

Product Manual

TP-Mavic3



Portable DJI Mavic 3 Tethered Lighting System



1、Tethered Lighting Drone

1. Integrated design of drone + lighting module and control platform; Deployment time ≤ 3 minutes.
2. The power supply cable has an automatic pay-out and take-up function.
3. High-strength tensile and high-temperature resistant wire, with a high-strength Kevlar protective layer, and the length of the power supply cable ≥ 50 meters.
4. Equipped with an adjustable telescopic rod (65mm - 170mm).
5. Power supply methods: generator, built-in energy storage power supply, mains power supply; Input power: 220V AC, 50Hz; It has output protection, short-circuit protection, and over-voltage protection.

6. One-stop pull rod box design, enabling single-soldier operation; Built-in energy storage battery can meet 2-hour flight emergency lighting needs.
7. Reference dimensions of the equipment: 566mm × 467mm × 359mm
8. Weight: ≤ 28KG (including the built-in energy storage power supply)

2、Parameters of Aerial Lighting Vehicles

1. Number of Axes: ≥ 4;
2. Symmetrical Motor Wheelbase: ≤ 380mm;
3. Folded Dimensions: ≤ 240mm * 110mm * 120mm;
4. Equipped with a 5.5-inch remote control touch screen, and the remote control flight distance ≥ 6KM;
5. Weight (including lighting and functional modules) ≤ 1.25kg;
6. Positioning: Supports Beidou/GPS dual-mode positioning;
7. Hovering Accuracy: Horizontal ± 0.5m, Vertical ± 0.5m;
8. Visual Positioning, Omnidirectional Binocular Obstacle Avoidance;
9. Flight Speed: Ascending speed 8m/s, Descending speed 6m/s, Maximum flight speed 21m/s;
10. Maximum Take-off Altitude above Sea Level: 6000m;
11. Power Supply Method: Powered by tethered cable;
12. Uninterrupted Sustainable Flight Time: ≥ 12 hours;
13. Protection Function: When the power supply is abnormally interrupted, the drone can make a normal emergency landing;
14. Propeller Material: Flexible propeller design to prevent accidental injury to personnel.

3、Parameters of Lighting System

1. Light Source Type of Illumination Lamp Group: LED or COB light source;
2. Power: Standard configuration is 400W, and 600W is optional;
3. Luminous Flux: ≥ 80,000 Lm for 400W; ≥ 120,000 Lm for 600W;
4. Height: ≥ 50m;
5. Illumination Range: ≥ 5000m²; Weight of Lamp Group: ≤ 220g;

4、Parameters of Ground Power Supply System

1. Dimensions: ≤ 566mm × 467mm × 359mm;
2. Weight: ≤ 28KG;
(Including energy storage power supply system, tethered power supply system, aircraft kit, and lighting system);
3. Pull rod box design for single-soldier operation;
4. The mobile power box can use mains power, generators, and energy storage power, with a power failure protection function. When the external power supply is abnormally interrupted, the aircraft can fly and land normally;
5. The built-in energy storage power supply in the power box enables an illumination time of ≥ 2 hours;
6. It takes about 4.5 hours to fully charge the built-in energy storage.