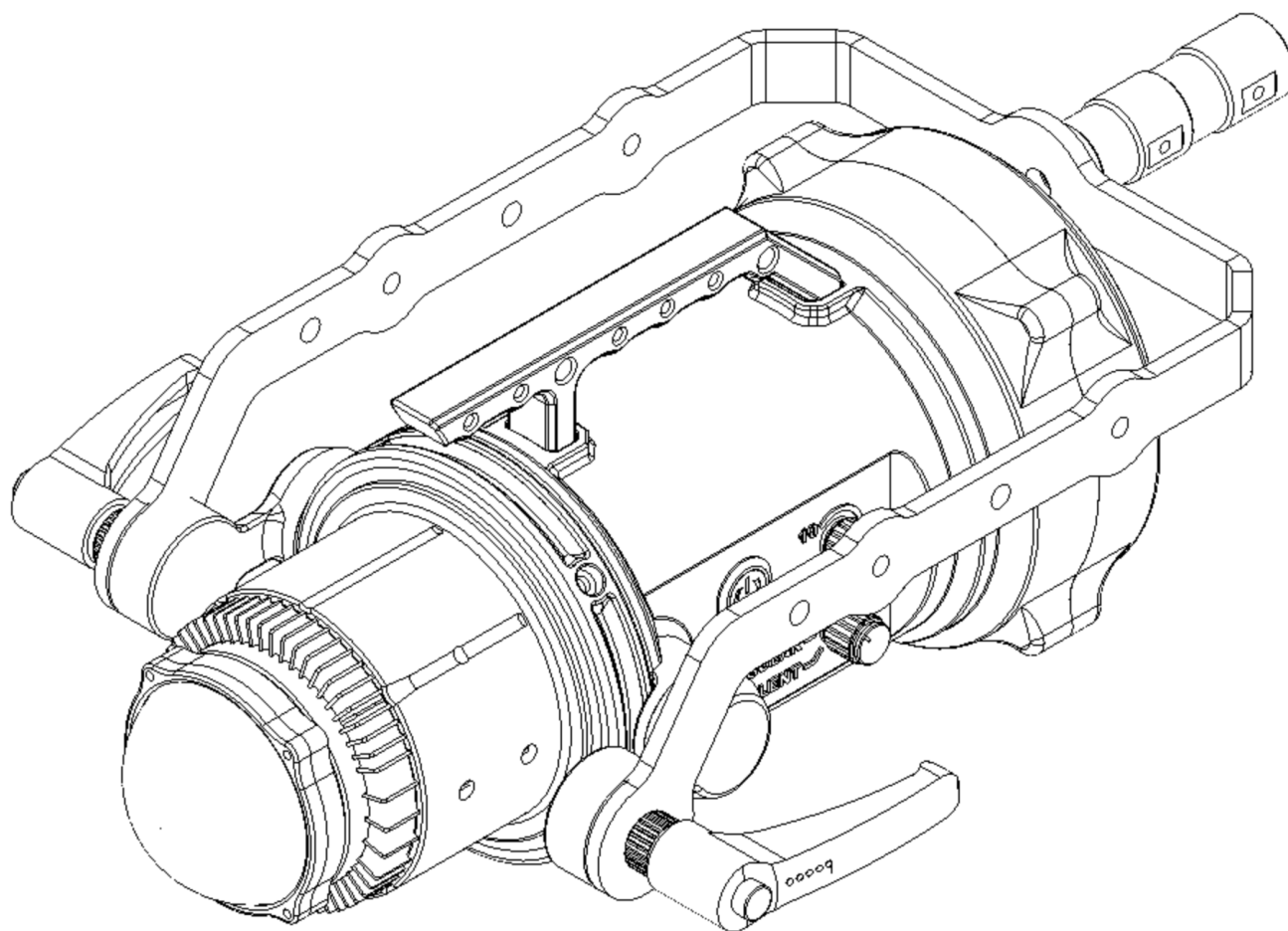


MANUAL
June 2023 - REV2

MAXIMA 6 GaN



Information provided in this manual are subject to change.
Please refer to website www.maximaled.com for the most up-to-date information.



INTRODUCTION

Thanks for purchasing Maxima 6: we designed and built your unit in Italy to the highest standards so that it will serve flawlessly you for many years to come. Your Maxima has been thoroughly tested by our qualified technicians in order to ensure flawless operation.



WARNING

Maxima is a professional-grade product and is intended for use by qualified, trained and experienced DOPs, Directors and set or stage electricians. Risk of serious injuries or even death may arise if Maxima is used without proper knowledge and full understanding of the instructions provided in this manual.

