VOSSLOH SCHWABE



LED Lamps

LED Light – The Easy Way to Retrofit

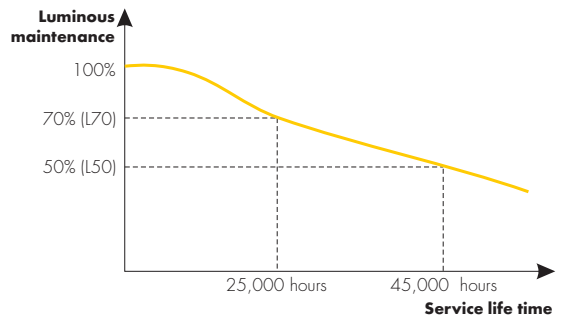
LED LAMPS

FUTURE LIGHTING



- **PLUG & PLAY**
- **HIGHLY EFFICIENT LIGHTING REDUCES CARBON FOOTPRINT**
- **AVAILABLE IN DIFFERENT COLOUR TEMPERATURES AND FIELD ANGLES**
- **INTEGRATED SUPERIOR THERMAL MANAGEMENT**
- **LONG SERVICE LIFE OF UP TO 45,000 HOURS (>50% OUTPUT)**
- **LOW MAINTENANCE**
- **NO UV AND IR RADIATION**

Service life expectation (lumen depreciation)





LED – THE GREEN FUTURE LIGHTING

LEDs contain no mercury and are low on energy consumption, as a result of which they lead the field when it comes to "green lighting". Thanks to their eco-friendly properties, they can make a valid contribution to reducing your carbon footprint and countering the greenhouse effect. Moreover, LEDs start instantaneously at full brightness and are available in many colours.

In addition to providing UV- and IR-free light, LEDs are vibration-proof and have a very long service life that further increases the overall efficiency of any lighting system. As LED lamps are now powerful enough to replace both incandescent and low-voltage halogen lamps, they are becoming increasingly popular beyond the field of decorative lighting.

What VS LED lamps can do for you?

VS has launched a range of high-efficiency, plug-and-play LED lamps with a long service life that can replace both incandescent and halogen lamps with minimum effort and without having to change existing casings. This not only saves time and money, but also immediately delivers energy-saving benefits. The new range of highly efficient VS LED lamps is suitable for both residential and commercial applications.

In addition, VS LED lamps are available with a wide range of bases to suit many luminaires. The simplicity and convenience with which existing lighting systems can now be converted to LED mean saving energy and going greener have never been easier.

Typical applications

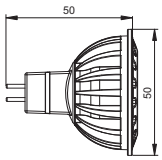
- Residential lighting
- Commercial lighting
- Spot lighting
- Window display lighting
- Show case lighting
- Entertainment lighting

UV FREE 0% MERCURY RoHS CE

Low-voltage LED Lamps

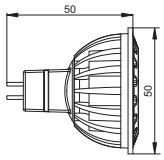
Suitable for 12 V AC magnetic transformers and
12 V DC electronic drivers
Not suitable for 12 V AC electronic converters

MR16, 4 W
Operating temperature: –20 to 40 °C
Storage temperature: –40 to 60 °C
Input voltage: 12 V AC/DC
Not dimmable
Base: GU5.3





MR16, 6 W
Operating temperature: –30 to 40 °C
Storage temperature: –40 to 60 °C
Input voltage: 12 V AC/DC
Not dimmable
Base: GU5.3



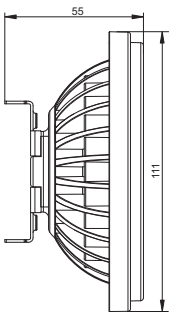


Type	**Ref. No.**	Colour	Colour temperature K	CRI R_a	Luminous flux lm	Light intensity cd	Radiation angle °	Power W
MR16, 4 W								
MR16-4-2700-38-II	**549093**	warm white	2700	≥ 80	170	1300	38	4
MR16-4-3000-38-II	**549094**	warm white	3000	≥ 80	190	1500	38	4
MR16-4-4000-38-II	**549095**	neutral white	4000	≥ 75	200	1700	38	4
MR16-4-6000-38-II	**549096**	cool white	6000	≥ 70	240	1900	38	4
MR16, 6 W								
MR16-6-2700-58-II	**549097**	warm white	2700	≥ 80	300	1050	58	6
MR16-6-3000-58-II	**549098**	warm white	3000	≥ 80	330	1100	58	6
MR16-6-4000-58-II	**549099**	neutral white	4000	≥ 75	360	1150	58	6
MR16-6-6000-58-II	**549100**	cool white	6000	≥ 70	390	1200	58	6
MR16-6-2700-70-II	**549101**	warm white	2700	≥ 80	300	750	70	6
MR16-6-3000-70-II	**549102**	warm white	3000	≥ 80	330	800	70	6
MR16-6-4000-70-II	**549103**	neutral white	4000	≥ 75	360	850	70	6
MR16-6-6000-70-II	**549104**	cool white	6000	≥ 70	390	900	70	6

