

IMPLEMENT INTELLIGENT AGRICULTURE IN THE WORLD

HD580 Agricultural Drone

Specifications





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Flight Specifications

Model	3WWDZ-U60A
Layout	4-axis
Dimensions	3305mm x 3577mm x 850mm (boom deployed, blades deployed) 1270mm x 880mm x 880mm (boom folded)
Maximum wheelbase	2628mm
Maximum take-off weight	Spraying 140kg / Spreading 150kg
Empty mass (including battery)	68KG
Tank capacity	70L
Seed tank capacity	100L (max. 80KG)
Hovering Accuracy	
RTK Positioning	Horizontal ± 10 cm, Vertical ± 10 cm
Hovering time with no load	16.5 minutes
Hovering time with full load	6.5 minutes

Power System

Motor KV value	46(r/min) · V
Motor size	140*34mm
Motor rated power	4650w*4
Rated speed	2000r/min
Propeller Blade diameter	1575mm (62in)
Number of Propeller Blade	4
Propeller Blade Material	Carbon Fiber

Energy System - Intelligent Battery

Battery Type	HE102 Secondary Li-Ion Battery Pack
Charge Voltage	78.3Vdc Max
Charge Current	140A Max
Battery Energy	2025Wh
Single cell voltage	3.75V
Number of cells	18个
Battery Voltage	67.5V
Operating Temperature	0°C~45°C
Charging temperature	5°C~70°C (Fast charging 15°C~65°C)/ Discharging temperature: -20°C~60°C
Battery Weight	14.6KG
Battery Installation Method	Quick Plug Battery
Fast charging time	25%-95% approx. 10 minutes and 25 seconds

Energy System-Smart Charger

Charger Model	HE202B All-in-One Charger
Charger Input Voltage	110Vac~230Vac
Input Frequency Range	47Hz~63Hz
Output power	9000W (generator direct connection) / 2000W (utility direct connection)
Output channel	1
Protection function	Over-temperature, over-voltage, under-voltage, short-circuit protection function
Operating temperature	-5°C~40°C
Weight	17.6KG

Operation System - Spraying System

Tank volume	70L
Nozzle type	Centrifugal nozzle
Total number of nozzles	Centrifugal nozzle 2/4
Maximum spraying width	12 meters (operating height 3.5 meters $\pm$ 0.5 meters flight speed 5m/s)
Atomizing particle size	Centrifugal nozzle 50 μ m~500 μ m
Pump type	Magnetic impeller pump
Number of water pumps	2
Maximum flow rate	Two centrifugal 30L/Min Four centrifugal 40L/Min

Operating System - Spreading System

Spreading tank volume	100L
Maximum load	80KG
Feeding Method	Winches
Support particle diameter	0.5~10mm dry solid particles
Auger size	large, medium and small.
Max. rotating speed	1100r/Min
Spreading width	4~10m
Maximum pushing volume	300kg/Min

Remote Control System

Model	HD402
Data transmission and positioning	LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/B38/B39/B40/B41 WCDMA: B1/B8 EVDO/CDMA: BC0 GSM: 900/1800 MHz WLAN: 2.4/5 GHz 802.11a/b/g/n Bluetooth: BT 2.1+EDR/3.0/4.1 LE/4.2 BLE GNSS: BeiDou LORA: 2KM Radio: 2KM
Image Transmission	2.4/5.8G Dual Band SRRC:>3Km CE:>3Km FCC:>2.5 KM (no interference in the open, 2.5m high)
Mapping device	GNSS: BeiDou Positioning accuracy:DGNSS 0.5m RTK 0.02 m +1ppm
Display	6 inch touch LCD, resolution 1280*720
Operating Temperature	-20~50°C
Charging environment temperature	0~45°C
Internal battery life	5 hours
External battery life	2 hours
Number of external batteries	2
Combined battery life	>=8 hours
Charging power	External: 33.6W/8.4V/4A*2 Internal: 65W Max
Charging method	External: Charging cradle Internal: TYPE-C

Sensing System-Camera	
Front monocular virtual	Gimbal camera
Resolution	1920*1080
Effective pixels	400W
Field of view	Horizontal 80°, Vertical 120
Night vision	Support
Number of searchlights	2
Searchlight power	75W*2

Sensing System-Radar	
Height range	Height measurement range: 1~60m Height setting range: 0.5~30m
Obstacle avoidance range	Obstacle avoidance distance (horizontal): 1~50m Viewing Angle Range(3db):50°horizontal,10°vertical Use conditions: the relative altitude of the aircraft flight is higher than 2m and the speed <=7m/s Safety distance: 2.5m (the distance between the paddle tip and the obstacle after the craft brakes and hovers stably)

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