SAFETY INSTRUCTIONS

Before using your new Maxima unit please read and understand the following guidelines. If in doubt, do not hesitate to contact our customer support.

Risk of serious injury of death. Please read below.

1. Maxima parts shall not be disassembled or removed unless otherwise instructed by this manual or for service purposes by Maxima customer support.
2. High voltage! Maxima is a professional instrument and is intended for use by qualified, trained and experienced DOPs, Directors and set or stage electricians.
3. Do not cover any ventilation slot. Air vent on Maxima body or on the Fresnel reflector shall be obstructed at any time.
4. Only use S-Mount accessories which allow for a cool air flow from the outside to the front part of Maxima. Using accessories that do not have enough air intake vents might result in overheating, damages and even fire hazard.
5. Maxima must be used only with the genuine power cord provided with the unit. Aftermarket power cords, even bearing the same connector type, will result in damages.
6. Maxima's heatsink is made of pure copper and can potentially reach very high temperatures. Never touch it in any way. The COB LED must never be touched, even when Maxima is turned off.
7. Never look directly into the COB LED.
8. Always use two hands when operating Maxima: heavy accessories attached to the front of lamp can easily off-balance the unit. Unlock yoke mount handles while firmly holding the central grip handle of Maxima's body. Always lock the yoke mount handles firmly in place one at a time while still holding Maxima at its body grip handle.
9. Do not use Maxima near to heat sources.
10. If your Maxima unit has come in contact with water, please disconnect it from mains power and wait at least ten minute before handling it. Always get in touch with your Maxima dealer or directly with us if your Maxima operates incorrectly.

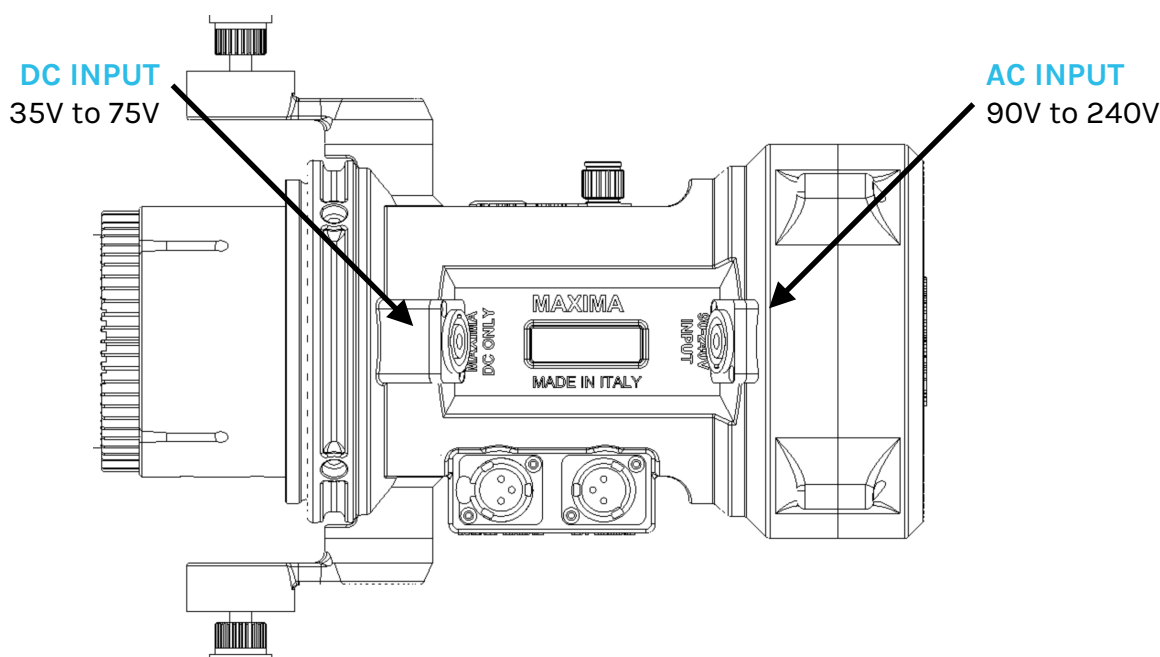


OPERATING MAXIMA

The following chapters describe how to operate Maxima safely in the most common scenarios. Remember that Maxima is a professional piece of equipment, so an advanced understanding of how lighting systems work in the studio and on location is required: this also applies to the use of the necessary sockets, batteries and any accessories (light modifiers) you may wish to use with your Maxima.