Low-voltage LED Lamps

Suitable for 12 V AC magnetic transformers and
12 V DC electronic drivers
Not suitable for 12 V AC electronic converters

AR111, 12 W
Operating temperature: –20 to 40 °C
Storage temperature: –40 to 60 °C
Input voltage: 12 V AC/DC
Not dimmable
Base: G53



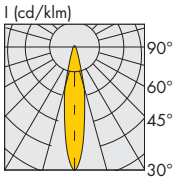


Type	Ref. No.	Colour	Colour temperature K	CRI R_a	Luminous flux lm	Light intensity cd	Radiation angle °	Power W
AR111-12-2700-38-II	**566031**	warm white	2700	≥ 80	450	3000	38	12
AR111-12-3000-38-II	**566032**	warm white	3000	≥ 80	500	3350	38	12
AR111-12-4000-38-II	**566033**	neutral white	4000	≥ 75	550	3800	38	12
AR111-12-6000-38-II	**566034**	cool white	6000	≥ 70	680	4800	38	12
AR111-12-2700-60-II	**566035**	warm white	2700	≥ 80	450	900	60	12
AR111-12-3000-60-II	**566036**	warm white	3000	≥ 80	500	1000	60	12
AR111-12-4000-60-II	**566037**	neutral white	4000	≥ 75	550	1100	60	12
AR111-12-6000-60-II	**566038**	cool white	6000	≥ 70	680	1360	60	12

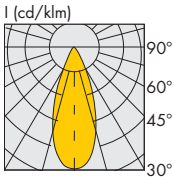
Typical luminance of MR16 and AR111 at 1, 2 and 3 meters

Intensity (lux)															
Colour	**MR16, 4W**			**MR16, 6 W**						**AR111, 12 W**					
temperature	**38°**			**58°**			**70°**			**38°**			**60°**		
K	1 m	2 m	3 m	1 m	2 m	3 m	1 m	2 m	3 m	1 m	2 m	3 m	1 m	2 m	3 m
Warm White 2700 K	1300	325	145	1050	263	117	750	188	84	3000	750	335	900	225	100
Warm White 3000 K	1500	375	167	1100	275	122	800	200	88	3350	837	372	1000	250	111
Neutral White 4000 K	1700	425	189	1150	287	127	850	212	95	3800	950	422	1100	275	122
Cool White 6000 K	1900	475	211	1200	300	133	900	225	100	4800	1200	533	1360	340	151

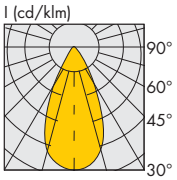
Typical light distribution curves



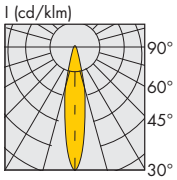
MR16, 4 W 38°



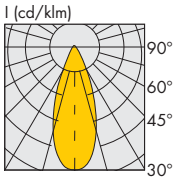
MR16, 6 W 58°



MR16, 6 W 70°



AR111, 12 W 38°



AR111, 12 W 60°

Electronic Converter for LED Lamps 12 V

LEDLine EDXe 112

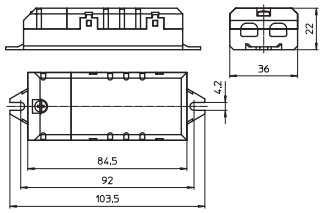
Vossloh-Schwabe's LEDLine EDXe 112/12 V converter is a control component with a voltage output of DC 12 V and an output of up to 12 W to operate LED applications.
The converter is electronically protected against overload, overheating and short-circuiting.

