

Rack IP68 Performance Comparison



Overview

Rack IP68 Performance Comparison IP65 vs IP68 Enclosures: Which Is Best?

IP68 is better for flooding, immersion, underground, or marine use, but IP65 is of.

Key Takeaways

IP68-rated rack enclosures offer dust-tight protection and can withstand prolonged water immersion, outperforming IP65 enclosures in wet or submerged environments.

IP68 Protection Overview

IP68 enclosures are completely dust-tight (first digit 6) and designed for continuous immersion in water under manufacturer-specified conditions (second digit 8) without harmful effects . Unlike IP65, which protects against water jets and splashes, IP68 racks can handle flood-prone, submerged, or high-humidity environments, making them ideal for outdoor, marine, underground, or industrial IoT installations . The exact immersion depth and duration vary by manufacturer, typically 1 meter or more for at least 30 minutes, but some designs allow deeper or longer submersion .



Performance Comparison: IP68 vs IP65

Feature	IP65	IP68
Dust Protection	Dust-tight	Dust-tight
Water Protection	Water jets, rain, splashes	Continuous immersion, flood-prone areas
Typical Use Cases	Outdoor cabinets, telecom, base stations	Submerged sensors, underwater installations, marine equipment, wastewater monitoring
Durability	High, but limited to surface water exposure	Superior, designed for prolonged wet conditions and corrosion resistance
Maintenance	Moderate	Lower risk of water-related failures, but seals must be checked over time
Cost	Lower	Higher due to enhanced sealing and materials

Rack-Specific Considerations

- **Material and Seals:** IP68 racks, such as the AGER IP68 cabinets, use high-quality materials and reinforced seals to resist corrosion and water ingress .

- **Mounting Options:** Available in floor-standing and wall-mounted configurations, allowing flexibility for indoor and outdoor deployments .

- **Network Protection:** For fiber or IT equipment, IP68 enclosures integrate splicing, distribution, and storage while preventing connector contamination and network failures .

- **Longevity:** IP68 performance can degrade over time due to seal wear or shock damage, so regular inspection and maintenance are recommended .

Practical Recommendations

- Choose IP65 if the rack is exposed only to rain, splashes, or low-pressure cleaning.

- Choose IP68 for submersion, flood-prone areas, or continuous wet conditions. Verify manufacturer specifications for immersion depth and duration.

- Ensure cable entries, connectors, and vents match the IP68 rating to maintain full protection .

- Consider IoT-enabled monitoring for moisture and temperature inside the enclosure to prevent failures in critical networks .

In summary, IP68 racks provide superior protection against water and dust compared to IP65, making them the preferred choice for harsh, submerged, or high-humidity environments, while IP65 remains suitable for general outdoor or industrial use where immersion is unlikely. Proper selection, installation, and maintenance are key to maximizing performance and longevity.

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