

भारत सरकार/ Government of India मुख्य अभियंता, सीoएसoक्यूo (वैo)/ Chief Engineer, CSQ(E) केलोनिवि कक्ष संख्या- 229/ CPWD, Room No. 229 ए विंग, निर्माण भवन, नई दिल्ली- 11/ A wing, Nirman Bhawan Delhi-11 फोन नंo- 011- 23061697, 23061418 ईमेल- delceecsq.cpwd@nic.in



File No. E-9182270/62(Specs)/Internal/CE CSQ(E)/2025/288HDated 05 06 2025

OFFICE MEMORANDUM

Sub: Amendment in CPWD General Specifications for electrical Works-Part-I Internal 2023- reg.

The following amendments shall be made in provision of CPWD General Specifications for electrical Works-Part-I Internal 2023 in regard to insulation of wires and cables.

Existing	Modified
3.12Cables 3.12.1 Copper conductor cable only will be used for submain/ circuit/ point wiring.	3.12Cables 3.12.1 The copper conductor cable only shall be used for submain/ circuit/ point wiring/ Power wiring/Point wiring. The copper conductor cable shall be ISI marked IS 694: 2010 for insulation of class FRLSH, IS: 17048:2018 insulation of class HFFR and IS: 17505 for Fire Survival cable respectively. The conductors shall consist of high conductivity High Purity(greater than 99.95%) copper wires complying with Class 2 as per IS 8130 and IS:694.
3.12.2 Minimum size of wiring: Light Wiring: 1.5 sq.mm. Power Wiring: 4.0 sq.mm. Power circuit rated: More than 1 KW, Size as per calculation.	3.12.2 Minimum size of wiring: Light Wiring: 1.5 sq.mm. Power Wiring: 4.0 sq.mm. Power circuit rated: More than 1 KW, Size as per calculation.
3.12.3 Insulation: Copper conductor cable shall be PVC insulated conforming to BIS Specification.	3.12.3 Insulation: (i) Polyvinyl chloride (PVC) insulated of heat resistant grade (type-C), FRLHS (flame retardant low smoke and halogen) fire Grade - for building up to 24 m height. (ii) Cross-linked Polyethyle (XLPE) 90 degree C, HFFR Fire Grade (Halogen free flame retardant) - for building above 24 m height and all public assemble/gathering places, irrespective of height. (iii) Cross-linked Polyethylene (XLPE)-HFFR insulated and sheathed armoured Fire Survival- for all critical loads requiring supply integrity for

	required time period under fire situation and shall be suitable to withstand temperature 650°C for 60 min to 950°C 180 min.
permitted to be used. However, proper	3.12.4 Multi stranded : Cables are permitted to be used. However, proper termination on the ends with lugs/ thimbles should be used. The multi standard cable shall be as per 3.12.1, 3.12.2 & 3.12.3.
shall be of copper. The cross-sectional	3.13Flexible Cable 3.13.1 Conductor of flexible cables shall be of copper. The cross-sectional area of conductor for flexible cable shall be as per design. The flexible cable shall be as per 3.12.1, 3.12.2 & 3.12.3 with copper conductor of Class-5.
3.13.2 Only 3 core flexible cables shall be used for connecting single-phase appliances.	3.13.2 Only 3 core flexible cables shall be used for connecting single-phase appliances.
mechanically protected by armour, or tough rubber, or PVC sheath, these shall not be used in workshops and other places where they are liable to mechanical damage.	3.13.3 Unless the flexible cables are mechanically protected by armour, or tough rubber, or PVC sheath, these shall not be used in workshops and other places where they are liable to mechanical damage.
3.13.4 Flexible cable connection to bell push from ceiling rose shall be taken through steel conduit/metallic casing and capping.	

(रामायण प्रसाद गुप्ता) अधीक्षण अभियंता (वै) टी ए एस

To, (CPWD Website only)

All SDGs, ADGs, CEs, SEs, EEs and all concern officers of CPWD for necessary action.

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