10		1	
Panasonic Max 300	WEG 57813	leading	2-10		3	Flicker at minimum current, removed by using ZSL-UP ⁴
PEHA 433 HAB Tronic-Dimmer 20-315w	D 433 HAB O.A.	trailing	1-10		1	Poor dim depth
RICHMOND 10w-600w	MP600TE	trailing	2-20		4	Flicker at maximum, improves at lower settings, poor dim depth
SIEMENS 5TC8 28420.600w 20-525VA	5TC8284	trailing	1-16		1	
Simon 45E101	52120342	leading	1-16		1	
TCL L2.0 (Legrand)		leading	1-20		2	Slight flicker at minimum
WICKES 60-400W	070619	leading	1-13		1	

Explanation:

1. Dimmer types: leading, trailing, universal
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ZSL-UP is an additional circuit that can improve the dimming behavior of specific lamps.