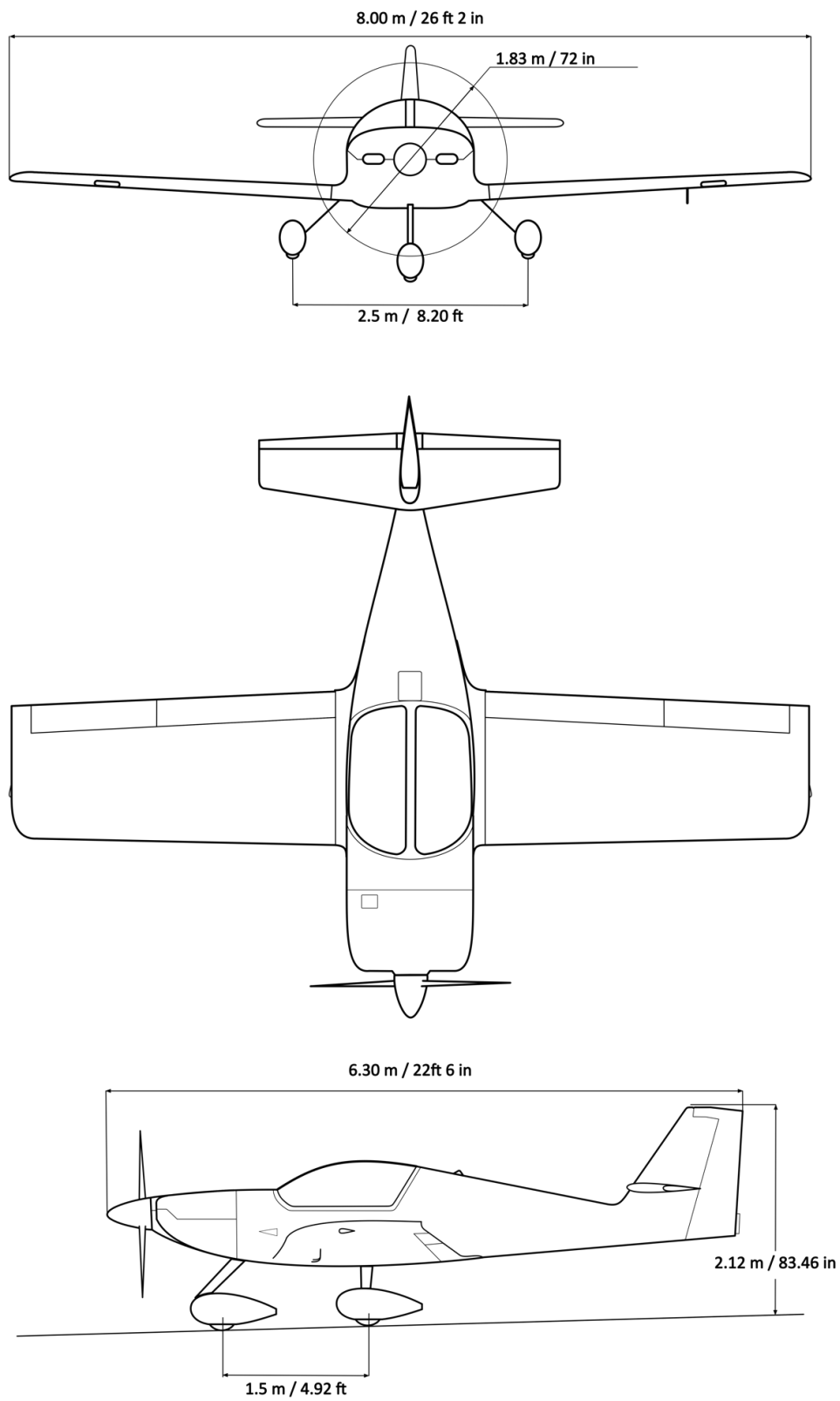




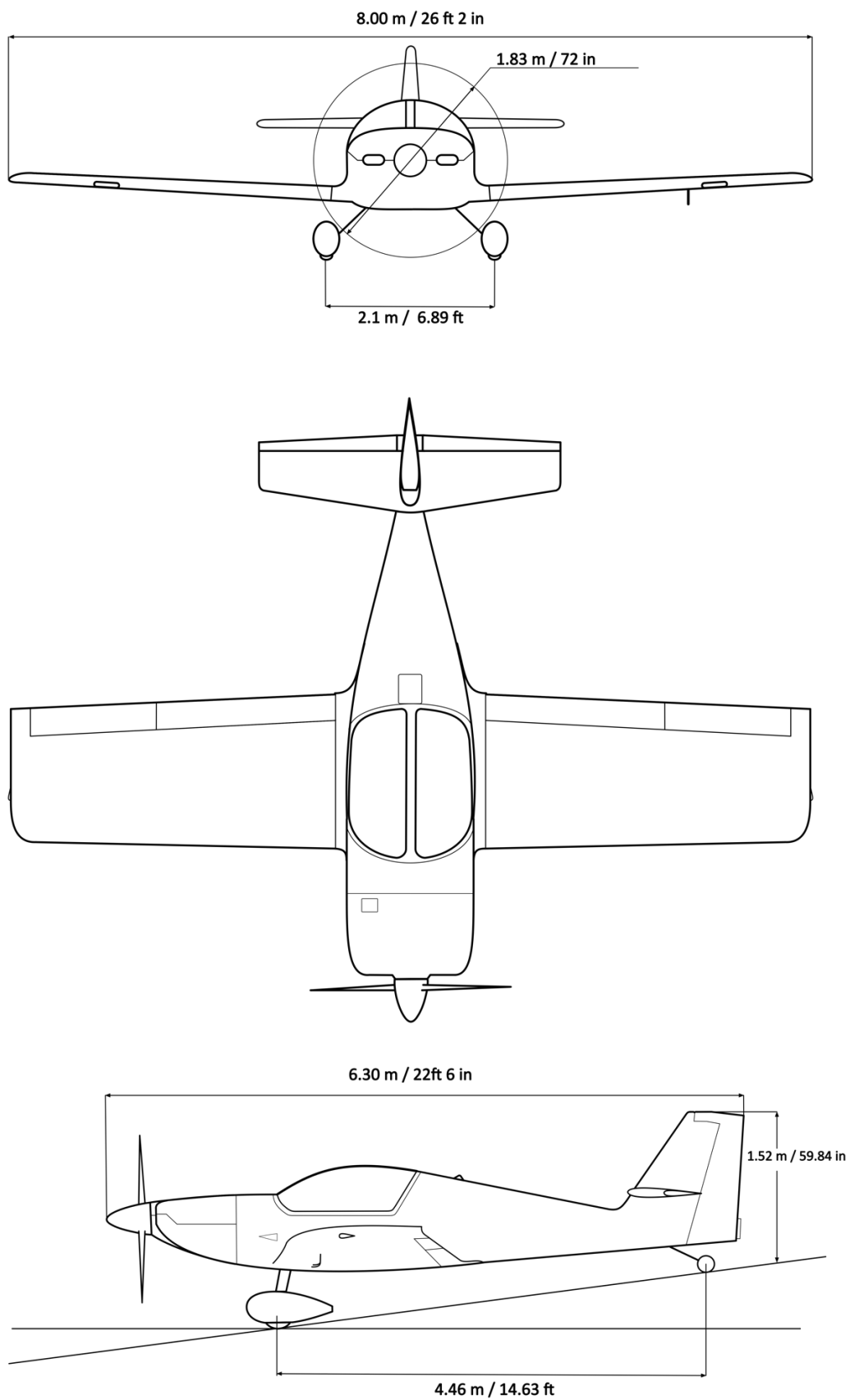
## Whisper Aircraft X350 Gen II Information

Aircraft views:

Whisper X350 G2 A - Front Wheel



## Whisper X350 G2 B - Tail Wheel



## 1. Aircraft description:

The X350 Gen II is an affordable, two-seater, cross-country aircraft, with a limit load factor of plus 6.0 and minus 4.0g's.