CONNECT MAXIMA TO AN AC POWER SOURCE (WALL SOCKET)

To power on Maxima 6 GaN with **AC current**, plug the blue Neutrik connector of Maxima 6 GaN and connect the power cable to a wall socket that provides 90V to 240V.



DISCONNECTING MAXIMA FROM AN AC POWER SOURCE (WALL SOCKET)

Always turn off Maxima first before disconnecting it from an AC Power Source.

REMOTE OPERATION VIA BLUETOOTH: MAXIMA CONTROL

Maxima is equipped with a powerful Bluetooth system that allows remote operation: these operations include all of the functions that are available thru the controls on the Maxima body (dimming, operating mode, ...) plus many more (Effects, Multi Unit operation, DMX address change). MaximaControl is available for both iOS and Android:



MaximaControl for iOS



MaximaControl for Android

CONNECT MAXIMA TO AN EXTERNAL DC POWER SOURCE

Maxima 6 GaN can operate with the **Maxima Battery Box** or any other power source that provides current in a range from 35V to 75V. To power on Maxima 6 GaN with a **DC current**, plug the white Neutrik connector of Maxima 6 GaN and connect the power cable to an external battery source. Then, turn Maxima on.



WARNING

When using Maxima 6 GaN with any battery source (DC Input), always power-OFF the external battery source **before** connecting and/or disconnecting the cable. Connecting DC power cables with Maxima 6 GaN without powering OFF the battery first could cause damages to circuitry of both lamps and to external power source and/or harm the operating personnel.

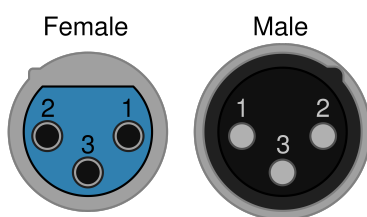


WARNING. RISK OF DEATH.

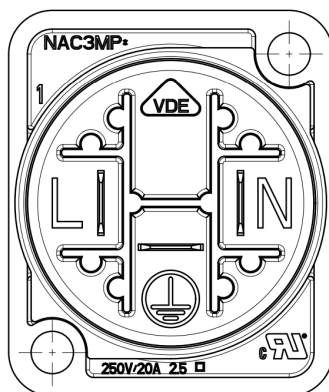
When used with third-party DC power sources, always respect the polarity between Maxima 6 GaN and the external power source. Connecting an external battery with wrong polarity configuration may cause fire and/or explosions. Please follow all the instructions provided here and use Maxima only if you are an experienced electrician or crew operator.

When using Maxima 6 GaN with an external battery source, always respect the polarity as following:

3 PIN XLR CABLE	
PIN 1	-
PIN 2	+
PIN 3	N.C.



NEUTRIK ON LAMP BODY	
N	-
L	+
GROUND	N.C.



POWER OUTPUT WITH EXTERNAL BATTERY SOURCE

Depending on the external power source you are using, you might not be able to reach 100% of the power output of Maxima 6: this depends on the quality and the specs of each battery source. As a rule of thumb, please refer to the following table (Table 3) to understand what **minimum** capacity (A) is needed for typical voltages in the allowed range for Maxima 6 GaN operation. Lower capacity values may lead to faults, damages and/or undesired operation.

