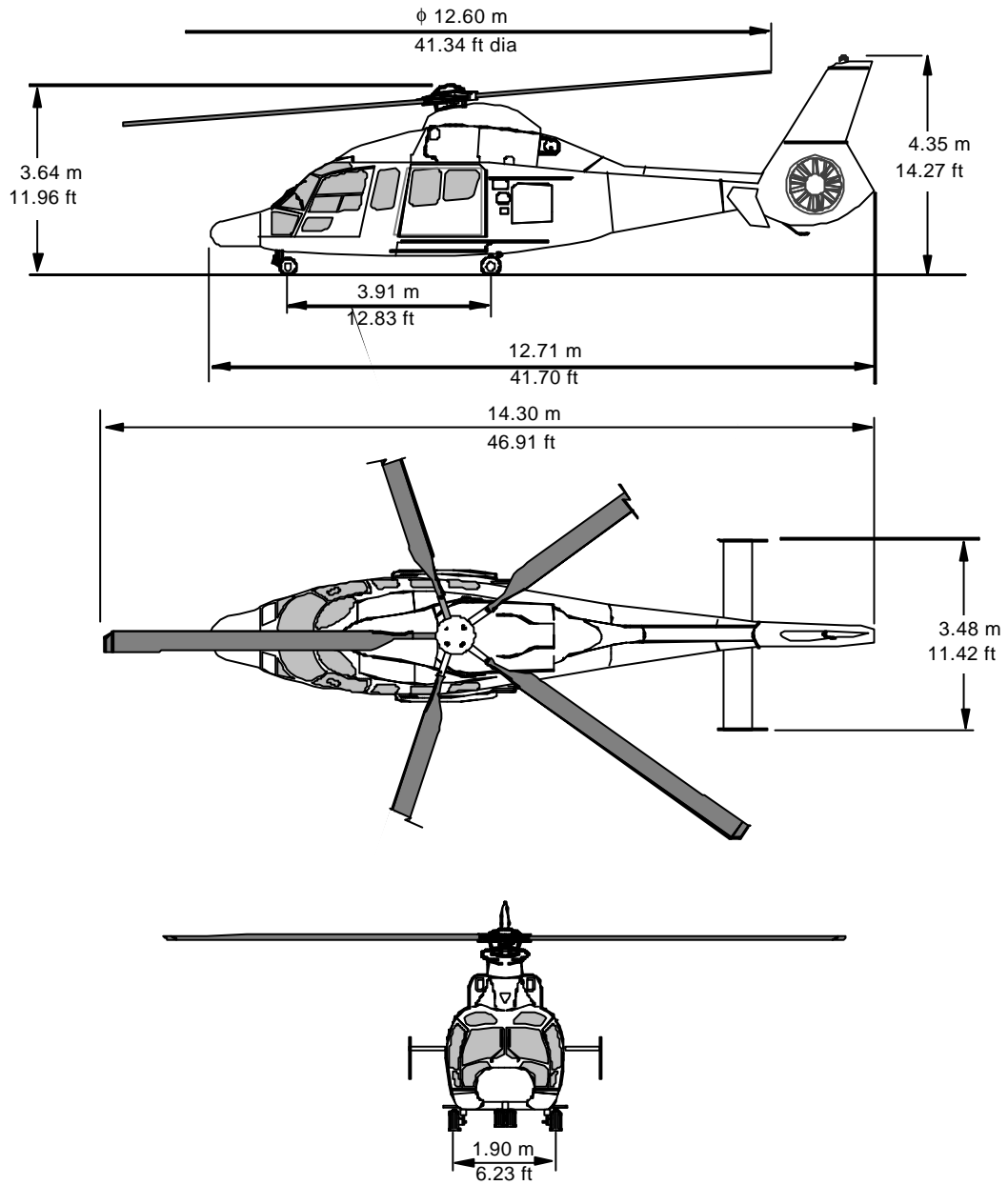
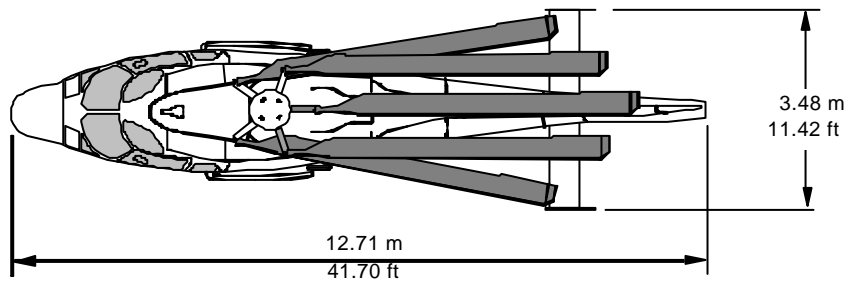


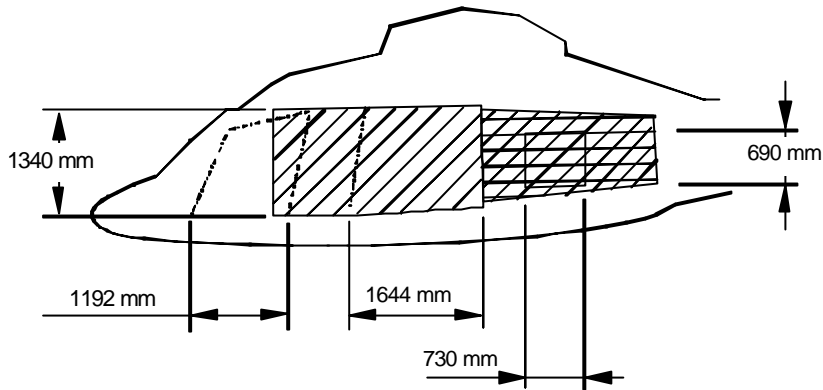
MAIN DIMENSIONS (at the M.G.W. of 4,800 kg/10,580 lb and an average C.G. location)



