



OSRAM PLANTASTAR®

**Your benefits:**

- Specially matched to the absorption spectrum for photosynthesis
- For faster, healthier plant growth
- Extremely constant photon flux
- Very high luminous efficacy of up to 145 lm/W
- Robust shockproof lamp design with elastic support for the burner
- High-quality corrosion-resistant base, ideal for use in moist surroundings

**Applications:**

- Commercial horticulture to enable all-round production of plants and vegetables
- Plant production for research purposes
- Photo-exposure of grass on sports pitches

**NEW!**  
NOW ALSO  
WITH 250 W

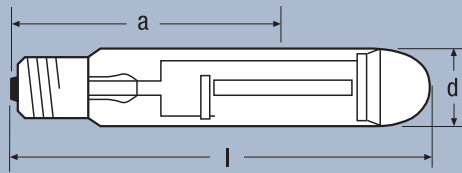
# OSRAM PLANTASTAR® high-pressure sodium lamps

Plant lighting for strong healthy growth – specially developed to meet the toughest demands.

SEE THE WORLD IN A NEW LIGHT



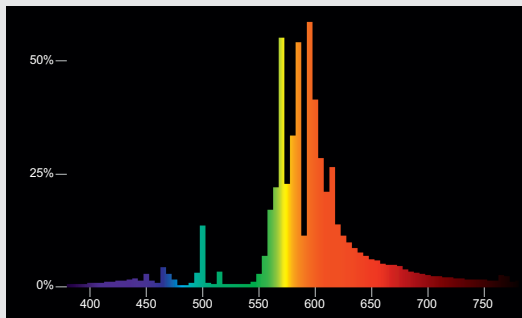
## TECHNICAL DATA



### OSRAM PLANTASTAR®

Product reference	PLANTASTAR inter 250 W	PLANTASTAR 400 W	PLANTASTAR 600 W
Wattage	250 W	400 W	600 W
System wattage	285 W	450 W	654 W
Operating voltage	230 V	230 V	230 V
Lamp voltage	100 V	102 V	112 V
Ignition voltage min./max.	4/5 kV <sub>s</sub>	4/5 kV <sub>s</sub>	4/5 kV <sub>s</sub>
Lamp current	3.0 A	4.4 A	6.2 A
Line current compensated at cos φ 0.9	1.5 A	2.4 A	3.4 A
Luminous flux	33 200 lm	56 500 lm	90 000 lm
Photon flux	420 μmol/s	725 μmol/s	1100 μmol/s
Electrode gap	65 mm	82 mm	120 mm
Light center length a	158 mm	175 mm	175 mm
Diameter d	46 mm	46 mm	46 mm
Length l max.	257 mm	285 mm	285 mm
Base	E40	E40	E40
Burning position	universal	universal	universal
Max. perm. outer bulb temperature	400 °C	400 °C	450 °C
Max. perm. base edge temperature	250 °C	250 °C	250 °C
P.f. corr. capacitor at 50 Hz cos φ 0.9	32 μF	45 μF	65 μF
Recommended life (failure rate < 5 %, photon flux > 90 %)	12 000 h	12 000 h	12 000 h
Order reference	PLANTASTAR inter 250 W	PLANTASTAR 400 W	PLANTASTAR 600 W
Product number (EAN)	4008321 <b>240637</b>	4008321 <b>620084</b>	4008321 <b>620107</b>
Standard pack	12	12	12

### PLANTASTAR® spectrum and absorption spectrum for photosynthesis



#### Plant-specific parameters for the 250, 400 and 600 W lamps

Photosynthesis* <sup>1)</sup> W/m <sup>2</sup>	1.58
PAR value* <sup>2)</sup> W/m <sup>2</sup>	2.4
μ-Einstein 400-700 nm at 1k Lux* <sup>3)</sup>	12.5
μ-Einstein 350-500 nm at 1k Lux* <sup>3)</sup>	0.8
μ-Einstein 600-700 nm at 1k Lux* <sup>3)</sup>	5.6
SPF* <sup>4)</sup>	0.5

\* All the values are based on an illuminance of 1000 lux

<sup>1)</sup> Energy transfer to the plant

<sup>2)</sup> Effective radiation range

<sup>3)</sup> Photon count in the emitted radiation

<sup>4)</sup> Ratio of the photosynthetic effect of system/sun