TABLE3: REQUIRED CURRENT FOR 100% DC OPERATION	
V	A
35V	15A
48V	10A
75V	7A

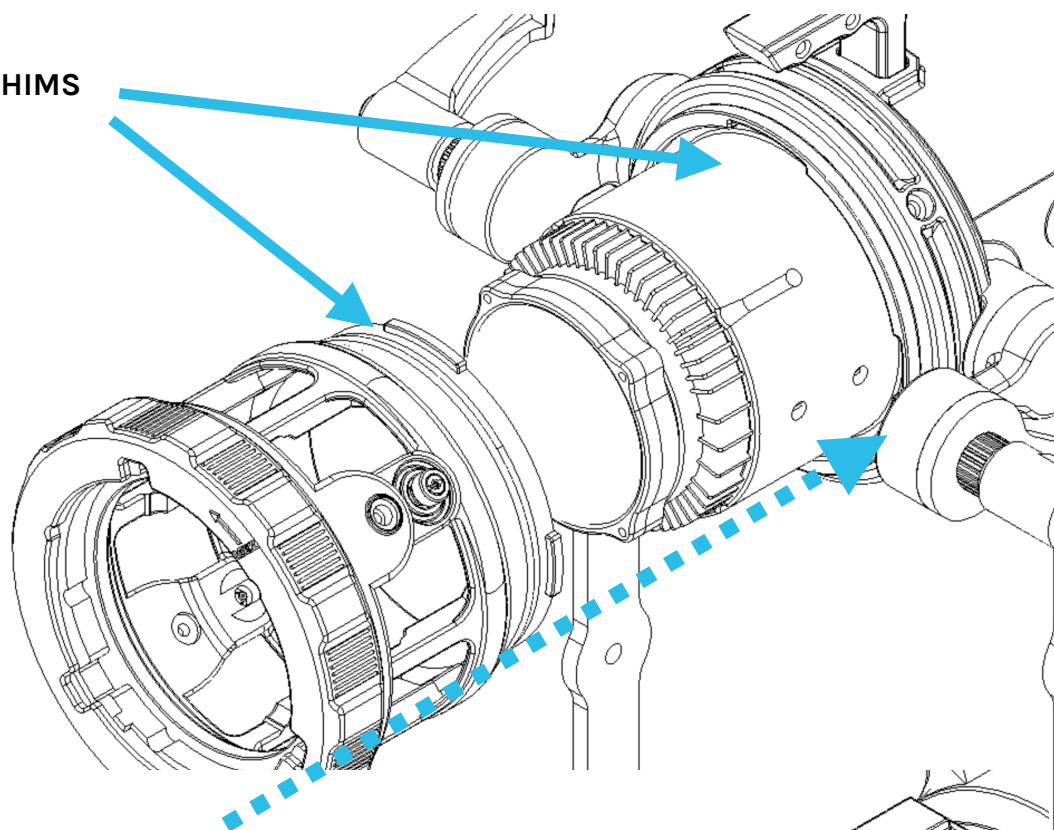


MOUNTING S-RING (BOWENS) ADAPTER

Maxima is compatible with most of the Bowens accessories available in the market thanks to the Maxima S-Mount Locking Ring.

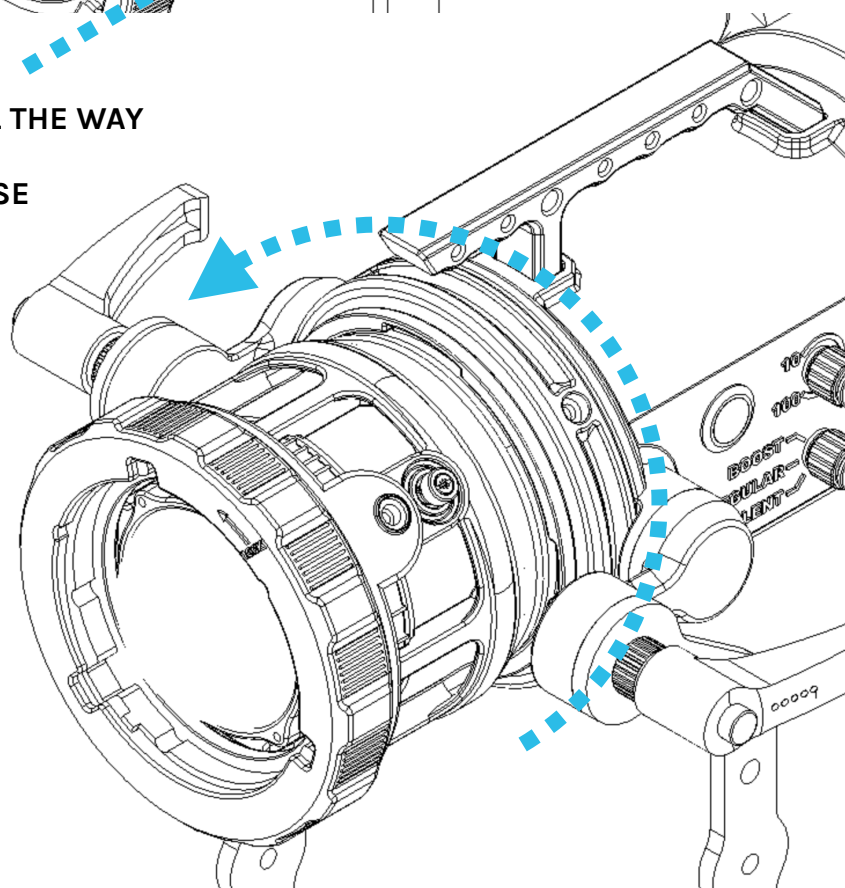
To assemble it, slide the Maxima S-Mount Locking Ring on the neck of Maxima 6 GaN, paying attention to align correctly the locking bayonet at the base of the adapter: the four male shims of the Maxima S-Mount Locking Ring must be aligned with the four female shims of Maxima 6 GaN body, with the larger shim on top as showed in following picture:

