

3 Baseline Aircraft Definition

GENERAL

- Energy absorbing fuselage
- Tail boom with fixed horizontal stabilizer and vertical fin with faired-in Fenestron®
- Upper deck with fittings for main gearbox, engines, hydraulic and cooling system
- Cowlings for main transmission and engines
- Skid-type landing gear with skid protectors, capable of taking ground-handling wheels
- Long boarding steps, LH and RH
- Cold weather kit
- Built-in maintenance steps and grips
- Exterior painting (single color)

COCKPIT, CABIN AND CARGO COMPARTMENT

- One-level cabin and cargo compartment floor with integrated rails
- Glazed canopy
- Two hinged cockpit doors with sliding window
- Map case in pilot's door
- Two wide passenger sliding doors with window of push-out type
- Two rear hinged clam-shell doors
- Longitudinally adjustable energy absorbing pilot and copilot seats with head rest and 4-point safety belts with automatic locking system; seat color grey or blue
- Cabin boarding grips (LH and RH)
- Interior paneling
- Flight controls (pilot side)
- Instrument panel with extension on pilot's side and glare shield
- Ram-air and electrical ventilating system for cockpit and cabin
- Bleed air heating system^a
- Ventilation for avionics deck^{a,b}
- Headset holder in the cockpit, rotatable
- Portable fire extinguisher
- Stowage net for first aid kit at the LH rear clam-shell door
- 2 flashlights (torches)
- Slant panel
- Center console
- Windscreen wiper for pilot and copilot
- Door open warning

- a. System in addition to EC145 Baseline Aircraft Definition
 b. If required by final configuration

BASIC INSTRUMENTATION

- Flight Display Subsystem (FDS)^a composed of 2 smart multifunction displays (6 x 8 inch) providing the following functions:
 - Flight Navigation Display (FND) page
 - Vehicle Monitoring Display (VMD) pages
- Vehicle Management Subsystem (VMS)^a including:
 - 2 duplex Aircraft Management Computer (AMC)
- Reference sensors
 - 3 Attitude and Heading Reference Systems
 - 2 Air Data sensors (electrically heated pitot tube and static port)
 - 2 Three Axis Magnetometers (TAM)
- Stand-by instruments
 - Integrated Electronic Standby Instrument (IESI)^a
 - Stand-by compass
- Usage Monitoring System (UMS)^a
 - „One hundred feet“ alert^a
 - Directional Gyro Free Steering Mode^a
 - Warning unit:
 - Engine fire warning with fuel emergency shut-off
 - Warning lights
 - Fire extinguishing system warning
- Cockpit Control Panel (CCP) for FDS^a
- Data Transfer Device (DTD)^a
- Engine switch panel:
 - Digital engine control (FADEC)
- Radar altimeter^a

- a. System in addition to EC145 Baseline Aircraft Definition

POWER PLANT

- Two TURBOMECA ARRIEL 2E turbine engines with electronic engine control (double channel FADEC)
- Crash resistant fuel system with a flexible bladder-type fuel main tank and supply tank (split into two sections)
- Two independent oil cooling and lubrication systems of the engines
- Fire detection and extinguishing system
- Chip detectors with quick-disconnect plugs
- Twin-engine OEI-training mode
- Automatically controlled variable rotor speed system
- Cycle counter
- Drain system
- Fire walls

TRANSMISSION SYSTEM

- Main transmission including an independent redundant lubrication system and monitoring sensors
- Chip detector system with quick-disconnect plug (main transmission)
- Free wheel assemblies in the engine input drives
- Rotor brake system
- Tail rotor transmission system with splash lubrication and oil level sight gauge
- Chip detector system with quick-disconnect plug (tail rotor gearbox)

ROTOR AND FLIGHT CONTROLS

- Hingeless main rotor (System Bölkow) with 4 glass and carbon fiber reinforced blades with erosion protection strip
- Fenestron®-type tail rotor with ten composite blades (asymmetric blade spacing) and stator
- Tail rotor gearbox cover
- Basic provisions for an easy integration of a balancing system
- Dual hydraulic boost system for cyclic and collective blade control of the main rotor
- Tail rotor control system with flexball cable and dual hydraulic booster
- Main rotor blade tip painting (yellow)
- Mast moment system
- Dual Duplex 4-axis Digital Automatic Flight Control System including upper modes^a

a. System in addition to EC145 Baseline Aircraft Definition

ELECTRICAL INSTALLATION

- Power generation system:
 - Two starter/generators (2 x 200 A, 28 VDC)
 - Nickel-Cadmium battery, (24 V, 40 Ah)
 - External power connector (STANAG 3302)
- Power distribution system:
 - Two primary busbars
 - Two essential busbars
 - Two shedding busbars
 - Two non-essential busbars (80 A) for optional equipment only
 - Battery bus
 - One utility receptacle in cargo compartment (28VDC, 20A)
- DC power control
- Lighting:
 - Anti-collision warning light (red flashing), LED
 - Fixed landing light (250 W)
 - Three position lights (red, green, white), LED
 - Adjustable instrument lighting
 - One utility light in the cockpit
 - Lights in the cabin and cargo compartment
 - Boarding illumination
 - Emergency lights
- Radio:
 - Two radio master switches

GROUND HANDLING KIT^a

- Two ground-handling wheels
- Basic aircraft covers (short term incl. Main Rotor Blade tie down)
- Oil drain hoses
- Keys for cockpit doors, cabin doors, baggage compartment doors and tank flap (one-key system)
- Battery key
- Lifting points
- Compass compensation key
- Fuel drain device

a. Weight not included in the standard helicopter empty weight

DOCUMENTATION (in English)

- One Flight Manual^{a b} (on paper)
- One Pilots Checklist^c (on paper)
- One Master Minimum Equipment List (MMEL)^a (on paper)
- One Logbook (on paper, CD-ROM on demand)
- One Historical Record (on paper, CD-ROM on demand)
- Technical Documentation^{ad} incl. AMM, SDS, WDM, IPC, MSM, CECG, SRM online via KEYCOPTER[®] portal
- Service Bulletin Catalogue (SB) online via T.I.P.I.
- One List of Applicable Publications (LOAP)^a online via KEYCOPTER[®] portal
- One Avionics Manual^e (for avionics installed by Airbus Helicopters) (on CD-ROM)
- One CD-ROM ECMM^c (Electronic Component Maintenance Manuals) for vendor manuals
- One Engine Documentation^f (on paper or CD-ROM), furnished by supplier, including:
 - Maintenance Manual
 - Illustrated Parts Catalogue (IPC)

- a. Revision service included as long as the aircraft is operational
- b. One Flight Manual included in the standard helicopter empty weight
- c. Revision service for 3 years
- d. Customized AMM, SDS, WDM and IPC versions available on request
- e. Customized documentation
- f. Revision service for 5 years