

HIGH VOLTAGE INSULATION TUBING

HB1 Heat shrinkable busbar insulation tubing (3.6KV)
高壓銅排熱收縮套管(耐壓3.6KV)

應用 Applications

具有良好的防劃傷和抗彎曲能力，用於開關設備和變電站的匯流排的絕緣保護。我們提供的連續的套管可以使我們的使用更加方便和經濟。

Provides high resistance to tracking and arching and used to enhance the insulation properties of busbar in switchgear and substation. The continuous length of supplied products makes it to be used more conveniently and economically.

操作溫度範圍 Operating temperature range

- 操作溫度：-55℃~125℃
- 最低收縮溫度：70℃
- 最低完全收縮溫度：110℃
- Operating temperature: -55℃ ~ 125℃
- Minimum shrink temperature : 70℃
- Minimum full recovery temperature : 110℃

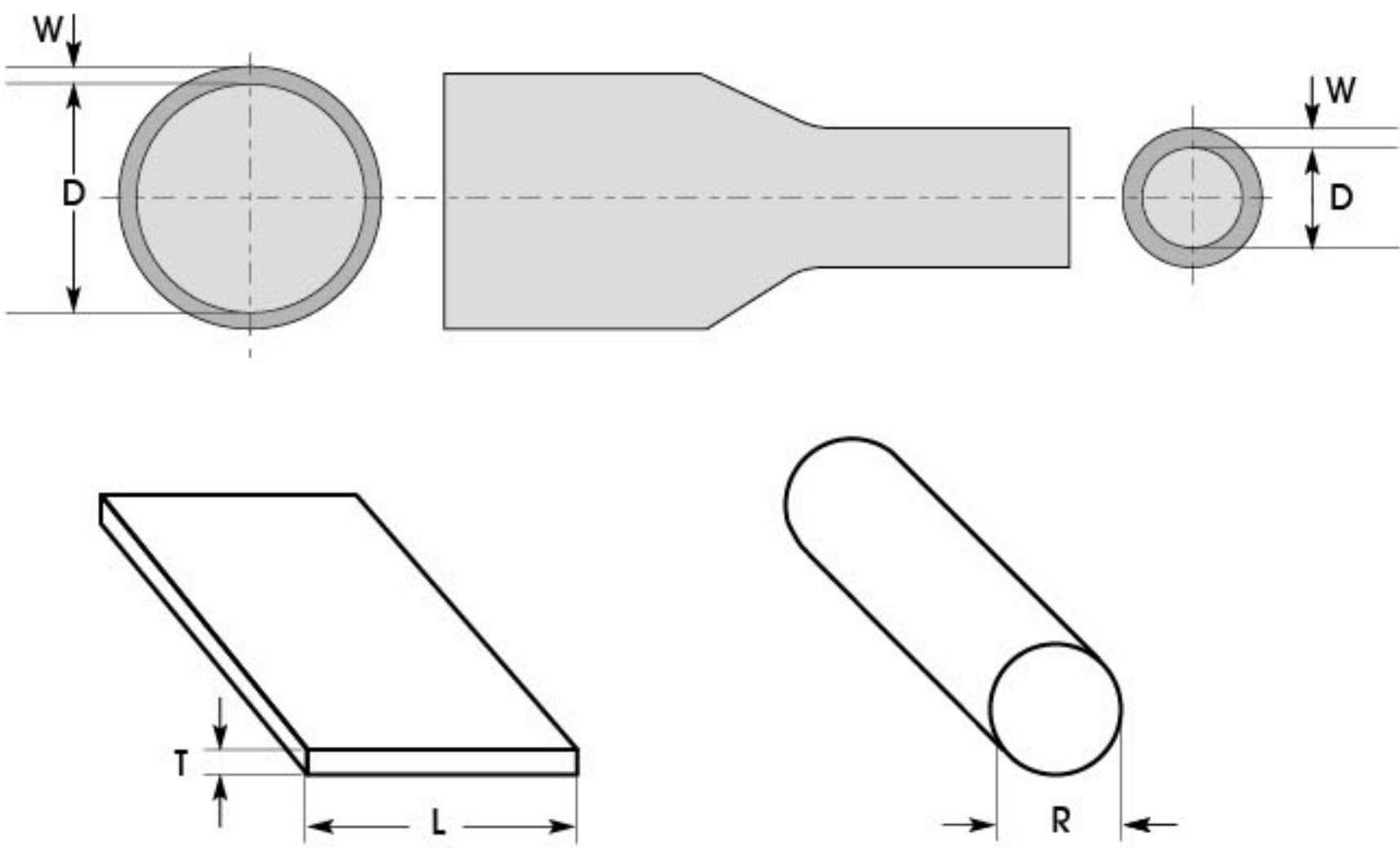
特性 Characteristics

- 收縮率 2 : 1
- 耐腐蝕、阻然
- 優異的化學抵抗性和絕緣性能
- 紅、黃、藍、綠、白、黑等色供分色用
- Shrinkage ratio 2 : 1
- Corrosion resistance and flame retardant
- Excellent chemical resistance and insulation performance
- Red, yellow, blue, green, white and black for color distinction.

Approvals / Specifications 認證 / 規範
IEC60060-1 (2010)

Product Dimensions 產品規格

Part Number	Nominal Size (mm)	As supplied 縮前尺寸 (mm)	After recovered 收縮後尺寸 (mm)		Applicable busbar dimension 適用匯流排尺寸 (mm)		Standard Length (Meter)
產品型號	尺寸(米釐)	I.D. (min) 內徑 (D)	I.D. (max) 內徑 (D)	W.T. 壁厚 (W)	L+T (min) (max.) 方形 (最小) (最大)	R(min) (max) 圓形 (最小) (最大)	標準長度(米)
HB1-020	20	20	10	0.8±0.15	13~28	12.0~15.0	100
HB1-030	30	30	15	0.9±0.15	22~38	17.0~25.0	50