1. ALIGN LARGER SHIMS



2. SLIDE THE LOCKING RING ALL THE WAY IN UNTIL THE MALE SHIMS ARE COMPLETELY FLUSH TO THE BASE

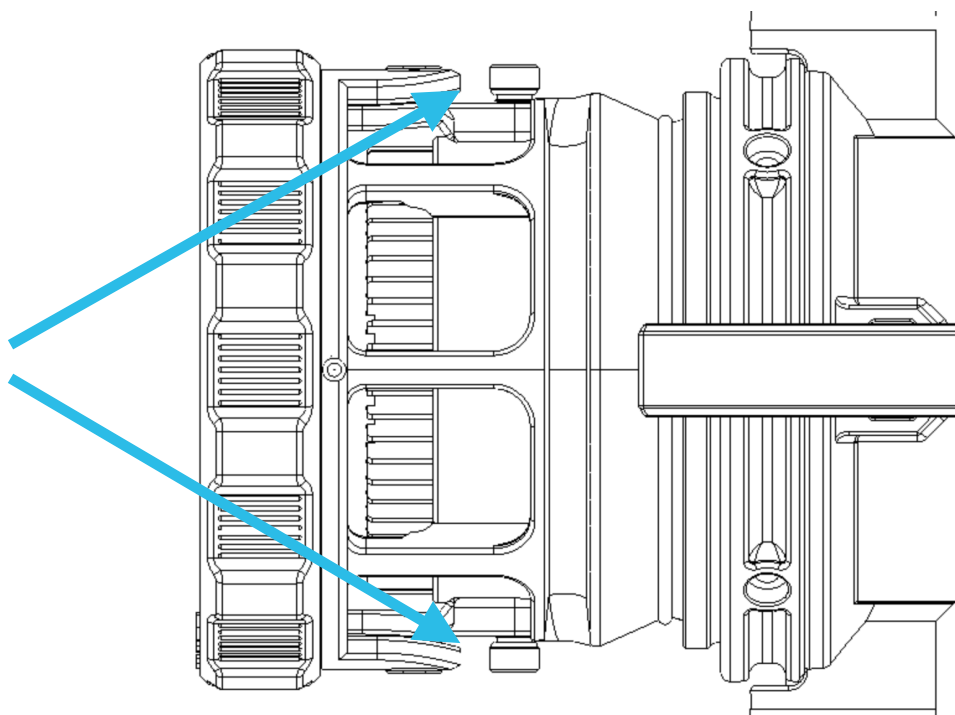
3. ROTATE COUNTER-CLOCKWISE LOCKING RING UNTIL IT BLOCKS IN PLACE





After the correct alignment of the bayonet is reached, fix the thumbscrews on both sides of the adapter.

4. FIX THUMBSCREWS



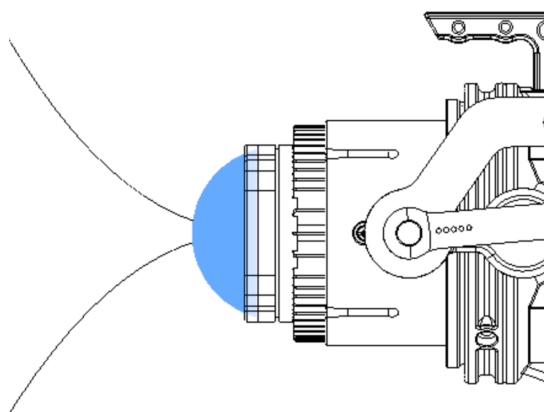
REMOVING MAXIMA 6 GaN HYPERBOLIC LENS

Maxima 6 GaN is provided with a removable optical lens that is intended to concentrate and better fill the light rays inside certain kind of open face optics and softboxes.

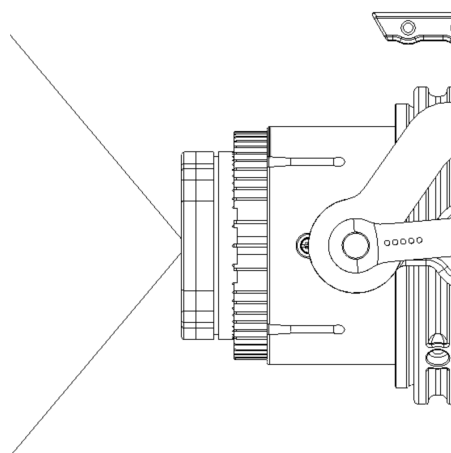
If a wider beam angle is desired, lens can be removed with a resulting 120° light spread.