The wings feature a carbon fiber structure tested to an ultimate load factor of 12.0 g's. The Gen II's wing tanks have a total fuel capacity of 63 US gallons, giving a range of 1,000 nautical miles and an endurance of over 6 hours. The aircraft also has one of the widest interiors on the market today, featuring optional leather interior and plenty of baggage room making the Gen II perfect for comfortable cross-country trips. More information at [www.whisperaircraft.com](http://www.whisperaircraft.com)

## 2. Aircraft Dimensions:

### 2.1 Wings

Aileron area	:	0.873 m <sup>2</sup> / 9.4 ft <sup>2</sup>
Flap area	:	0.95 m <sup>2</sup> / 10.2 ft <sup>2</sup>
Wing area	:	11.33 m <sup>2</sup> / 122 ft <sup>2</sup>
Wing loading	:	85.61 kg/m <sup>2</sup> - 17.50 lbs/ ft <sup>2</sup>
Wing span	:	8.00 m / 26 ft 2 in
Wing root chord	:	1.540 m / 5.05 ft
Wing dihedral	:	3°

### 2.2 Fuselage

Overall length	:	6.3 m / 22 ft 6 in
Height	:	2.20 m /
Cabin width	:	1.193 m / 47.2 in

### 2.3 Horizontal Stabilizer

Span	:	3.0 m / 9.84 ft
Chord	:	0.76 m / 2.5 ft
Area	:	1.57 m <sup>2</sup> / 16.93 ft <sup>2</sup>
Elevator area	:	0.48 m <sup>2</sup> / 5.16 ft <sup>2</sup>

### 2.4 Vertical Stabilizer and Rudder

Vertical stabilizer area	:	0.58 m <sup>2</sup> / 6.21 ft <sup>2</sup>
Vertical stabilizer height	:	1.10 m / 3.6 ft
Rudder area	:	0.56 m <sup>2</sup> / 6.03 ft <sup>2</sup>
Rudder height	:	1.35 m / 4.43 ft

## 3. Landing Gear:

Type	:	Tricycle / Tail Wheel
Front wheel	:	Caster
Tail wheel	:	Steerable Caster

## 4. Engine and Propeller:

### 4.1. Engine

Model	:	IO – 360 – M1B
Manufacturer	:	Lycoming
FAA type certificate	:	1E10
Max continuous power	:	180 HP @ 2700 rpm

	Fuel	:	100LL
	Weight (dry)	:	136 kg / 300 lbs
Or			
	Model	:	UL520i
	Manufacturer	:	UL Power
	Max continuous power	:	170 HP @ 2800 rpm
	Fuel	:	MOGAS with min. 95 octane
	Weight (dry)	:	108 kg / 238 lbs

#### 4.2 Propeller

	Model	:	GA-200L
	Manufacturer	:	Whirlwind USA
	Max continuous power	:	180 hp / 2700 rpm
	Number of blades	:	2
	Propeller diameter	:	1.828 m / 72 inch
	Propeller type	:	Ground adjustable
	Pitch setting	:	23 °

Or

	Model	:	AXL3
	Manufacturer	:	AX Sport South Africa
	Max continuous power	:	180 hp / 2800 rpm
	Number of blades	:	3
	Propeller diameter	:	1.828 m / 72 inch
	Propeller type	:	Constant speed or variable pitch
	Pitch setting	:	Variable

#### 5. Travel of Control Surfaces:

	Ailerons	:	-15 ° / + 25 °
	Elevators	:	-15 ° / + 15 °
	Rudder	:	-30 ° / + 30 °
	Flaps	:	
	Cruise position	:	0 °
	Landing position	:	45 °

#### 6. Specifications:

##### 6.1 Weight

	Gross weight	:	970 kg / 2,138 lbs
	Empty weight (Incl. 5kg lubricant)	:	550 kg / 1,213 lbs
	Useful load	:	420 kg / 926 lbs
	Max fuel load	:	176 kg / 388 lbs
	Useful load full fuel	:	244 kg / 538 lbs

