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IP55 OUTDOOR WALL-MOUNT / FREE-STANDING TYPE RACK CABINETS

TECHNICAL SPECIFICATION (Applicable to All Manufacturers)

1. SCOPE

- It covers the design, manufacturing, certification, sealing, ventilation, cable entry, and installation requirements of wall-mount and free-standing type rack cabinets suitable for outdoor use with IP55 protection class.

2. DEFINITIONS AND ABBREVIATIONS

- **IP55:** Refers to complete dust protection and protection against water spray from all directions according to EN 60529 standard.
- **IK08:** Refers to mechanical impact resistance according to EN 62262 standard.
- **EPDM/PU:** Refers to gasket materials.
- **Zamak:** Zinc-based die-cast metal lock material.
- **DIN Rail:** Refers to the 35 mm electrical panel standard rail.
- **PG Gland:** Watertight cable entry gland.
- **Gland Plate:** Flat cable entry panel.

3. APPLICABLE STANDARDS

- EN 60529 (IP55), EN 62262 (IK08), IEC 60297, TS EN IEC 61587-1:2022, DIN EN 10130, TS EN ISO 9227 / ASTM B117, TS EN ISO 2409 / ASTM D3359, TS EN ISO 2178 / ASTM B499, TS EN 13501-1, and IEC 62208 standards shall be taken as the basis.

4. CERTIFICATION

- The manufacturer shall hold an ISO 9001:2015 certificate.
- An IP55 test report in compliance with EN 60529 standard shall be obtained from an accredited laboratory for the product.
- The product shall hold a UL product safety certificate.
- The product shall hold a CE / IEC 62208 certificate of conformity.
- The product shall hold a RoHS 2 declaration of conformity.
- A corrosion test report showing a minimum 900-hour performance shall be submitted for the product.

5. DIMENSIONS AND CAPACITY

- The cabinets shall comply with IEC 60297 standard.
- Internal capacity shall be available in 7U, 9U, 12U, 16U, 20U, 22U, 24U, and 26U options.
- External width shall be 600 mm.



- External depth shall be **450 mm or 600 mm**.

6. MAIN BODY STRUCTURE

- The cabinet shall be fully welded and of monoblock construction.
- The body shall have multi-layer bending technology and shall provide a minimum static load capacity of **100 kg**.
- The product shall be available in single-wall or double-wall versions.
- In double-wall construction, **10 mm** thermal / acoustic insulation shall be provided between the two walls; DIN rail shall be screw-fixable to the inner wall while maintaining the IP class.
- Single-wall construction shall also offer internal mounting flexibility.

7. FRONT DOOR AND GASKET

- The front door shall be of full-metal construction, with cast polyurethane gasket, and shall be openable by minimum **135°**.
- The front door shall be equipped with a **3-point** espagnolette rod system and shall support the EN 60529 IP55 protection requirement.
- The handle lock shall be manufactured from Zamak material and shall be resistant to corrosion and vandalism.

8. CANOPY AND VENTILATION

- The canopy shall have a sloped structure, prevent rainwater accumulation, and be suitable for passive or active ventilation by means of a louvre system.
- The canopy shall protect the filtered fan module; it shall be externally screw-fastened and hinge-openable/closable.
- The fan system shall be of **2-fan** or **4-fan** ball-bearing type and thermostat controlled.
- Fans shall be available with **-48V DC** or **220V AC** supply alternatives.
- A filtered plastic ventilation panel for fan group connection and air exhaust shall be provided on the top chassis.

9. PAINTING AND SURFACE TREATMENT

- The cabinets shall be coated with electrostatic RAL 7035 White / Light Grey powder paint.
- The manufacturer's coating application shall have a minimum **900-hour** or higher salt spray test performance.
- The powder paint to be used shall be non-ignitable and flame non-propagating in accordance with TS EN 13501-1 A1 or equivalent standard.
- Paint surface performance shall comply with TS EN ISO 2409 / ASTM D3359 standards.
- Corrosion resistance shall comply with TS EN ISO 9227 / ASTM B117 standards.



10. 19-INCH MOUNTING RAILS

- The cabinets shall include **2** front 19-inch mounting rails.
- The rails shall be movable throughout the cabinet depth, shall be screen-printed with U markings, and shall have a minimum thickness of **1.5 mm**.

11. CABLE ENTRY SYSTEM

- The cabinet bottom chassis shall include **2 pcs PG 21**, **1 pc PG 48**, and **2 pcs 28 mm** gland-compatible entry points with blind plugs that can be opened.
- As standard, **1 pc** Gland Plate shall be included in the product and shall be field-drillable according to site requirements.

12. INSTALLATION OPTIONS

- For wall mounting, brackets with a minimum thickness of **4 mm** shall be supplied as standard.
- For pole mounting, an accessory kit suitable for poles with a diameter of **100–150 mm** shall be available.
- For floor-standing use, installation on a concrete plinth shall be possible by means of an **H100 mm** plinth accessory.

13. MATERIAL STANDARDS

- DKP sheet steel shall comply with DIN EN 10130 DC01 standard and RoHS requirements.
- Powder paint shall meet ISO 9001, ISO 2178, ISO 2813, ISO 6272, ISO 8130 series, and RoHS requirements.
- Fasteners shall comply with DIN 7985, DIN 965, DIN 7981, DIN 934, DIN 985, and DIN 933 standards and RoHS requirements.
- Locks shall comply with DIN 1743 and DIN 53571 standards and RoHS requirements.

14. ACCESSORIES

- The fan unit shall be of **2-fan** or **4-fan** ball-bearing type.
- The fan unit shall operate with thermostat control.
- Each fan shall have a maximum noise level of **47 dBA** and a minimum airflow rate of **2.3 m3/min**.
- The fan unit shall comply with CE 2006/42/EC, 2014/35/EU, and 2014/30/EU directives.
- The fan unit shall also comply with EN ISO 12100, EN 55032, EN IEC 62368-1, EN 60204-1, and EN IEC 61000-6-1 / -3 standards.
- An accredited test report shall be submitted; CE declaration alone shall not be accepted.
- The PDU shall have an aluminium body.
- The PDU shall be **1x16 A** fused, **1U** type, and shall have a minimum of **6** outlets.
- The PDU shall be CE certified.

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