HB1-040	40	40	20	1.0±0.15	25~40	23.0~30.0	50
HB1-050	50	50	25	1.0±0.15	36~65	28.0~43.0	25
HB1-060	60	60	30	1.55±0.2	42~70	33.0~62.0	25
HB1-070	70	70	35	1.60±0.2	50~85	38.0~65.0	25
HB1-080	80	80	40	1.70±0.2	55~95	43.0~75.0	25
HB1-090	90	90	45	1.90±0.2	60~115	48.0~82.0	25
HB1-100	100	100	50	2.10±0.2	70~130	55.0~90.0	25
HB1-120	120	120	60	2.20±0.2	90~165	66.0~110.0	15
HB1-150	150	150	75	2.20±0.2	MAX	MAX	15
HB1-180	180	180	90	2.30±0.2	MAX	MAX	15



Technical Data		
Property	Test condition	Typical Value
Tensile strength	ASTM D 2671	14.8Mpa
Tensile strength after aging	ASTM D 2671 / 158℃, 168 hrs (7 days)	14.5 MPa
Longitudinal shrinkage	ASTM D 2671	3~7%
Max. Elongation	ASTM D 2671	460%
Elogation after aging	ASTM D 2671/158℃, 168 hrs (7 days)	≥ 480%
Low temperature flexibility	ASTM D 2671	PASS
Volume resistance	IEC 93	≥ 10 ¹⁴ Ω · cm
Dielectric voltage withstand and breakdown	UL224	2500V.60sec no breakdown
Flammability	UL224	VW-1

Color: black、red、blue、yellow、white、green
顏色：黑、紅、藍、黃、白、綠



HIGH VOLTAGE INSULATION TUBING

HB2 Heat shrinkable busbar insulation tubing (24KV)
高壓銅排熱收縮套管 (耐壓24KV)

應 用 Applications

具有良好的防劃傷和抗彎曲能力，用於開關設備和變電站的滙流排的絕緣保護。我們提供的連續的套管可以使我們的使用更加方便和經濟。

Provides high resistance to tracking and arching and used to enhance the insulation properties of bus bar in switchgear and substation. The continuous length of supplied products makes it to be used more conveniently and economically.