##### 6.2 Performance - 180 HP

	Top Speed	:	184 kts
	Cruise Speed (80%)	:	175 kts
	Cruise Speed (55%)	:	155 kts
	Stall speed 0° flaps	:	54 kts

Stall speed 45° flaps	:	52 kts
Rate of climb	:	7.82 m/s / 1,540 ft/min
G loading	:	+6.0 / - 4.0

### 6.3 Limitations

$V_{NE}$	:	200 kts
$V_{NO}$	:	168 kts
$V_A$	:	124 kts
$V_{FE}$ @ 10° flaps	:	120 kts
$V_{FE}$ @ 20° flaps	:	95 kts
$V_{FE}$ @ full flaps	:	87 kts
$V_S$	:	54 kts
$V_{SO}$	:	52 kts

## 7. Other information:

### 7.1 Control surfaces mass balance

Aileron	:	100% balanced
Elevator	:	100% balanced
Rudder	:	100% balanced

### 7.2 Flap Control

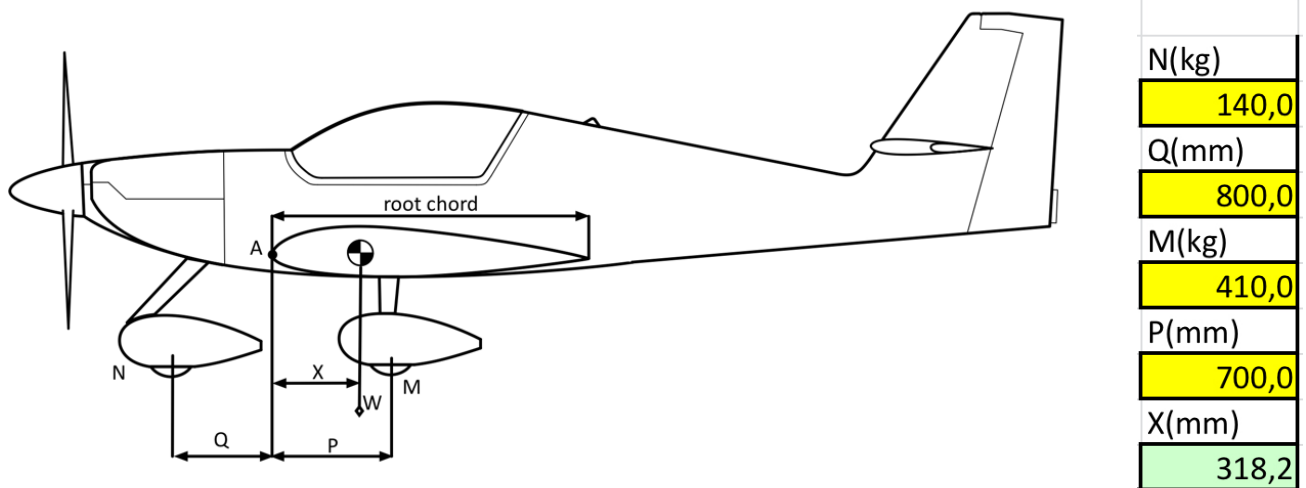
Flap control	:	Electrically controlled, Linear actuator
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## 8. Mass and Balance:

### 8.1 Information

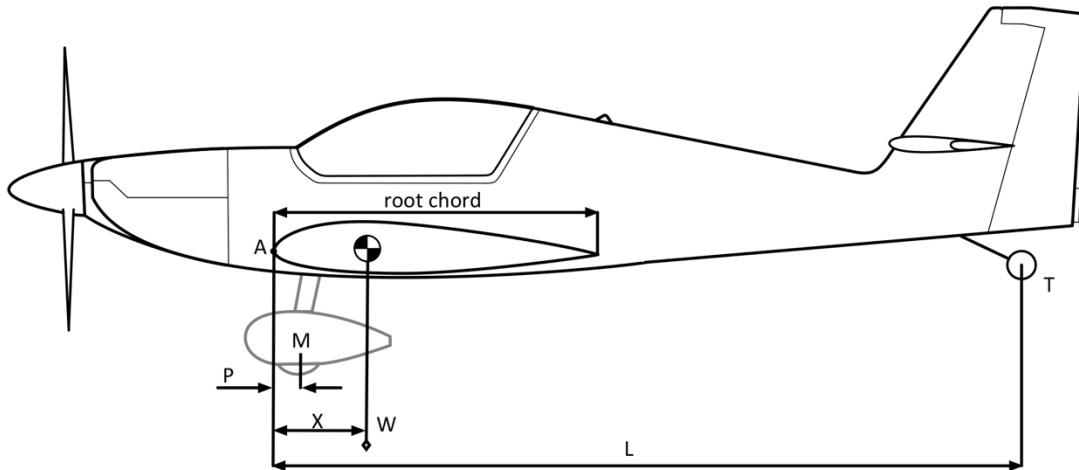
Datum	:	Wing leading edge
Limits	:	231-447mm aft of datum
Gross weight	:	970 kg
Empty weight	:	550 kg

