



HELICOPTERS

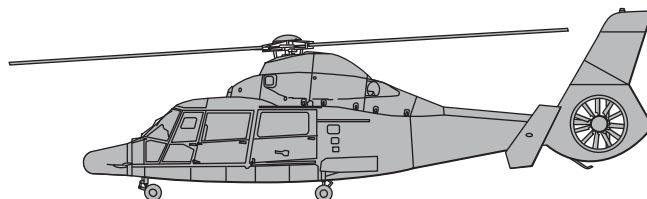
# AS365 N3+

Technical Data

2017

**AIRBUS**

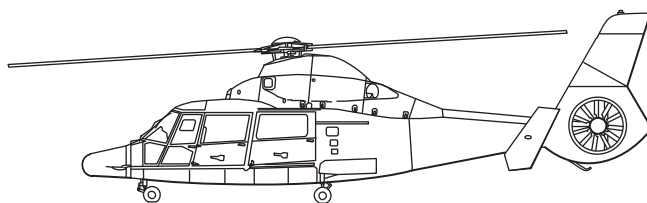
**DAUPHIN**  
(Civil Version)



**AS365 N3+**

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**PANTHER**  
(Military Version)



**AS565 MBe**

## 3 Baseline Aircraft Definition

### GENERAL

- Fuselage comprising the cabin and luggage hold
- Nose capable of accommodating various radars (long radome)
- Luggage hold with floor, tie-down net and access door (RH)
- Tail boom with stabilizer fitted with 2 lateral fins and terminated by a shrouded tail rotor built into the vertical main fin
- Retractable tricycle landing gear with axially lockable castering nose wheel unit, assisted differential brakes on pilot's and copilot's stations and parking brake
- 3 heated pitot heads
- 2 ADU3200 Air Data Units
- 2 Aircraft Piloting Inertial Reference Sensors – APIRS
- Built-in foot-steps (2 on each side) for access to transmission deck
- Anti-corrosion protection
- Fixed parts for the main blade-folding system
- Structural reinforcements for 1,600 kg (3,527 lb) cargo-sling
- Structural reinforcements for hoist
- Jacking, hoisting, mooring and gripping points
- Interior colour: matt black for instrument panel, overhead panel and radio console, grey for cockpit and cabin
- Exterior colour:
  - the fuselage is single colour painted (gloss or matt polyurethane finish, colour to be selected in RAL K7 chart, excluding metallic, fluorescent paints and special paints), unless modified by option,
  - the landing gears are light blue,
  - the transmission deck (MGB & tail rotor drive shaft) are white,
  - the main rotor and tail rotor are grey,
  - the main rotor blades are kaki and the tail rotor blades are black

### COCKPIT / CABIN

- 1 cabin floor capable of the 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 4-point harness
- 2 pilot and copilot jettisonable doors, each fitted with a bad weather window and an internal storage unit
- 2 hinged jettisonable cabin front doors
- 2 enlarged and bubbled rear sliding-doors with jettisonable window from inside and outside
- 4 retractable foot-steps (2 on each side)
- Cabin upholstery with soundproofing
- 1 instrument panel, one console and one ceiling panel
- Dual flight controls
- Engine controls
- Rotor brake control
- 1 heating/demisting/ventilation system
- 2 upper tinted panes
- 2 front panes in glass
- 2 windshield wipers
- 2 illuminated chart holders
- 2 headset holders
- 1 portable fire-extinguisher
- 1 flight manual

### INSTRUMENTS

- 2 x 2 PFD/ND Collins MFD-255
- 1 stand-by gyro-horizon
- 1 stand-by altimeter
- 1 stand-by airspeed indicator
- 1 dual torquemeter, on pilot's side
- 2 engine exhaust pipes temperature indicators
- 2 engine oil pressure and temperature indicators
- 2 fuel pressure indicators
- 1 main gearbox oil pressure and temperature indicator
- 2 hydraulic pressure gauges
- 1 voltmeter
- 1 ammeter
- 1 dual fuel contents gauge
- 1 fuel circuit control and inspection panel
- 1 electrical control panel
- 1 Automatic Pilot Mode Selector – APMS
- 1 AHRS control box
- 1 landing gear position selector and indicator
- 2 stop watches
- 1 triple tachometer for rotor and engines 1 and 2 free turbine r.p.m., on pilot's side
- 1 rotor tachometer on copilot's side
- 2 ΔNG indicators (gas generators 1 and 2) with OEI rating operating lights
- 1 stand-by magnetic compass
- 1 warning panel
- 2 master alarm lights
- 2 manoeuvre limit warning lights
- 1 overhead panel including engine control panel with 2 fire warning lights and 2 dual fire extinguishing controls for engine bays
- 1 "L/G not extended" warning light
- Spare space for radar screen and radio com/nav. Equipment
- 1 radar altimeter (radar altitude displayed on MFD255)

