

SORAA®

ELECTRICAL COMPATIBILITY BRILLIANT HL MR16 12V GU5.3 7.5W & 9W LAMPS - INTERNATIONAL



GENERAL COMPATIBILITY GUIDELINES

SCOPE

This document provides the basic guidelines regards electrical compatibility of SORAA 12V MR16 lamps and compatibility tables for transformers and dimmers.

TRANSFORMER COMPATIBILITY

SORAA 12V MR16 lamps are made to work with 12V AC magnetic (MLV) and electronic (ELV) transformers and 12V DC transformers. Transformer compatibility tables are on this document too. If multiple lamps are installed on one transformer, they need to be connected in parallel. They cannot be installed in series.

- 12V AC Magnetic transformers and 12V DC transformers are in general compatible. In installations where MLV transformers have been in service for five or more years in enclosed or high temperature ambient conditions, we recommend to replace the transformer
- 12V AC Electronic transformers generally have a minimum load, and SORAA recommends using only transformers that have been tested and found compatible. In general we recommend to use transformers with very little or no minimum load (0W). If your transformer is not in the compatibility tables below, it does not mean it is incompatible, but it means that we have not tested it to date, please contact technicalsupport@ecosenselighting.com for guidance.

-%	Dims to < 20% (of the measured light output)
-%	Dims to 20-30% (of the measured light output)
NC	Not compatible (or dims to >30%)
Blank Cell	Not Tested

DIMMER COMPATIBILITY

SORAA 12V MR16 lamps are made to work with trailing edge (reverse phase) and leading edge (forward phase) phase cut dimmers.

Electronic dimmable transformers need trailing edge dimmers, while Magnetic transformers need leading edge dimmers (rated for magnetic loads). Along the top of the dimmer compatibility tables you will see the different dimmers that we have tested, and along the left side of the chart you will see the different transformers we tested. The percentages for each transformer/dimmer combination are the percentage of light output that we were able to dim down to without seeing any problems like flicker/shimmer. Anything 30% or above is considered not compatible and you will see a "NC" in a grey cell. There might be a minimum wattage load on the transformer/dimmer. If this minimum load is not met, there might be compatibility issues.

MAXIMUM NUMBER OF LAMPS ON A DIMMER

The following need to be considered when determining the amount of lamps on a dimmer/transformer.

1. SORAA tests have been carried out with 1 lamp unless stated otherwise.
2. There is a repetitive, very brief current spike the LED lamp will see twice per cycle. This current spike has to be provided by the transformer and/or dimmer, and will affect the recommended lamp load on each transformer or dimmer.

SORAA®

ELECTRICAL COMPATIBILITY `BRILLIANT HL MR16 12V GU5.3 7.5W & 9W LAMPS - INTERNATIONAL

3. Ultimately the transformer/dimmer manufacturer is the only one with authority to rate their product, but SORAA can give an Engineering estimate.
4. We have added the maximum amount of MR16 lamps we recommend for each transformer in the transformer compatibility tables.
5. For dimmers, we recommend to use a 2.0 de-rating factor for leading edge (magnetic rated) dimmers with magnetic transformers; and a 4.0 de-rating factor for incandescent/halogen trailing edge dimmers driving Low Voltage lamps on electronic transformers.

For example for a 500W leading edge dimmer it would mean 500/2=250W of LED, so an estimated maximum of 33 lamps 7.5W.

For example for a 400W trailing edge dimmer it would mean 400/4=100W of LED, so an estimated maximum of 13 lamps 7.5W.