Please note that lens **must be removed** when Maxima ARRI QLM adapter is in use or when using any other light modifier that might in any way come in contact with the lens itself.

WITH LENS
Hyperbolic light beam

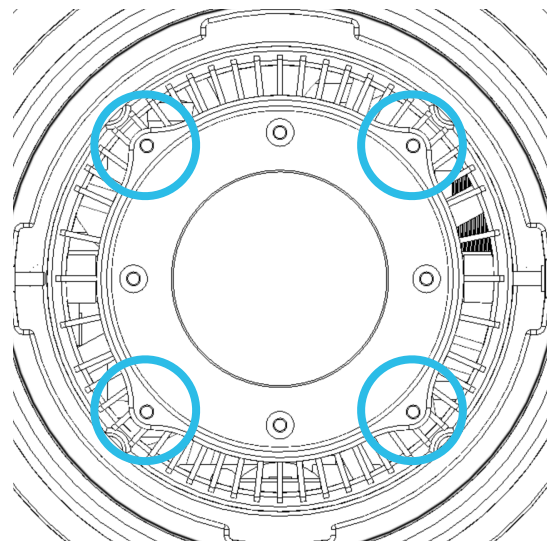


WITHOUT LENS
Standard 120° light beam





Depending on shape and size of in-use accessory modifier and the desired resulting effect, The Maxima Hyperbolic Lens is **held in place by the 4 M3 Allen screws shown in the picture at the right**. When disassembled, please remember to store the Lens and the hardware in a safe place.

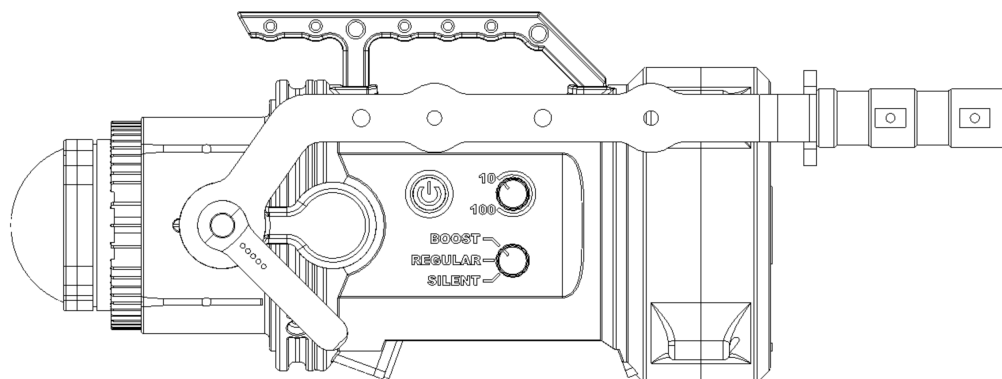


TROUBLESHOOTING

Maxima is designed and thoroughly tested to operate in the most demanding scenarios. If you have any issue, make sure to read the following Troubleshooting guide before contacting customer support.

Issue	Possible cause	Solution
Maxima flashes three times and turns off.	Maxima is overheating and is turning off to prevent failures.	Check that front and rear air vents are not obstructed. Make sure that S-Mount accessories allow for sufficient air flow. Wait for Maxima to cool down and turn it on.
Maxima does not turn on after pressing the ON/OFF switch.	Power cord is not inserted Power cord is not the genuine one provided with Maxima	Check that power cord is correctly inserted and that the genuine power cord is being used.
Switching Maxima ON causes electric power to fail	Power cord is not the genuine one provided with Maxima	Only use the genuine power cord provided with Maxima.
After switching ON, Maxima does not turn on and a clicking sound is heard	Power cord is not the genuine one provided with Maxima; Voltage input is either too low or too high; USB cable is connected at the same time the power cord is connected.	Only use the genuine power cord provided with Maxima. Make sure that the voltage input is in the 90 to 230 V range. Remove USB cable before turning Maxima on.
Fans produce a rubbing-like sound.	Objects or dirt is obstructing fans rotation	Contact Maxima technical support.
Maxima LED is only partially lit.	Insufficient power is provided or LED is overheating	Contact Maxima technical support.
Maxima emits a flickering or flashing light.	Provided power is insufficient or inadequate.	Try connecting Maxima to a different power source; Contact Maxima technical support.