EN 61347-1; EN 61347-2-13 (Safety)
EN 61000-3-2 (Mains Harmonics)
EN 55015 (Non radio disturbance)
EN 61547 (EMC Immunity Requirements)
EN 62384 (Performance)

Shape: 103.5x36x22 mm
Weight: 60 g
Mains voltage: 220/240 V
Mains frequency: 50 – 60 Hz
Protection against "no load" operation
Protection class II
SELV-equivalent
Degree of protection: IP20
Power factor: 0.57

Service life time: 50,000 hrs
permanent operation when maximum temperature t_c max. at t_c point will not be exceeded;
failure rate: < 0.2% per 1000 hrs

Converter EDXe 112
Output: 0.1 – 12 W
Voltage output: 12 V ±0.6 V
Output current: 0.1 – 1 A
Ambient temperature t_a: –20 to 50 °C
Casing temperature t_c: 75 °C
Connections:
prim.: 2 x screw terminals 2.5 mm^2
sec.: 2 x screw terminals 2.5 mm^2
Ref. No.: 186204





Important notice

Low-voltage LED lamps

- Unsuitable for use with electronic converters for halogen lamps. Only use magnetic transformers or LED converters
- Do not connect more than one unit to one transformer
- Do not use in ambient temperatures of more than 40 °C
- Unsuitable for installation in enclosed or airtight luminaires
- For indoor use only
- Unsuitable for use outdoors or in high-moisture environments
- Unsuitable for use with dimmers

Mains voltage LED lamps

- Unsuitable for operation with an additional driver
- Integrated high-frequency driver
- Do not use in ambient temperatures of more than 40 °C
- Unsuitable for installation in enclosed or airtight luminaires
- For indoor use only
- Unsuitable for use outdoors or in high-moisture environments
- Dimmable with phase-cut dimmers (E27 PAR lamps only); minimum dimmer load has to be respected. The compatibility of the lamp to the dimmer has to be confirmed prior to installation to avoid flickering and/or noises. VS PAR lamps are recommended to be used with LEGRAND Universal type 574008 or equivalent.

Caution

- Always disconnect equipment from the mains before replacing lamps

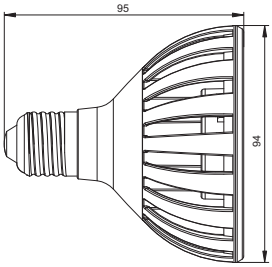
PLEASE CONTACT US FOR FURTHER COLOUR TEMPERATURES, LIGHT COLOURS OR BEAM ANGLES THAT ARE NOT LISTED IN THIS BROCHURE.

Mains Voltage LED Lamps

With integrated driver

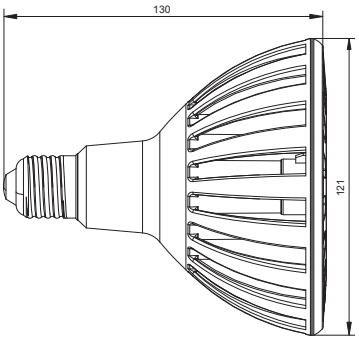
LED lamps made by Vossloh-Schwabe will fit most standard E27 and GU10 bases. These low-power, high-brightness and highly eco-friendly lamps are sure to improve the overall efficiency of your lighting system.

PAR30, 12 W
Operating temperature: –20 to 40 °C
Storage temperature: –40 to 60 °C
Input voltage: 220–240 V AC
Dimming range: 20–100%
Base: E27





PAR38, 17 W
Operating temperature: –20 to 40 °C
Storage temperature: –40 to 60 °C
Input voltage: 220–240 V AC
Dimming range: 20–100%
Base: E27