DISTANCE BETWEEN TRANSFORMER AND LAMP(S)

- 12V AC Magnetic transformers and 12V DC transformers do not have a limitation regards the maximum length of the wires between transformer and lamp. Only the voltage drop has to be taken into account (losses because of the inner resistance of the conductors).
- 12V AC Electronic transformers have a limitation in the length of the wires between transformer and lamp(s). This length is usually stated by the transformer manufacturer on its specs or on the transformer itself, and generally it is limited to 2 meters (6 feet

DISCLAIMER

Compatibility tests are conducted by Soraa only as guidance for the user. All tests are conducted under bench conditions; results may differ from test results depending on conditions at the application site. Results may vary due to variability in component choices and manufacturing processes by the transformer and dimmer manufacturers. For more information on the dimmers/transformers, please find specs on the manufacturer's website.

PASS - The transformer supports one or more lamps up to the maximum wattage;
NC - SORAA does not recommend this transformer for use with its lamps;
2 Lamp Min - The transformer supports two or more lamps upto the maximum lamp wattage limit;
3 Lamp Min - The transformer supports three or more lamps upto the maximum lamp wattage limit

Fixture Manufacturer	Dimmer Family	Dimmer Model	Dimming Phase	Number of lamps per dimmer tested	Dim (%)				Comments	
ABB	Speedy105 ETR 105-230/12KF	105	230	Germany	Electronic	2 lamp min	2 lamp min	2 lamp min	9	7
AcTec	Mini60 Series III	60	230	HK/China	Electronic	NC	NC	NC	NC	NC
AcTec	Ultra 70	70	230	HK/China	Electronic	PASS	PASS	PASS	5	4
Alvit (*)	AL2512D/P	25W	220-240V	EU	Electronic/DC	NC	NC	NC	NC	NC
Beyond Illumination	BY12T-1W12V-1	12	40-240	EU, Asia	Electronic/DC	PASS	PASS	PASS	1	1
BLV	45600101	60	220/240	Germany	Electronic	PASS	PASS	PASS	4	3
BLV	45600201	105	230	Germany	Electronic	PASS	PASS	PASS	8	6
ECOPAC	ELED-25-12D	25	230	EU	Electronic/DC	NC	NC	NC	NC	NC
ECOPAC	ELED-100-12D	100	230	EU	Electronic/DC	NC	NC	NC	NC	NC

SORAA®

ELECTRICAL DIMMER COMPATIBILITY
230V BRILLIANT HL MR16-GU10 7.5W
INTERNATIONAL

ECOPAC	ELED-180-12D	180	230	EU	Electronic/DC	NC	NC	NC	NC	NC
ECOPAC	ELED-80-12T	80	230	EU	Electronic/DC	NC	NC	NC	NC	NC
Eldoled	LINEARdrive 100A	100	120-250	EU	Electronic/DC	NC	NC	NC	NC	NC
Euchips	EUP12D-1H12V-0	12	240	EU, Asia	Electronic/DC	PASS	PASS	PASS	1	1
Euchips	EUP12A-1M12V-1	12	240	EU, Asia	Electronic/DC	PASS	PASS	PASS	1	1
Euchips	EUP12T-1W12V-1	12	240	EU, Asia	Electronic/DC	PASS	PASS	PASS	1	1
Fulham	T1M1UNV012V-20L	20	100-277	EU-Asia	Electronic/DC	PASS	PASS	PASS	1	1
Fulham	T1M1UNV012V-60L	60	100-277	EU-Asia	Electronic/DC	PASS	PASS	PASS	5	4
Gluhen (*)	KVP-12015-TD	15	240	EU	Electronic/DC	PASS	PASS	PASS	1	1
Gluhen	12V 30W	30	240	APAC	DC	PASS	PASS	PASS	2	2
Gluhen	12V 60W	60	240	APAC	DC	PASS	PASS	PASS	4	3
Gluhen	12V 100W	100	240	APAC	DC	PASS	PASS	PASS	6	5
Govena	YT50	50	230	EU	Electronic	PASS	PASS	PASS	3	3
Govena	YT60	60	220-240	EU	Electronic	PASS	PASS	PASS	4	3
Hatch	RS12-60-230M-LED	60	230	EU	Electronic	PASS	PASS	PASS	5	4
Helvar (*)	LL1x30-CV12	30	230	EU	Electronic/DC	PASS	PASS	PASS	1	1
LCI	Code 1700123	10	230	EU	Electronic	NC	NC	NC	NC	NC
LCI	Code 1734014	150	230	EU	Electronic/DC	PASS	PASS	PASS	13	11
LCI	DC DIM 1-10V 75W Code 1750140	75	220/240	EU	Electronic/DC	NC	NC	NC	NC	NC
LCI	ET3-60C	60	230	EU	Electronic	PASS	PASS	PASS	4	3
LEDVANCE	LVED VAL 12/220-240/12	12	230	Asia	Electronic/DC	PASS	PASS	PASS	1	1
LEDVANCE	LVED VAL 12/240/12VAC DIM	12	230	Asia	Electronic	PASS	PASS	PASS	1	1
LEDVANCE (*)	LVED VAL 12/220-240/12VAC DIM G2	12	220-240	Asia	Electronic	NC	NC	NC	NC	NC
LEDVANCE (*)	LVED VAL 60/220-240/12	60	220-240	Asia	Electronic	NC	NC	NC	NC	NC
Lightech	LET75	75	230	Italy/Spain/UK	Electronic	PASS	PASS	PASS	4	4
Light-Dept	Ultra 70	70	230	HK/China	Electronic	PASS	PASS	PASS	5	4