特 性 Characteristics

- 收縮率 2.5 : 1
- 柔軟、耐腐蝕
- 優異的化學抵抗性和絕緣性能

- Shrinkage ratio 2.5 : 1
- Flexible material and corrosion resistance
- Excellent chemical resistance and insulation performance

操作溫度範圍 Operating temperature range

- 操作溫度：-45℃~105℃
- 最低收縮溫度：100℃
- 最低完全收縮溫度：135℃
- Operating temperature: -45℃ ~ 105℃
- Minimum shrink temperature : 100℃
- Minimum full recovery temperature : 135℃

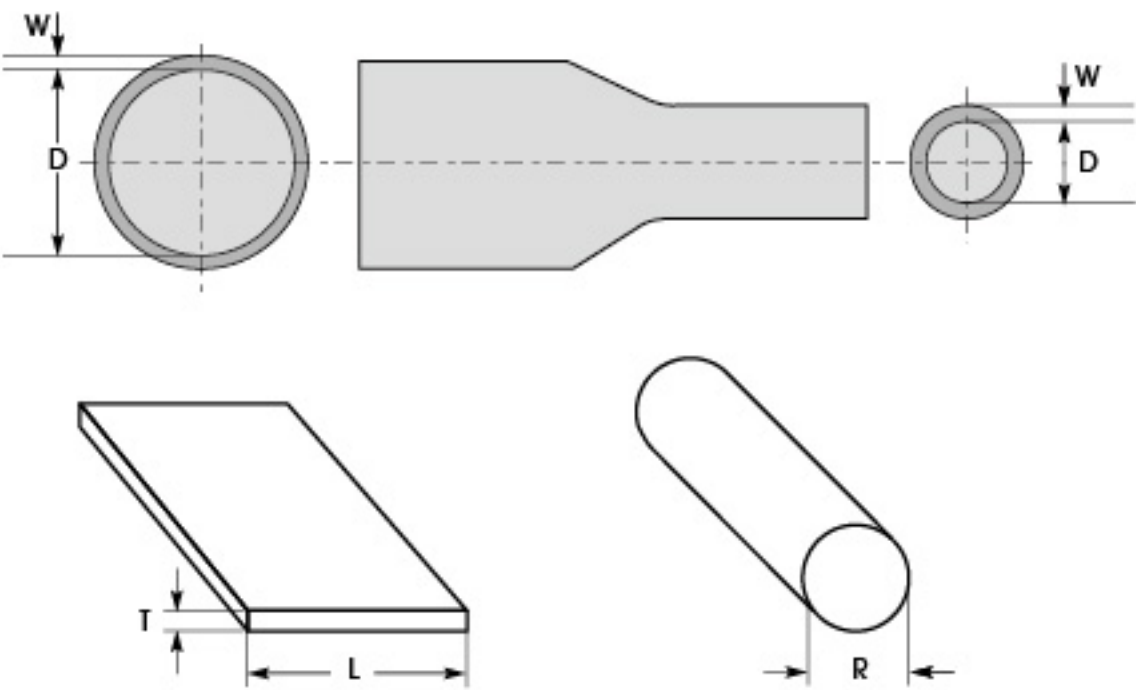
Approvals / Specifications 認證 / 規範
IEC60060-1 (2010)

