S1(N) - 35

36 KV Halogen Free Bus Bar Insulation Heat Shrink Tube

Features

- Heavy wall cross-linked polyolefin
- Bus bar insulation and protection
- Reduces bus bar clearance requirement
- Halogen free, RoHS compliant
- Operating temperature: -40~105°C
- Shrink temperature: 125 °C
- Shrink ratio: 2.5:1
- Voltage class: 6~36KV
- Protects against short circuit and electrical leakage caused by small animals



TECHNICAL SPECIFICATION

	PROPERTY	TEST METHOD	VALUES
Physical	Tensile strength Breakdown elongation	ASTM D2671 ASTM D2671	≥ 14 MPa ≥ 500%
Aging (136°C/168hrs)	Tensile strength Breakdown elongation	ASTM D2671 ASTM D2671	≥ 12 MPa ≥ 400%
Long term aging (120°C/3000hrs)	Breakdown elongation	IEC 60684-2	≥ 175%
Resistance to selected fluids (23°C/168hrs)	Tensile strength Breakdown elongation	IEC 60684-2 IEC 60684-2	≥ 8MPa ≥ 250%
	Density	ASTM D2671	0.95~1.05
	Thermal endurance	IEC 216	105 °C
	Water absorption (23°C/336hrs)	ASTM D570	≤0.2%
	Low temperature flexibility (-40°C/4hrs)	ASTM D2671	No cracking
	Heat shock (200°C/4hrs	ASTM D2671	No drop, No flow, No cracking
	Holding air test	more than 3 bendings on bus bar	After shrink, no air gap between H.S.T. and bus bar
	Cutting test (110°C/168hrs)	Raychem method	5mm Length cutting along longitudinal, no cracking
	Halogen free	IEC 61249-2-21	Cl: 900 ppm max. Br: 900ppm max. Total (Cl + Br): 1500ppm max.
Electrical	Volume resistivity	ASTM D2671	$\geq 10^{13}$ Ω.cm
	Tracking and erosion resistance	ASTM D2303	After 1h at 2.5 kV at 2.75 kV no tacking
	Dielectric strength (in insulation oil)	ASTM D2671	≥ 16 kV/mm
Chemical	Color fastness to light	IEC 60684-3	Compare between exposed and unexposed parts the color does not change
	Copper corrosion (158°C/168hrs)	IEC 60684-3	Pass

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Dimensions

Shrink ratio 2.5:1

Reference UPM S1(n)-35	As supplied (mm) ID min.	After recovered (mm) ID max.	After recovered (mm) WT nom.	Standard length m/spool
25/10	25	10	3.5	15
30/12	30	12	3.6	15
40/16	40	16	3.6	15
50/20	50	20	3.6	15
65/25	65	25	3.6	15
75/30	75	30	3.7	15
85/35	85	35	3.7	15
100/40	100	40	3.7	15
120/50	120	50	3.8	15
150/60	150	60	3.8	15
175/75	175	75	3.8	15

• ID=Internal Diameter • WT=Wall Thickness

Product selection

Bus bar size (mm)	Single layer bus bar	Two layers bus bar
20 x 3, 25 x 3	Φ25/10	Φ30/12
30 x 3, 30 x 4	Φ30/12	Φ40/16
30 x 10, 40 x 4	Φ40/15	Φ50/20
40 x 10, 50x 5, 50 x 6	Φ50/20	Φ65/25 (Φ75/30)
50 x 8, 50 x 10, 60 x 6, 60 x 8	Φ65/25 (75/30)	Φ75/30 (Φ85/35)
60 x 10, 80 x 6, 80 x 8, 80 x 10	Φ75/30 (85/35)	Φ100/40 (Φ120/50)
100 x 8, 100 x 10, 100 x 12	Φ100/40 (120/50)	Φ120/50
100 x 15, 120 x 10, 120 x 12, 120 x 15	Φ120/50	Φ150/60
150 x 12, 150 x 15	Φ150/60	Φ175/75

Typical application

- Suitable for insulation and protection of bus bar against accidental flashover up to 36 KV
- Ideal for using in switchgears cabinets where space is limited and air spacing between bus bars need to be minimized

Ordering

- Standard color : Red
- Standard packaging on spools.
- Please provide specification, quantity when ordering

