

12V PCB LED Grow Light System for Plant Shelves

Product datasheet — Grow lights | Weltech (Shanghai) Co., Ltd.

This 12V Full Spectrum PCB LED Grow Light System is a compact, modular lighting solution designed specifically for indoor houseplants, succulent collections, plant cabinets, bookshelf gardens, and propagation trays.



Key features ■

- **Modular 1-to-4 PCB Board Expansion:** Flexible wiring harness powers 1, 2, 3, or 4 PCB light boards from a single 12V adapter.
- **Targeted Plant Spectrum:** 3000K warm white, 6500K cool white, and 630nm deep red for balanced vegetative growth and flowering.
- **High-Efficiency PCB Board:** Delivers 700 lm luminous flux per board and ≥ 2.0 $\mu\text{mol/J}$ efficacy with 258–540 LED chips.
- **Safe 12V Low Voltage:** Powered via included 12V DC power adapter with universal plug options (US, EU, UK, AU, CN).
- **Inline Control & Auto-Timer:** Integrated cable controller provides easy on/off switching, dimming levels, and automatic timing cycles.
- **OEM/ODM:** custom spectrum ratio, wattage, housing colour, logo and retail packaging

Specifications ▀

Parameter / Specification	Value / Technical Detail
Product Type	12V Aluminum PCB LED Grow Light, 5V is available
System Configurations	1-Board / 2-Board / 3-Board / 4-Board Kits (Up to 4 Boards per Adapter)
Input Voltage	12V DC (Universal AC 100-240V Adapter Included)
Connection Method	Multi-Branch Splitter Cable + Inline Controller
Available Plug Types	US, EU, UK, AU, CN Power Plugs
Luminous Flux	700 lm per PCB board
Photon Efficacy	>= 2.0 umol/J
Power Factor (PF)	>= 0.95
LED Chip Quantity	258 - 540 pcs per board
LED Diode Options	Samsung / Osram / Sanan / Luminus / Epistar
Light Spectrum / CCT	Full Spectrum (3000K Warm White + 6500K Cool White + 630nm Deep Red)
Control Method	Inline Cable Controller (Switch, Dimmer & Cycle Timer)
Single PCB Board Dimensions	300 × 80 mm (11.8 × 3.15 in)
Packaging Box Dimensions	320 × 85 × 65 mm (32 × 8.5 × 6.5 cm)
System Net Weight	1-Board: 350 g / 2-Board: 420 g / 3-Board: ~480 g / 4-Board: ~550 g
Ingress Protection Rating	IP42 (Indoor Dust & Humidity Resistant)
Thermal Performance (Temp Rise)	20 K - 60 K (Passive Aluminum PCB Heat Dissipation)
Lifespan Rating	50,000 Hours
Certifications	CE Certified

Specifications are typical values. Production tolerances and custom options are confirmed on the quotation.

Specification notes ▀

- Dimensions and tolerances are confirmed on the drawing or sample approved before production.
 - Custom sizes, colours, finishes and branding are available; tooling may apply for new shapes.
- Packing quantities are set per model; mixed cartons and pallet loading can be arranged.
 - Certificates and test reports are issued against the order and model.

Applications ■

- Indoor cultivation rooms and grow tents from propagation to flowering
- Vertical racking and multi-tier benches with low headroom
- Greenhouse supplementary lighting and research chambers

Customisation & OEM ■

Item	Options
Branding	Logo printing on product and carton, custom retail packaging
Product options	Size, colour, finish, wattage, spectrum, plug type and voltage to your market
Documentation	Commercial invoice, packing list, B/L, certificate pack, test report
Order terms	MOQ, price and lead time confirmed per specification and quantity

Packing & delivery ■

Item	Details
Packing	Export carton with inner protection; pallet or loose loading on request
Shipping	Express 5–9 days · air freight 7–12 days · LCL 20–40 days · FCL 20–45 days
Port	Shanghai, China
Payment	T/T, L/C at sight — confirmed with the order

Quality & compliance ■

- ISO 9001:2015 production management
- Pre-shipment inspection with photo report
- CE / ETL / RoHS documentation on request
- Batch traceability by order number
- Spare parts and after-sales support
- 12-month limited warranty

Ordering and technical support

Send the product, quantity and destination port. We reply the same day with price, lead time and shipping options.

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Product page: <https://weltechsh.com/product/12v-pcb-led-grow-light/>

