**FREE STANDING CABINET TECHNICAL SPECIFICATION**

1. **GENERAL CONDITIONS**

19” free standing rack cabinet’s manufacturer must have ISO 9001: 2015 quality management system certificate and TSE certificate including the standards of EN 61587-1, IEC 60917, IEC 60297. Brand of the product, commercial title, height, width and depth information must be placed on the TSE document.

1. **DIMENSIONS**

Complies with IEC 60297 standard. Must be (26U/32U/36U/39U/42U/45U/47U) height, (600 mm. and 800 mm.) width and (1000 mm, 1100 mm and 1200 mm.) depth.

1. **LOAD CARRYING CAPACITY**

Must be 1500 kg.

1. **MAIN PROFILE STRUCTURE**

The main profile must have an aesthetic appearance and a structure that will increase the mechanical resistance. Each profile consists of 5 bends and is twisted at an angle of 90°.

1. **TOP AND BOTTOM CHASIS**

Top and bottom chassis which has twisted, welded and profile with internal locking design must have a structure that will increase the resistance and strength of the cabinet. Profiles must be manufactured to fix the bottom and top chassis with screws. It allows to install 6 fans max.

1. **FRONT AND REAR COVERS**

The front doors must have single opening, welded, 63% perforated structure as standard. The complementary lock must be from 3-point locking mechanism. It must have different options (single opening plexiglass, 63% and 80% double opening perforation, 80% single opening perforation). The front door must be 215˚ open, detachable and lockable.

In the standard configuration, the rear door must have double opening, 63% perforated, lockable and removable. The complementary lock must be from 3-point locking mechanism. It must have different options (80% single and double opening perforation). The rear door must be 215˚ open, detachable and lockable.

1. **SIDE COVERS/PANELS**

The side panels consist of two parts in the standard configuration, upper and lower. Each panel must be locked with cylindrical locking mechanism.

1. **BAYING KITS**

It must be able to be combined in 2 points at the top, front and rear. Sheet thickness must be 2 mm.

1. **CABLE ENTRIES**

Brushed type cable entries, there must be 1 pc. on the top and 1 pc. on the bottom panel for 600 mm width. For 800 mm width, there must be 5 pcs. on the top panel and 5 pcs. on the bottom panel.

1. **19” UPRIGHTS AND SIDE ARMS**

The 19" (in.) device mounting bracket (2 in front and 2 in rear) can be adjusted along the depth and must be a part of the cabinet interior configuration. Must be 3 bended and adjustable along the depth.

1. **HINGES**

With spring hinge system, it must be easy to dismount.

1. **COLOR**

It must be black (RAL 9005) or light grey (RAL 7035) as standard.

1. **HOT/COLD CORRIDOR**

Cold and / or hot corridors must be created between the cabinets in order to ensure optimum cooling of the IT equipment in the system.

All modules - panels used for the corridor (Top panel module, Door fixing module, Rear panel module, Top cover panel, Baying kit, Blank module, Airflow preventative panel, Top cover cable separator) and corridor doors should be a genuine part of the manufacturer. In case of need, non-standard cabinets should be designed in such a way that the cold air is positioned in the corridor structure.

To close the hot / cold corridor top panel, use 4 mm top cover panel modules. 2 types of door options are available as automatic opening doors and manual opening doors. Material of the wing frame is aluminum, 4+4 mm transparent laminated glass, carrier width 3200 mm – 3600 mm, corridor width 1200 x 2240 mm, mechanism width 2500 mm, electro-mechanical locking system, color should be RAL 7035 or RAL 9005 and carrier system 5 x 60 x 120 mm – 4 x bracket, 40 x 60 x 2 mm alum. profile.

For automatic opening doors, there must be an active photocell sensor, 2 x moving automatic wing, keypad or proximity card locking option. There should be 2 x synchronized wing and bottom locking option for manual opening doors.

The top cover panel part must change depending on the cabinet width and must be y= 120 mm. the cabinet must have a baying kit to ensure that the cabinets are level, flush and have a solid structure in the corridor.

42U, 45U and 47U depending on the different cabinet widths, there must be top, bottom and side air flow preventative panel.

The cold corridor closure closed with tempered glass will not have any cold air leakage from the connection and joint points.