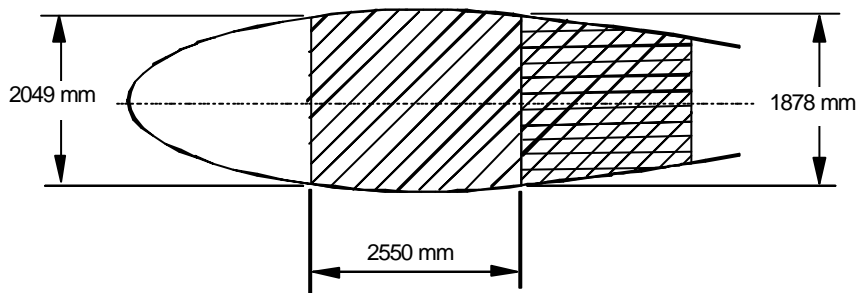
Dimensions given only for information



DIMENSIONS OF COMPARTMENTS AND ACCESSES



CABIN	
Surface	5.09 m ² 54.79 sq.ft
Volume	6.66 m ³ 235.20 cu.ft



HOLD	
Surface	2.95 m ² 31.75 sq.ft
Volume	2.5 m ³ 88.29 cu.ft

GENERAL CHARACTERISTICS

LAYOUT

- Passenger transport : 1 or 2 pilots + 12 passengers with comfort seats
(1 or 2 pilots + 13 passengers with utility seats)
- Casualty transport : 1 or 2 pilots + 4 stretcher-patients + 2 seats for medical attendants (or 2 stretcher-patients and 4 seats)
- VIP corporate : 1 or 2 pilots + 8 passengers with VIP lay-out

WEIGHTS

- Empty weight, standard aircraft :
(including engine oil and non usable fuel and all feature included in the definition of the standard aircraft)
- Useful load :
- Maximum all-up weight :
- Maximum load on cargo sling :

	kg	lb
Empty weight, standard aircraft	2,565	5,655
Useful load	2,235	4,927
Maximum all-up weight	4,800	10,582
Maximum load on cargo sling	1,600	3,527

Note : Empty weight accuracy : within ± 2 %.

POWER PLANT : 2 TURBOMECA ARRIEL 2C1 free turbine engines

Available engine power in standard atmosphere, at sea level :

- 30 seconds O.E.I. power
- 2 minutes O.E.I. power
- Continuous O.E.I. power
- Take-off power A.E.O.
- Maximum continuous power A.E.O.

	kW	ch	shp
30 seconds O.E.I. power	729	990	977
2 minutes O.E.I. power	656	891	879
Continuous O.E.I. power	635	863	851
Take-off power A.E.O.	635	863	851
Maximum continuous power A.E.O.	597	811	800

USABLE FUEL CAPACITIES

- Standard fuel tanks (2 groups)
- Additional fuel tanks (option)
 - Auxiliary fuel tank
 - Ferrying fuel tank

	litres	US gal.	kg	lb
Standard fuel tanks (2 groups)	1,257	332	993	2,189
Auxiliary fuel tank	180	47	142	313
Ferrying fuel tank	460	121	363	801

DEFINITION OF THE STANDARD AIRCRAFT

GENERAL

Fuselage comprising the cabin and baggage hold with floor, tie-down net and access-doors (RH and LH side)
 Baggage hold door locks
 Tail boom with stabiliser fitted with 2 lateral fins and terminated by a shrouded tail rotor built into the vertical main fin
 Retractable tricycle landing gear with nose wheel castor lock unit and assisted differential brakes on pilot's and copilot's sides and parking brakes

Built-in foot-steps (2 each side) for access to transmission deck
 Cargo-sling attachment points
 Jacking, hoisting, mooring and gripping points
 Interior paint : light grey
 Exterior paint : as per standard colour chart (scheme and colours, gloss or matt polyurethane finish, white + 2 colours)

CABIN

- 1 cabin floor capable of various optional types of arrangements
- 2 removable pilot and copilot high back-rest seats, adjustable in reach and height, each fitted with a safety belt and shoulder harness
- 1 glass windshield
- 2 pilot and copilot hinged doors, each with a bad weather tinted window allowing access to front passenger row
- 2 jettisonable tinted windows on central fixed panel
- 2 sliding passenger doors with jettisonable tinted windows
- 2 external fixed cabin footsteps
- 2 tinted upper panes

Cabin upholstery with standard sound proofing
 Dual flight controls
 1 copilot collective stick guard
 Engine controls
 Rotor brake control
 1 heating/demisting/ventilation system
 2 windshield wipers
 1 fire-extinguisher
 1 first-aid kit recess
 2 illuminated chart holders
 1 flight manual
 Manuals stowage installation

INSTRUMENTS

- 2 Primary Flight Display (PFD) providing the following information
 - attitude
 - indicated airspeed with flight envelope data
 - vertical speed
 - barometric altitude
 - ILS (with heading scale) (*)
 - Auto pilot mode annunciator
 - DH alarm (*)
- 2 Navigation Display (ND) providing the following information
 - heading
 - radio navigation sources (*)
 - automatic bearings (*)
 - radio altitude scale with DH select (*)
 - ILS (*)
 - DME (*)
 - 2 D navigation leg displays (*)
 - external video sources (*)
- 1 dual screen Vehicle and Engine Multifunction Display (VEMD) providing the following information
 - first limitation indicator (FLI) (limitation related to the first power limitation (NG, T4, TrQ))
 - engine oil temperature/pressure indicator
 - hydraulic pressure
 - ammeter and voltmeter
 - OAT
 - enhanced usage monitoring functions (*)
 - engine cycle counting
 - automatic engine check

