

# Atom 42

## PRODUCT SPECIFICATION SHEET

---



The Atom series lasers always represented the bridge between lower output Clubmax systems and our flagship Spectrum projectors.

Atom units are structurally designed the same way as the new line of world-class Spectrums, using the same innovative **foam aluminium material for the chassis**, but with a few differences that allow for a more economical price tag.

The latest Atom is a fine-crafted semiconductor FAC-diode based full-colour laser display system that provides its user with powerful output, unified beams, crisp colours, and advanced control features and connections.

Our Atoms emit beams with unrivalled divergence while maintaining guaranteed power output across the entire scanning range. This is something pretty unique (important and unknown) that not many other manufacturers can offer. The Atoms are just better.

Our Atoms already showed their potential in power demanding applications while we manage to keep their sales price at a reasonable level. They are offered in three versions, ranging from 20 to 42 Watts.

This 42 Watt Atom is the most powerful Atom projector we manufacture. Visibility-wise, it will beat some even more powerful lasers. We made it that way!

### SPECIFICATIONS

<b>Source   Type:</b>	Semiconductor laser diode [FAC]   Full-colour RGB laser projector
<b>Suitability:</b>	Outdoor laser displays [atmospheric, abstract, text, animations]
<b>System control:</b>	FB4-SK [Ethernet, ArtNet, DMX, ILDA   PC, Lighting Console or Autoplay]
<b>Compliant with:</b>	EN 60825-1
<b>Ingress Protection rating:</b>	IP20, or IP54 with an optional rain cover installed [certification in progress]
<b>Weight [kg]:</b>	31
<b>Size [WxHxD, mm]:</b>	491 x 310 x 396 [Technical Drawings are in the SUPPORT section of this page]
<b>Guaranteed opt. output:</b>	42 Watts
<b>R   G   B [W]:</b>	9   13   20 [*note]
<b>Wavelengths [nm, ±5nm]:</b>	637   525   455
<b>Beam size [mm]:</b>	7 x 7
<b>Beam divergence [mrad]:</b>	1 mrad [full angle, **note]
<b>Modulation [kHz]   type:</b>	100   analogue
<b>X-Y scanners:</b>	Juno 5   30 Kpps @ 8°, max. scanning angle 50° on both axes
<b>Power requirements [V]   Input:</b>	100-240/50-60Hz   Neutrik powerCON TRUE1
<b>Max. power consumption [VA]:</b>	1200
<b>Operation temperature [°C]:</b>	10-35, or -20 to 40 when installed in the Monsoon outdoor enclosure
<b>Included in the set:</b>	Heavy-duty flight case, 1.5M power lead, 25M Ethernet rj45 signal cable, E-STOP remote with 30M 3-pin XLR cable, set of 4 safety keys, interlock connector [for the USA only], USB memory stick with the user manual. Pangolin QuickShow laser control and creation software is available for FREE download.
<b>HW features:</b>	All the basic system settings and adjustments such as power output adjustment for each colour, X & Y axes invert, X & Y size and position, etc. are managed via the built-in FB4 control interface. Scanning system overload protection. Colour Balance display mode.
<b>Laser safety features:</b>	Keyed interlock, emission delay, magnetic interlock, scan-fail safety, fast electromechanical shutter [reaction time <20ms], adjustable aperture masking plate, Emergency STOP system with keyed remote and manual RESTART button.
<b>*note</b>	Due to Advanced Optical Correction technology used in Kvant systems, the real power output of each laser module installed within the system may slightly differ from its specification. This doesn't affect the total guaranteed power output of the system.

**\*\*note**

The beam divergence total is calculated as an average arithmetic value of all individual colours. The divergence of each colour is calculated as:

1. FWHM of the beam cross-section for round beams, or
2. The arithmetic average of the beam's horizontal and vertical divergence for all rectangular beams.