



Caledonian

Cable Joints and Terminations



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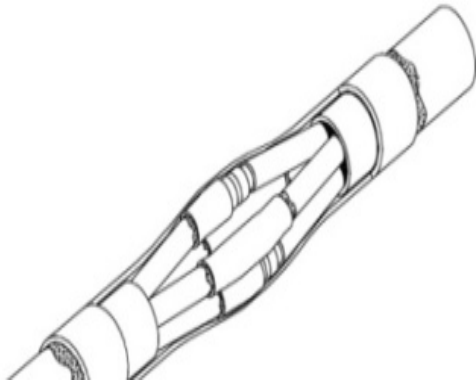
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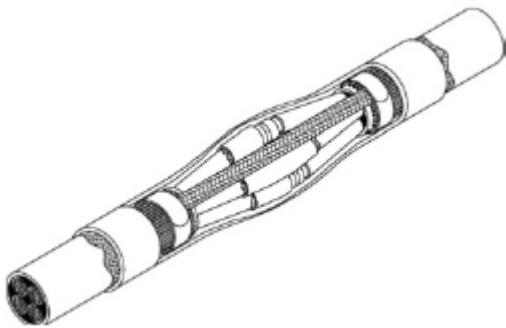
1KV Heat Shrinkable Cable Joints HLVJ



Type UA



Type CN



Type A

Application

Straight-through joints Type HLVJ are designed to cover 3, 3.5 and 4-core plastic insulated cables (with PVC, PE, XLPE, EPR outer sheath) with or without armouring (steel wire armour / steel tape armour). The designs cover a wide range of cable cross section.

Features

- High mechanical protection
- Excellent electrical insulation
- Environment sealing and weathering resistance
- Wide cross section range suitable for all types of connectors
- Compact design
- Unlimited shelf life, allowing immediate reenergizing

Standard

EN 50393, DIN VDE 0278-393, BS 7933-2, IEC 60502-4

Kit Contents

Crimp connector and mechanical connector are available upon request.
Adhesive lined core insulation and outer tube



Ordering Information

Heat Shrinkable Straight Joints for unarmored plastic insulated cables with mechanical connectors

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
U ₀ /U(U _m) 0.6/1.0(1.2)kV	HLVJ-4/1.5-10-UA-M	1.5 -10	UA	M
	HLVJ-4/6-25-UA-M	6 -25	UA	M
	HLVJ-4/35-70-UA-M	35 -70	UA	M
	HLVJ-4/50-120-UA-M	50 -120	UA	M
	HLVJ-4/150-300-UA-M	150 -300	UA	M

Heat Shrinkable Straight Joints for unarmored plastic insulated cables with crimp connectors

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
U ₀ /U(U _m) 0.6/1.0(1.2)kV	HLVJ-4/1.5-10-UA-C	1.5 -10	UA	C
	HLVJ-4/6-25-UA-C	6 -25	UA	C
	HLVJ-4/16-25-UA-C	16 -50	UA	C
	HLVJ-4/50-120-UA-C	50 -120	UA	C
	HLVJ-4/150-300-UA-C	150 -300	UA	C

Heat Shrinkable Straight Joints for plastic insulated cables (concentric neutral), with mechanical connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Concentric Neutral)	Connector Type
U ₀ /U(U _m) 0.6/1.0(1.2)kV	HLVJ-4/10-35-CN-M	10-35	CN	M
	HLVJ-4/25-70-CN-M	25-70	CN	M
	HLVJ-4/70-120-CN-M	70-120	CN	M
	HLVJ-4/150-240-CN-M	150-240	CN	M

Heat Shrinkable Straight Joints for plastic insulated cables (concentric neutral), with crimp connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Concentric Neutral)	Connector Type
U _o /U(U _m) 0.6/1.0(1.2)kV	HLVJ-4/10-16-CN-C	10-16	CN	C
	HLVJ-4/25-50-CN-C	25-50	CN	C
	HLVJ-4/70-150-CN-C	70-150	CN	C
	HLVJ-4/185-300-CN-C	185-300	CN	C

Heat Shrinkable Straight Joints for armoured plastic insulated cables with mechanical connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
U _o /U(U _m) 0.6/1.0(1.2)kV	HLVJ-4/10-35-A-M	10-35	A	M
	HLVJ-4/25-70-A-M	25-70	A	M
	HLVJ-4/50-150-A-M	50-150	A	M
	HLVJ-4/120-300-A-M	120-300	A	M

