

C210 Performance Specifications and Limitations

Performance figures given at MAUW and speeds in KIAS unless specified otherwise.

Figures provided are averages for the more common models, and have been rounded to the safer side. Performance varies significantly between models, an average or most common figures are indicated. REMEMBER these figures may not correspond to those for your particular model, ALWAYS Confirm performance and operating requirements in the AFM before flying.

Structural Limitations

Gross weight (take-off and landing)	3400lbs - 4100lbs
Maximum landing weight	3400lbs - 3900lbs
Standard empty weight	2150lbs - 2500lbs
Max Baggage allowance in aft compartment	120-200lbs
Baggage on Folded down 5/6 th seat	120lbs
Rear Compartment with Seat Removed	50lbs
Flight load factor (flaps up)	+3.8g – -1.52g
Flight load factor (flaps down)	+2.0g – 0g

Engine Specifications

	Max – 5 minutes only	Max Continuous
Engine (Lycoming IO-520 series) power	300BHP at 2850RPM	285BHP at 2700RPM
Engine (Lycoming TSIO-520 series) power	310BHP at 2700RPM	285BHP at 2600rpm
Engine (Lycoming TSIO-520 series) power	325BHP at 2700 rpm, (flat rated) maximum continuous	
Oil capacity	10Qts normally aspirated engines, 11Qts Turbo and External Filter engines Do not operate on less than 7Qts minimum	

Fuel

Usable fuel	Standard tanks	87USG/ 329litres/534lbs
	Optional Long range	115USG

Fuel

Optional Tip tanks	Additional in each Tip Tank 16 USG/60 litres
Filler cap qty	64USG/ 384lbs

Landing Gear Pressure

Main wheel tyre pressure	55 psi	
Nose wheel tyre pressure	50 psi or 88psi	depending on type (refer manual)
Nose Strut Pressure	90psi	

Maximum Speeds

Never Exceed Speed, (Vne)	175-225kts (200-260mph)	(top red line)
Maximum structural cruise speed (Vno)*	170-210kts (195-240mph)	, (top of green arc)
Maximum demonstrated crosswind component**		15kts (20mph)
Maximum manoeuvring speed (Va)		115-135 kts (135 – 155 mph)

*May not be exceeded unless in smooth air conditions

**Late models only

Flap Limitation Speeds:

Note: speeds vary significantly with models.

Early models 0-10 degrees	140kts (160mph)	(Placarded on Flap Lever)
Early models 10-30 degrees	10-30 105kts (120mph)	(top of white arc)
Later models 0-10 degrees	0-10 150-160kts (175-185mph)	(Placarded on Flap Lever)
Later models 10-20 degrees	10-20 130kts (160mph)	(Placarded on Flap Lever)
Later models 20-30 degrees	20-30 115kts (120mph)	(top of white arc)

Gear Limitation Speeds

Gear Operating	135-165kts (165-190mph)	Depending on model
Gear Down	135-200kts (165-230mph)	

Stall Speeds

Stall speed, clean (Vs)	70-75kts	(80-85mph)	(bottom of green arc)
Stall speed, landing config. (Vso)	60-65kts	(70-75mph)	(bottom of white arc)

Performance for Normal Operations

Takeoff

Normal take-off, flaps up	Raise nose at 55kts (60mph), Accelerate 90mph once obstacle cleared	
Short field take off, Flaps 10°	50ft 75kts, (85mph)* accelerate 80kts, (90mph) before retracting flaps Clear of Obstacles accelerate to Vy	
Fuel Placard – Takeoff Fuel flow	2850RPM	2700RPM
Sea Level	144lbs/hr	138lbs/hr
4000ft	132lbs/hr	126lbs/hr
120lbs/hr	114lbs/hr	
92kts (102mph)	Sea level	
97kts (109mph)	10,000ft	
Best Angle of Climb Speed (Vx)	75kts (90mph)	
Normal climb out speed	Initial 90-100kts, (100-115mph)	Enroute kts, (120-140mph) or as req'd for performance
Normal approach flaps 30°	75-85kts, (90-100mph)	
Normal approach flaps up	80-90kts, (95-105mph)	
Short field landing	75kts, (90mph)	

* See more on short field performance and speeds in the Normal Operations section

Speeds for Emergency Operation

Engine Failure after take-off	85kts (100mph)
Forced landing	3000lbs 75kts (85mph) flap up 3400lbs 80kts (90mph) flap up 3800lbs 85kts (100mph) flap up