SORAA®

ELECTRICAL DIMMER COMPATIBILITY
230V BRILLIANT HL MR16-GU10 7.5W
INTERNATIONAL

LTECH	DALI-36-12-F1P1	36	230	APAC	Electronic/DC	NC	NC	NC	NC	NC
LTECH	LM-36-12-G1D2	36	230	EU & Asia	Electronic/DC	PASS	PASS	PASS	2	2
Lumitron	KVP-12075-TD	75	240	EU & Asia	DC	PASS	PASS	PASS	6	5
Mean Well (*)	HLG-240H-12A	240	100-305	World wide	Electronic/DC	PASS	PASS	PASS	11	9
Mean Well	LPV-20-12	20	100-240	Asia	Electronic/DC	PASS	PASS	PASS	1	1
Mean Well (*)	PWM series (PWM-xx-12)	40, 60, 90, 120, 200	100-305	World wide	Electronic/DC	NC	NC	NC	NC	NC
Mean Well (*)	XLG series	multiple	100-305	World wide	Electronic/DC	NC	NC	NC	NC	NC
Mode Lighting	MOE-050-D-240	50	230	UK	Electronic	PASS	PASS	PASS	3	3
Mode Lighting	MOE-075-D-240	75	230	UK	Electronic	NC	NC	NC	NC	NC
Mode Lighting	ET-040-PL-230-RD (Puma LED)	40	240	EU	Electronic	PASS	PASS	PASS	3	2
Multiload	VMD300/12	300	240	UK	Magnetic	NC	NC	NC	NC	NC
Niko	320-00101 70W	70	230	EU	Electronic	PASS	PASS	PASS	5	4
OSRAM	ET-A 60 / 220-240	60	230	HK/China	Electronic	NC	NC	NC	NC	NC
OSRAM	ET-LED 30 / 220-240	30	230	HK/China	Electronic	PASS	PASS	PASS	2	1
OSRAM	ET-P 60	60	220/240	HK/China	Electronic	2 lamp min	2 lamp min	2 lamp min	4	3
OSRAM	ET-PARROT 70 / 220-240 I	70	220/240	EU	Electronic	PASS	PASS	PASS	5	4
OSRAM	HTM 70 / 230-240	70	230/240	EU	Electronic	PASS	PASS	PASS	2	2
OSRAM	HTM 105 / 230-240	105	230/240	EU, CN	Electronic	PASS	PASS	PASS	7	6
OSRAM	HTM 150 / 230-241	150	230/240	EU, ME	Electronic	2 lamp min	2 lamp min	2 lamp min	11	9
PHILIPS	CERTALINE 60W	60	230	EU	Electronic	2 lamp min	2 lamp min	2 lamp min	5	4
PHILIPS	CERTALINE 105W	105	220/240	Italy/Spain	Electronic	2 lamp min	2 lamp min	2 lamp min	10	8
PHILIPS	CERTALINE 150W	150	220/240	Italy/Spain	Electronic	PASS	PASS	PASS	10	8
PHILIPS	ET E-60	60	230	HK/China	Electronic	2 lamp min	2 lamp min	2 lamp min	5	4
PHILIPS	ET-S 60 220-240	60	230	EU, Asia	Electronic	PASS	PASS	PASS	5	4

