



NEMA Enclosures

Type 1

General Purpose - Indoor
The enclosure prevents accidental contact of personnel with the enclosed equipment and against falling dirt.

Type 2

Drip-Proof - Indoor
The enclosure protects against limited amounts of falling liquid and dirt

Type 3

Dust-tight, rain-tight and sleet resistant
The enclosure protects against windblown dust, rain, sleet and external ice formation

Type 3R

Dust-tight, rain-tight and sleet resistant
Same as type 3 except not dust-tight

Type 3S

Dust-tight, rain-tight and sleet resistant
Same as type 3 but provides for operation of external mechanism when ice-laden

Type 4

Watertight and Dust-tight
The enclosure protects against windblown dust and rain, splashing water and hose directed water

Type 4X

Watertight, Dust-tight, Corrosion Resistant
Same as type 4 except also corrosion resistant

Type 5

Dust-tight - Indoor
Protects against dust and falling dirt

Type 6

Submersible, watertight, and dust-tight
Protects against water entry during occasional submersion to a limited depth

Type 6P

Submersible, watertight, and dust-tight
Same as Type 6 except for prolonged submersion

Type 7 - Class I

Indoor hazardous locations -Explosion-proof
May be classified Groups A, B, C or D depending on specific design as defined by the NEC

Type 8 - Class I

Indoor or outdoor hazardous locations - Oil-immersed equipment
May be classified Groups A, B, C or D depending on specific design as defined by the NEC

Type 9 - Class II

Indoor hazardous locations -Explosion-proof
May be classified Groups E, F or G depending on specific design as defined by the NEC

Type 10

Mining Enforcement Safety Administration - Explosion-proof
For use in mines with atmospheres containing methane or natural gas, with or without coal dust

Type 11

Corrosion resistant and drip-proof -Oil immersion - Indoor
Enclosure provides, by oil immersion, protection against the corrosive effects of liquids and gases

Type 12

Dust-tight and Drip-tight - Indoor
Protects against dust, falling dirt, and dripping noncorrosive liquids

Type 12K

Dust-tight and Drip-tight - Indoor
Same as Type 12 except that enclosures have knockouts

Type 13

Oil tight and Dust-tight - Indoor
Protects against dust, spraying of water, oil and noncorrosive coolant



Electrical Classification

The NEC (National Electric Code) classifies potentially hazardous areas by Class, Division and Group. The Class defines the overall type of hazard present. The Division defines the likelihood of that hazard being present in the area in question, and the Group defines specifically which hazard is present. Depending on the rating, the NEC also defines what type of protection is required for the electrical equipment found in the hazardous area.

An example of such a rating is Class 1, Division 1, Group C.

The NEC rating system is shown in the table below.