Heat Shrinkable Straight Joints for armoured plastic insulated cables with crimp connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
U _o /U(U _m) 0.6/1.0(1.2)kV	HLVJ-4/1.5-4-A-C	1.5-4	A	C
	HLVJ-4/6-16-A-C	6-16	A	C
	HLVJ-4/25-50-A-C	25-50	A	C
	HLVJ-4/70-150-A-C	70-150	A	C
	HLVJ-4/185-300-A-C	185-300	A	C

Example: Kit part number : HLVJ- 4/A-A -M

Where: HLVJ- Heat Shrinkable Low Voltage Cable Joints; 4-number of cable cores; A-cross section range of cable conductor; A-the type of cable armour, SWA/AWA/STA; C- crimp type connectors

No connectors supplied unless specified.

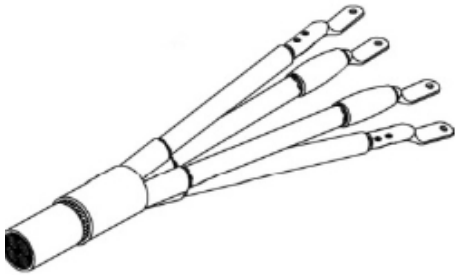


Technical Parameters

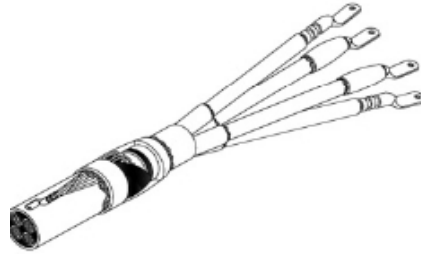
Performance of heat shrinkable low voltage cable joints when tested according to EN 50393 (CENELEC 623 S1)

Test sequence	Item	Requirements acc. to IEC 60502.4	Results	Performed test acc. to EN 50393
1	Impulse Withstand Voltage Test	No breakdown shall occur at 10 positive and 10 negative impulses of 20kV	No breakdown shall occur at 10 positive and 10 negative impulses of 20kV	Pass
2	AC Withstand Voltage Test (In Air and Ambient Temperature)	4kV, 1min No breakdown	4kV, 1min No breakdown	Pass
3	Insulation Resistance (in Air and Ambient Temperature)	$\geq 50M\Omega$	$\geq 50M\Omega$	Pass
4	Impact Test (In Air and Ambient Temperature)	4kg wedge dropped from a height of 1000mm	No functional Damage	Pass
5	AC Withstand Voltage Test Immersed in the water of with a Height of 1000mm	4kV, 1min No breakdown	4kV, 1min No breakdown	Pass
6	Heating Cycle Test in Air	Heat the conductor to 95°C–100°C, 63 times in air, No breakdown	Heat the conductor to 95°C–100°C, 63 times in air, No breakdown	Pass
7	Heating Cycle Test (Immersed in the Water of with a Height of 1000mm)	Heat the conductor to 95°C– 100°C, 63 times in the water, No breakdown	Heat the conductor to 95°C– 100°C, 63 times in the water, No breakdown	Pass
8	AC Withstand Voltage Test (Immersed in the Water of with a Height of 1000mm)	4kV, 1min No breakdown	4kV, 1min No breakdown	Pass
9	Insulation Resistance (in Air and Ambient Temperature)	$\geq 50M\Omega$	$\geq 50M\Omega$	Pass

1KV Heat Shrinkable Indoor and Outdoor Cable Termination Kits HLVT



HLVT Type UA



HLVT Type CN



HLVT Type A

Application

Indoor and outdoor terminations Type HLVT are designed to cover 3, 3.5 and 4-core plastic insulated cables (with PVC PE XLPE EPR outer sheath) with or without SWA/AWA/STA. The designs cover a wide range of cable cross section.

Features

- Excellent electrical insulation
- Environment sealing and weathering resistance
- High mechanical protection
- Wide cross section range suitable for all types of connectors
- Compact design
- Unlimited shelf life, allowing immediate reenergizing

Standard

EN 50393, DIN VDE 0278-393, BS 7933-2, IEC 60502-4

Kit Contents

- Adhesive lined core insulation tube
- Low voltage breakout
- Lug sealing tubes
- Corrosion protection sleeve
- Support ring and roll spring or armour clamp
- Earth braid



