Technical description

RMF Site Huts Env. Class AA

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More than machines

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1. TECHNICAL DESCRIPTION

EXTERNAL MEASURES OVERALL (H x L x W):	3,000 x 8,474 x 2,924
INTERIOR MEASURES OVERALL (H x L x W):	2,400 x 8,084 x 2,534

LIGHTEST HUTS WIEGH APPROXIMATELY 5 TONS

FOUNDATION:	Huts must be placed on foundation according to assembly guide. 4x transversal wooden beams of at least 150x150 mm under the steel base. 2x base slabs under each supporting beam are placed on hard ground. Supporting beams to be levelled with distance plates on top of base slabs.
BASE:	Galvanized steel 120x60x4. 2x exterior longitudinal beams, 2x interior longitudinal beams, 2x transversal beams on gables, 2x transversal truck fork pockets of C-shaped steel 310x120x5 with welded reinforcement. Safety loop mounted to the frame on the gable. Distance spacers on each corner on the outside of the exterior longitudinal beams.
LIFTING LOOPS:	Galvanized steel hoisting brackets on each corner to function as distance spacers and corner fittings, intended for crane lift with 4-part strap.
FLOOR:	2 mm homogeneous plastic carpet (PVC) Tarkett Eclipse Premium 3440036 (beige) continued 100 mm up on the wall, covered with wax. 22 mm screwed and glued chipboard (P6) on transversal floor joists 45x145 C24 c/c 600 mm. Rockwool 150 mm, lambda 0,036 W/mK between joists. 9 mm screwed moisture proof OSB-board. 50 mm wind-barrier mineral wool Isover RKL 31 Facade between base frame, taped and mounted with fixing battens and screws. Dead load 2,6 kN/m^2 U = 0,18 W/ m^2K
ANCHORING THE FLOOR TO THE BASE:	
	18 x fixings to the floor structure.
EXTERIOR WALL:	UTV 18x120 mm finger-jointed tongue and grooved panel. Wind barrier membrane Tyvek 2460 B. External horizontal battens 45x45 glued and double-nailed to the frame + mineral wool lambda 0,033 W/mK. Vertical load bearing studs 45x120 C24 c/c600 + rockwool lambda 0,036 W/mK. Moisture barrier plastic foil 0,2 mm. 12 mm nailed laminated chipboard Forestia type 07F or 6,5 mm white-painted plywood. U = 0,22 W/ m^2K

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EXTERIOR WALL PANEL: Same structure as exterior walls.

INTERIOR WALL: 12 mm nailed laminated chipboard Forestia Forestia type 07F or 6,5 mm white-painted plywood. Vertical studs 45x45.

INTERIOR WALL PANEL: Same structure as interior walls. Movable interior doors, panels and sections mounted between rails of dark grey plastic-coated metal sheet in accordance with floor plans. Ceiling prepared with factory-assembled rails.

ROOF: 1 layer of hot-glued roofing felt type SBS 5500 with fibreglass-polyester inlays, Icopal Monopolar-T. 12 mm nailed and glued moisture proof plywood. Wedge shaped ventilation studs + air gap with snow shield. Difuse-open wind barrier membrane Tyvek 2460 B. 45mm longitudinal battens c/c 600 + 50 mm mineral wool lambda 0,033 W/mK. Transversal 45x170 C24 c/c 600 load bearing roof ridges + rockwool 170 mm lambda 0,036 W/mK. Moisture barrier plastic foil 0,2 mm. 12 mm nailed laminated chipboard Forestia type 07F. Glue-laminated wood beam GL28 in huts with open side. Roof safety loops mounted 2,0 m from each end of roof.

Snow load 3,6 kN/m^2

U = 0,18 W/ m^2K

ROOF DRAINAGE: Hot-galvanized removable rain gutters from 2 mm steel sheet. Drainpipes hot-galvanized square steel pipes.

WINDOWS: White, wooden frame, size according to the drawings, triple glazing with suncool weather-strip. Blinds with white plate sections on the side of the casement for fixing in ventilation position.

U = 0,98 W/ m^2K

WINDOW BARS: Removable and lockable white steel bars mounted on the inside.

