



Profitable growth

MASTER GreenPower Plus 600 W EL & 1000 W EL: Philips has upgraded the well known GreenPower/Vision electronic systems. They now offer even more growth light and both are best-in-class energy efficient in their range.

The upgraded Plus family consists of two product lines, GreenPower Plus 600 W EL and GreenPower Plus 1000 W EL. Both are optimized for use with electronic drivers. Now the GreenPower Plus 600 W offers +2% more growth light and the GreenPower Plus 1000 W even provides +4% increase, both securing best-in-class growth light package per type of 1190 $\mu\text{mol/s}$ and 2100 $\mu\text{mol/s}$ respectively!

For existing installations this means more light for the same energy costs. For new installations it means substantial energy savings. For both it ultimately means more profitable growth. Philips has been able to bring these advantages to horticulturists thanks to its unique and patented technology of Active-PIA. Now, this MASTER GreenPower range has an even bigger Plus associated with its name.

PHILIPS
sense and simplicity



GP/GV Plus 600 W EL



GP/GV Plus 1000 W EL

PLUS lamp - a clear benefit for all!

Perfect for luminaire manufacturers

The new, more efficient MASTER GreenPower Plus EL is a direct replacement for the well known MASTER GreenPower EL lamps. Moreover, it is the perfect fit for existing luminaire designs, both in terms of physical dimensions and electrical parameters. This means you can effortlessly upgrade without redesigning. Simply switch over to MASTER GreenPower Plus for even more μmol per watt.

Ideal for horticulturists needing to re-lamp

Both new systems are also a direct replacement for existing installations. Simply re-lamp with MASTER GreenPower Plus and take advantage of visibly more growth light with an increase of +2% or +4% respectively.

Electronic solutions

Plus all the benefits of the original

Today's most modern lighting solutions offered to the horticultural market are obviously based on electronics. The original GreenPower/GreenVision electronic systems were designed to fulfill horticulturists' main needs. That's why they have the highest growth light efficiency per range concerned, high reliability and a long lifetime. Other substantial benefits include:

Less weight on greenhouse

When the original GreenPower/Vision systems were introduced, electronic gears replaced the traditional electromagnetic ballasts. The new systems therefore typically weigh up to five kilograms less per light source, substantially reducing the load on the greenhouse structure.

More natural daylight

The compact electronic gears enable smaller luminaires, which leads to less daylight interception.

Less unwanted heat dissipation

By using electronics rather than heat-producing ballasts, power losses from unwanted heat dissipation are considerably reduced – typically by up to 6%.

Less energy loss via degrading PF

Conventional ballasts have a Power Factor (PF) that drops from 0.92 to 0.84 during their lifetime. Electronic gears, on the other hand, have a constant PF of 0.97.

Consistent quality of growth light

Unlike conventional ballasts, electronic ballasts compensate for voltage losses in the cabling.

This means that all lamps throughout the greenhouse produce the same amount of growth light.

Longer lamp life

Electronic gears also protect the lamps against power surges, for improved lifetime.

Considering the choice on the light source power, due to the highest effectiveness of the lamp+gear system, in a situation where a greenhouse is relying on the top lighting only, Philips MASTER GreenPower Plus 1000 W EL is still best-in-class cross-range option. However, in case the mounting heights are not higher than 5-6 meters or should you like to combine top lighting with an interlighting system, then MASTER GreenPower Plus 600 W EL is of an equal value.

In the latter case the amount of light should not only be maximized in top of the greenhouse, but alternatively the HID top lighting installation should pair up with interlighting to optimize the total system used.

At the moment the hybrid system consisting of a collaboration of the Philips GreenPower Plus lamps and Philips GreenVision electronic gears installed in the top and then the Philips GreenPower LED interlighting modules positioned in between the crop is considered most efficient way of applying artificial light to the vertical cultivation plants worldwide!

In the end, in the HID part it is largely the actual height of a greenhouse to determine the final preference in the top lighting design for either the 1000 W or 600 W Plus choice.

Electromagnetic solutions

Next to highly sophisticated electronic solutions, Philips also provides electromagnetic systems which in certain situations can be of clear benefits as well. EM ballasts are especially designed to guarantee secured performance under extreme application conditions.

