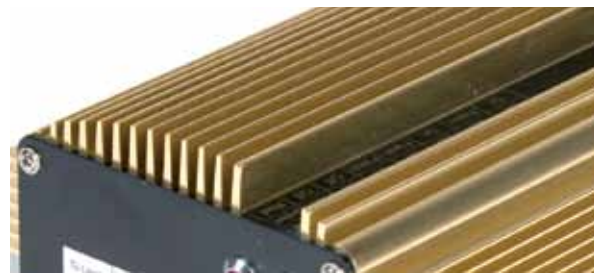


OPTIMUM CONTROL

AirSupplies Holland BV is an innovative, pioneering company which develops high-grade horticultural products in-house. Our goal is to develop products that achieve the best performance in every field. We achieve this goal by making use of advanced technical methods. Our products enable you to maintain the optimum climate you need for maximum yields.

The OptiClimate water-cooled climate system, AirSupplies' first product line, was launched on the Dutch market 4 years ago and has since been extremely successful. The DimLux, OptiClimate Maxi Controller and OptiClimate sensors are new products which have also been designed and developed by AirSupplies.

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The **DimLux Extreme Series** is a completely newly-developed series of digital ballasts which sets new benchmarks for performance, functionality and user-friendliness. The DimLux Duo Power 6040X is the first in a series of digital ballasts.

DIMLUX



The **OptiClimate Maxi Controller** is a revolutionary product for the software control of DimLux ballasts. The OptiClimate Maxi Controller is a climate controller which adjusts the light intensity according to the ambient and / or canopy temperature. An OptiClimate Maxi Controller used in combination with OptiClimate sensors guarantees you an optimum climate - always.

OPTICLIMATE

DIMLUX

www.dimlux.nl

OPTICLIMATE

www.opticlimat.nl

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LET THERE BE LIGHT

ALWAYS IN CONTROL



LET THERE BE LIGHT

The **DimLux Duo Power 6040X**, a completely newly-developed digital ballast, is suitable for use with 400 and 600 Watt lamps.

HOW EXTREME

The highest output - light output - by virtue of the overdrive technology (lumen boost).

The broadest dimming range of all digital ballasts.

The diagnostic LEDs indicate whether the ballast is switched on, in standby mode or has a malfunction. In addition to indicating a malfunction, the Dimlux also indicates the nature of the malfunction (for example, a poor contact).

The quietest system: no vibrating or humming (digital) ballast, and no humming and/or chattering relay on switching in and out.

Suitable for MH and HPS lamps.

Fire-safe!!! The integral processor continually monitors the connection between the ballast and lamp - and switches the ballast off immediately in the event of a poor contact or short-circuit. Conventional ballasts will then repeatedly switch in at 5000 Volts. This can cause a fire (voltages of this level can increase the temperature to levels at which even metals melt).

Suitable for 400 and 600 Watt lamps, a choice is no longer necessary (which is particularly useful for beginners).

Continuously-variable dimming (instead of in a few increments)

With conventional ballast a lower supply voltage results in a lower light output: for example, a supply voltage of 220 V instead of 230 V results in a 10% decrease in the light output. However, the DimLux automatically increases the supply voltage to 230 V - which ensures that you always have a stable, high light output.

The DimLux' power consumption remains constant, in contrast to conventional ballasts, which suffer from an increasing power consumption and decreasing light output - resulting in an accelerated loss of efficiency: the power consumption can increase to a continuous level of 4 to 5 A for a 600 Watt lamp (the normal power consumption of a 1000 Watt lamp). The wiring is not usually designed for currents of this level generated by a number of ballasts. This can cause a fire hazard.



The DimLux is supplied with a 3-year exchange warranty; the Maxi Controller and sensors are supplied with a 1-year warranty.

MAXI CONTROLLER

The DimLux can be used as a standard (digital) ballast in a standard system with a relay and time switch. However, using the DimLux in combination with the OptiClimate Maxi Controller will do full justice to the DimLux' maximum performance and many options.

Using the DimLux with a Maxi Controller enables you to plug the DimLux directly into a wall socket without needing an intervening relay, time delay unit or time switch - which saves you costs.

A DimLux controlled by a Maxi Controller is the only (digital) ballast that does not need to use an inrush current. Inrush currents of conventional (digital)ballasts vary between 50 and 160 Amp, while newer types of digital ballasts use soft-start technology that limits the inrush current to between 50 and 60 Amp - which is still an appreciable current, especially when multiplied by the number of (digital) ballasts incorporated in the circuit.

The Maxi Controller can adjust the output according to the ambient temperature: the lamps are dimmed automatically when the temperature exceeds a maximum pre-defined level.

All DimLux ballasts are controlled by 1 Maxi Controller, so all DimLux ballasts dim at the same time, a feature that is particularly convenient with newly-planted crops: the light output can, for example, can be increased in 10% increments on successive days. A maximum of 160 DimLux ballasts can be connected to 1 Maxi Controller.

DimLux ballasts used in combination with a OptiClimate Maxi Controller also offer many other functions and options, such as:

Simulation of sunrise/sunset

Asynchronous times (for example, 10 hours on and 11 hours off)



An OptiClimate canopy temperature camera can be connected to the system to monitor evaporation from the crop: an excessive canopy temperature is indicative of problems with the plants' evaporation capacity (for example, due too little water or excessive light). If the canopy temperature rises to an excessive level then the DimLux ballasts are dimmed or switched off until the temperature falls to an acceptable level: failure to lower an excessive canopy temperature would result in the plants reducing their evaporation capacity by closing the stomata, which would

in turn shut down the assimilation of CO2 and photosynthesis - and halt growth. A prolonged shutdown will ultimately result in scorched foliage and cause irreparable damage to the plant's 'engine' (the foliage). The canopy temperature is of greater importance to plants than the ambient temperature!

A Maxi Controller equipped with all the necessary sensors (other than the CO2 sensor) (canopy temperature, ambient temperature and relative humidity sensors) can be used to calculate the vapour pressure deficit: the vapour pressure deficit is a measure of the plants' maximum evaporation capacity (the potential water demand)

An optional CO2 sensor can be connected to the Maxi Controller to control the dosage of CO2.

All sensors available for the Maxi Controller are precision sensors with a high sensitivity.

Greenhouse technology is now accessible to smaller horticultural enterprises!