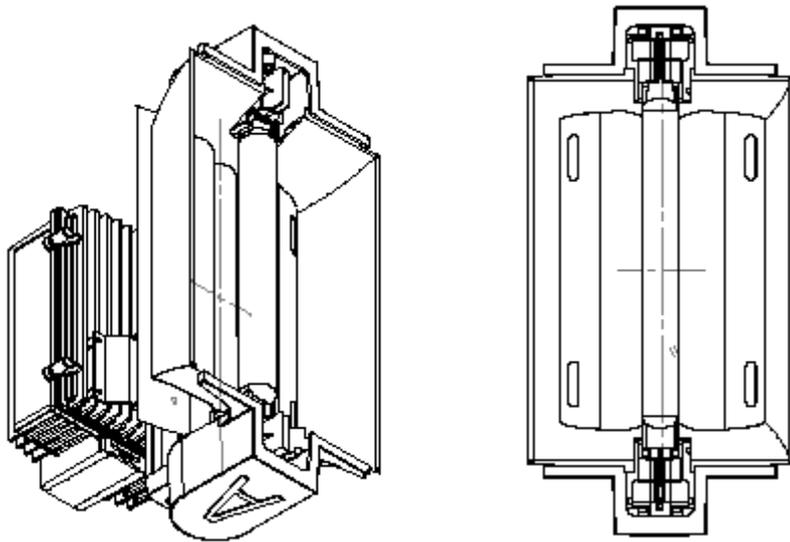


General Product Description ALF1000 with Philips lamp/driver

The ALF product line contains two different models. The ALF1000 Midi type and the ALF1000 deep type. The electronic driver is suitable for connection to a line voltage of 400 Volt nominal only.

In order to achieve optimal illumination of the electronic lamps in these fixtures, they should be operated at high-frequency. This requires the use of advanced/approved lamps that have been tested for use with this driver.

The lamps which are approved for usage are of the brand Philips. Over time, continued use of alternate lamps may cause damage to the driver, and is therefore not advisable. System efficiency will also be affected by the application of alternate lamps unless approved by Agrolux or the lamp manufacturer.



ALF1000

Technical Specifications of Electronics in ALF1000

See reference table below*

General

Lamp capacity : 1000 Watt HPS lamp

Ballast loss : +/- 35 Watt

Weight total : 1000 Watt = 4.7 kg *

* weight of lamp and reflector included.

ALF systems have been tested in accordance with IEC 598 and meet all relevant requirements. The systems are rain watertight IP21 / class I. The electronics housing is special made for optimal cooling and protection of the electronic device. All fixtures should be earthed prior to operation.

Assembly Instructions

The following parts will be supplied with a complete ALF fixture delivery:

The ALF Driver, which is the complete electronics housing

Reflector

Lamp

60 or 80cm power cord with Wieland RST20i3 connector

Custom made wire bracket

ALF Assembly

Agrolux provides a custom made wire bracket. Based on the mounting situation the bracket is available for attachment to different types of profiles or trellises. In order to mount the fixture horizontally and in a straight line, it is advisable to attach them in alternating fashion. This will prevent possible torsion of the support profile. The bracket for the ALF1000 is designed in a certain manner that the fixture will always move freely.

ALF Driver Unit

The electrical connection is realized by using the power cord. Each ALF driver unit has a Wieland RST20i3 male chassis connector which matches the female Wieland RST20i3 plug which is attached to the power cord. The ALF products have identical connectors and are therefore interchangeable. Always disconnect power first before un-locking the connector. The end of the power cord is stripped for 36mm and the individual wire lines are stripped and ultrasonically compacted for 9mm. They are suitable for use in standard 1.5 – 2.5mm² wago connectors or comparable products. Consequential damages caused by failure to comply with these directions do not qualify for compensation. The driver unit does not contain any service parts. The warranty will expire if the unit is opened. Handle the driver unit with care, there are some heavy components on the print! Heavy bumps or improper use of the system may cause internal damage and should be avoided at all times.

Lamp

The correct lamp should be used with the fixture.

ALF1000 : Philips 1000W-400V Master Greenpower Son EL Plus lamp

Refer to the de type-sticker on the fixture for the correct lamp type. Use of incorrect lamps may cause damage to fixture components. During lamp replacement, always disconnect the fixture for a safe work situation and only replace lamps if the lamps are cooled down. The lamp will light up only if the power has been disconnected prior to lamp replacement. Lamps that are replaced without disconnecting the power will not start up, regardless of the current mains voltage at the socket.

In 1000 Watt systems, the lamp has to be inserted into the special lamp holder. To get access to the lamp and the lamp holders we advice to remove the lamp from its' location and turn the down side up. By doing this you secure the lamp from falling. Open the lamp holder by slightly pushing the moveable part (left and right side) to the outside of the fixture. If both parts are moved to the outside of the fixture, the lamp is unlocked to be placed/removed. During the process of placing the lamp, the contact wires of the lamp must remain straight and guided softly into the slot groove of lamp holder. Push only then when the wires are in place to lock the lamp. It is suggested to place the lamp first at one side before doing the other side. If the lamp is in place the moveable parts must be moved back to the center of the fixture to lock the lamp. Execute with precision. If performed improperly, the connection will either be poor, or cannot be made at all. This can cause damage to the lamp or fixture.

