

IP Rating Definitions

Protection Against Particles (First Digit)

0	Not protected.
1	Protected against particles 50 mm and larger.
2	Protected against particles 12.5 mm and larger.
3	Protected against particles 2.5 mm and larger.
4	Protected against particles 1.0 mm and larger.
5	Protected against dust.
6	Dust proof.

Protection Against Water (Second Digit)

0	Not protected.
1	Protected against vertically falling drops of water.
2	Protected against falling drops of water up to 15° from vertical.
3	Protected against water sprayed up to 60° from vertical.
4	Protected against water sprayed from all directions, limited ingress permitted.
5	Protected against low pressure jets from all directions, limited ingress permitted.
6	Protected against strong jets of water, e.g. for use on ship decks, limited ingress permitted.
7	Protected against the affects of immersion between 15 cm and 1 m.
8	Protected against long periods of immersion under pressure.

NEMA 1

Enclosures are intended for indoor use primarily to provide a degree of protection against limited amounts of falling dirt.

NEMA 3

Enclosures are intended for outdoor use primarily to provide a degree of protection against rain, sleet, windblown dust and damage from external ice formation.

NEMA 4

Enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against windblown dust and rain, splashing water, hose-directed water and damage from external ice formation.

NEMA 4X

Enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against corrosion, windblown dust and rain, splashing water, hose-directed water and damage from external ice formation.

NEMA 6

Enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against hose-directed water, the entry of water during occasional temporary submersion at a limited depth and damage from external ice formation.

NEMA 6P

Enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against hose-directed water, the entry of water during prolonged submersion at a limited depth and damage from external ice formation.

NEMA 13

Enclosures are intended for indoor use primarily to provide a degree of protection against dust, spraying of water, oil and non-corrosive coolant.