Ordering Information

Heat Shrinkable Termination Kits for polymeric insulated cables with mechanical lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
U _o /U(U _m) 0.6/1.0(1.2)kV	HLVT-4/1.5-4/I-UA-M or HLVT-4/1.5-4/O-UA-M	1.5-4	UA	M
	HLVT-4/6-16/I-UA-M or HLVT-4/6-16/O-UA-M	6-16	UA	M
	HLVT-4/25-50/I-UA-M or HLVT-4/25-50/O-UA-M	25-50	UA	M
	HLVT-4/70-120/I-UA-M or HLVT-4/70-120/O-UA-M	70-120	UA	M
	HLVT-4/150-240/I-UA-M or HLVT-4/150-240/O-UA-M	150-240	UA	M

Heat Shrinkable Termination Kits for polymeric insulated cables with crimp lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
U _o /U(U _m) 0.6/1.0(1.2)kV	HLVT-4/1.5-4/I-UA-C or HLVT-4/1.5-4/O-UA-C	1.5-4	UA	C
	HLVT-4/6-16/I-UA-C or HLVT-4/6-16/O-UA-C	6-16	UA	C
	HLVT-4/25-50/I-UA-C or HLVT-4/25-50/O-UA-C	25-50	UA	C
	HLVT-4/70-120/I-UA-C or HLVT-4/70-120/O-UA-C	70-120	UA	C
	HLVT-4/150-240/I-UA-C or HLVT-4/150-240/O-UA-C	150-240	UA	C

Heat Shrinkable Termination Kits for polymeric insulated cables (concentric neutral) with mechanical lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Concentric Neutra)	Connector Type
U _o /U(U _m) 0.6/1.0(1.2)kV	HLVT-4/10-25/I-CN-M or HLVT-4/10-25/O-CN-M	10 -25	CN	M
	HLVT-4/35-50/I-CN-M or HLVT-4/35-50/O-CN-M	35 -50	CN	M
	HLVT-4/70-120/I-CN-M or HLVT-4/70-120/O-CN-M	70 -120	CN	M
	HLVT-4/150-240/I-CN-M or HLVT-4/150-240/O-CN-M	150 -240	CN	M

Heat Shrinkable Termination Kits for polymeric insulated cables (concentric neutral) with crimp lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Concentric Neutra)	Connector Type
Uo/U(Um) 0.6/1.0(1.2)kV	HLVT-4/10-16/I-CN-C or HLVT-4/10-16/O-CN-C	10 -16	CN	C
	HLVT-4/25-50/I-CN-C or HLVT-4/25-50/O-CN-C	25 -50	CN	C
	HLVT-4/70-150/I-CN-C or HLVT-4/70-150/O-CN-C	70 -150	CN	C
	HLVT-4/185-300/I-CN-C or HLVT-4/185-300/O-CN-C	185 -300	CN	C

Heat Shrinkable Termination Kits for armoured polymeric insulated cables with mechanical/bolted lugs

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
	HLVT-4/1.5-10/I-A-M or HLVT-4/1.5-10/O-A-M	1.5-10	A	M
Uo/U(Um) 0.6/1.0(1.2)kV	HLVT-4/10-25/I-A-M or HLVT-4/10-25/O-A-M	10 -25	A	M
	HLVT-4/35-50/I-A-M or HLVT-4/35-50/O-A-M	35 -50	A	M
	HLVT-4/70-120/I-A-M or HLVT-4/70-120/O-A-M	70 -120	A	M
	HLVT-4/150-240/I-A-M or HLVT-4/150-240/O-A-M	150 -240	A	M

Heat Shrinkable Termination Kits for armoured polymeric insulated cables with crimp lugs

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
Uo/U(Um) 0.6/1.0(1.2)kV	HLVT-4/1.5-4/I-A-C or HLVT-4/1.5-4/O-A-C	1.5-4	A	C
	HLVT-4/6-16/I-A-C or HLVT-4/6-16/O-A-C	6-16	A	C
	HLVT-4/25-50/I-A-C or HLVT-4/25-50/O-A-C	25-50	A	C
	HLVT-4/70-150/I-A-C or HLVT-4/70-150/O-A-C	70-150	A	C
	HLVT-4/185-300/I-A-C or HLVT-4/185-300/O-A-C	185-300	A	C

Example: Kit part number : HLVT- 4/A/O-A -C

Where: HLVT- Heat Shrinkable Low Voltage Cable Terminations; 4-number of cable cores; A-cross section range of cable conductor; O-outdoor termination; A-the type of cable armour,SWA/AWA/STA; C- crimp type lugs

No lugs supplied unless specified.



