

6760207 TRAFFIC CABINETS
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comments: (5-27-21, Internal)

Derek/Malcolm,

As I mentioned in the earlier review, “Size 1” is not the same as “Type 1”, so I’m concerned about the way this is described. If it needs to meet **NEMA TS 2 2016, with a size less than Size 1** (chart in Malcolm’s email from the TS 2 2016 standard), we need to use those words.

If you only want a small, weather resistant cabinet (not a Traffic Signal Cabinet), use **NEMA Type 2, less than xxx by xxx by xxx**.

Also, please consider

~~The enclosure may be constructed~~ Construct the enclosure of aluminum or non-metallic materials meeting the requirements below. Enclosures must include a safe means of removing power from the installed equipment for servicing and replacement, such as a switch, fuse, or breaker.

As written, “may be constructed of” implies that it MAY be other materials.

Missy

NEMA enclosure types

From Wikipedia, the free encyclopedia

The National Electrical Manufacturers Association (NEMA) defines standards used in North America for various grades of electrical enclosures typically used in industrial applications. Each is rated to protect against personal access to hazardous parts, and additional type-dependent designated environmental conditions. A typical NEMA enclosure might be rated to provide protection against environmental hazards such as water, dust, oil or coolant or atmospheres containing corrosive agents such as acetylene or gasoline. A full list of NEMA enclosure types is available from the NEMA website.^[1]

Enclosure types [edit]

Below is a list of NEMA enclosure types; these types are further defined in NEMA 250- Enclosures for Electrical Equipment. Each type specifies characteristics of an enclosure, but not, for example, a specific enclosure size. Note that higher numbers *do not* include the lower-numbered tests. For example, types 3, 4 and 6 are intended for outdoor use, but type 5 is not.

NFPA is National Fire Protection Association, and NEC is National Electrical Code (U.S.A.)

NEMA Type	Definition ^{[1][2]}
1	General-purpose. Protects against dust, light, and indirect splashing but is not dust-tight; primarily prevents contact with live parts; used indoors and under normal atmospheric conditions.
2	Drip-tight. Similar to Type 1 but with addition of drip shields; used where condensation may be severe (as in cooling and laundry rooms).
3	Weather-resistant. Protects against falling dirt and windblown dust, against weather hazards such as rain, sleet and snow, and is undamaged by the formation of ice. Used

676-2.7 Small Equipment Enclosures:

~~Small equipment enclosures, such as equipment cabinets less than 13 inches high by 10 inches wide by 11 inches deep, Small equipment enclosures are smaller than the Size/Type 1 cabinets.~~

The enclosure may be constructed of aluminum or non-metallic materials. Enclosures must include a safe means of removing power from the installed equipment for servicing and replacement, such as a switch, fuse, or breaker. Discrete markings, such as manufacturer name and model, are permitted on the outside of small enclosures.

All fasteners less than 5/8 inch exposed to the elements must be Type 304 or 316

Response: We removed the size/type language and went with dimensions. We combined the NEMA 3R sentence with the first sentence for small equipment cabinets. Change made.

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Comments: (6-30-21, Industry)

676-2.7 Small Equipment Enclosures (delete Small equipment enclosures..... deep.) Comment- It's suggested to add a heading - Description - Read as – Description- Small equipment enclosures are smaller than the Size/Type 1 cabinets. ♣ 916-3.2 Requirements: Use a prime coat meeting the requirements of AASHTO M 140--1820 for anionic emulsions, AASHTO M 208-18 or AASHTO M 316--189 for cationic emulsions, or as specified in the Producer's QC Plan. For anionic emulsions, the cement mixing test will be waived. For tack products, the minimum testing requirements shall include percent residue, naphtha content (as needed), one-day storage stability, sieve test, Saybolt Furol viscosity, original DSR, and solubility (on an annual basis). Residue testing shall be performed on residue obtained from distillation, (AASHTO T 59-16) or low- -temperature evaporation (AASHTO R 78-16) (2020). At the direction of the Engineer, sample tack from the distributor used on the project at a minimum frequency of once per project per product. The sample shall be tested by the Department for the following specified material properties: percent residue, contaminants, and the residue property $G^*/\sin \delta$. Should any of the test results fail the specification requirements, the tack material will be considered defective and shall not to be used on Department projects unless waived by the Engineer. The Engineer may require the Contractor to obtain roadway cores for bond strength testing (FM 5-599) Comment- Insert "Perform a" at the second paragraph, Read as - At the direction of the Engineer, perform a sample tack from the distributor used on the project at a minimum frequency of once per project per product. The sample shall be tested by the Department for the following specified material properties: percent residue, contaminants, and the residue property $G^*/\sin \delta$. Should any of the test results fail the specification requirements, the tack material will be considered defective and shall not to be used on Department projects unless waived by the Engineer. The Engineer may require the Contractor to obtain roadway cores for bond strength testing (FM 5-599)

Response: "Description" is already used in Article 676-1. To maintain consistency with the rest of the section, "Description" will not be used in Subarticle 676-2.7. Section 916 comment does not apply to this section.