To prevent lamp breakage, do not operate the fixture in conditions of dense vapor or direct spraying. Also allow the installation to cool for at least 15 minutes to observe the cooling down phase of the lamp, before bringing it back into use. The lamp can be cleaned with a damp cloth.

Initial Start-Up with New Lamp

After assembly (and / or lamp replacement) the output of the lamp may be lower. Since the lamp has to burn in for the first 100 hours.

ALF Electronic Driver Unit Service

The electronic driver unit of the ALF fixtures has been specifically designed for horticultural purposes. It combines low energy consumption with a long life span. If any problems that may occur during use are noticed, the fixture must be replaced and brought to a safe working area where it can be tested and lamp or EB failure. This work can only be done by a trained person who is permitted to repair the ALF electronic driver.

Maintenance / Safety

The ALF driver unit is basically maintenance free.

The electronics are equipped with 2 fuses. These have been fitted for safety reasons (fire safety) rather than for service purposes. The driver has no service parts and the electronics should not be subjected to any attempts at repair or otherwise. The combination of high- frequency and high capacity is a potential hazard to (un)qualified personnel. Opening the housing by un qualified people will therefore cause the warranty to expire (see warranty instructions).

Assembly of the ALF1000 Airmax reflector

All new fixtures will be delivered with the Airmax reflector and heat shield in place. Depending on the environmental conditions inside the greenhouse you might have to clean the reflector once every 2 or 3 years. In order to remove the reflector the heat shield has to be removed first. Initially the heat shield is locked with PTE rings or nuts. The ring or nut is for transportation reason only and can be left of once the reflector and heat shield are returned. Once the heat shield is removed you lift the reflector upwards. The reflector will be freed from its' holders and can be taken out of the fixture. Do not use any force on these type of reflectors because they can be deformed easily and will influence light uniformity.

Operating the lamp without the reflector

Lamps may not be operated without the reflectors. The amount of heat generated is hazardous to any materials present or nearby the fixture.

Maintenance of the Reflector

Alcohol based cleaning product or material like AMS can be used for regular cleaning. Avoid the use of abrasive cleaners on the reflectors and always ensure to rinse thoroughly with demineralized water. In general, calcium pollution can be removed with cleaning vinegar. If, for some reason, cleaning activities have not been executed for an extended period of time, the pollution may have corroded the anodizing layer. In such cases it is important to take appropriate action to clean the polluted surface. The use of more aggressive cleaning agents should be avoided to prevent irreparable damage to the reflectors. In case of grave pollution, please consult a specialist cleaner. In case of even more severe pollution, the reflectors may have to be replaced. Cleaning activities should be executed carefully to prevent loss of shape of the reflector.

7 Liability

In the interest of promotion of fire safety in greenhouses, a critical assessment should be made of the spacing of the fixtures and any screening fabrics present, possibly in consultation with your insurance adviser.

Agrolux Europe B.V. is not liable for any damages caused by failure to comply with the installation instructions in accordance with NEN 1010 and EnergieNed. publications, or any provisions assigned to function as substitutes thereof, and the above assembly instructions.

The general conditions of the Orgalime S2000 and Agrolux Europe B.V. additional terms of guarantee are exclusively applicable to all deliveries.

*Reference Table with technical data driver ALF1000

Technical specifications ALF1000

Specification

Mains operation	Europe type	USA / Canada type
Rated mains voltage	Line-Line 400V +/-10%	
With tolerances for performance:	Line-Line 360-424V	
Earth leakage current (per driver)	< 1 mA	< 0.75 mA
Net current @ 100% lamp power	2.6A at 400V	
Power factor @ 100% lamp power	>0.98	
Power factor @ 35% lamp power	>0.95	
Mains frequency	50/60Hz	
Double isolated	No	
Class-II	No	
Lamp power (100% output)	1000W	
Lamp power min dim (35% output)	350W	
System power (typical, 100% output)	1031W	
System power (maximum, 100% output)	1105W	
SOFTSTART	Yes	
DALI line protected against mains voltage	Yes	

Wiring/Mechanics	
Wire diameter	Connector (JST VH-B type)
Weight	900 gram

Temperature and lifetime	
Ambient temperature	0..35 °C
Case temperature	70°C
Case switch off	115°C
Temperature protection	Yes
Life time (< survival rate 90%)	30.000 hours @ Tcase 70°C ¹⁾

¹⁾ See OEM Design-in Guideline for reference.

Control interface (DIM versions only)	
DALI	IEC60929-102 Ed.2006 & IEC62386-203 Ed.1.0

Output characteristics	
Driver efficiency at full power (1000W / 100% output)	97%
Driver efficiency at min dim power (350W / 35% output)	>95%
Ignition voltage	3.2kV Peak to Earth
Tolerance on output power (100% output)	+/- 3%
Typical freq output current (100% output)	130-190KHz

Compliance's and approvals		
Approbation marks	CE & ENEC	UL & CSA
Surge protection	EN61547 4kV L/N-earth 2kV L-L or L-N	
Vibration	EN 60068-2-6 Fc Frequency range: 10 - 150 Hz. Acceleration/amplitude: 2G or 0.15mm Directions: X, Y, Z-flat, Z-upside down	

PHILIPS

