SORAA

Electrical compatibility – PAR30S 18.5W 230V lamps - International

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General compatibility guidelines

Scope

This document provides the basic guidelines regards electrical compatibility of SORAA 230V PAR30S 18.5W lamps and compatibility tables.

Dimmer Compatibility

SORAA 230V PAR30 lamps are made to work with trailing edge (reverse phase) and leading edge (forward phase) phase cut dimmers. However, the use of trailing edge dimmers is preferred and will show in general better behavior .

Dimmer compatibility tables are on pages 3-7.

The percentages for each 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 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.

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 dimmer, and will affect the recommended lamp load on each dimmer.
3. Ultimately the dimmer manufacturer is the only one with authority to rate their product, but SORAA can give an Engineering estimate.
4. We recommend to use a 5.0 de-rating factor for incandescent/halogen dimmers loaded with our 230V lamps.

   For example for a 500W dimmer it would mean 500/5 = 100W of LED, so an estimated maximum of 5 lamps 18.5W.

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 dimmer manufacturers.

For more information on the dimmers, please find specs on the manufacturer’s website.

SORAA PAR30S 230V 18.5W - DIMMER COMPATIBILITY LIST - International

Dimmer Manufacturer	Dimmer Series	Dimmer part number	Dimming	1 lamp Dim (%)	2 lamps Dim (%)	3 lamps Dim (%)	Comments
Arditi		800680	T	0%			Tested by dimmer manufacturer
Aurora		AU-DSP400X	L	11%	7%	9%	
Aurora		AU-DSP651	L	8%	7%	1%	
Berker		2830 10	L	16%	17%	17%	
Berker		2873	L	14%	14%	15%	
Berker		286710	T	13%	11%	11%	
Bticino		NT4411N	T	15%	15%	15%	
Busch		2200	L	22%	23%	23%	
Busch		2247	L	4%	1%	1%	
Busch		2250 U # 01	L	13%	14%	14%	
Busch		6513	T	17%	14%	12%	
Busch		6523	L	10%	10%	10%	
CABAC		HNS630DT	T	10%	10%	10%	
Casambi		CBU-TED	T	4%	4%	3%	
Clipsal		C.S./433/S	L	11%	8%	4%	
Clipsal		E8431EPD4	L	6%	16%	6%	
Clipsal		32ELEDM	T	5%	5%	5%	
Clipsal		32E450UDM	T	18%	17%	17%	
Diginet		DGLCDM400	T	1%	1%	1%	
Doyle & Tratt		1301051	T	30%	29%	29%	

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Dimmer Manufacturer	Dimmer Series	Dimmer part number	Dimming	1 lamp Dim (%)	2 lamps Dim (%)	3 lamps Dim (%)	Comments
Dynalite (Philips)	DDMC802GL	DGLED401	T	NC	NC	12%	
Dynalite (Philips)	DDMC802GL	DGLM402	L	NC	NC	NC	
Dynalite (Philips)	DDMC802GL	DGTM402	T	NC	NC	NC	
Evolution	DDM-305-TE	EVO-S6P	L	NC	18%	18%	
Evolution	DDM-305-TE	EVO-S6P	T	7%	7%	13%	
Gira		0302	L	15%	15%	15%	
Gira		1176	T	NC	NC	NC	
Hamilton		N4002	L	21%	23%	23%	
Hamilton		A400/2	L	16%	16%	16%	
Helvar	Digidim	452	L	13%	15%	11%	
Helvar	Digidim	452	T	21%	NC	NC	
Helvar	DigiDim	454	T	2%	2%	3%	
iLight		SCI 0405S	L	NC	NC	NC	
iLight		SCT 0405S	T	NC	NC	NC	
JUNG		225 NV	L	13%	14%	15%	
Jung		225 TDE	T	11%	10%	9%	
Legrand		CXM14 665114 14W3731		21%	NC	28%	
Legrand	HPM	Cat 300E	L	22%	24%	24%	
Legrand	HPM	Cat 450P	T	NC	NC	NC	
Logic		K1501	L	29%	NC	NC	

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Dimmer Manufacturer	Dimmer Series	Dimmer part number	Dimming	1 lamp Dim (%)	2 lamps Dim (%)	3 lamps Dim (%)	Comments
Logic		K1511	L	22%	22%	22%	
Logic		K1522	L	NC	NC	NC	
Logic		K1526	L	26%	19%	18%	
Lumex Controls	Load Smart Gen2	LT1D450LS	T	NC	NC	NC	
Lutron	Energy Savr Node QS (for Quantum and QS systems)	QSNE-4A-D	T	25%	NC	NC	
Lutron	Energy Savr Node QS (for Quantum and QS systems)	QSNE-4A-D	L	NC	NC	NC	
Lutron	Homeworks	LQSE-4A-D	T	25%	NC	NC	
Lutron	Homeworks	LQSE-4A-D	L	NC	NC	NC	
Lutron		LP-RPM-4U-240	L	26%	NC	NC	
Lutron		LP-RPM-4A-230	T	4%	5%	11%	
Lutron	Grafik eye QS	QSGR-6PCE	L	NC	NC	NC	
Lutron	Grafik eye QS	QSGR-6PCE+NGRX-ELVI-CE	T	4%	11%	30%	
Lutron	RA2 Select	RRK-R25NE-240	T	6%	6%	6%	(*)
Lutron	Rania		T	NC	NC	NC	
MARBO	Crabtree	DV21912	L	9%	5%	6%	
MK	K1523WHILV	52470SL	L	NC	NC	NC	
Nexus-BG		881P-01	L	NC	NC	27%	
Osram		HTI DALI 315 DIM	T	11%	10%	8%	
PDL		654M	T	17%	16%	16%	

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Dimmer Manufacturer	Dimmer Series	Dimmer part number	Dimming	1 lamp Dim (%)	2 lamps Dim (%)	3 lamps Dim (%)	Comments
Schneider		GD1G2W4	L	9%	5%	6%	
TCL		LM2	L	19%	9%	7%	
Trader	Dimpala	DIMR	T	5%	5%	5%	
Trader	Dimpala	DIMPR	T	5%	5%	5%	
Vossloh-Schwabe		nr. 553962	T	5%	5%	5%	
Zano		ZGRID500	L	20%	20%	20%	

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Notes:

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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 the dimmer manufacturer or Soraa for more details and/or reports.

(*) 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