N ***TABLE 305.3*** *Wiring Methods Permitted for Use in Systems Rated Over 1000 Volts ac, 1500 Volts dc, Nominal*

Wiring Methods Permitted for Use Above 1000 Volts ac, 1500 Volts dc	Voltage Levels	Reference
Pull and junction boxes, conduit bodies, and handhole enclosures	Over 1000	Article 314, Part IV
Metal-clad cable (Type MC)	1000–35,000	Article 330
Type IM cable	1000–2000	Article 337
Intermediate metal conduit (IMC)	Over 1000	Article 342
Rigid metal conduit (RMC)	Over 1000	Article 344
Rigid polyvinyl chloride conduit (PVC)	Over 1000	Article 352
Reinforced thermosetting resin conduit (RTRC)	Over 1000	Article 355
Electrical metallic tubing (EMT)	Over 1000	Article 358
Auxiliary gutters	Over 1000	Article 366
Busway	Over 1000	Article 368, Part IV
Cablebus	1000–35,000	Article 370
Cable trays	1000–35,000	Article 392
Messenger-supported wiring	1000–35,000	Article 396
Outdoor overhead conductors	Over 1000	Article 395
Insulated bus pipe (IBP)	1000–35,000 ac	Article 369

N **305.4 Conductors of Different Systems.** Conductors of circuits rated over 1000 volts ac, 1500 volts dc, nominal, shall not occupy the same equipment wiring enclosure, cable, or raceway with conductors of circuits rated 1000 volts ac, 1500 volts dc, nominal, or less unless otherwise permitted as follows:

(1) Where contained within the individual wiring enclosure, primary leads of electric-discharge lamp ballasts insulated for the primary voltage of the ballast shall be permitted to occupy the same luminaire, sign, or outline lighting enclosure as the branch-circuit conductors.
(2) Excitation, control, relay, and ammeter conductors used in connection with any individual motor or starter shall be permitted to occupy the same enclosure as the motor-circuit conductors.
(3) Conductors of different voltage ratings shall be permitted in motors, transformers, switchgear, switchboards, control assemblies, and similar equipment.
(4) If the conductors of each system in a manhole are permanently and effectively separated from the conductors of the other systems and securely fastened to racks, insulators, or other approved supports, conductors of different voltage ratings shall be permitted.

Conductors having nonshielded insulation and operating at different voltage levels shall not occupy the same enclosure, cable, or raceway.

305.5 Conductor Bending Radius. The conductor shall not be bent to a radius less than 8 times the overall diameter for nonshielded conductors or 12 times the overall diameter for shielded or lead-covered conductors during or after installation. For multiconductor or multiplexed single-conductor cables having individually shielded conductors, the minimum bending radius shall be 12 times the diameter of the individually shielded conductors or 7 times the overall diameter, whichever is greater.

Δ **305.6 Protection Against Induction Heating.** Metallic raceways and associated conductors shall be arranged to avoid heating of the raceway in accordance with 300.20.

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305.7 Covers Required. Suitable covers shall be installed on all boxes, fittings, and similar enclosures to prevent accidental contact with energized parts or physical damage to parts or insulation.

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305.8 Raceways in Wet Locations Above Grade. Where raceways are installed in wet locations above grade, the interior of these raceways shall be considered to be a wet location. Insulated conductors and cables installed in raceways in wet locations above grade shall be either moisture-impervious metal-sheathed or of a type listed for use in wet locations.

305.9 Braid-Covered Insulated Conductors — Exposed Installation. Exposed runs of braid-covered insulated conductors shall have a flame-retardant braid. If the conductors used do not have this protection, a flame-retardant saturant shall be applied to the braid covering after installation. This treated braid covering shall be stripped back a safe distance at conductor terminals, according to the operating voltage. Where practicable, this distance shall not be less than 25 mm (1 in.) for each kilovolt of the conductor-to-ground voltage of the circuit.

305.10 Insulation Shielding. Metallic and semiconducting insulation shielding components of shielded cables shall be removed for a distance dependent on the circuit voltage and insulation. Stress reduction means shall be provided at all terminations of factory-applied shielding.

Metallic shielding components such as tapes, wires, or braids, or combinations of them, shall be connected to an equipment grounding conductor, an equipment grounding busbar, or a grounding electrode.

305.11 Moisture or Mechanical Protection for Metal-Sheathed Cables. Where cable conductors emerge from a metal sheath and where protection against moisture or physical damage is necessary, the insulation of the conductors shall be protected by a cable sheath terminating device.

305.12 Danger Signs. Danger signs shall be conspicuously posted at points of access to conductors in all raceway systems and cable systems. The sign(s) shall meet the requirements in 110.21(B), shall be readily visible, and shall state the following:

DANGER—HIGH VOLTAGE—KEEP OUT