

# Horticultural Lighting 600W

# DIGITAL BALLAST



Item	Input voltage	Gear	Input powers	Output powers	Lamp voltage	Efficiency
600W	220-240V	Max	690W	643W	113V	93.2%
		600W	627W	582W	112V	92.8%
		400W	422W	390W	98V	92.3%
		250W	270W	246W	83V	91.1%

### 1. Starting description

1.1	Minimum starting voltage	{V}	165Vac
1.2	Starting time	{S}	5 Max
1.3	Pulse voltage	{KV}	4-5.5kv

### 2. Lamp electrical parameter

2.1	Lamp type		HPS 600W / MH 600W
2.2	Lamp voltage	{V}	110(HPS) / 110(MH)
2.3	Lamp current	{A}	5.5
2.4	Lamp wattage	{W}	600

### 3. Input parameter

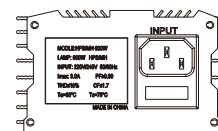
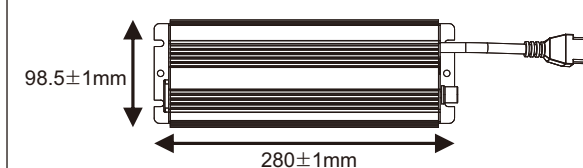
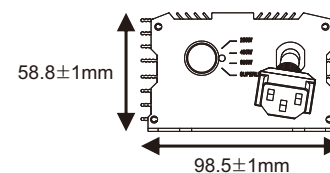
3.1	Input voltage	{V}	230Vac	240Vac
3.2	Input current	{A}	2.73 (100%)	2.61 (100%)
3.3	Input wattage	{W}	628 (100%)	626 (100%)
3.4	Frequency	{HZ}	50/60	
3.5	Input power factor	{cos Φ}	≥0.98	

### 4. Output parameter

4.1	Rated frequency	{KHZ}	60-170	
4.2	Diming Option		250W;400W;600W;690W	
4.3	Open Circuit Voltage	{V}	≤400	
4.4	Crest Ratio	{Ω}	≤1.7	
4.5	Efficiency	{cos Φ}	≥93%	
4.6	Output Plug		IEC Female Plug	
4.7	Output Cable		VDE H05VV-F 3*1.0MM <sup>2</sup>	

### 5. Others

5.1	Housing Temperature	{°C}	70 Max	
5.2	IP Rating		Ip54	
5.3	Ambient Temperature	{°C}	-25-50	
5.4	Safety List		CE , ROHS	
5.5	Package Size / N.W	{kg}	330*160*70mm / 1.6kg	



Instruction Manual for 600W Electronic Ballasts  
Please read safety instructions before using this unit

**Thank you for purchasing a 600W Electronic Ballast. This is a well designed product and should give years of trouble free operation. To ensure the safe and efficient use, please take the time to carefully read this entire instruction sheet before installation or before switching on any part of the lighting system.**

## Features

- Suitable for use with EITHER High Pressure Sodium OR Metal Halide lamps. Make sure that the wattage of the lamp matches the wattage of the Ballast.
- Considerably cooler in operation than the old ballasts making it far easier to maintain cool growing conditions for most of the year.
- More efficient than magnetic ballasts. Output, measured in lumens of light produced per watt of electricity, is considerably greater and the high frequency output reduces power loss and improves overall power management.
- Instant Start technology – taking one minute to achieve full radiance from the lamp.
- Silent in operation.

Always use good quality lamps with your LightWave ballasts – preferably from the major manufacturers. Cheap inferior lamps may fail to ignite and should be avoided.

Allow lamps to cool down after use. Do not attempt to restrike a hot lamp for at least 20 minutes. This careful usage will greatly extend useful lamp life.

## Safety advice:

When using any electrical appliance there are basic safety precautions that should be taken.

- Read all Instructions carefully.
- NEVER immerse this product, or the lead and plug, in water or any other liquid.
- Keep away from children or pets..
- Unplug from outlet when not in use or before cleaning.
- NEVER operate the unit with a damaged lead or plug. If the unit is damaged in any way then return to an authorised service facility – or a licensed electrician – for examination and repair.
- NEVER use this ballast outdoors.
- Do not allow the power cord to hang over the edge of a counter or table and never allow it to come into contact with a hot surface.
- Never plug this unit in unless it is already connected to a lighting fixture – complete with lamp.
- Switch off power and unplug the unit before handling the reflector or changing lamp.
- Make sure that hands are completely dry before doing anything to this unit – always keep the ballast well away from water.
- Never tamper with the unit as there are no user serviceable parts inside and this will void that guarantee.
- Always allow adequate space around the ballast – do not place them close together nor stack them upon each other. Allow plenty of airflow over the units.
- Lamps are incredibly hot whilst in use. Never touch an illuminated lamp and allow plenty of time for them to cool down before touching.

## Digital Ballast in Use

1. Hang reflector in the chosen location. Find a suitable place for the ballast. The unit must not be mounted on a flammable surface but preferably placed on a shelf or wall mounted. It should NOT be placed on the floor where it can be affected by water.
2. Make sure that lamp wattage matches ballast wattage. Screw lamp into reflector. Make sure lamp is tightly screwed in. Wipe lamp with a soft cloth after handling it.
3. Plug reflector into ballast. Make sure that the IEC plug is firmly located in the female socket. Plug ballast into mains outlet. Switch on at mains.

If the light does not come on after a minute or two, switch off. UNPLUG from mains then check all connections. Check that lamp is screwed in tightly. Plug in and try again. If it still fails to ignite it should be returned to retailer for immediate replacement.



## Digital Ballast Three Year Limited Warranty

The manufacturer provides to the original purchaser of the unit a warranty in respect of the components of the unit. This warranty shall extend for a period of 36 months from the original date of purchase of the unit.

If the manufacturer shall determine, at its sole discretion, that any components are defective in material or in workmanship, then the manufacturer will, at its sole discretion, repair or replace the faulty components at an authorised centre of repair.

The Warranty will only be considered valid if the following conditions are met:

1. The retailer or manufacturer is provided, by the original purchaser, with a proof of purchase, such as a receipt, for the sale made to the original purchaser.
2. The components have not been replaced, altered, repaired or tampered with by unauthorised persons. Attempted repairs or alterations will render this Warranty void.
3. The unit has not been damaged by abusive or inappropriate usage, inadequate maintenance or supplemental damage.

The manufacturer shall not be responsible for any damage caused by operation of the unit, be it incidental or consequential; or of any type including, without limitation, damage or injury, caused to other products, machinery, or buildings. Nor will responsibility be accepted for loss of time or profit, loss of finished product, or for any inconvenience caused in any way whatsoever.

To obtain Warranty Service please return product to the place of purchase according to the retailer's policy on returns issues.

## Troubleshooting the Digital Ballast

If the unit fails to operate – LAMP NOT STRIKING – please follow this procedure.

1. Turn off unit at the mains and remove the plug from wall socket.
2. Check that wall socket is working by plugging in a known working device.
3. If the supply is okay then remove and exchange the fuse in the plug with a known good fuse. Fuse should be rated at 13 amps.
4. Unplug unit again and replace lamp with a new one – preferably from a different manufacturer. Tighten lamp firmly and switch on ballast.

If the unit still fails to operate it will need to be returned to your retailer for a replacement.



## WARNING – Mains Voltage Can Kill.

Earth Leakage Circuit Breakers should ALWAYS be used in any growing area. If you are in any doubt about wiring or any electrical matter, please call in a qualified electrician.



## Disposal

This unit is not suitable for disposal as or with household waste. It should be taken to a local recycling centre.