



A VISUAL GUIDE TO NEMA RATINGS FOR ENCLOSURES



NON HAZARDOUS

ENCLOSURE TYPE	INDOOR OR OUTDOOR	WATER PROTECTION 1-5 SCALE ☼*	PROTECTION		
			ICE ❄️	CORROSION 🌀	OIL 🛢️
1	INDOOR				
	Type 1 is a general-purpose enclosure. Its main purpose is to protect against contact with electrically-charged parts. While not dust-tight, it does provide some protection against falling dirt.				
2	INDOOR	☼			
	Type 2 is a drip-proof enclosure. It protects against falling dirt like Type 1, but also provides a degree of protection against water. It includes a drip shield for condensation, so it's useful in humid places like a boiler room.				
3	INDOOR AND OUTDOOR	☼☼	❄️		
	Type 3 is a drip-proof enclosure. It protects against falling dirt like Type 1, but also provides a degree of protection against water. It includes a drip shield for condensation, so it's useful in humid places like a boiler room.				
3R	INDOOR AND OUTDOOR	☼☼	❄️		
	Type 3R protects against falling dirt and weather elements like rain, sleet and snow. Unlike Type 3, it does not protect against windblown dust. Ice forming on the outside of the enclosure will not damage it.				
3S	INDOOR AND OUTDOOR	☼☼	❄️		
	Type 3S is similar to Type 3. It protects against falling dirt and windblown dust. It also protects against water in the form of rain, sleet and snow and the external mechanisms are operable when covered with ice.				
3X	INDOOR AND OUTDOOR	☼☼	❄️	🌀	
	Type 3S is similar to Type 3. It protects against falling dirt and windblown dust. It also protects against water in the form of rain, sleet and snow and the external mechanisms are operable when covered with ice.				
3RX	INDOOR AND OUTDOOR	☼☼	❄️	🌀	
	Type 3RX protects against falling dirt and weather elements like rain, sleet and snow. It is undamaged by the formation of ice on the external part of the enclosure. It also has an added level of protection against corrosion.				
3SX	INDOOR AND OUTDOOR	☼☼	❄️	🌀	
	Type 3SX protects against falling dirt and windblown dust. It also protects against weather elements like rain, sleet and snow. This type of enclosure has a level of protection against corrosion. The external mechanisms are operable when covered in ice.				
4	INDOOR AND OUTDOOR	☼☼☼	❄️		
	Type 4 provides protection against falling dirt and windblown dust. It protects equipment from rain, sleet, snow, splashing water and hose-directed water. It is undamaged by the external formation of ice on the enclosure.				
4X	INDOOR AND OUTDOOR	☼☼☼	❄️	🌀	
	Type 4X protects against windblown dust. It is also resistant to types of water including rain, sleet, snow, splashing water and hose-directed water. It provides a level of protection against corrosion and isn't damaged by the external formation of ice on the enclosure.				
5	INDOOR	☼			
	Type 5 is resistant to falling dirt and settling airborne dust, lint and fibers. It protects against the effects of dripping and splashing water.				
6	INDOOR AND OUTDOOR	☼☼☼☼	❄️		
	Type 6 protects equipment from falling dirt. It can withstand hose-directed water and the entry of water into the enclosure during submersion at a limited depth. It is undamaged by the external formation of ice on the enclosure.				
6P	INDOOR AND OUTDOOR	☼☼☼☼☼	❄️	🌀	
	Type 6P protects against falling dirt. Similar to Type 6, it protects against hose-directed water. This type can withstand the entry of water for prolonged submersion at a limited depth. It protects against corrosion and is undamaged by the external formation of ice.				
12	INDOOR	☼			🛢️
	Type 12 is a general-purpose enclosure without knockouts. It protects against solid foreign objects such as falling dirt, circulating dust, lint and fibers. It also protects against dripping water and light splashing.				
12K	INDOOR	☼			🛢️
	Type 12K is a general-purpose enclosure with knockouts. It protects against solid foreign objects such as falling dust, circulating lint and fibers. It also protects against dripping water and light splashing.				
13	INDOOR	☼			🛢️
	Type 13 protects against solid foreign objects such as falling dirt and circulating lint. It protects against dripping water and light splashing. It also provides protection against the spraying, splashing, and seepage of oil and non-corrosive coolants.				

*WATER PROTECTION SCALE



- ☼☼☼☼☼ Protects against water and humidity.
- ☼☼☼☼☼ Protects against rain, sleet, snow, and ice.
- ☼☼☼☼☼☼☼ Protects against rain, sleet, snow, ice, splashing water and hose-directed water.
- ☼☼☼☼☼☼☼☼☼ Withstands hose-directed water and can be submersed at a limited depth.
- ☼☼☼☼☼☼☼☼☼☼☼☼☼ Withstands the entry of water for prolonged submersion at a limited depth.

HAZARDOUS

ENCLOSURE TYPE	INDOOR, OUTDOOR, OR OTHER	WATER PROTECTION (1-5 SCALE)*	PROTECTION		
			ICE ❄️	DUST IGNITION 🌀	OIL 🛢️
7	INDOOR				
	Type 7 is capable of containing an internal explosion. It can withstand pressure from an internal explosion of gas and prevents an external hazard. This enclosure is for indoor use in Class I, Division I, Groups A, B, C and D environments.				
8	INDOOR AND OUTDOOR				🛢️
	Type 8 can prevent combustion from oil-immersed equipment. This enclosure is designed for indoor or outdoor use in Class I, Division I, Groups A, B, C and D environments.				
9	INDOOR			🌀	
	Type 9 prevents the entrance of dust and is designed to stop the ignition of combustible dust. It is designed for indoor use in Class II, Division I, Groups E, F, or G locations.				
10	OTHER - MINE				
	Type 10 can contain an internal explosion without causing external harm. This enclosure meets the safety requirements of the Mine Safety and Health Administration (MSHA).				