(*) when optional equipment is fitted

- 1 Caution Advisory Display (CAD) providing the following information
 - caution advisory display (amber green and blue lights only)
 - fuel quantity
 - fuel pressure
 - ΔNG (back-up mode)
- 1 stand-by gyro-horizon
- 1 stand-by anemometer
- 1 stand-by altimeter
- 3 heated pitots heads
- 2 hydraulic pressure gauges
- 2 Instrument Control Panel (ICP)
- 2 Attitude and Horizontal Reference System (AHRS)
- 1 AHRS control box
- 2 Air Data Computers (ADC)
- 1 Reconfiguration Unit
- 1 fuel circuit control and inspection panel
- 1 electrical control panel
- 1 landing gear position selector and indicator
- 1 stop watch
- 1 triple tachometer for rotor and engine 1 and 2 free turbine r.p.m., on pilot's side with OEI lights
- 1 tachometer for rotor on copilot's side
- 1 stand-by magnetic compass
- 1 warning panel (red alarms)
- 2 master alarm lights
- 2 manoeuvre limit lights
- 1 overhead panel including engine control panel with 2 fire warning lights and 2 dual fire extinguishing controls for engine bays
- 2 "L/G not extended" warning light
- 1 autopilot control box
- Avionics wiring provisions

POWER PLANT

- | | |
|--|---|
| <p>2 TURBOMECA ARRIEL 2C1 turbine engines complete with starting, Dual Channel Full Authority Digital Engine Control (FADEC) system and fitted with a magnetic plug and a chip detector c/w a warning light on warning panel</p> <p>The FADEC governor provides the following functions : variable rotor speed governing, training mode, automatic starting sequence</p> <p>Each engine is equipped with an anti-icing fuel system (efficient down to O.A.T. = -20° C)</p> | <p>1 fuel system including 6 tanks split into 2 groups, with a total usable capacity of 1,250 litres (330 US gal), 4 immersed booster pumps, 1 transfer pump, an indication of low levels</p> <p>1 bleed control for the fuel system</p> <p>2 engine lubrication and oil cooling systems</p> <p>2 engine fire detection and extinguishing systems</p> <p>2 engine anti-icing air-intake grids</p> <p>2 sensors for torquemeter</p> <p>Engine flushing plug (without removing cowlings)</p> <p>Fuel filler with lock and protection</p> <p>Manual backup engine governing, electrically controlled</p> |
|--|---|

TRANSMISSION SYSTEM

- | | |
|---|--|
| <p>1 main gearbox with oil sight gauge, magnetic plug, oil pressure and temperature pick-up, lubrication system, one stand-by lubrication pump, thermal-switch, rotor tachometer drive holes for endoscope and oil sampling, and 2 chip detectors</p> | <p>2 free wheels integral with main gearbox</p> <p>1 main gearbox oil cooling system</p> <p>2 engine/main gearbox coupling shafts</p> <p>1 rotor brake</p> <p>1 tail gearbox with oil sight gauge and 1 chip detector c/w a warning light on warning panel</p> |
|---|--|

ROTORS AND FLIGHT CONTROLS

- | | |
|---|---|
| <p>1 main rotor with 5 glass and carbon-fibre blades with Spheriflex head fitted with gust and droop stops, mast fitted with rotor r.p.m. phonic-wheel</p> <p>1 "fenestron" type tail rotor with 10 composite material blades built into the vertical fin</p> | <p>1 flying control system, fitted with 3 dual-chamber/dual-body main servo-units (on cyclic and collective pitch channels) and 1 dual-chamber/dual-body rear servo-unit (on tail rotor pitch control channel)</p> <p>1 4-axis auto-pilot including upper modes (*)</p> <p>(*) SAR modes available only when optional equipment is fitted</p> |
|---|---|

ELECTRICAL INSTALLATION

- | | |
|---|--|
| <p>Power generation system:</p> <ul style="list-style-type: none"> - 2 starter/generators (160 A, 28 V DC) - 43 amp.hr nickel-cadmium battery with temperature sensor and warning light - 1 external DC power connector (NATO Standard) 28 V - 1 additional maintenance ICS jack in the ground power receptable compartment <p>Power distribution system:</p> <ul style="list-style-type: none"> - 2 primary bus bars - 2 essential bus bars - 2 high load bus bars (80 A) – for optional equipment only - 1 battery bus - 2 breakers panels in radome - 1 breaker panel in cockpit | <p>Lighting :</p> <ul style="list-style-type: none"> - 1 anti-collision light - 2 retractable swivelable landing lights (search light) (450 W) - 3 position lights (red, green, white) - adjustable instrument lighting - 2 utility lights in the cockpit - 1 instrument light for flight in stormy conditions - Compartment lights in cabin and cargo compartment - 2 x 28 V DC power connectors in cabin |
|---|--|

HYDRAULIC GENERATION

- | | |
|--|--|
| 2 independent hydraulic systems feeding the servo-units, landing gear actuation system and assisted brakes | 1 stand-by hydraulic system with electro-pump for emergency activation of the landing gear and for providing hydraulic assistance on the ground with the rotor stopped |
| 1 self-sealing hydraulic ground coupling | |

AIRBORNE KIT (*)

- | | |
|--------------------------------|----------------------------|
| 3 pitot head covers | 2 gripping rings |
| 2 static vent plugs | Main blades tie-down kit |
| 2 engine air-intake covers | 1 set of jacking pads |
| 2 engine tail pipe covers | 1 data case |
| 7 mooring rings | 1 airborne kit stowing bag |
| 2 rough weather tie-down rings | |

(*) (weight not included in standard aircraft empty weight).

