

PMA Cable Protection Systems from ABB – Statement relating to the NEMA guidance document GD4-2020 COVID-19 Cleaning and Disinfecting for Electrical Equipment

GD4-2020 addresses different issues relating to cleaning and disinfecting electrical equipment.

1. The first issue is the danger of damage to electronics due to their exposure to conductive fluids. Often the casing for electronic equipment is designed to allow the free flow of air in order to cool electronic components. Air inlets may allow the entry of cleaning fluid possibly causing short circuits.

The use of devices such as foggers and sprays could allow disinfectant solutions to contaminate the components inside the electrical equipment.

PMA Cable protection systems are specified according to EN60529 for water tightness. For PMA systems specified IP66, IP68 and IP69 no damaging quantities of cleaning and disinfecting fluid can enter the electronics via the cable protection system. Consequently, the danger of short circuits within the electronics due to the entry of cleaning and disinfecting fluid via the cable protection system can be excluded.

2. The second issue relates to chemical compatibility. The resistance of the cable protection material to the cleaning and disinfecting fluid.

“Some cleaning agents and lubricating compounds can cause severe deterioration of many plastic materials used for insulating and structural applications in equipment.”

Most PMA cable protection components are manufactured from polyamide 12 or polyamide 6 raw material. PA12 and PA6 demonstrate excellent resistance to commonly used cleaning agents. Chemical compatibility tables are readily available showing the resistance of polyamide to numerous chemicals.

If in doubt, please contact your local PMA representative for an assessment.

3. The third issue is the danger of deterioration of materials when exposed to UV light used in disinfection processes.

Materials used in the fabrication of electrical equipment may degrade when exposed to UV light.

Both polyamide 12 and polyamide 6 materials are characterized by very good resistance to UV light when compared to other plastic materials. PMA cable protection systems have extremely good UV resistance. Many of our products are installed in applications exposed to high levels of UV for very long periods. We do not anticipate problems due to deterioration of material due to UV disinfection processes.

Recommendations

g. Do not use disinfecting products, including foggers, sprays or other types of atomized cleaning agents on any electrical equipment components of any material type: plastic,



insulating, molded, painted or metallic unless specifically instructed by the manufacturer of the electrical equipment; and
h. If you have specific electrical equipment questions regarding cleaning and disinfection, please contact the equipment manufacturer.

PMA cable protection systems are generally installed as part of a larger piece of equipment as a subassembly. Although recommendation g) may be valid for some parts of the electrical system we do not believe it must be applied for PMA cable protection systems. The three hazards listed are unlikely to cause damage to a PMA cable protection system for the reasons listed above.

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