Product Dimensions 產品規格

Part Number	Nominal Size (mm)	As supplied 縮前尺寸 (mm)	After recovered 收縮後尺寸 (mm)		Applicable busbar dimension 適用匯流排尺寸 (mm)	Standard Length (Meter)
產品型號	尺寸 (米釐)	I.D. (min) 內徑 (D)	I.D. (max) 內徑 (D)	W.T. 壁厚 (W)	L+T (min) (max.) 方形 (最小) (最大)	標準長度 (米)
HB2-020	20	20±0.8	10	2.0±0.2	13~28	25
HB2-030	30	30±0.8	13	2.2±0.2	22~38	25
HB2-040	40	40±1	15	2.2±0.2	25~40	25
HB2-050	50	50±2	20	2.5±0.2	36~65	20
HB2-065	65	65±3	25	3.0±0.2	39~62	20
HB2-080	80	80±3	30	3.0±0.3	55~95	20
HB2-100	100	100±4	40	3.0±0.3	70~130	20
HB2-120	120	120±4	50	3.0±0.3	90~165	20
HB2-150	150	150±4	60	3.5±0.3	95~138	20
HB2-180	180	180±5	75	3.5±0.3	MAX	15
HB2-210	210	210±5	90	3.5±0.3	MAX	15

Technical Data		
Property	Test condition	Typical Value
Density	ASTM D 2671	1.3~1.35
Tensile Strength	ASTM D 2671	≥11Mpa
Ultimate elongation	ASTM D 2671	≥400%
Accelerated ageing 168hrs at 136°C	ASTM D 2671	
Tensile strength		≥10 MPa
Ultimate elongation		>300%
Low temperature flexibility 4hrs at -40°C	ASTM D 2671	No cracking
Heat shock 4hr at 200°C	ASTM D 2671	No drop no flow
Dielectric strength	ASTM D 2671	20kv/mm
Volume resistivity	ASTM D 2671	10 x 10 ¹⁴ Ω · cm
Water absorption 336hrs at 23°C	ASTM D 570	<0.5%
Copper corrosion 158°C for 168hrs	IEC 60684-3	No cracking
Color fastness to light	IEC 60684-3	Contrast between exposed and unexposed parts The color does not chang

- Color : red
- * Width dimension of busbar is depending on factory design.
- 顏色：紅
- * 銅牌寬度會依廠家設計不同有所變更，建議尺寸僅供參考