**MISSION EQUIPMENT
PACKAGES**

The EC 155 is proposed in the three following configurations packages :

- VIP Corporate
- Offshore
- Parapublic

The associated definitions are shown here after together with their respective Equipped Empty Weight.

For each proposed package, the standard aircraft definition includes the following equipment (for more details, please refer to page 4 to 6 of the present document):

- LH and RH cargo doors
- Tinted passenger plexiglass panes
- Glass windshield
- Crew seats adjustable in reach and height
- « MEGHAS » LCD flight instruments
- 4-axis Digital Dual Automatic Flight Control System (DDAFCS)
- 2 Retractable and swivelable landing lights
- Nose wheel castor lock
- Rotor Brake
- 6 fuel cells with 1257 ltr capacity
- Main Gear Box stand-by lubrication pump
- 43 Amp/h cadmium battery with temperature sensor

VIP - CORPORATE

1. STANDARD AIRCRAFT

2. VIP CORPORATE EQUIPMENT

- Jettisonable pilot and copilot hinged doors
- Pilot and copilot footsteps (not compatible with emergency floatation gear)
- Cargo compartment fire protection
- Tail fin and belly strobe lights
- Customized outside paint
- Air conditioning (mechanically driven)
- Retractable passenger footsteps instead of standard equipment (left and right)
- Cabin hinged doors (left and right)
- 4/8 seat complete VIP installation

3. VIP CORPORATE RADIO COM/NAV EQUIPMENT

- 1 SP. IFR Kit with DME and RMI stand by indicator with 2nd stop watch
- Passenger interphone team BA 1920
- ICS TEAM TB 31 with 2 control units
- VHF/AM COLLINS 422 A (#1)
- VHF/AM COLLINS 422 A (#2)
- Passenger address NAT AA 20-431 with 4 loudspeakers
- VOR/ILS COLLINS VIR 432 (#1)
- VOR/ILS COLLINS VIR 432 (#2)
- DME COLLINS DME 442 (1)
- ADF COLLINS ADF 462 (1)
- Transponder COLLINS TDR 94 D (1)
- 1 Flight Management System Universal UNS-1D linked with DDAFCS
- Radio altimeter CNI AHV 16 visible on SMDs
- Emergency Locator Transmitter KANNAD 406
- Weather Radar TELEPHONICS RDR 2000 with VRU
- 1 SSCV FDR
- 2 Headsets

4. VIP CORPORATE EQUIPPED EMPTY WEIGHT =
(including weight tolerance)

3,071 kg
6,770 lb

5. POSSIBLE OPTIONAL EQUIPMENT

5.1 RADIO COM/NAV EQUIPMENT

- VHF/FM MARITIME NAT NPX 138
- HF/SSB COLLINS HF 9100
- TCAS 1 HONEYWELL CAS 66A (stand alone)
- ICS 3rd control box TEAM TB 31
- ICS 4th control box TEAM TB 31
- AVAD RACAL Type V 694
- MOVING MAP EUROAVIONICS EURONAV 3 (stand alone) linked to the UNS1-D GPS
- LIGHT HUMS (JAR OPS and usage functions, ground stations to be ordered separately)
- FULL HUMS (Health functions, ground station excluded)
- ADELTA RACAL DATA COM CPT 609
- Second Transponder COLLINS TDR 94 D

5.2 MISSION EQUIPMENT

- Icing Detector (Rosemount)
- De-icing of panes in front of the crew
- 10 kVA A.C. alternator
- Emergency floatation gear (not compatible with Pilot and Copilot footsteps)
- 2nd extinguisher in cabin
- Auxiliary fuel tank 180 l, in luggage compartment
- Windshield washer
- Sand prevention filters
- High visibility painting on the main rotor blade tip caps
- VIP treatment of the cockpit
- Gold plated finishing of the cabin metalized parts
- Blade folding with high wind stops

OFFSHORE

1. STANDARD AIRCRAFT

2. OFFSHORE EQUIPMENT

- Jettisonable pilot and copilot hinged doors
- Cargo compartment fire protection
- Tail fin and belly strobe lights
- Customized outside paint
- 12 seats cabin layout with 4 point harness
- Heel light
- Improved sound proofing (85 dB)
- Life-raft installation (2 x 10 pax)
- Emergency floatation gear (complete installation)
- Windshield washer
- Anti-corrosion protection for SAR mission

3. OFFSHORE RADIO COM/NAV EQUIPMENT

- 1 SP.IFR Kit with DME and RMI stand-by indicators with 2nd stop watch
- Passenger interphone team BA 1920
- ICS TEAM TB 31 with 2 control units
- VHF/AM COLLINS 422 A (#1)
- VHF/AM COLLINS 422 A (#2)
- Passenger address NAT AA 20-431 with 4 loudspeakers
- VOR/ILS COLLINS VIR 432 (#1)
- VOR/ILS COLLINS VIR 432 (#2)
- DME COLLINS DME 442 (1)
- ADF COLLINS ADF 462 (1)
- Transponder COLLINS TDR 94 D (1)
- 1 Flight Management System UNIVERSAL UNS-1D linked with DDAFCS
- Radio altimeter CNI AHV 16 visible on SMDs
- Emergency Locator Transmitter KANNAD 406
- 1 Weather radar TELEPHONICS RDR 1400 C (including AC inverter and VRU)
- 1 SSCV FDR
- 2 Headsets