1. **DOCUMENTARY MATERIALS USED IN CABINET MANUFACTURING**

**Sheet Steel:** EN 10346: 20015 DX51D+Z, EN 10130: 2006 DC01

**Electrostatic Powder Coating:** ISO6860, ISO2409, ISO1520, ISO2815, ISO6272, ISO7253 ISO6270-1, ISO2812**,** ISO 9001, RoHS

**Glass:** TS EN 12150-1, TS EN 1863-1

**Lock:** IEC 62474, REACH, RoHS

**Castors:** ISO 9001, TS EN 12532, RoHS

**Fan:** IEC 60335-2-80:2002, IEC 60335-1:2010

1. **TESTS AND CERTIFICATES**

**Resistance to environmental conditions and corrosion;**

**Stability, mechanical safety, resistance to static, dynamic and mechanical loads;**

**Resistance to vibration, mechanical shock and impact;**

**Degrees of mechanical protection provided by the enclosure ( IP20 );**

**Electrical grounding continuity;**

**Fire and flame resistance;**

Have been tested according to the standard “EN 61587-1” with the normative standards : IEC 60917, IEC 60297, IEC 60068-1, IEC 60068-2, IEC 60695-11-10, IEC 60950-1 contained and certified by the notified organizations.

**TSE Certificate No:**003788-TSE-08/02

**EAC** **Certificate No:** 0443637, 0776963, 0345864, 0401678, 0776653

**Corrosion :** ISO 9227 standard complied by the test report METALTEK AB-0547-T / 0157-1

**Transport:** ETS 300 019-1-2 Class 2.3 comply with internal testing

**Storage:** ETS 300 019-1-1 Class 1.2 comply with internal testing

**Surface Finish:** Electrostatic powder coated c/with surface treatment, 80+/-5 micron paint thickness

1. **ACCESSORIES**

**Fan System:** The setting range must be between 0-35 ºC with digital, analog or ON/OFF switch with 4- or 6-pieces fan controlled thermostat units. It must be suitable for installation inside the cabinet with electric cable and internal wiring. Every fan at 50 Hz max. must have a noise level of 38 dB and 53 CFM airflow. It must have a CE certificate.

**Vertical cable organizer:** It must have a large internal volume that can protect all kind of electric and data cables and patch cords. Along 19 "uprights, the organizer must be attached to the sides and have cable entry holes.

**Vertical cable tray:** The galvanized coating must be perforated to provide length and cable installation along the height of the cabinet.

**Caster and/or leveling feet:** The wheels must be movable in every direction and the front wheels must have a lockable structure. The load carrying capacity of each wheel and each leveling feet must be 250 kg. The casters and leveling feet can be usable at the same time.

**Fixed and sliding shelf:** Must be able to mount from 4 points (2 in front and 2 in rear). The load carrying capacity of fixed shelves are 50 kg. and 25 kg. for sliding shelves.

**Lighting fixture:** 19”, 1U, with ON/OFF switch, 220 Vac, automatic door with ON/OFF switch or LED with sensor.

**Grounding continuity:** In cabinet grounding continuity must comply with IEC 61010-1 standard. All metal components in the cabinet must be electrically connected with each other by 1 x 4 mm² grounding cables and grounding resistance between superficial components must be max. 0,1 ohm. For all doors, these grounding cable connections must be made with bolts and nuts. Grounding continuity between the 19" movable mounting profiles and the main body must be provided with the galvanized surfaces that is connected with screws each other.

**Floor fixing kit:** The floor fixing kit must be designed not to extend beyond the bottom area of ​​the cabinet. The cabinet must be fixed to the floor over the front / rear, right / left surface according to the needs of the area. The connection element shall consist of one part for each surface and the cabinet shall be fixed to the floor by connecting from two points. The floor fixing kit must be positioned between the cabinet and the floor. The structure must be steel construction and be made of galvanized sheet with min. 2 mm. of thickness. Height adjustable floor fixing kit must be used between 400 mm - 700 mm according to raised floor clearance. The bottom construction must be able to be connected to the floor and the top console pieces that are under the cabinet must be able to be connected to the raised floor. The cabinet must have fixing brackets for the earthquake and they must be mounted 2 from the front and 2 from the rear.

**Anti-tilt bar:** Anti-tilt bar must be made of two 30x30 mm square profiles with a sliding structure in the front bottom part of the cabinet. Two adjustable pinion feet must be used in order to provide the floor balance of the cabinet in front of the profile.