They are available in a 250, 400 and 600 W version with one ignitor serving the whole range.

The smaller wattage types are especially appreciated by horticulturists for the low-ceiling greenhouses or for the wide-space interlighting applications.



GP CG range EM



Ignitor



Specification and ordering information

Lamp type	Lamp base / Operating Voltage	Lamp wattage	Nominal Lifetime @ 10 % failure	Photon flux PAR	Packaging configuration	12NC	European Ordering Code (EOC)
MASTER GreenPower Plus NEW!	V	W	hrs	µmol/sec			
MASTER GreenPower Plus 1000W EL 400V UNP	K12x30s/400V	1000	10,000	2100	UNP/60	9281 963 05115	933048 00
MASTER GreenPower Plus 1000W EL 400V	K12x30s/400V	1000	10,000	2100	5x6/30	9281 963 05116	933017 00
MASTER GreenPower Plus 600W EL 400V UNP	E40/400V	615	10,000	1190	UNP/54	9281 512 19214	232711 00
MASTER GreenPower Plus 600W EL 400V 1SL	E40/400V	615	10,000	1190	12pcs/box	9281 512 19227	232728 00

MASTER GreenPower	V	W	hrs	µmol/sec			(EOC)
MASTER GreenPower 600W 400V UNP	E40/400V	600	12,000	1150	UNP/54	9281 592 09214	232964 00
MASTER GreenPower 600W 400V 1SL	E40/400V	600	12,000	1150	12pcs/box	9281 592 09227	203076 15
MASTER GreenPower CG 600W 230V UNP	E40/230V	600	12,000	1100	UNP/54	9281 588 09214	231875 00
MASTER GreenPower CG 600W 230V 1SL	E40/230V	600	12,000	1100	12pcs/box	9281 588 09227	202024 15
MASTER GreenPower CG 400W 230V UNP	E40/230V	400	12,000	725	UNP/54	9281 587 09214	231776 00
MASTER GreenPower CG 400W 230V 1SL	E40/230V	400	12,000	725	12pcs/box	9281 587 09227	201966 15
MASTER GreenPower CG 250W 230V 1SL	E40/230V	250	12,000	430	12pcs/box	9281 971 09227	857757 00

Gear type Voltage	Mains voltage	System wattage	Lifetime	Packaging configuration	12NC	European Ordering Code (EOC)
MASTER GreenVision	V	W	hrs			
HID-GVIII 1000W/P GP-SON 400V	400V	1032	30,000	Single box/Industrial (pallet)	9137 006 60466	872790090904300
HID-GVIII DIM 1000W/P GP-SON 400V	400V	1032	30,000	Single box/Industrial (pallet)	9137 006 60666	872790089767800
HID-GVIII 600W/P GP-SON 400V	400V	635	30,000	Single box/Industrial (pallet)	9137 006 60366	872790090902900
HID-GVIII 600W/P GP-SON 220-240V/400V	220-240/400V	635	30,000	Single box/Industrial (pallet)	9137 006 60866	872790090901200
HID-GVIII DIM 600W/P GP-SON 400V	400V	635	30,000	Single box	9137 006 60566	872790090903600

Electromagnetic ballasts	V	W	hrs			(EOC)
BSN 600 K302-ITS 230V 50Hz	230V	635	80,000	2pcs/box	9137 002 79026	872790088705100
BSN 600 K309-ITS 400V 50Hz	400V	635	80,000	2pcs/box	9137 002 88326	872790095454800
BSN 400 K407-ITS 230/240V 50Hz	230/240V	433	80,000	2pcs/box	9137 002 77826	872790088704400
BSN 250 K407-ITS 230/240V 50Hz	230/240V	277	80,000	6pcs/box	9137 002 77626	872790088702000
Ignitors						
SKD 578-S 220-240V 50-60Hz	220/230/240V		60,000	20pcs/box	9137 006 55466	872790089569800
SKD 98 380-480V 50-60Hz	380/400/480V		60,000	120pcs/box	9137 006 66866	871829117210900

Note: more V/Hz combinations for EM ballasts available upon request



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