



420 MODULAR Series

420 LED System

Technical Specifications

Release Version: V4.0

Release Date: 2025/05/01

Advantages 420 LED System

1. High Efficiency & Energy Saving

The 420 LED System features Samsung LEDs with an impressive efficiency of 2.9 $\mu\text{mol/J}$. Compared to traditional HPS grow lights, the 420 LED System delivers higher light intensity and improved plant growth, while consuming less than 50% of the energy.

2. Long Lifespan

The 420 LED System uses Samsung LM301B Horticulture Series LEDs, specifically engineered for demanding grow environments. They are resistant to extreme temperatures, humidity, and exposure to chemicals - ensuring long-lasting performance, high reliability, and consistent light output.

3. Adjustable Dimming

Equipped with a full-spectrum output and an 10%–100% dimmer, the 420 LED System allows precise control of light intensity throughout all growth stages, from seedling to flowering.

4. Waterproof Design

With a full IP66 waterproof rating, the LEDs are securely mounted to an aluminum frame and sealed with high-transmission optical lenses. This provides robust protection against water and dust, making the system ideal for humid or challenging environments.

5. Plug & Play Setup

No additional components are needed—no ballast, no reflector. Simply plug the 420 LED System into a grounded 110V or 230V outlet. Installation is quick, easy, and safe.

6. Modular Connecting System [MCS]

The modular design allows multiple fixtures to be connected into one larger lighting unit using optional aluminum couplers. This makes the 420 LED System scalable and adaptable to any grow space.

7. Advanced Thermal Design

The 420 LED System uses passive cooling for optimal LED performance. If temperatures rise too high, the system automatically dims to 50% until it cools down, then resumes full intensity. Passive cooling is more energy-efficient and maintenance-free due to the absence of moving parts.

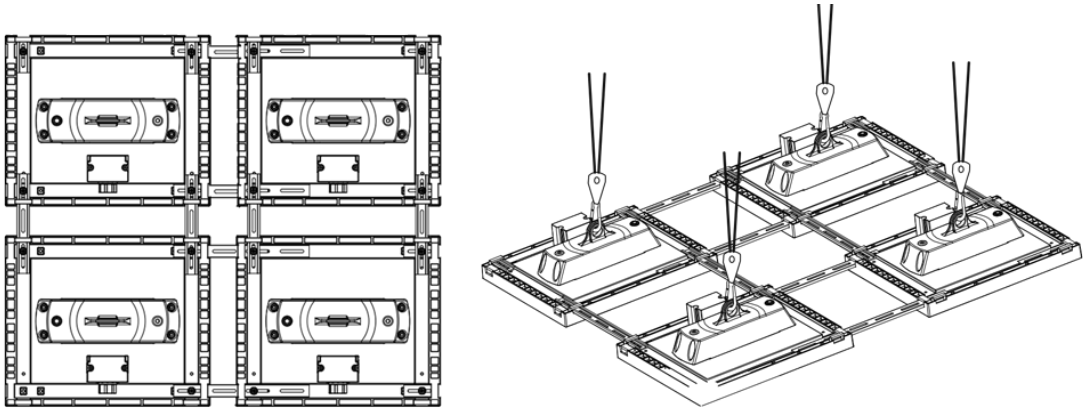
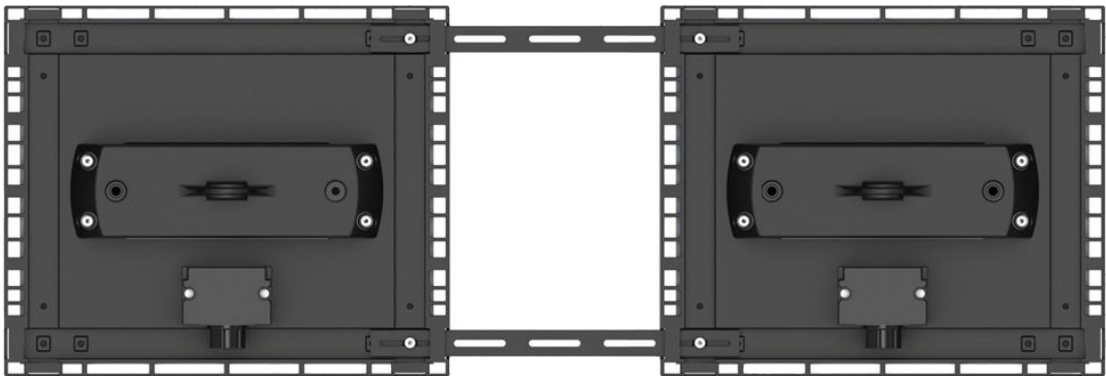
8. Eco-Friendly

The 4Twenty LED grow light contains no harmful substances like those found in HPS or MH lamps. LED production is significantly more energy-efficient and free from mercury and toxic elements such as iodine and lead. This makes it a cleaner, greener choice for both the environment and your health.

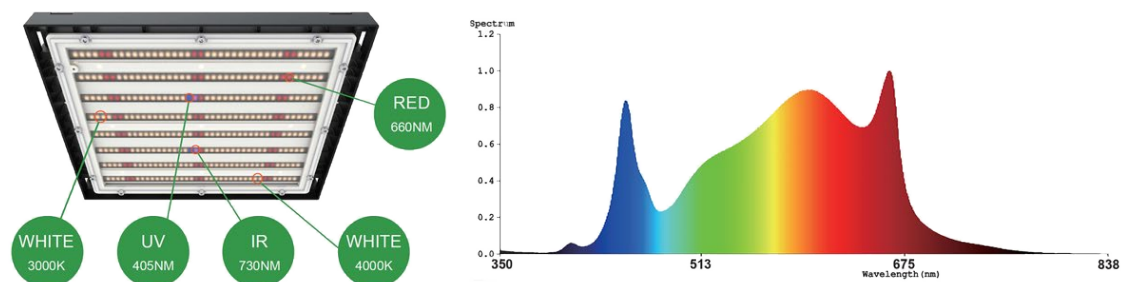
420 LED System



Modular Connecting System [MCS]



420 LED Spectrum



Technical specifications 420LS150

Item	Value	Item	Value
LED chips	Samsung LM301B	Power consumption	Max. 150 Watt
LED amount	312 pieces	Dimmer	10% - 100%
PPF LEDs	2,9 $\mu\text{mol/J}$	Quality certified	Intertek, DLC 5.2
LED beam angle	120°	Waterproof level	IP66
LED wavelength	$\sim 330 - 830\text{nm}$	Voltage	100V – 277V
Height above plants	$\geq 25\text{ cm}$	Work frequency	50Hz / 60Hz
Lifespan	50.000 hours	Working environment	-20 \sim + 40°C
Lighting area	Infinite [by MCS]	MCS couplers	Optional
Size LED System	300*250*70mm	Net weight	2,8 Kg / pc

Certifications and Warranty of 420 LED System



- Note:**
1. *Adjust lighting schedules based on the plant species and growth stage to optimize development.*
 2. *Avoid direct eye exposure, always wear protective eyewear when working near the fixture.*
 3. *Ensure proper grounding of the power outlet before connecting the fixture for safe operation.*
 4. *Certified compliance with ELT, DLC 5.2, FCC, CE, and RoHS standards for safety and performance.*
 5. *After sales service; 3-year warranty.*