

3. Helicopters main characteristics

3.1 Sum up of main characteristics of Ecureuil “Single engine family”

Ecureuil Single engine family			AS 350 B	AS 350 D	AS 350 B1	AS 350 B2	AS 350 BA	AS 350 BB	AS 350 B3	AS 350 B3 Arriel 2B1	AS 350 B3e	EC 130 B4	EC 130 T2	
Dimensions	Fuselage	Length	10.93 m	identical	identical	identical	identical	identical	identical	identical	identical	10.68 m	identical	
		Width	1.87 m	identical	identical	identical	identical	identical	identical	identical	identical	2.03 m	identical	
		Height	3.02 m	identical	identical	identical	identical	identical	identical	identical	identical	identical	3.61 m	identical
	Main rotor	Diameter		10.69 m	identical	identical	identical	identical	identical	identical	identical	identical	10.69 m	identical
			Tail rotor	1.86 m	identical	identical	identical	identical	identical	identical	identical	identical	1 m	identical
Engines			Turboméca Arriel 1B	Lycoming LTS 101-600A2	Turboméca Arriel 1D	Turboméca Arriel 1D1	Turboméca Arriel 1B	Turboméca Arriel 1D1	Turboméca Arriel 2B	Turboméca Arriel 2B1	Turboméca Arriel 2D	Turboméca Arriel 2B1	Turboméca Arriel 2D	
Fuel tanks			540 l.	identical	identical	identical	identical	identical	identical	identical	identical	identical	identical	
Air Speed	Power ON	Absolute VNE	147 kt	identical	identical	identical	identical	155 kt	identical	identical	identical	identical	Identical if normal CG <i>Note*</i>	
	Power OFF		120 kt	identical	identical	identical	identical	125 kt	identical	identical	identical	identical	Identical	
Rotor Speed	Power ON		385 rpm +1/ -5 rpm	identical	390 rpm +4/ -5 rpm	identical	identical	identical	390 rpm +4/ -5 rpm	375 to 405 rpm	identical	identical	identical	
	Autorotation		424 to 320 rpm	identical	430 to 320 rpm	identical	identical	identical	identical	430 to 320 rpm	identical	identical	identical	
Maximum Operating		Pressure Altitude	16000 ft	15000 ft	20000 ft	identical	16000 ft	identical	identical	23000 ft	identical	identical	identical	
MTOW with Internal load			1950 Kg	identical	2200 Kg	2250 Kg	2100 Kg	2250 Kg	identical	Identical <i>Note (Q)</i>	Identical <i>Note (Q)</i>	2427 Kg	2500 Kg	
MTOW with External load			2100 Kg	identical	2450 Kg	2250 Kg	2250 Kg	2500 Kg	2800 Kg	identical	identical	identical	3050 Kg	

Table 1 (reading mode column by column from the left to the right side)

Note (α) = Upgrade MTOW 2370 kg when dual hydraulic on this variant.

Note ()*= When the zero fuel aircraft gross-mass and longitudinal CG combination is in the Reduced VNE area of the longitudinal CG chart (see Flight Manual chart), the Reduced VNE power-on limit is effective for the entire flight:

Reduced VNE Power-On	Hp (ft)	0	2000	4000	6000	8000	10000	12000	14000	16000	18000	20000	22000	23000
	IAS (kt)	136	133	130	127	124	121	118	113	107	101	95	89	86