4. OFFSHORE EQUIPPED EMPTY WEIGHT = (including weight tolerance)

**2,946 kg
6,495 lb**

5. POSSIBLE OPTIONAL EQUIPMENT

5.1 RADIO COM/NAV EQUIPEMENT

- GPS TRIMBLE TNL 2101 I/O Approach Plus linked with DDAFCS (in lieu of the UNS 1 D)
- Weather radar TELEPHONICS RDR 2000 (displayed on ND's through the VRU) in lieu of Telephonic 1400C
- TCAS 1 Bendix CAS 66A
- AVAD RACAL type V 694
- Moving map EUROAVIONICS EURONAV 3 (stand alone) linked to the UNS1-D GPS
- ICS 3rd control box TEAM TB 31
- ICS 4th control box for TEAM TB 31
- ICS microphone foot push-to-talk-button
- Passenger interphone for 8 persons TEAM BA 1920
- Second transponder COLLINS TDR 94 D
- VHF/FM Maritime NAT NPX 138
- HF/SSB COLLINS HF 9100
- ADELTA RACAL DATA COM CPT 609
- LIGHT HUMS (JAR OPS and usage functions, ground station to be ordered separately)
- FULL HUMS (Health functions, ground station excluded)

5.2 MISSION EQUIPMENT

- Air conditioning (mechanically driven)
- Icing Detector (Rosemount)
- De-icing of panes in front of the crew
- 10 kVA A.C. alternator
- Removable parts for Air Equipment electrical hoist (272 kg/600 lb – 90 m/295 ft)
- Cargo sling with dynamometer and outside mirror (1,600 kg / 3,527 lb)
- 2nd fire extinguisher in cabin
- Auxiliary fuel tank, in luggage compartment
- Sand prevention filter
- High visibility markings of the main rotor blades Tip cap
- FLIR in right side pod
- Blade folding and high wind stops
- Full de-icing

PARAPUBLIC

1. STANDARD AIRCRAFT

2. PUBLIC SERVICES EQUIPMENT

- Jettisonable pilot and copilot hinged doors
- Pilot and copilot footsteps (not compatible with emergency floatation gear)
- Cargo compartment fire protection
- Tail fin and belly strobe lights (not NVG compatible)
- Customized outside paint
- 12 seats cabin layout with 4 point harness
- Improved sound proofing (85 dB)
- Air Equipment hoist (272 kg/90m) – (Fixed Parts)
- Electrical hailer – (Fixed Parts)
- Searchlight SX-16 – (Fixed Parts)
- Rappelling installation (Fixed Parts)

3. PUBLIC SERVICES RADIO COM/NAV EQUIPMENT

- 1 SP.IFR Kit with DME and RMI stand-by indicators with 2nd stop watch
- Passenger interphone team BA 1920
- ICS TEAM TB 31 with 2 control units
- VHF/AM COLLINS 422 A (#1)
- VHF/AM COLLINS 422 A (#2)
- Passenger address NAT AA 20-431 with 4 loudspeakers
- VOR/ILS COLLINS VIR 432 (#1)
- VOR/ILS COLLINS VIR 432 (#2)
- DME COLLINS DME 442 (1)
- ADF COLLINS ADF 462 (1)
- Transponder COLLINS TDR 94 (1)
- 1 Flight Management System Universal UNS 1 D linked with DDAFCS
- Radio altimeter CNI AHV 16 visible on SMDs
- Emergency Locator Transmitter KANNAD 406
- Flight Management System UNIVERSAL UNS-1D linked with DDAFCS
- 1 Weather radar TELEPHONICS RDR 1400 C (including AC inverter and VRU)
- 1 SSCV FDR
- 2 Headsets

**4. PARAPUBLIC EQUIPPED EMPTY WEIGHT =
(including weight tolerance)**

**2,833 kg
6,246 lb**

5. POSSIBLE OPTIONAL EQUIPMENT**5.1 RADIO COM/NAV**

- VHF/FM MARITIME NAT NPX 138
- HF/SSB COLLINS HF 9100
- TCAS 1 HONEYWELL CAS 66A (stand alone)
- ICS 3rd control box TEAM TB 31
- ICS 4th control box TEAM TB 31
- AVAD RACAL Type V 694
- MOVING MAP EUROAVIONICS EURONAV 3 (stand alone) linked to the UNS1-D GPS
- LIGHTS HUMS (Jar OPS and usage functions ground station to be ordered separately)
- FULL HUMS (Health functions, ground station excluded)
- HOMING SAR CHELTON SYSTEM 7 (3 bands)
- ADELTA RACAL DATA COM CPT 609

5.2 MISSION EQUIPMENT

- NVG compatible retractable landing light
- Second NVG compatible retractable landing light
- Kit for NVG cockpit and external lighting
- Icing Detector (Rosemount)
- De-icing of panes in front of the crew
- 10 kVA A.C. alternator
- Air conditioning (mechanically driven)
- Cargo sling (1600 kg) with dynamometer and external mirror
- Auxiliary fuel tank (180 l) in cargo hold
- Removable part Air equipment electrical hoist (272 kg/600lb – 90m/295 ft)
- Removable part Searchlight SX-16
- Removable part Electrical hailer
- Removable part for rappelling installation
- Emergency floatation gear (not compatible with Pilot and Copilot footsteps)
- 2nd fire-extinguisher in cabin
- FLIR in pod right side
- EMS AAT KIT
- Anti-corrosion protection for SAR mission
- Windshield washer
- Sand prevention filters
- High visibility markings of the Main rotor blades Tip cap
- Blade folding and high wind stops
- Full de-icing

MAIN PERFORMANCE

The following performance figures and charts are probable average values obtained with new engines. Unless otherwise specified, they are for the aircraft in "clean" configuration in zero wind, sea level, standard atmosphere conditions.