SORAA®

ELECTRICAL COMPATIBILITY `BRILLIANT HL MR16 12V GU5.3 7.5W & 9W LAMPS - INTERNATIONAL

PHILIPS	Primaline 70 230-239	70	220/240	EU, CN	Electronic	2 lamp min	2 lamp min	2 lamp min	5	4
PHILIPS	Primaline 105 230-240	105	230	EU, CN	Electronic	3 lamp min	3 lamp min	2 lamp min	7	6
QLT	A40PBX075DDB 12V 250Hz	75	230	EU	Electronic	PASS	PASS	PASS	8	6
QLT	A40PDCVD120B	13	230	EU	Electronic/DC	PASS	PASS	PASS	1	1
Quanzhou	SMT-012-030VM-SPH	20	230	EU, Asia	Electronic/DC	PASS	PASS	PASS	2	2
Relco	ICE 60 PFS TH	60	230	Italy/Spain	Electronic	2 lamp min	2 lamp min	2 lamp min	5	4
Relco	ICE 105 PFS TH	105	230	Italy/Spain	Electronic	NC	NC	NC	NC	NC
Smart Power	SMT-012-060VDHW	60	230	EU,CN	Electronic/DC	PASS	PASS	PASS	5	4
Smarts Power	SMT-012-100VDHW	100	230	EU,CN	Electronic/DC	PASS	PASS	PASS	8	7
SORAA	Optima TCVW-P-12-600-70-01-S3	70	230	EU, Asia, Australia	Electronic	PASS	PASS	PASS	5	4
TCI	DC Jolly DALI (cod.123424)	10	220-240	EU	Electronic/DC	NC	NC	NC	NC	NC
TCI	MW 70 LED(Ref. 119772)	70	230	Italy, Spain	Electronic	NC	NC	NC	NC	NC
TCI	Round 50(Ref. 119649)	50	230	EU/ME	Electronic	2 lmap min	2 lamp min	2 lamp min	4	3
Tridonic	LCBU 25W 12V BASIC phase-cut SR	25	220-240	EU, Turkey	Electronic/DC	NC	NC	NC	NC	NC
Truelux	DA12VPWM	20	230	EU, ME, Asia	Electronic/DC	PASS	PASS	PASS	2	1
Truelux	DA12VPWM10	10	230	EU, ME, Asia	Electronic/DC	PASS	PASS	PASS	1	1
Truelux	AN12VPWM	20	230	EU, ME, Asia	Electronic/DC	PASS	PASS	PASS	2	1
Truelux	AN12VPWM10	10	230	EU, ME, Asia	Electronic/DC	PASS	PASS	PASS	1	1
Truelux	PH12VLN	50	230	EU	Electronic	PASS	PASS	PASS	3	4
Varilight	YT50LZ	50	230	UK	Electronic	PASS	PASS	PASS	4	3
ABB Stotz	SI-TR200	200	230	EU	Magnetic	PASS	PASS	PASS	19	15
B&T	ALV 200 NM	200	230	EU	Magnetic	PASS	PASS	PASS	19	15
ETE	MV0300P1S3	300	230	EU	Magnetic	PASS	PASS	PASS	28	23
GATA	T50/209.23	50	220	Thailand	Magnetic	PASS	PASS	PASS	4	3