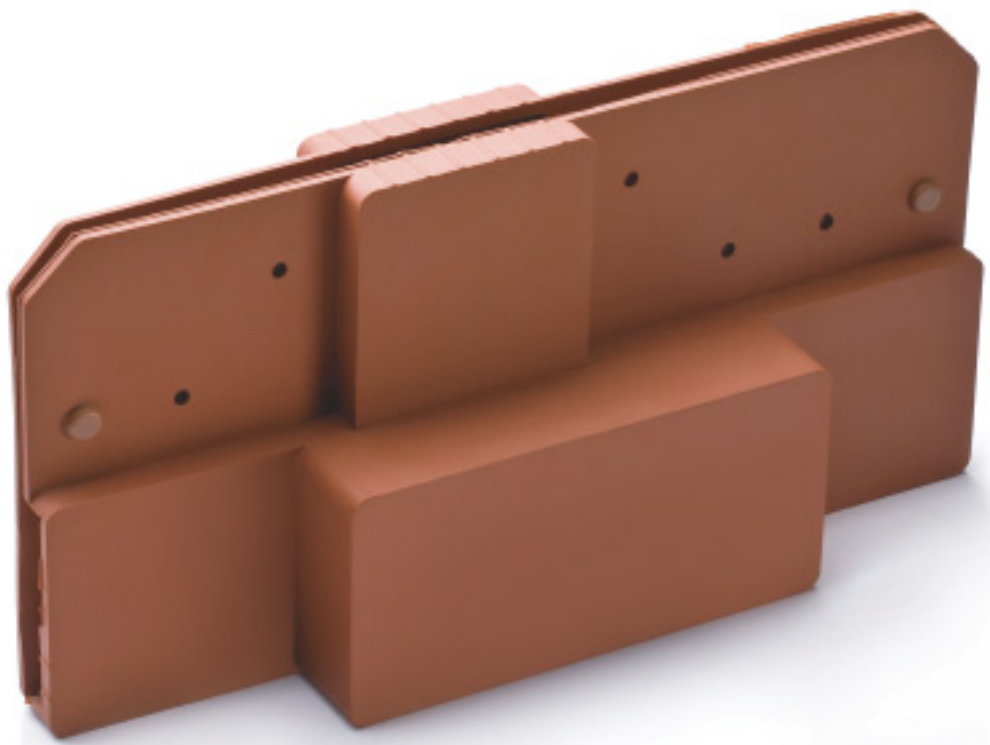
HB BOX

應 用 Applications

應用於銅排接續處的絕緣保護，適合L 型及I型的接續處理。
Apply to busbar splice for insulation and protection.
Suitable used for L type and I type busbar splice.

特 性 Characteristics

- 橡膠材質，耐磨及耐腐蝕性能佳
- 柔軟耐高溫
- Rubber material
- Excellent Abrasion and corrosion resistance
- Flexible and high temperature resistance



HIGH VOLTAGE INSULATION TUBING

HB3 Heat shrinkable busbar insulation tubing (36KV)
高壓銅排熱收縮套管(耐壓36KV)

應用 Applications

具有良好的防劃傷和抗彎曲能力，用於開關設備和變電站的母排的絕緣保護。我們提供的連續的套管可以使我們的使用更加方便和經濟。

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特性 Characteristics

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- 柔軟、耐腐蝕
- 優異的化學抵抗性和絕緣性能
- Shrinkage ratio 2.5 : 1
- Flexible material and corrosion resistance
- Excellent chemical resistance and insulation performance