PERFORMANCE ON 2 ENGINES

All-up weight	kg lb	4,000	4,400	4,800	
		8,818	9,700	10,582	
■ Max. speed, VNE	km/hr	324	324	324	
	kts	175	175	175	
■ Fast cruise speed	km/hr	280	274	268	
	kts	151	148	145	
■ Fast cruise speed (6000 Ft)	km/hr	296	289	281	
	kts	160	156	152	
■ Recommended cruise speed	km/hr	270	269	268	
	kts	146	145	145	
■ Recommended cruise speed (6000 Ft)	km/hr	273	270	265	
	kts	148	146	143	
■ Fuel consumption at recommended cruise speed	kg/hr	322	330	337	
	lb/hr	710	728	743	
■ Rate-of-climb	m/sec.	8.7	7.3	6.1	
	ft/min.	1,718	1,439	1,195	
■ Maximum range (without fuel reserve, at recommended cruise speed)					
	● with standard tanks	km	857	835	812
	n.m	463	451	438	
	● with optional auxiliary tank	km	985	960	934
	n.m	532	518	504	
■ Maximum endurance [without reserve at 140 km/hr (87 mph - 75 kts)]					
	● with standard tanks	hr	4h30	4h20	4h00
	● with optional auxiliary tank	hr	5h10	4h35	

PERFORMANCE ON 2 ENGINES (CNTD)

		4,000	4,400	4,800
		8,818	9,700	10,582
All-up weight	kg lb			
■ Hover ceiling I.G.E. at take-off power (6 ft)				
● ISA	m ft	>2,591 (*) >8,500 (*)	2,157 7,076	1,286 4,220
● ISA + 20° C	m ft	1,898 6,229	1,462 4,798	590 1,936
■ Hover ceiling O.G.E. at take-off power				
● ISA	m ft	>2,591 (*) >8,500 (*)	1,738 5,698	400 1,311
● ISA + 20° C	m ft	1,867 6,126	888 2,912	- -
■ Service ceiling (Vz = 0,5 m /sec. - 100 ft/min.)				
● ISA	m ft	3,962 13,000	3,962 13,000	3,962 13,000

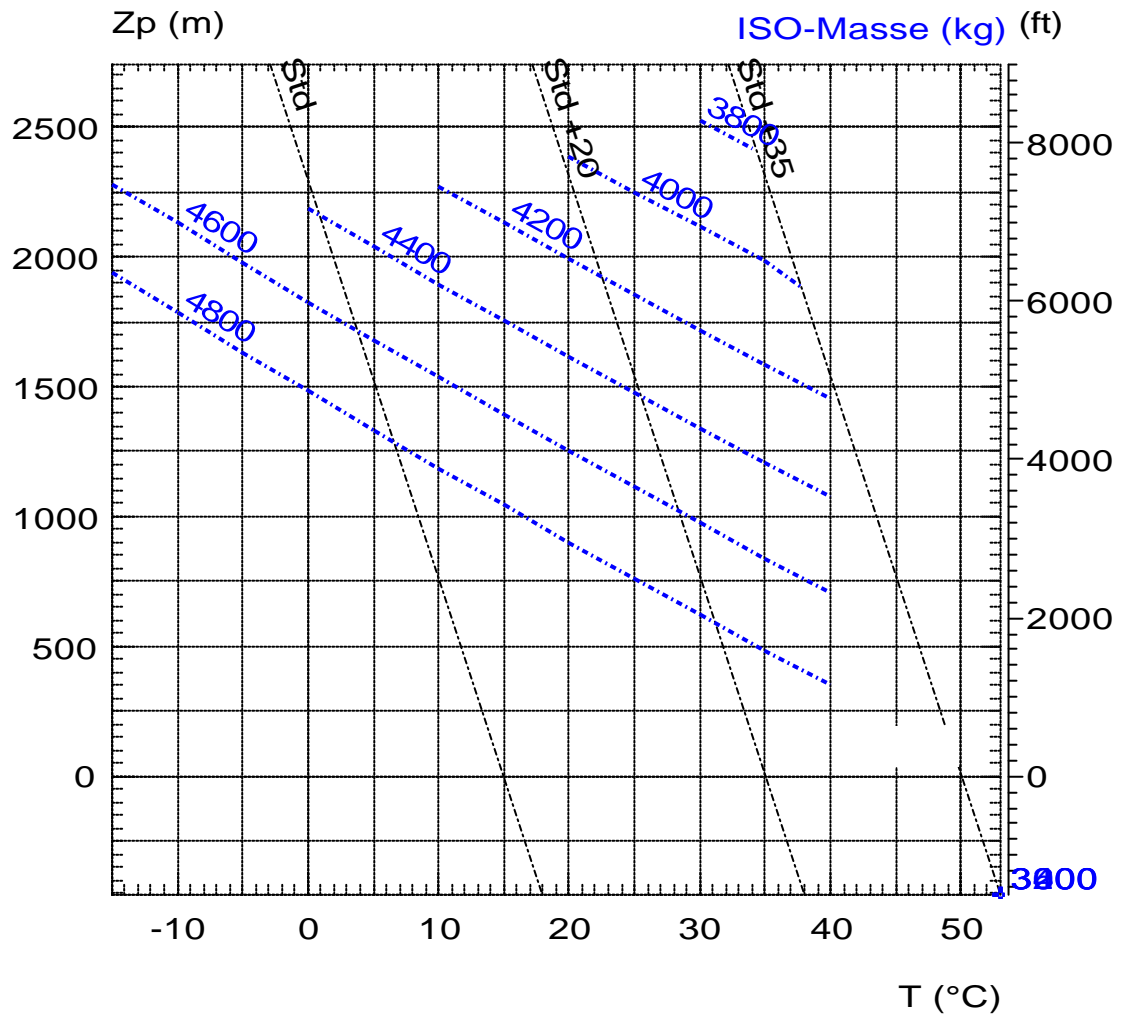
(*) Operation ceiling higher than present operating limitations (see below)