EXTERIOR DOORS: Hot-galvanized door frame and plate size M9 x 21. Doors included according to the drawings. Doors with cylinder locks, delivered without Cylinders, above the cylinder, smooth cover plates are mounted. Doors and frames are designed to take 9-lever tumbler locks.

INTERIOR DOORS: Doors and frames are white.

SHEET METAL WORK: Overhead plates made of 1.5 mm hot-galvanized sheet. Window sills made of 1.0 mm hot-galvanized sheet. Door sills made of 1.5 mm hot-galvanized sheet.

INT. MOULDING: White wooden trims 10x30 on ceiling, 10x47 space covers and windows, 5x30x30 for exterior corners.

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VENTILATION: FTX ventilation with ventilation unit Mitshubishi Electric VL 100 according to the drawings.

Mechanical ventilation in WC and small shower are with wall fans controlled via built in time relay connected to the presence sensor in WC and with time relay switch in shower. External wall fan with moisture control in shower areas with more than one shower.

Ba-Vent ventilation aggregate in SHAA50 SWE and SHAA57 SWE modules.

WATER AND SEWAGE: Interior visible piping for cold and hot water with chrome covered pipes, couplings and sanitary fittings.

Sewage lines 110 mm and 75 mm resp. Ventilation with vacuum valve. Automatic coupling of water and sewer lines in special stainless-steel coupling box with room for sufficient insulation, placed in the gable wall. Washbasins of porcelain and stainless-steel resp. Toilet made of porcelain. Hot-water boiler of sufficient size.

Shower cabinet made of white galvanized steel-plate and bottom tray covered with homogenous non-slip plastic carpet. Mixer tap.

Floor drains according to the drawings. Drain valves with knob in all low points. Drawing with drain points marked in the hut, copy of the drawing sent to the procurer.

Cold and hot water system is tested with compressed air at a pressure of 5 bars for 15 minutes. Filter on incoming cold water. Prepared for heating cable to protect against freezing.

EXTERNAL PAINTING: External panels painted with color NCS 2070-R90B. One layer on back of panel and two layers on other sides.

ELECTRICITY: Built in installation.

Lead-in and terminal box 32 A tilted, plastic-coated steel. Power distribution boxes are tilted away from the wall. 4.3 m long connection cable is fastened under the lead-in box with straps. Automatic fuse box with main switch and leakage circuit breaker. Direct electric heating with open radiators with electronic thermostat and overheating protection. Radiators according to the drawings. All radiators at least drip-proof.

The lighting is turned on with presence sensors. Fluorescent tube lamps IP44 with 3-band full color tubes. Visible connection boxes. Aluminum box by the water/sewage coupling box for heating cable, power supply from the lighting group. Huts with exits on gable wall have exterior lamps above doors with 10.3 W LED spotlight with motion detector.

Window sill duct in office rooms for installation of data and telecom wiring internally and between huts. In each duct there is 4x double socket and 2x double outlet for data/tele connections. On each end of the duct there is a whole of 50mm through the exterior wall, holes have openable cover made of galvanized steel sheet.

Temperature control prepared to be installed.

INTERIOR FITTINGS: According to the drawings.

Drying cabinet Electrolux .... equipped with one extensible hanger in addition to ceiling hooks.

EXTERIOR FITTINGS: Transport brackets for steps on gable wall and brackets for steps at fixed exterior door frames.

Assembly of exterior signage according to Ramirent Brand Guidelines, Modules and Containers.

LIFTING: Sling length when lifting from roof-mounted lifting loops placed at corners: Min. 5200 mm

Sling length when lifting from roof-mounted lifting loops placed at the side walls: Min. 2750 mm

The length of the fork of a forklift truck must be at least 2400 mm. Maximum lengthwise overhang of a hut while transported on flatbed is 2.0 m. Huts are stackable on two floors. Huts with at least on open side wall must be braced according to the guide for transport.

The following standards have been used as reference documents in the design of Site Huts:

EN 1990 „Eurocode. Basis of Structural design“

EN 1991 „Eurocode 1. Actions on structures“

EN 1993 „Eurocode 3. Design of steel structures“

EN 1995 „Eurocode 5. Design of timber structures“