### UL & NEMA RATINGS

**Underwriters Laboratories National Electric Manufacturer’s Association**

**Non-Hazardous Locations**

<table>
<thead>
<tr>
<th>SOLIDS</th>
<th>LIQUIDS</th>
<th>CHEMICALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor</td>
<td>Indoor/outdoor</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

#### Source: www.nema.org

**Note:** The UL/NEMA enclosure type numbers meet or exceed the test requirements for the associated IEC Classification; for this reason the chart above cannot be used to convert from IEC Classifications to UL/NEMA enclosure type numbers.

- The most prevalent in the USA
- The most prevalent in the world
- Requires testing for compliance by qualified evaluators independent of the manufacturer
- Provides a system for specifying the enclosures of electrical equipment on the basis of the degree of protection
- Performs tests for environmental conditions such as corruption, rust, icing, oil, and coolants

**Underwriters Laboratories**

- www.ul.com
- Safety Consulting and Certification Company
- Requires compliance testing of electrical enclosures by qualified evaluators independent of the manufacturer
- Sends site inspectors to manufacturers to ensure adherence to prescribed manufacturing methods and materials specifications
- Specifies that an enclosure fails the water-tight test if even a single drop of water enters the enclosure

**National Electrical Manufacturers**

- www.nema.org
- The most prevalent in the USA
- Not requires independent testing
- Leaves compliance up to the manufacturer
- Performed tests for environmental conditions such as corrosion, rain, icing, oil, and coolants

**International Electrotechnical Commission**

- www.iec.ch
- The most prevalent in the world
- Requires testing for compliance by qualified evaluators independent of the manufacturer
- Provides a system for specifying the enclosure of electrical equipment on the basis of the degree of protection
- Not specifies degree of protection against mechanical damage of equipment, risk of explosions, or conditions such as moisture (produced, for example, by condensation), corrosive vapors, fungus, or vermin.

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Nemen, the industry leader in Panel Interface Connectors, has well over 3,000 designs in production that provide safety, convenience, and flexibility for programmers and troubleshooters. Also we have a team of engineers with decades of experience. Combined with a progressive manufacturing facility, we are not only ready to provide a solution but also able to support it. MENCOM.COM has the tools you need to meet the most stringent outdoor termination & assemblies with affordable costs and fast turnover.

The tests and evaluations for other characteristics are not identical between the standards, so the IEC Enclosure Classification Designations cannot be exactly equated with UL/NEMA Enclosure Type Numbers.