



APPLICATIONS

- Copper or aluminium busbar insulation in MV cabinets with maximum voltage 24 kV

KEY FEATURES

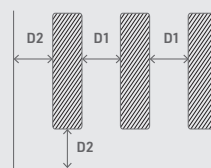
- Protection against accidental contacts
- Highly flexible after heat shrinking to facilitate busbar bends
- High mechanical resistance
- Distance reduction up to 45% between busbars

SPECIFICATIONS

- Solvent resistant
- UV resistant
- Resistant to weathering
- Halogen free
- Tubing reference and size printed on each bar (GPSM-1000)

Typical clearances between rectangular busbars for indoor applications

maximum voltage (voltage class) U_m	clearance (mm)		clearance with GPSM (mm)	
	D1	D2	D1	D2
12 kV	120	120	65	75
24 kV	220	220	115	150



D1 Phase-phase clearance
D2 Phase-ground clearance

Rated voltage U_0/U (U_m)
up to 12/20 (24) kV

Dielectric strength (IEC 60243)
200 kV/cm

Volume resistivity (IEC 60093)
 $2 \times 10^8 \text{ M}\Omega \cdot \text{cm}$

Relative dielectric constant
(IEC 60250)
3.0

Tensile strength (ISO 37)
14 MPa

Elongation (ISO 37)
500 %

Density (ISO R1183)
 1.1 g/cm^3

Water absorption (ISO R62)
0.3 %
(after 14 days at 23 °C)

Accelerated ageing
(after 168 h at 120 °C) (ISO 188)

tensile strength (ISO37)
12 MPa

Elongation (ISO 37)
400 %

GPSM-A/U**spool**Allowed busbar
size

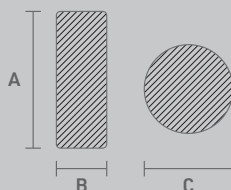
ref.	item	D/d (mm)	spool length (m)	min./ mult. ord. qty (m)	A+B (mm)	C (mm)
					min – max	min – max
GP0015	GPSM-15/6-A/U	15/6	30	30	12 – 18	6,5 – 12
GP0030	GPSM-30/12-A/U	30/12	30	30	22 – 38	13,5 – 25
GP0050	GPSM-50/20-A/U	50/20	30	30	36 – 65	22 – 43
GP0075	GPSM-75/30-A/U	75/30	20	20	55 – 95	33 – 63
GP0100	GPSM-100/40-A/U	100/40	25	25	70 – 130	44 – 86
GP0120	GPSM-120/50-A/U	120/50	25	25	90 – 165	55 – 105
GP0175	GPSM-175/70-A/U	175/70	15	15	125 – 235	80 – 150
GP0205	GPSM-205/110-A/U	205/110	10	10	200 – 276	127 – 190

GPSM-1000**1 meter bars**Allowed busbar
size

ref.	item	D/d (mm)	length (m)	min./ mult. ord. qty (m)	A+B (mm)	C (mm)
					min – max	min – max
GP2015	GPSM-15/6-1000	15/6	1	1	12 – 18	6,5 – 12
GP2030	GPSM-30/12-1000	30/12	1	1	22 – 38	13,5 – 25
GP2050	GPSM-50/20-1000	50/20	1	1	36 – 65	22 – 43
GP2075	GPSM-75/30-1000	75/30	1	1	55 – 95	33 – 63
GP2100	GPSM-100/40-1000	100/40	1	1	70 – 130	44 – 86
GP2120	GPSM-120/50-1000	120/50	1	1	90 – 165	55 – 105
GP2175	GPSM-175/70-1000	175/70	1	1	125 – 235	80 – 150
GP2205	GPSM-205/110-1000	205/110	1	1	200 – 276	127 – 190



D Diameter before shrinkage
d Diameter after free shrinkage



A Rectangular busbar
longer side
B Rectangular busbar
shorter side
C Round busbar
diameter



APPLICATIONS

- Copper or aluminium busbar insulation in MV cabinets with maximum voltage 36 kV

KEY FEATURES

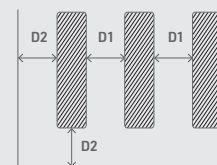
- Protection against accidental contacts
- Highly flexible after heat shrinking to facilitate busbar bends
- High mechanical resistance
- Distance reduction up to 65% between busbars

SPECIFICATIONS

- Solvent resistant
- UV resistant
- Resistant to weathering
- Halogen free
- Tubing reference and size printed on each bar (GPSA-1000)

Typical clearances between rectangular busbars for indoor applications

maximum voltage (voltage class) U_M	clearance (mm)		clearance with GPSA (mm)	
	D1	D2	D1	D2
12	120	120	35	45
24	220	220	70	100
36	320	320	140	190



D1 Phase-phase clearance
D2 Phase-ground clearance

Rated voltage U_0/U (U_m)
up to 18/30 (36) kV

Dielectric strength (IEC 60243)
200 kV/cm

Resistività volumetrica (IEC 60093)
 $2 \times 10^8 \text{ M}\Omega \cdot \text{cm}$

Costante dielettrica relativa
(IEC 60250)
3,0

Tensile strength (ISO 37)
14 MPa

Elongation (ISO 37)
500 %

Density (ISO R1183)
 $1,1 \text{ g/cm}^3$

Water absorption (ISO R62)
0,3 %
(after 14 days at 23 °C)

Accelerated ageing
(after 168 h at 120 °C) (ISO 188)

Tensile strength (ISO 37)
12 MPa

Elongation (ISO 37)
400 %

GPSA-A/U

spool

Allowed busbar
size



ref.	item	D/d (mm)	spool length (m)	min./ mult. ord. qty (m)	A+B (mm)	C (mm)
					min – max	min – max
GP1025	GPSA-25/10-A/U	25/10	25	25	17 – 28	11 – 20
GP1040	GPSA-40/16-A/U	40/16	20	20	28 – 45	18 – 32
GP1065	GPSA-65/25-A/U	65/25	15	15	44 – 69	28 – 47
GP1100	GPSA-100/40-A/U	100/40	15	15	69 – 102	44 – 72
GP1150	GPSA-150/60-A/U	150/60	15	15	102 – 148	65 – 105
GP1175	GPSA-175/80-A/U	175/80	10	10	133 – 196	85 – 125

GPSA-1000

1 meter bars

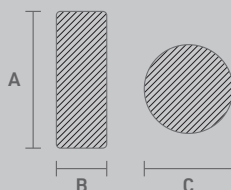
Allowed busbar
size



ref.	item	D/d (mm)	length (m)	min./ mult. ord. qty (m)	A+B (mm)	C (mm)
					min – max	min – max
GP3025	GPSA-25/10-1000	25/10	1	1	17 – 28	11 – 20
GP3040	GPSA-40/16-1000	40/16	1	1	28 – 45	18 – 32
GP3065	GPSA-65/25-1000	65/25	1	1	44 – 69	28 – 47
GP3100	GPSA-100/40-1000	100/40	1	1	69 – 102	44 – 72
GP3150	GPSA-150/60-1000	150/60	1	1	102 – 148	65 – 105
GP3175	GPSA-175/80-1000	175/80	1	1	133 – 196	85 – 125



D Diameter before shrinkage
d Diameter after free shrinkage



A Rectangular busbar
longer side
B Rectangular busbar
shorter side
C Round busbar
diameter