MAXIMA 6 GaN



LIGHT SOURCE	Full-spectrum 5600K° daylight COB LED
LUMINOUS OUTPUT	69000 lumens
COLOR RENDITION R9	98.3 (extended CRI) 94 R9(red) 97 R12(blue) 99 (TLCI)
COOLING	Patented UltraCore full copper, 54 forged fins
ENGINE	Maxima GaNPOWER
PROCESSOR	32-bit Arm® Cortex®-M7
OPTICAL SYSTEM	Profoto, Bowens and Arri QLM mounts
NOISE LEVEL	19dBa (silent mode) 24dBa (regular mode) 29dBa (boost mode)
POWER DRAW	0 to 350W (silent) 10 to 450W (regular) 450 to 600W (boost)
AC INPUT	90 to 250V, 50-60Hz (Neutrik PowerCon blue)
DC INPUT	0 to 600W with 35V/75V external power station 0 to 300W with Maxima Battery Box
AC POWER-IN CONNECTOR	Neutrik® PowerCon 20 Blue
DC POWER-IN CONNECTOR	Neutrik® PowerCon 20 White
RADIO INTERFACE	Bluetooth 4.2 (mobile app for iOS and Android)
DMX INTERFACE	DMX512 In/Out XLR 3pin
OPERATING TEMPERATURE	-25° to +35°
WEIGHT	4 kg (bare lamp) 4.6 kg (with yoke mount) 4.7 kg (with yoke mount and Bowens 70° Reflector)
DIMENSIONS	L 350mm W 200mm H 173mm (without yoke mount) L 462mm W 316mm H 173mm (with yoke mount)
YOKE CONNECTOR TYPE	Universal 16mm junior and 28mm TV spigot
CERTIFICATION	RoHS, CE

Maxima 6 GaN is the world's first LED lamp driven by gallium nitride circuitry, capable of an unprecedented lux-to-weight ratio, best-in-class efficiency and CRI color rendition. Thanks to the adoption of GaN semiconductors that are inherently more efficient than silicon, less energy is expended as heat, resulting in a more efficient system with a higher power density (smaller volume).

The **patented, full copper heatsink** combined with an advanced thermal management bring Maxima 6 GaN to the top levels of performance charts, both in terms of brightness and compactness.

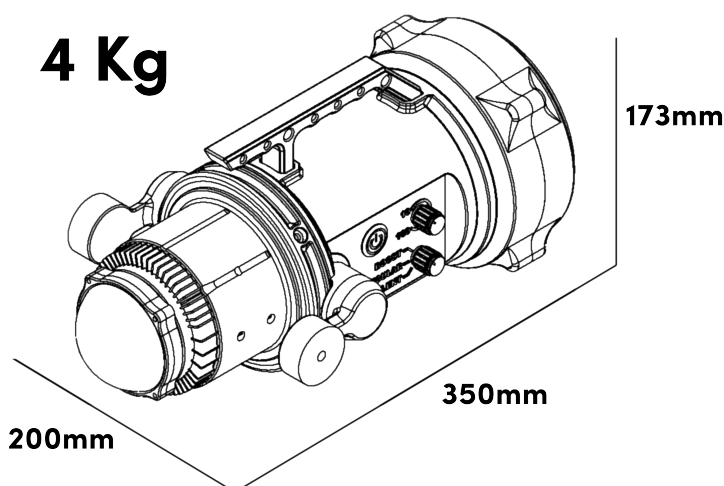
Maxima 6 **GaN** is an extremely bright and compact, directional LED fixture **with an output comparable to that of conventional technology 700W LEDs**. The increased efficiency obtained with GaN circuitry and the innovative thermal management subsystem guarantee consistency and peak performance for years.

The **premium Italian engineering and manufacturing**, with the addition of a 2-years warranty, ensures the needed quality and reliability for the most demanding DoPs and pro-photographers.