SORAA®

ELECTRICAL COMPATIBILITY `BRILLIANT HL MR16 12V GU5.3 7.5W & 9W LAMPS - INTERNATIONAL

Houben	SICHERHEITS-FAFO EKT V1 200	200	230/240	EU	Magnetic	PASS	PASS	PASS	19	15
Light Ideas	T-UNO/20/LI/00	20	230	EU	Magnetic	PASS	PASS	PASS	1	1
Light Scape Projects	n. 121-077 50W	50	230	EU	Magnetic	PASS	PASS	PASS	4	3
Noratel	LF84A-22012-GS	105	220/240	Nordic	Magnetic	PASS	PASS	PASS	10	8

NOTES

- Compatibility tests are conducted by Soraa under bench conditions as guidance for the user; results at the application site may differ due to variability in usage conditions or in transformer components/manufacturing
- If the transformer's minimum wattage is not met, the lamp may only operate under nominal conditions (nominal line voltage and thermal conditions where the lamp is at full power).
- If the transformer is not listed, please consult with Soraa before making recommendations to the end customer
- Above table is for applications where no dimmer is used. If a dimmer is used, the user should consult the Dimmer/Transformer table, or contact Soraa if their desired combination is not listed.
- (*) This transformer added to the compatibility list as of this Revision

SORAA OPTIMA 230V ELECTRONIC 12V TRANSFORMER WITH 12V SORAA MR16 BRILLIANT HL LAMPS - DIMMER COMPATIBILITY LIST

Dimmer Manufacturer	Dimmer Family	Dimmer Model Number	Dimming Mode	Number of Optimas tested per dimmer	Number of lamps per Optima	Dim (%)	Comments
Busch		6523 U-102	Trailing	3	1	14%	Limited by dimmer travel
Casambi		CBU-TED 150W	Trailing	1-5 (max)	1	0%	
DINUY		RE PLA LE1	Mode "LED2" (Trailing)	2	1	4%	(*)
Feller		3314.12 FMI.61	Trailing	3	1	13%	
Feller		40200.LED.FMI.61	Trailing	3	1	8%	
Gira		238500 / I01	Adaptive-TE	3	1	15%	Limited by dimmer travel
Helvar	Digidim	452	Trailing	3	1	7%	
Helvar	Digidim	454	Trailing	3, 5	1	5%	
Honeywell	Inncom	H454.F.CE	Trailing	3	1	26%	Limited by dimmer travel
Jung		1224 LED UDE	Trailing	3/5	1	0%	
LCI		#1770100	Trailing	1, 10	1	0%	
Lutron	Grafik Eye QS + Interface	PHPM with Grafik Eye QS main unit	Adaptive-TE	3, 5	1	6%	Limited by dimmer travel

SORAA®

ELECTRICAL COMPATIBILITY `BRILLIANT HL MR16 12V GU5.3 7.5W & 9W LAMPS - INTERNATIONAL

Lutron	Grafik Integrale	GXI-3104	Trailing	1-16 (max per zone)	1	10%	Tested by dimmer manufacturer
Lutron	Homeworks QSEnergy Savr Node QS(for Quantum and QS systems)	QSNE-4A-D (Gen2) / LQSE-4A-D (Gen2)	Trailing	1-18 (max per zone)	1	20%	Tested by dimmer manufacturer
Lutron	Homeworks QS / My Room	LQSE-4A1-D / MQSE-4A1-D / MQSE-3A1 /MQSE-2A1-D	Trailing	1-5 (max per zone)Total per main unit is 20	1	10%	Tested by dimmer manufacturer
Lutron	Homeworks QS	HQRK-R25NE-240	Trailing	1-7 (max per zone)	1	10%	Tested by dimmer manufacturer
Lutron	Homeworks QS	HQRM-R25NE-240	Trailing	1-7 (max per zone)	1	10%	Tested by dimmer manufacturer
Lutron	RA2 Select	RRK-R25NE-240	Trailing	1-7 (max)	1	10%	Tested by dimmer manufacturer
Philips Dynalite		DGLEDM401	Trailing	3,5	1	13%	Limited by dimmer travel
Tridonic		DALI-PCD 1-300 one4all G2	Trailing	10	1	11%	Limited by dimmer travel
Varilight	V-PRO	JQP401W	Trailing	3,5	1	8%	Limited by dimmer travel
Yokis		MTV500E / M	Trailing	10	1	9%	Limited by dimmer travel

