

# What Do The NEMA Ratings Mean?



**NEMA 1 Enclosure**



**NEMA 3R Enclosure**



**NEMA 4 Enclosure**



**NEMA 4X Enclosure**



**NEMA 12 Enclosure**



**NEMA 4 & 12 Enclosure**

## NEMA 1

NEMA 1 enclosures are typically used for protecting controls and terminations from objects and personnel. This style of enclosure, while offering a latching door, does not have a gasketed sealing surface. NEMA 1 enclosures are used in applications where sealing out dust, oil, and water is not required. Motor start/stop stations are often housed in NEMA 1 enclosures.

## NEMA 3R

NEMA 3R enclosures are typically used in outdoor applications for wiring and junction boxes. This style of enclosure provides protection against falling rain, sleet, snow, and external ice formation. Indoors they protect against dripping water. This style of enclosure does not have a gasketed sealing surface. Some models have hasps for padlocking.

## NEMA 3S

NEMA 3S enclosures are intended for outdoor use primarily to provide a degree of protection against windblown dust, rain, sleet, and to provide for operation of external mechanisms when ice laden.

## NEMA 4

NEMA 4 enclosures are used in many applications where an occasional washdown occurs or where machine tool cutter coolant is used. They also serve in applications where a pressurized stream of water will be used. NEMA 4 enclosures are gasketed and the door is clamped for maximum sealing. They have continuous hinges, mounting feet, and padlock hasps. NEMA 4 enclosures are available in sizes from small wall mounts to two-door floor mount models.

## NEMA 4X

NEMA 4X enclosures are made of stainless steel or plastic. NEMA 4X enclosures are used in harsher environments than standard NEMA 4 units. Applications where corrosive materials and caustic cleaners are used necessitate the use of a NEMA 4X enclosure. Applications include food, such as meat/poultry processing facilities, where total washdown with disinfectants occur repeatedly and petro-chemical facilities, including offshore petroleum sites. NEMA 4X is used when protection from the worst environments is required. NEMA 4X enclosures are available in sizes from small wall mounts to two-door floor mount models. Wiegmann NEMA 4X enclosures are made of 304 stainless steel.

## NEMA 6P

NEMA 6P enclosures are intended for indoor or outdoor use primarily to provide a degree of protection against the entry of water during prolonged submersion at a limited depth.

## NEMA 12

NEMA 12 enclosures are designed to prevent the ingress of dust, water, and oil. NEMA 12 enclosures are most often used for indoor applications of automation control and electronic drives systems. Some examples are packaging, material handling, non-corrosive process control, and manufacturing applications. Gasketed doors seal the enclosure's contents from airborne contaminants and non-pressurized water and oil. NEMA 12 enclosures are available in sizes from small wall mounts to two-door floor mount models.

## NEMA 4 & 12

Wiegmann's "412" enclosures combine the attributes of NEMA 4 and NEMA 12 in an attractive, clean line enclosure. This enclosure features reversible doors for left or right opening, concealed hinges, and rear mounting holes for a more attractive installation. Optional mounting feet are available for conventional wall mounting. Wiegmann's 412 enclosures are available in wall mount models up to 60" x 36".

## NEMA 13

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.

Company  
Information

Terminal Blocks

Power  
Distribution  
Blocks

Wiring  
Accessories

ZIPLink  
Connection  
System

Multi-wire  
Connectors

Sensor Cables  
and Connectors

M12 Junction  
Blocks

Panel Interface  
Connectors

Wiring Duct

Cable Ties

Wire

Flexible Cord

Multi-conductor  
Flex Cable

Data Cables

Wire  
Management  
Products

Power Supplies

DC Converters

Transformers  
and Filters

Circuit Protection

Tools

Test  
Equipment

Enclosures

Enclosure  
Climate Control

Safety: Electrical  
Components

Safety: Protective  
Wear

Terms and  
Conditions