



GSC Series Sleeve



GMB / GHB Series Sleeve

# HEAT SHRINK BUS BAR SLEEVE

Bus Sleeve is heat shrinkable bus bar sleeve designed to insulate busbar systems up to 36KV & to protect against accidental flash-over. The sleeves are manufactured from high quality cross-linked polyolefin material. Meets ANSI C37.20.2 standards for MV switchgear application up to 36 kV.

## TECHNICAL SPECIFICATION

### Physical

TEST DESCRIPTION	RECORDED VALUE	TEST METHOD
1. Tensile Strength	9 N/mm <sup>2</sup> (MPa) (min.)	ASTM D638
2. Ultimate Elongation	350% (min.)	ASTM D638
3. Water Absorption	0.5% (max.)	ASTM D570
4. Density	1.20 ± 0.2 gm/cm <sup>3</sup>	ASTM D792
5. Hardness	45 ± 10 shore D	ASTM D2240

### Thermal

1. Accelerated ageing	150°C for 1200 hrs	IEC 60684-2
a. Tensile Strength	7.7 N/mm <sup>2</sup> (Mpa)	ASTM D638
b. Ultimate Elongation	300 % (min.)	ASTM D638
3. Low Temp. Flexibility (-40°C for 4 hrs)	No Cracking	ASTM D2671
4. Heat Shock (250°C for 30 min.)	No cracking or flowing	ESI 09-11
5. Shrink Temperature	125°C	IEC 216
6. Continuous Temp. Limit	-40° to +115°C	IEC 216

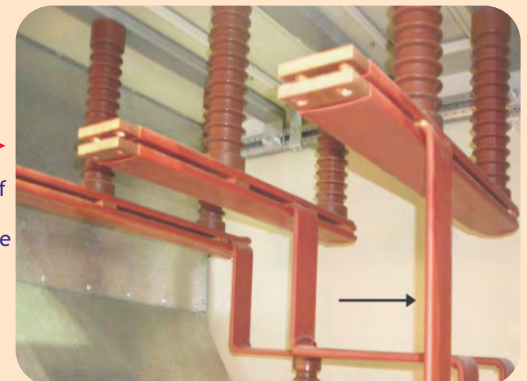
### Electrical

1. Dielectric Strength	22 kV/mm. (min.)	ASTM D149
2. Volume Resistivity	1 x 10 <sup>13</sup> Ohm.cm min	ASTM D257
3. Dielectric constant	5 (max.)	ASTM D150

### :- FEATURES & BENEFITS :-

- ❖ Reduce Busbar clearance.
- ❖ Prevent Busbar from chemical corrosion effected by strong acid, alkali, salt etc.
- ❖ Solve the problem of insulation among Busbar in Bus Duct.
- ❖ Halogen free, flame retardant.
- ❖ High dielectric strength.
- ❖ Highly Flexible for use on straight or angled bars without creasing.

Application of Heat Shrink Bus Bar Sleeve

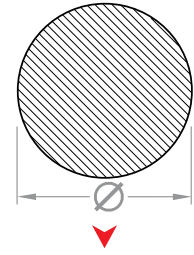
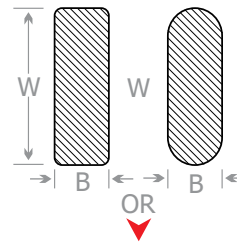
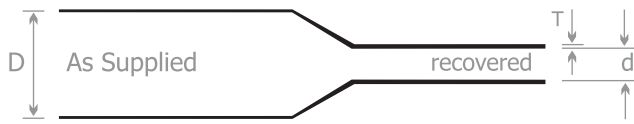


Technical Qualification Report : QR 1016

### CLEARANCE WITH INSULATION

VOLTAGE	MEDIUM WALL TUBE (GMB)				HEAVY WALL TUBE (GHB)				UN-INSULATED BUS BARS (mm) AS PER IEC 71-2
	PH to PH (mm)		PH to GR(mm)		PH to PH(mm)		PH to GR(mm)		
	Rectangular	Round	Rectangular	Round	Rectangular	Round	Rectangular	Round	
12 kV	65	55	75	65	35	30	45	40	120
17.5 kV	85	70	105	85	55	50	65	60	160
24 kV	115	95	150	125	70	60	100	90	220
36 kV	200	150	285	205	140	130	190	180	320

Technical Drawings



## BUS BAR SELECTION CHART

### Thin Wall Tube [Up to 3.3KV]

Gala Size	D	d	T (+5% / -2%)	Reel length	Rectangular Bars (W+B)		Round Bar Ø	
	mm (min.)	mm (max.)	mm		min.	max.	min.	max.
GSC 16/8	16	8	0.69	100	16	18	10	12
GSC 20/10	20	10	0.78	100	22	25	14	16
GSC 30/15	30	15	0.86	50	33	38	21	24
GSC 40/20	40	20	0.96	50	44	52	28	33
GSC 50/25	50	25	0.96	25	53	65	34	41
GSC 60/30	60	30	0.96	25	64	75	41	48
GSC 70/35	70	35	1.10	25	72	90	46	57
GSC 80/40	80	40	1.27	25	86	100	55	64
GSC 100/50	100	50	1.40	25	104	125	66	80
GSC 120/60	120	60	1.40	25	110	150	70	96
GSC 150/75	150	75	1.40	25	151	190	96	121
GSC 180/90	180	90	1.50	25	179	236	114	150

### Medium Wall Tube [Upto 24KV]

GMB 16/6	16	6	1.70	25	11	18	7	12
GMB 25/10	25	10	2.50	25	16	30	10	20
GMB 30/12	30	12	2.10	25	25	38	16	25
GMB 40/16	40	16	2.10	25	33	50	21	32
GMB 50/20	50	20	2.10	25	38	63	24	40
GMB 65/25	65	25	2.20	25	53	82	34	52
GMB 75/28	75	28	2.50	25	63	94	40	60
GMB 85/32	85	32	2.50	25	69	107	44	68
GMB 100/38	100	38	3.00	25	83	126	53	80
GMB 120/45	120	45	3.00	25	104	150	66	96
GMB 150/60	150	60	3.30	20	132	200	84	127
GMB 180/72	180	72	3.00	20	151	226	96	144
GMB 205/85	210	84	3.10	1.5	239	257	152	164
GMB 250/100	250	100	3.10	1.5	264	314	168	200

### Heavy Wall Tube [Upto 36KV]

GHB 25/8	25	8	3.20	25	20	28	13	20
GHB 30/12	30	12	3.50	25	28	33	18	25
GHB 40/16	40	16	3.50	25	35	45	22	32
GHB 50/20	50	20	3.50	25	45	54	29	40
GHB 65/25	65	25	3.50	25	50	62	32	43
GHB 75/28	75	28	3.50	20	53	69	34	47
GHB 85/32	85	32	3.50	20	69	100	44	68
GHB 100/38	100	38	3.70	20	83	102	53	72
GHB 120/45	120	45	3.70	20	94	125	60	85
GHB 150/60	150	60	3.70	15	122	168	78	105
GHB 180/70	180	70	3.70	15	160	196	102	125
GHB 205/85	205	85	3.70	1.5	239	250	152	164
GHB 250/120	250	120	3.80	1.5	264	314	168	200