NOTES:

- Compatibility tests are conducted by Soraa (unless stated otherwise) only as guidance for the user.
- All tests are conducted under bench conditions; results may differ from test results depending on conditions at the application site.
- Results may vary due to variability in component choices and manufacturing processes by the dimmer manufacturer.
- Regards compatibility tests conducted by dimmer manufacturer, please contact Soraa or the manufacturer for more details and/or reports.
- This lamp may emit a low level of audible noise when used with some leading edge dimmers. If using leading edge dimmers, testing with the intended dimmer is recommended to ensure acceptable audible levels at the application site.
- (*) Test results with this dimmer added to the compatibility list as of this Revision.

--%	Dims to <20% (of the measured light output)
--%	Dims to 20-30% (of the measured light output)
NC	Not compatible (or dims to >30%)
Blank cell	Not tested

SORAA®

ELECTRICAL COMPATIBILITY `BRILLIANT HL MR16 12V GU5.3 7.5W & 9W LAMPS - INTERNATIONAL

SORAA BRILLIANT H.L. MR16 12V 7.5W & 9W - DIMMING COMPATIBILITY LIST - INTERNATIONAL

Transformer manufacturer ↓	Transformer model ↓	Transf. type ↓	← Number of lamps per transformer	Dimmer →	Large multi-channel system, DIN-rail mounted dimmers								Small, wall mounted dimmers, etc										
					ABB 6586-500	Dynalite DGLEDM401	Helvar Digidim 452	Helvar Digidim 454	Honeywell Inncomm H454.F.CE	Lutron Energi Savr Node QS QSNE-4A-D	Lutron Grafik Eye QS with ELV Interface QSGRK-3PCE + PHPM	Lutron Remote Power Module RPM-4A-230	Bticino NT4411N	Busch 6523 U-102	Casambi CBU-TED 150W	Feller 3314.12.FMI.61	Feller 40200.LED.FMI.61	GIRA 238500 / I01	Jung 1224 LED UDE	Legrand Arteor Cat nr. 5 722 39	Lutron RA2 select RRK-R25NE-240	Tridonic DALI-PCD 1-300 one4all G2	Varilight V-PRO JQP401W
				Dimming phase →	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge	Trailing edge
BLV	Luxia 60W (nr. 45600101)	ELV	1			10%	6%	5%	22%	5%	5%			14%	0%	8%	9%	17%	6%		7%	10%	8%
Euchips	EUP12T-1W12V-1	ELV	1		NC	NC	17%	20%	10%	15%		30%	8%							30%	NC		
Europole	OPTIMO 4-60VA	ELV	1				3%	7%		6%				9%	6%			14%	7%		18%	7%	
Govena	YT50	ELV	1				8%	6%	23%	3%				10%		7%	11%	14%	16%		7%	8%	18%
Govena	YT60	ELV	1			10%	6%	5%	22%	5%	5%			14%	0%	8%	9%	17%	6%		7%	10%	8%
LCI	ET 3-60 C	ELV	1				7%	12%		12%				15%	5%			15%	6%		12%	13%	
Lightech	LET75	ELV	1				NC	NC	NC	NC				10%	NC	NC	7%	7%	NC		NC	NC	
Mode Lighting	ET-040-PL-230-RD (PUMA LED)	ELV	1				6%	10%	24%	5%											8%	10%	22%
Niko	320-00101 70W	ELV	1				3%	3%		1%				7%	NC			NC	7%		7%	NC	
Osram	ET-LED 30	ELV	1			9%	0%	5%	8%	6%	4%								6%		4%	10%	11%
Osram Halotronics	HTM 70	ELV	1				6%	2%	12%	NC				NC		9%	6%	7%	12%		6%	NC	NC
Osram Halotronics	HTM 105	ELV	1				5%	10%	11%	1%				NC		9%	9%	11%	1%		4%	NC	NC
Philips	ET-S 15 LED	ELV	1				0%	4%	16%	2%				7%		NC	7%	7%	6%		7%	NC	
Truelux	PH12VLN	ELV	1				8%	6%	23%	3%				10%		7%	11%	14%	16%		7%	8%	18%
Varilight	YT50	ELV	1				8%	6%	23%	3%				10%		7%	11%	14%	16%		7%	8%	18%
Varilight	YT50LZ	ELV	1				10%	10%	NC	7%							6%				16%	14%	

