

**TABLE 600.33(A)(1)** Applications of Power Limited Cable in Signs and Outline Lighting

Location	CL2	CL3	CL2R	CL3R	CL2P	CL3P	PLTC
Nonconcealed spaces inside buildings	Y	Y	Y	Y	Y	Y	Y
Concealed spaces inside buildings that are not used as plenums or risers	Y	Y	Y	Y	Y	Y	Y
Environmental air spaces plenums	N	N	N	N	Y	Y	N
Environmental air spaces risers	N	N	Y	Y	Y	Y	N
Wet locations	N	N	N	N	N	N	Y

Y = Permitted. N = Not Permitted.

**TABLE 600.33(A)(2)** Class 2 Cable Substitutions

Cable Type	Permitted Substitutions
CL3P	CMP
CL2P	CMP, CL3P
CL3R	CMP, CL3P, CMR
CL2R	CMP, CL3P, CL2P, CMR, CL3R
CL3	CMP, CL3P, CMR, CL3R, CMG, CM, PLTC
CL2	CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3
CL3X	CMP, CL3P, CMR, CL3R, CMG, CM, PLTC, CL3, CMX
CL2X	CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3, CL2, CMX, CL3X
PLTC	None

**(1) General Use.** CL2 or CL3, PLTC, or any listed applicable cable for general use shall be installed within and on buildings or structures.

**(2) Other Building Locations.** In other locations, any listed applicable cable permitted in 600.33(A)(1), (A)(2), (A)(3), and (A)(4) and Table 600.33(A)(1) and Table 600.33(A)(2) shall be permitted to be used as follows:

- (1) CL2P or CL3P — Ducts, plenums, or other spaces used for environmental air
- (2) CL2R or CL3R — Vertical shafts and risers
- (3) Substitutions from Table 600.33(A)(2)

**(3) Wet Locations.** Class 2 cable used in a wet location shall be listed and marked suitable for use in a wet location.

**(4) Other Locations.** Class 2 cable exposed to sunlight shall be listed and marked “sunlight resistant — suitable for outdoor use.”

*Exception: Listed PLTC not marked as sunlight resistant shall be permitted.*

Informational Note: PLTC is tested for exposure to sunlight but might not be so marked.

**(B) Installation.** Secondary wiring shall be installed in accordance with 600.33(B)(1) and (B)(2).

- (1) Wiring shall be installed and supported in a neat and workmanlike manner. Cables and conductors installed exposed on the surface of ceilings and sidewalls shall be supported

by the building structure in such a manner that the cable is not damaged by normal building use. The cable shall be supported and secured at intervals not exceeding 1.8 m (6 ft). Such cables shall be supported by straps, staples, hangers, cable ties, or similar fittings designed and installed so as not to damage the cable. The installation shall also comply with 300.4(D).

- (2) Connections in cable and conductors shall be made with listed insulating devices and be accessible after installation. Where made in a wall, connections shall be enclosed in a listed box.

**(C) Protection Against Physical Damage.** If subject to physical damage, the conductors shall be protected and installed in accordance with 300.4. All through-wall penetrations shall be protected by a listed bushing or raceway.

**(D) Grounding and Bonding.** Grounding and bonding shall be in accordance with 600.7.

**600.34 Photovoltaic (PV) Powered Sign.** All field wiring of components and subassemblies for an off-grid stand-alone, on-grid interactive, or non-grid interactive PV installation shall be installed in accordance with Article 690, as applicable, 600.34, and the PV powered sign installation instructions.

**(A) Equipment.** Inverters, motor generators, PV modules, PV panels, ac PV modules, dc combiners, dc-ac converters, and charge controllers intended for use in PV powered sign systems shall be listed for PV application.