## POWER PLANT

- 2 Turbomeca ARRIEL 2C turbine engines providing each 717 kW (974 ch – 961 shp) super contingency rating, Full Authority Digital Engine Control system. The Digital Engine Control Unit (FADEC) provides the following main functions: variable rotor speed governing, training mode, automatic starting sequence. Each engine is equipped with an anti-icing fuel system (efficient down to O.A.T. = -20°C)
- 1 fuel system including 5 tanks split into 2 groups, with a total usable capacity of 1,135 litres (300 US gal), 4 immersed canister booster pumps, 1 transfer pump and an indication of low levels
- 2 engine lubrication and oil cooling systems
- 1 fuzz burner system on engine lubrication system
- 2 fire detection and extinguishing systems
- 2 anti-icing air-intake grids
- 2 phase angle torquemeter sensors built into the engines
- 2 engines exhaust pipes
- Engine flushing device (without cowlings removing)

## TRANSMISSION SYSTEM

- 1 main gearbox, anti-vibration mounted, with oil sight, magnetic plug, oil pressure and temperature probe, lubrication circuit, thermal-switch, 2 rotor tachometer magnetic sensors and holes for endoscope and oil sampling
- 1 tail gearbox with oil sight and magnetic plug
- 1 main gearbox oil cooling system
- 2 engine/main gearbox coupling shafts
- 1 tail rotor drive shaft
- 1 rotor brake
- 2 free wheels integral with main gearbox

## ROTORS AND FLIGHT CONTROLS

- 1 main rotor with 4 glass and carbon-fibre blades with STARFLEX® head fitted with gust and droop stops, mast fitted with rotor r.p.m. phonic-wheel
- 1 FENESTRON® type tail rotor with composite material blades built into the vertical fin
- 1 flight 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)
- 1 Dual Digital Automatic Flight Control System (4-axes) including upper modes

## ELECTRICAL INSTALLATION

- 2 starter-generators (4.8 kW, 28 V D.C.)
- one 43 amp.-hr cadmium-nickel battery with temperature detector
- 1 external D.C. power receptacle
- 1 additional maintenance ICS jack in the ground power receptacle compartment
- 1 instrument light for flight in stormy conditions
- 1 instrument white/blue lighting system
- 1 cabin dome-light
- 4 cabin light strips
- 2 cabin extension lights
- 1 luggage hold dome-light
- 3 position lights
- 1 double red and white tail fin anti-collision light
- 1 retractable LH landing light, adjustable in elevation
- 1 retractable RH landing light, adjustable in elevation and in azimuth allowing search-light and hoist light
- 1 cabin power outlet (28 V.D.C.)
- 1 emergency battery for automatic lighting of the dome-lights and signs

## HYDRAULIC GENERATION

- 2 independent hydraulic systems feeding the servo-units, landing gear actuation system and assisted brakes
- Self-sealing hydraulic ground coupling
- 1 stand-by hydraulic system with electro-pump for emergency actuating of the landing gear, hydraulic assistance for flight controls tests on ground with rotor stopped and park brake pressure.

## AIRBORNE KIT <sup>1</sup>

- 3 pitot head covers
- 2 static vent blanks
- 2 engine air-intake blanks
- 2 engines exhaust pipe blanks
- 7 mooring rings
- 2 rough weather tie-down rings
- 2 gripping rings
- 1 main blade tie-down kit
- 1 set of jacking pads
- 1 fuel tanks bleed tool
- 1 data case
- 1 airborne kit stowing bag

<sup>1</sup> Weight not included in baseline aircraft empty weight.

# AIRBUS

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