Operating limitations

The aircraft is cleared to operate within the following altitude and temperature limitations :

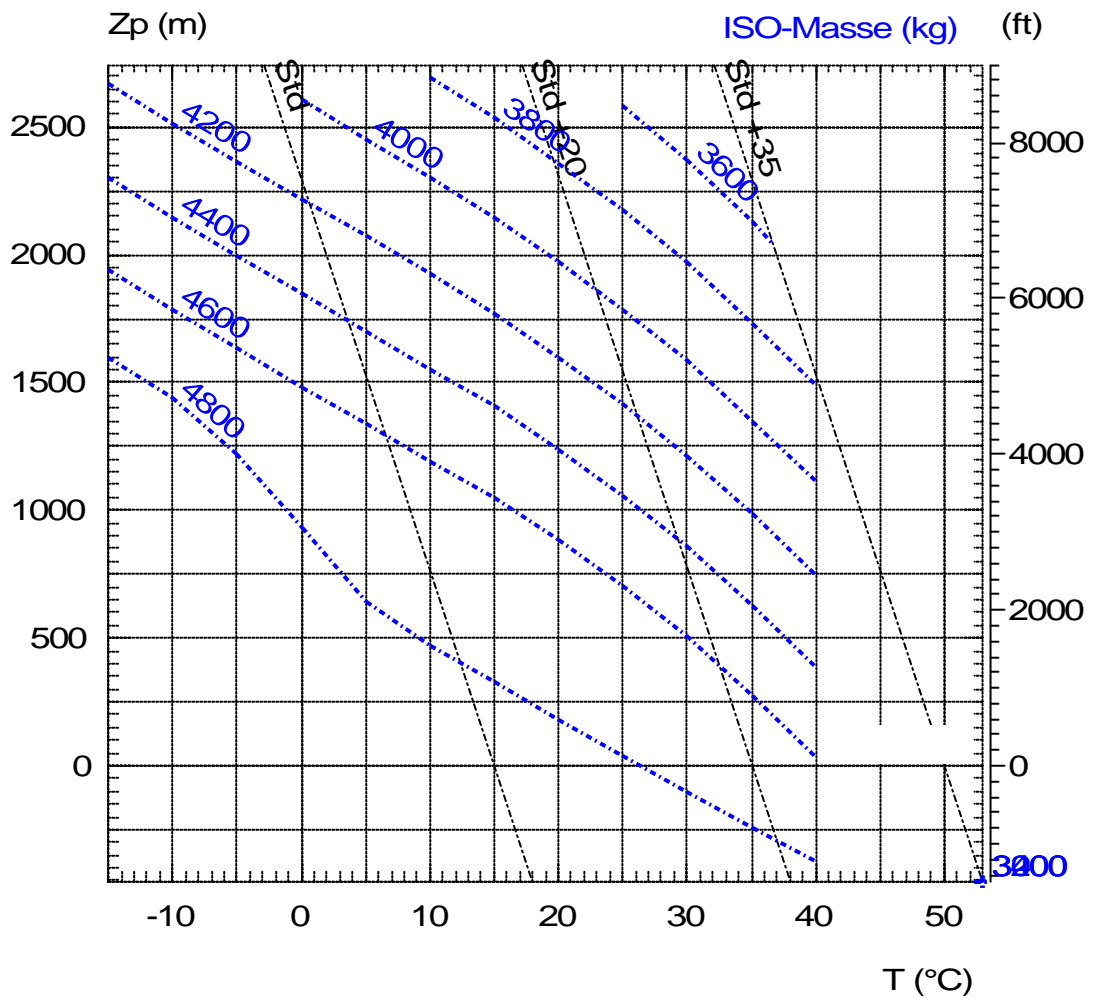
- Maximum pressure altitude
 - Flight 3,962 m - 13,000 ft
(Standard Atmosphere Conditions)
 - Take-off and landing 2,590 m – 8,500 ft *density altitude*
- Maximum temperature ISA + 25°C limited to 40 ° C
- Minimum temperature - 25° C

TAKE-OFF WEIGHT IN HOVER I.G.E (6 ft)



