

NEMA Types – Definitions Pertaining to Nonhazardous Locations

Enclosures for Electrical Equipment

An enclosure is a surrounding case constructed to provide protection from accidental contact with the enclosed equipment and to provide protection to the enclosed equipment from specified environmental conditions. A brief description of the more common types of enclosures used by the electrical industry follows.

- Type 1 Enclosure:** Intended for indoor use primarily to provide protection against contact with enclosed equipment.
- Type 2 Enclosure:** Intended for indoor use primarily to provide a degree of protection against limited amounts of falling water and dirt.
- Type 3 Enclosure:** Intended for outdoor use primarily to provide a degree of protection against wind-blown dust, rain, sleet and external ice formation.
- Type 3R Enclosure:** Intended for outdoor use primarily to provide a degree of protection against falling rain, sleet and external ice formation.
- Type 3S Enclosure:** Intended for outdoor use primarily to provide a degree of protection against wind-blown dust, rain, and sleet, and to provide for operation of external mechanism when ice laden.
- Type 3X Enclosure:** Intended for outdoor use primarily to provide a degree of protection against corrosion, wind-blown dust, rain, sleet and external ice formation.
- Type 3SX Enclosure:** Intended for outdoor use primarily to provide a degree of protection against corrosion, wind-blown dust, rain, and sleet, and to provide for operation of external mechanism when ice laden.
- Type 4 Enclosure:** Intended for indoor or outdoor use primarily to provide a degree of protection against wind-blown dust and rain, splashing water and hose-directed water.
- Type 4X Enclosure:** Intended for indoor or outdoor use primarily to provide a degree of protection against corrosion, wind-blown dust and rain, splashing water and hose-directed water.
- Type 6 Enclosure:** Intended for indoor or outdoor use primarily to avoid a degree of protection against contact with enclosed equipment, falling dirt, hose-directed water, entry of water during occasional temporary submersion at a limited depth and external ice formation.
- Type 6P Enclosure:** Intended for indoor or outdoor use primarily to provide a degree of protection against contact with enclosed equipment, falling dirt, hose-directed water, entry of water during prolonged submersion at a limited depth and external ice formation.
- Type 12 Enclosure:** Intended for indoor use primarily to provide a degree of protection against dust, falling dirt and dripping noncorrosive liquids.
- Type 13 Enclosure:** Intended for indoor use primarily to provide a degree of protection against dust, spraying of water, oil and noncorrosive coolant.