

IP Protection Degree (IEC 60529)			
<p>The protection of enclosures against ingress of dirt or against the ingress of water is defined in IEC529(BSEN60529:1991). Conversely, an enclosure which protects equipment against ingress of particles will also protect a person from potential hazards within that enclosure, and this degree of protection is also defined as a standard.</p> <p>The degrees of protection are most commonly expressed as 'IP' followed by two numbers, e.g. IP65, where the numbers define the degree of protection. The first digit shows the extent to which the equipment is protected against particles, or to which persons are protected from enclosed hazards. The second digit indicates the extent of protection against water.</p>			
First Digit		Second Digit	
0	No protection	0	No protection
1	Protected against a solid object 50 mm or greater	1	Protected against vertically dripping water
2	Protected against a solid object 12 mm or greater	2	Protected against vertically dripping water, when tilted 15 degrees
3	Protected against a solid object 2,5 mm or greater	3	Protected against water spraying at an angle up to 60 degree
4	Protected against a solid object 1 mm or greater	4	Protected against water splashing from any direction
5	Dust protected	5	Protected against jets of water from any directions
6	Dust tight	6	Protected against powerful jets of water from any directions
		7	Protected against immersion between a depth of 150 mm and 1000 mm
		8	Protected against submersion

Correlations between IP (IEC) and NEMA 250 standards
The chart below provides a cross-reference from NEMA to International Protection (IP) Ratings. This cross-reference is an approximation based on the most current information available. It is not sanctioned by NEMA, IEC, or any other regulatory body. This chart should be used only as a guideline.
IP10 -> NEMA 1
IP11 -> NEMA 2
IP54 -> NEMA 3 R
IP52 -> NEMA 5-12-12 K
IP54 -> NEMA 3-3 S
IP56 -> NEMA 4-4 X
IP67 -> NEMA 6-6 P