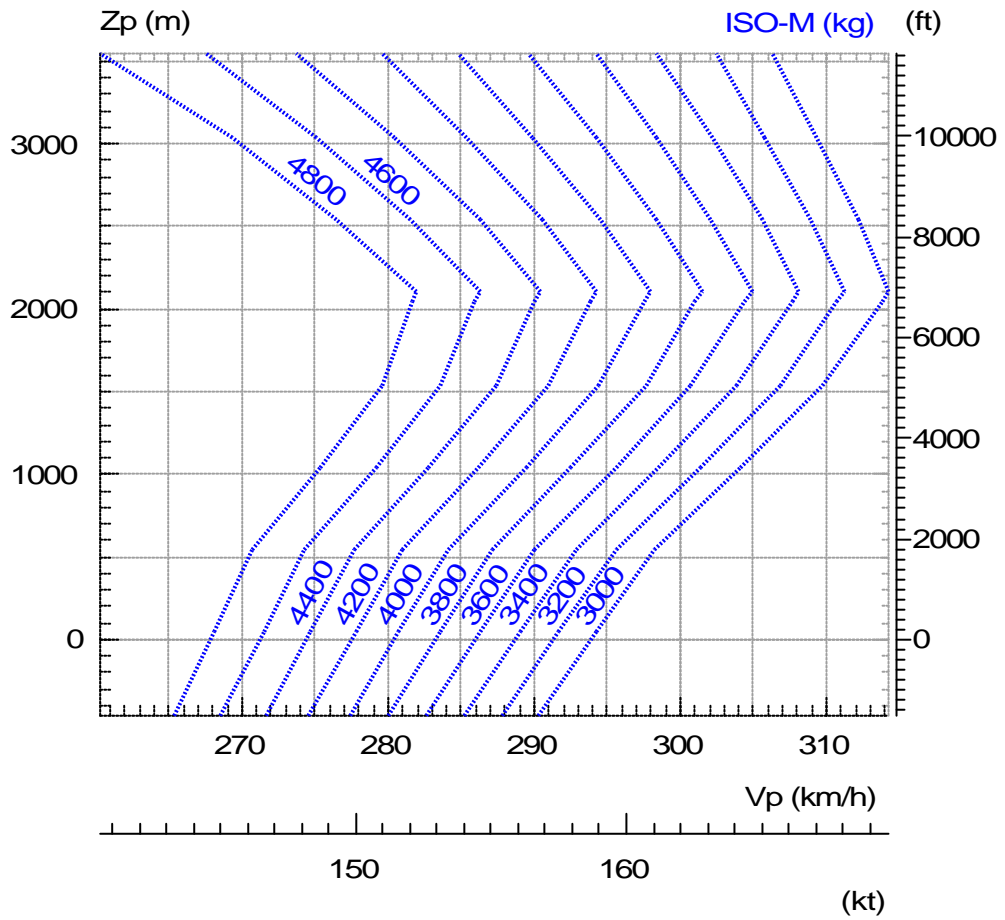
Current limitations: $Z_s < 8,500\text{ft}$
 $-15^\circ\text{C} < T < \text{ISA}+25^\circ\text{C}$ (limited to 40°C)

TAKE-OFF WEIGHT IN HOVER O.G.E



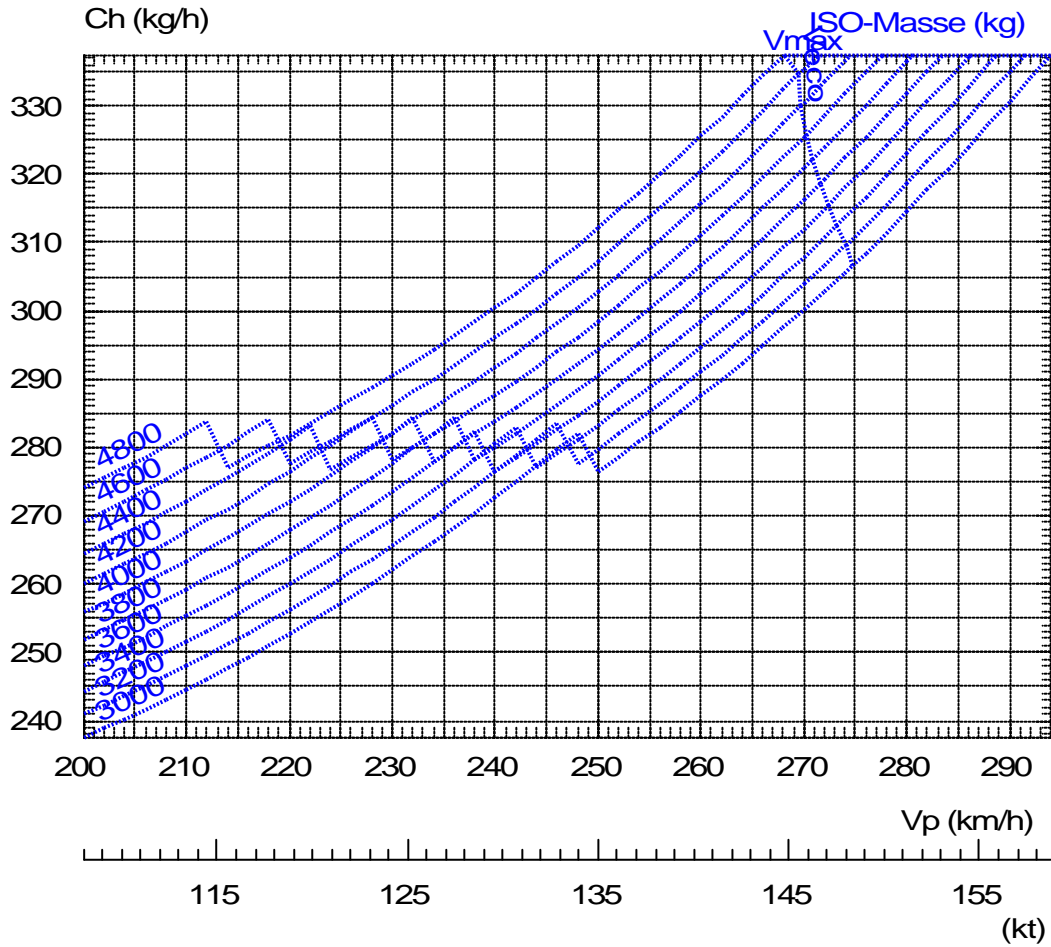
Current limitations: $Z_s < 8,500\text{ft}$
 $-15^\circ\text{C} < T < \text{ISA}+25^\circ\text{C}$ (limited to 40°C)

**FAST CRUISE SPEED
(ISA)**



Current limitations: $Z_p < 13000\text{ft}$

HOURLY FUEL CONSUMPTION IN LEVEL FLIGHT (ISA – S.L.)



HOURLY FUEL CONSUMPTION IN LEVEL FLIGHT
(ISA – 5000 ft)