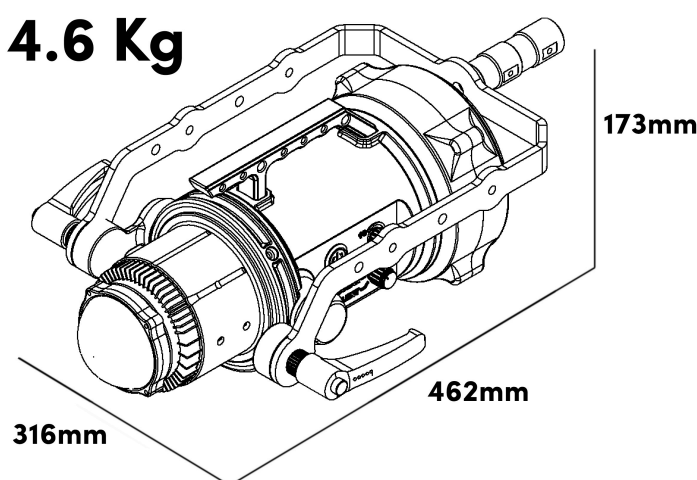
MAIN FEATURES

- 4kg weight, all-in-one compact design with no external ballast;
- Noiseless operation;
- 69000 lumens, just 600W consumption;
- 99 TLCI, 98 CRI with R9 94 and R12 97;
- 5600°K, full-spectrum white light;
- Superior white point accuracy with no green/magenta color shifts;
- Exceptional long term color stability with 0.2% colors shift after 25.000 hours of usage;
- Patented, full copper heatsink that enables silent operations up to 65% of total luminous output;
- Full power DC battery operation with any third party power source from 35V to 75V;
- Removable, low dispersion aspherical lens with hyperbolic curvature for improved light filling of softboxes and conical reflectors;
- 3 operating modes: Silent (up to 350W) Regular (up to 450W) Boost (up to 600W);
- Bluetooth and DMX512 connectivity;
- Flicker-free up to 200000 fps;
- Weather-proof;
- Modular, upgradeable design;
- Environmentally friendly and compliant with EU regulations.

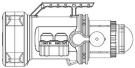
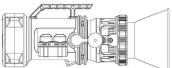
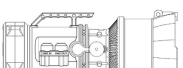
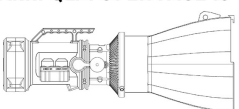
4 Kg

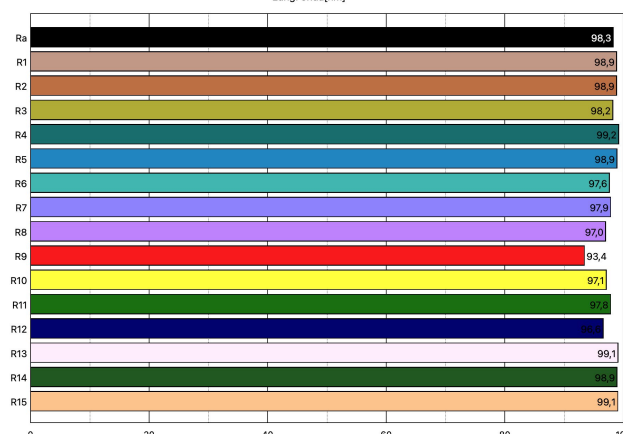
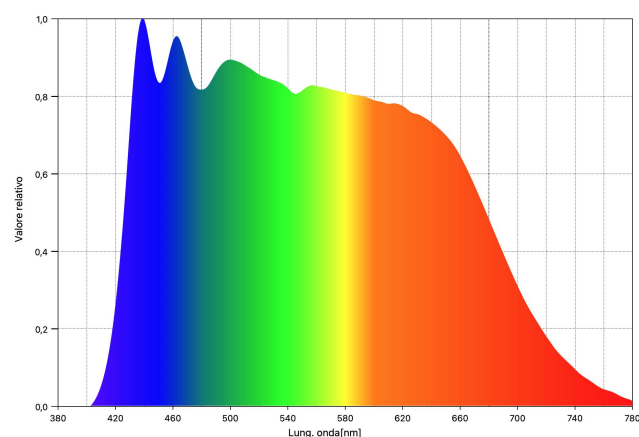


4.6 Kg



MAXIMA 6 GaN Photometrics

	1m	3m	5m
BARE LAMP W/O REFLECTOR			
	32700 lux	3850 lux	1390 lux
MEDIUM REFLECTOR 70°			
	82150 lux	10270 lux	3700 lux
ARRI QLM OPEN FACE 30°			
	94900 lux	11430 lux	4110 lux
ARRI QLM OPEN FACE 15°			
	283500 lux	34790 lux	12190 lux





Technical support

Customer support is provided directly by Maxima
at the address listed below.

Tel.: +39 0722 321513
support@maximaled.com
www.maximaled.com

Maxima is manufactured in Acqualagna, Italy.

info@maximaled.com | <https://maximaled.com>

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