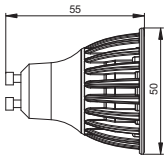


Type	**Ref. No.**	Colour	Colour temperature K	CRI R_a	Luminous flux lm	Light intensity cd	Radiation angle °	Power W
PAR30, 12 W								
PAR30-12-2700-38-II	**549107**	warm white	2700	≥ 80	420	3320	38	12
PAR30-12-3000-38-II	**549108**	warm white	3000	≥ 80	460	3670	38	12
PAR30-12-4000-38-II	**549109**	neutral white	4000	≥ 75	570	4530	38	12
PAR30-12-6000-38-II	**549110**	cool white	6000	≥ 70	680	5400	38	12
PAR30-12-2700-60-II	**549111**	warm white	2700	≥ 80	420	980	60	12
PAR30-12-3000-60-II	**549112**	warm white	3000	≥ 80	460	1200	60	12
PAR30-12-4000-60-II	**549113**	neutral white	4000	≥ 75	570	1325	60	12
PAR30-12-6000-60-II	**549114**	cool white	6000	≥ 70	680	1580	60	12
PAR38, 17 W								
PAR38-17-2700-38-II	**549131**	warm white	2700	≥ 80	560	4425	38	17
PAR38-17-3000-38-II	**549133**	warm white	3000	≥ 80	630	5000	38	17
PAR38-17-4000-38-II	**549134**	neutral white	4000	≥ 75	720	5700	38	17
PAR38-17-6000-38-II	**549136**	cool white	6000	≥ 70	790	6300	38	17
PAR38-17-2700-60-II	**549138**	warm white	2700	≥ 80	560	1350	60	17
PAR38-17-3000-60-II	**549140**	warm white	3000	≥ 80	630	1500	60	17
PAR38-17-4000-60-II	**549141**	neutral white	4000	≥ 75	720	1770	60	17
PAR38-17-6000-60-II	**549142**	cool white	6000	≥ 70	790	1900	60	17

Mains Voltage LED Lamps

With integrated driver

GU10, 6 W
Operating temperature: –20 to 40 °C
Storage temperature: –40 to 60 °C
Input voltage: 220–240 V AC
Not dimmable
Base: GU10



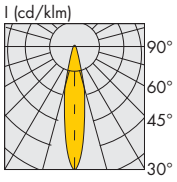


Type	**Ref. No.**	Colour	Colour temperature K	CRI R_a	luminous flux lm	Light intensity cd	Radiation angle °	Power W
GU10-6-2700-50-II	**554575**	warm white	2700	≥ 80	260	1610	50	6
GU10-6-3000-50-II	**566028**	warm white	3000	≥ 80	290	1800	50	6
GU10-6-4000-50-II	**566029**	neutral white	4000	≥ 75	350	2170	50	6
GU10-6-6000-50-II	**566030**	cool white	6000	≥ 70	390	2420	50	6

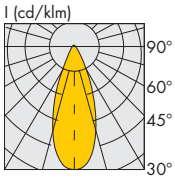
Typical luminance of PAR30, PAR38 and GU10 at 1, 2 and 3 meters

Intensity (lux)															
Colour temperature K	**PAR30, 12 W**						**PAR38, 17 W**						**GU10, 6 W**		
	38°			**60°**			**38°**			**60°**			**50°**		
	1 m	2 m	3 m	1 m	2 m	3 m	1 m	2 m	3 m	1 m	2 m	3 m	1 m	2 m	3 m
Warm White 2700 K	3320	830	369	980	245	109	4425	1105	491	1350	338	150	1610	400	180
Warm White 3000 K	3670	918	408	1200	300	133	5000	1250	566	1500	375	167	1800	450	200
Neutral White 4000 K	4530	1133	503	1325	331	147	5700	1425	633	1770	443	197	2170	542	241
Cool White 6000 K	5400	1350	600	1580	395	176	6300	1575	700	1900	475	211	2420	605	268

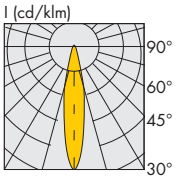
Typical light distribution curves



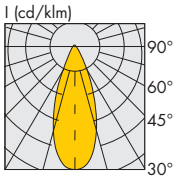
PAR30, 12 W 38°



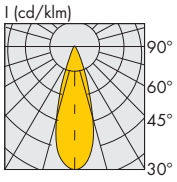
PAR30, 12 W 60°



PAR38, 17 W 38°



PAR38, 17 W 60°



GU10, 6 W 50°

Whenever an electric light goes on around the world, Vossloh-Schwabe is likely to have made a key contribution to ensuring that everything works at the flick of a switch.

Headquartered in Germany, Vossloh-Schwabe has been a member of the global Panasonic group since 2002 and counts as a technology leader within the lighting sector. Top-quality, high-performance products form the basis of the company's success.

Whether cost-effective standard components or tailor-made product developments are needed, Vossloh-Schwabe can satisfy even the most diverse market and customer requirements. Vossloh-Schwabe's extensive product portfolio covers all lighting components: electronic and magnetic ballasts, lampholders, state-of-the-art control systems (LiCS), LED systems with matching control gear units as well as OLEDs.



A member of the Panasonic group Panasonic

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