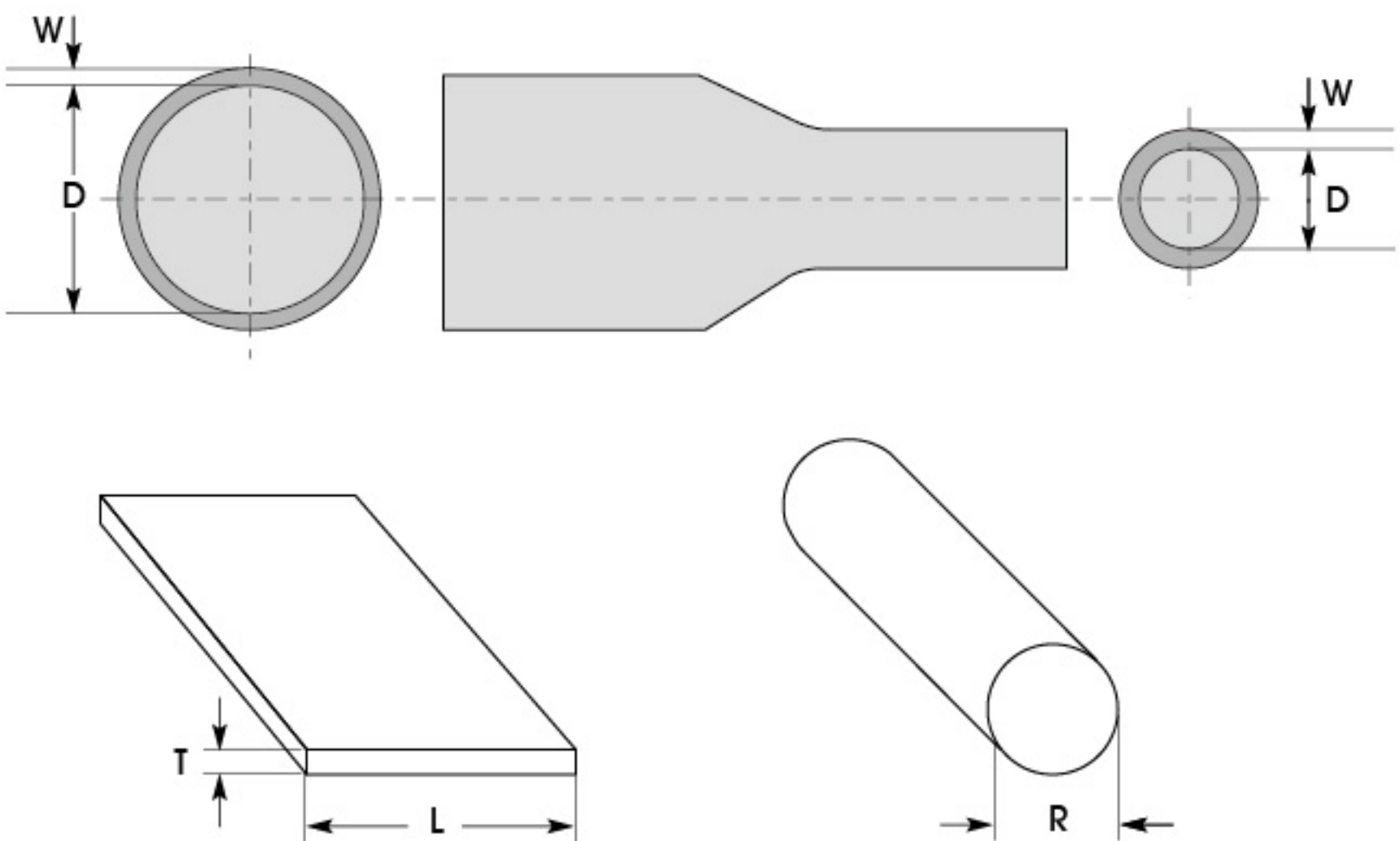


操作溫度範圍 Operating temperature range

- 操作溫度：-45°C~105°C
- 最低收縮溫度：100°C
- 最低完全收縮溫度：135°C
- Operating temperature: -45°C ~ 105°C
- Minimum shrink temperature : 100°C
- Minimum full recovery temperature : 135°C

Product Dimensions 產品規格

Part Number	Nominal Size (mm)	As supplied 收縮前 (mm)	After recovered 收縮後 (mm)		Applicable busbar dimension 應用的銅排規格 (mm)	Standard Length (Meter)
產品型號	尺寸(米釐)	I.D. (min) 內徑 (D)	I.D. (max) 內徑 (D)	W.T. 厚度 (W)	L+T (min) (max.) 方形 (最小)(最大)	標準長度(米)
HB3-025	25	25	10	4.0±0.3	20~35	15
HB3-040	40	40	16	4.0±0.3	25~40	15
HB3-065	65	65	25	4.0±0.3	39~62	1~1.5
HB3-075	75	75	25	4.0±0.3	55~95	1~1.5
HB3-095	95	95	30	4.0±0.3	70~130	1~1.5
HB3-120	120	120	40	5.2±0.3	90~165	1~1.5
HB3-180	180	180	70	5.0±0.3	MAX	1~1.5



Technical Data		
Property	Test condition	Typical Value
Tensile Strength	ASTM D 2671	≥ 14Mpa
Ultimate elongation	ASTM D 2671	≥ 800%
Longitudinal shrinkage	ASTM D 2671	0~10%
Heat aging	120°C, 168hrs	>10Mpa
Tensile strength		>200%
Ultimate elongation		
Dielectric strength	IEC243	≥ 19kv/mm
Dielectric constant	IEC250	≤ 3.5
Volume resistance	IEC93	≥ 10 ¹⁴ Ω · cm
Flammability (Oxygen Index)	ISO 4589	≥ 25
Water absorption	ISO 62/23°C, 14days	<0.5%
Copper corrosion	UL224	No corrosion
Color bend	ASTM D 2671/-40°C, 4hrs	No cracking

- Color : red
- * Width dimension of busbar is depending on factory design.
- 顏色：紅
- * 銅排寬度會依廠家設計不同有所變更，建議尺寸僅供參考

