

(PREVIEW)

Indian Standard

CROSS-LINKED POLYETHYLENE INSULATED THERMOPLASTIC SHEATHED CABLES — SPECIFICATION

PART 3 FOR WORKING VOLTAGES FROM 66 kV UP TO AND INCLUDING 220 kV

SECTION 1 GENERAL

1 SCOPE

1.1 This standard (Part 3) covers the requirements of single core, cross-linked polyethylene insulated, unarmoured or armoured (with or without lead alloy sheath) and thermoplastic outer sheathed cables for 3 phase ac earthed system for electric supply for the voltage grades given in Table 1

Table 1 Voltage Grades

System Voltage U (kV)	Rated Voltage U ₀ /U (kV)	Highest System Voltage U _m (kV)
(1)	(2)	(3)
66	38/66	72.5
110	64/110	123
132	76/132	145
220	127/220	245

1.2 Cables covered under this standard are suitable for use where the combined ambient temperature and temperature rise due to load result in conductor temperature not exceeding 90°C under normal operation and 250°C under short circuit operation

2 REFERENCES

2.1 Indian Standards listed in Annex A are necessary adjuncts to this standard

ANNEX A
(*Clause 2.1*)

LIST OF REFERRED INDIAN STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No</i>	<i>Title</i>
1885	Electrotechnical vocabulary	Part 10	Loss of mass test
(Part 32)	1971 Part 32 Cables, conductors and accessories for electricity supply	Part 11	Thermal ageing in air
		Part 12	Shrinkage test
5831 : 1984	PVC insulation and sheath of electric cables	Part 14	Heat shock test
		Part 15	Hot deformation test
8130 : 1984	Conductors for insulated electric cables and flexible cords	Part 30	Hot set test
		Part 32	Carbon content test for polyethylene
10810	Methods of test for cables	Part 34	Measurement of thickness of metallic sheath
Part 1	Annealing test for wires used in conductors	Part 36	Dimensions of armouring material
Part 3	Wrapping test for aluminium wires	Part 37	Tensile strength and elongation at break of armouring materials
Part 5	Conductor resistance test		
Part 6	Thickness for thermoplastic and elastomeric insulation and sheath	Part 42	Resistivity test of armour wires and strips and conductance test of armour (wires/ strips)
Part 7	Tensile strength and elongation at break of thermoplastic and elastomeric insulation and sheath	Part 53	Flammability test