### 8.2 Whisper X350 G2 A - Front Wheel



example				max aft CG scenario			
ITEM	EXAMPLE A/C			YOUR A/C			
	Mass (kg)	Arm (mm)	Moment	Mass (kg)	Arm (mm)	Moment	
	(example only)	(example only)	(kg.mm)			(kg.mm)	
Empty aircraft	550	318,2	175000,0	550	318,2	175000,0	
Pilot	95	600	57000,0	95	600	57000,0	
Pax	95	600	57000,0	90	600	54000,0	
Fuel	176	210	36960,0	5	210	1050,0	
Baggage	40	750	30000,0	40	750	30000,0	
<b>Gross weight</b>	<b>956</b>		355960,0	<b>780</b>		317050,0	
C of G		372,3			406,5		
max fwd CG scenario				other scenario			
	Mass (kg)	Arm (mm)	Moment	Mass (kg)	Arm (mm)	Moment	
			(kg.mm)			(kg.mm)	
Empty aircraft	550	318,18	175000,0	550	318,18	175000,0	
Pilot	80	600	48000,0	80	600	48000,0	
Pax	0	0	0,0	80	600	48000,0	
Fuel	176	210	36960,0	65	210	13650,0	
Baggage	0	0	0,0	40	750	30000,0	
<b>Gross weight</b>	<b>806</b>		259960,0	<b>815</b>		314650,0	
C of G		322,5			386,1		

### 8.3 Whisper X350 G2 B - Tail Wheel



T(kg)	49,0
L(mm)	4460,0
M(kg)	501,0
P(mm)	-27,0
X(mm)	372,8

example				max aft CG scenario			
ITEM	EXAMPLE A/C			YOUR A/C			
	Mass (kg)	Arm (mm)	Moment	Mass (kg)	Arm (mm)	Moment	
	(example only)	(example only)	(kg.mm)			(kg.mm)	
Empty aircraft	550	372,8	205013,0	550	372,8	205013,0	
Pilot	95	600	57000,0	95	600	57000,0	
Pax	95	600	57000,0	90	600	54000,0	
Fuel	176	210	36960,0	5	210	1050,0	
Baggage	40	750	30000,0	40	750	30000,0	
<b>Gross weight</b>	<b>956</b>		385973,0	<b>780</b>		347063,0	
C of G		403,7			445,0		
max fwd CG scenario				other scenario			
	Mass (kg)	Arm (mm)	Moment	Mass (kg)	Arm (mm)	Moment	
			(kg.mm)			(kg.mm)	
Empty aircraft	550	372,75	205013,0	550	372,75	205013,0	
Pilot	80	600	48000,0	80	600	48000,0	
Pax	0	0	0,0	80	600	48000,0	
Fuel	176	210	36960,0	65	210	13650,0	
Baggage	0	0	0,0	40	750	30000,0	
<b>Gross weight</b>	<b>806</b>		289973,0	<b>815</b>		344663,0	
C of G		359,8			422,9		



9. Minimum equipment list:

9.1 Avionics

- Altimeter
- Airspeed indicator
- Heading indicator
- VHF Air-band Transceiver
- Flap controller
- Engine instrumentation
- Slip indicator
- Clock