SORAA®

ELECTRICAL COMPATIBILITY `BRILLIANT HL MR16 12V GU5.3 7.5W & 9W LAMPS - INTERNATIONAL

SORAA BRILLIANT H.L. MR16 12V 7.5W & 9W - DIMMING COMPATIBILITY LIST - INTERNATIONAL COMPATIBILITY WITH DALI, 0-10V AND DMX DRIVERS

Transformer manufacturer ↓	Transformer model ↓	Transf. type ↓	← Number of lamps per transformer	Dimming protocol →	DALI	0-10V	DMX
DALCNET	DLB1248-1CV-DALI (300Hz)	ELV / DC	1		1%		
DALCNET	DLC1248-1CV-110 (300Hz)	ELV / DC	1			1%	
DALCNET	DLB1248-1CV-DMX (300Hz)	ELV / DC	1				1%
DALCNET	DLM1224-1CV-DALI	ELV / DC	1		0%		
DALCNET	MINI-1CV-DALI (set to 300Hz)	ELV / DC	1		0%		
Ecopac	ELED-25-12D	ELV / DC	1		NC		
Euchips	EUP12D-1H12V-0	ELV / DC	1		12%		
Euchips	EUP12A-1M12V-1	ELV / DC	1			14%	
ITALED	Omega LD40WZIP R.1	PWM (plus extra DC power supply)	1 max		3%	6%	
ITALED	STC 48V Dim PRO ET ST4B	PWM (plus extra DC power supply)	1 max			6%	
ITALED	STC 48V Dim PRO ET STDA	PWM (plus extra DC power supply)	1 max		3%		
Multiload	LEDixia	PWM (plus extra DC power supply)	1-12			1%	
QLT (*)	A40PBX075D0B 12V 250Hz	ELV / DC	8 max (7.5w)		0%		
QLT	A40PDCVD120B	ELV / DC	1 max		2%		
Quanzhou	SMT-012-030VMSPH	ELV / DC	2 max		1%		
Quanzhou	SMT-012-096VM	ELV / DC			NC		

NOTES:

- Compatibility tests are conducted by Soraa (unless stated otherwise) under bench conditions as guidance for the user.
- Regards compatibility tests conducted by dimmer / transformer manufacturer, please contact Soraa or the manufacturer for more details and/or reports.
- Results at the application site may differ due to variability in usage conditions or in dimmer or transformer components/ manufacturing.
- If the transformer's minimum wattage is not met, the lamp may only operate under nominal conditions (nominal line voltage and thermal conditions where the lamp is at full power).
- Transformer maximum load listed in the transformer compatibility table should not be exceeded.
- If the dimmer and/or transformer is not listed, please consult with Soraa before making recommendations to the end customer.
- (*) One or more test results with this transformer added to the compatibility list as of this Revision

--%	Dims to <20% (of the measured light output)
--%	Dims to 20-30% (of the measured light output)
NC	Not compatible (or dims to >30%)
Blank cell	Not tested