Technical Parameters

Performance of heat shrinkable low voltage cable terminations when tested according to EN 50393 (CENELEC 623 S1)

Test sequence	Item	Requirements acc. to IEC 60502.4	Results	Performed test acc. to EN 50393
1	Impulse Withstand Voltage Test	No breakdown shall occur at 10 positive and 10 negative impulses of 20kV	No breakdown shall occur at 10 positive and 10 negative impulses of 20kV	Pass
2	AC Withstand Voltage Test (In Air and Ambient Temperature)	4kV, 1min No breakdown	4kV, 1min No breakdown	Pass
3	Insulation Resistance (in Air and Ambient Temperature)	$\geq 50M\Omega$	$\geq 50M\Omega$	Pass
4	Impact Test (In Air and Ambient Temperature)	4kg wedge dropped from a height of 1000mm	No functional Damage	Pass
5	AC Withstand Voltage Test Immersed in the water of with a Height of 1000mm	4kV, 1min No breakdown	4kV, 1min No breakdown	Pass
6	Heating Cycle Test in Air	Heat the conductor to 95°C– 100°C, 63 times in air, No breakdown	Heat the conductor to 95°C– 100°C, 63 times in air, No breakdown	Pass
7	Heating Cycle Test (Immersed in the Water of with a Height of 1000mm)	Heat the conductor to 95°C– -100°C, 63 times in the water, No breakdown	Heat the conductor to 95°C– -100°C, 63 times in the water, No breakdown	Pass
8	AC Withstand Voltage Test (Immersed in the Water of with a Height of 1000mm)	4kV, 1min No breakdown	4kV, 1min No breakdown	Pass
9	Insulation Resistance (in Air and Ambient Temperature)	$\geq 50M\Omega$	$\geq 50M\Omega$	Pass

MV (6/10 (12) KV to 12/20 (24) KV) Heat Shrinkable Cable Joints HKSJ



HKSJ Single Core



HKSJ Three Cores

Application

Straight through joints Type HKSJ are designed to cover 1core and 3-core plastic insulated cables (with PVC, PE, XLPE, EPR outer sheath) with steel wire/tape armour, copper wire/tape screen. The designs cover a wide range of cable cross section.

Features

- High mechanical strength
- Wide cross section range suitable for all types of connectors
- Compact design
- Reduced components
- Unlimited shelf life, allowing immediate reenergizing

Standard

IEC 60502-4, BS 7933-3, BS 7888-4.1

Kit Contents

- Stress control/void filling mastic
- Sealing mastic
- Stress control tubes for stress relief
- Semi-conductive and insulation dual wall tube (Red/Black)
- Earthing materials
- Thick wall Heat Shrinkable outer and inner tube with adhesive

Ordering Information

Heat Shrinkable Straight Through Joints for 6/10(12)kV to 12/20(24)kV single-core plastic insulated cable (wire/tape screen) with mechanical lconnectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
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Uo/U(Um) 6/10(12)kV	HKSJ-12/1/50-95-UA-M	50 -95	UA	M
	HKSJ-12/1/120-150-UA-M	120 -150	UA	M
	HKSJ-12/1/185-240-UA-M	185-240	UA	M
	HKSJ-12/1/300-400-UA-M	300-400	UA	M
Uo/U(Um) 8.7/15(17.5)kV	HKSJ-17.5/1/50-95-UA-M	50-95	UA	M
	HKSJ-17.5/1/120-185-UA-M	120-185	UA	M
	HKSJ-17.5/1/240-300-UA-M	240-300	UA	M
Uo/U(Um) 12/20(24)kV	HKSJ-24/1/50-95-UA-M	50-95	UA	M
	HKSJ-24/1/120-185-UA-M	120-185	UA	M
	HKSJ-24/1/240-300-UA-M	240-300	UA	M

Heat Shrinkable Straight Through Joints for 6/10(12)kV to 12/20(24)kV, single-core plastic insulated cable (wire/tape screen) with crimp connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
Uo/U(Um) 6/10(12)kV	HKSJ-12/1/50-95-UA-C	50 -95	UA	C
	HKSJ-12/1/120-150-UA-C	120 -150	UA	C
	HKSJ-12/1/185-240-UA-C	185-240	UA	C
	HKSJ-12/1/300-400-UA-C	300-400	UA	C
Uo/U(Um) 8.7/15(17.5)kV	HKSJ-17.5/1/50-95-UA-C	50-95	UA	C
	HKSJ-17.5/1/120-185-UA-C	120-185	UA	C
	HKSJ-17.5/1/240-300-UA-C	240-300	UA	C
Uo/U(Um) 12/20(24)kV	HKSJ-24/1/50-95-UA-C	50-95	UA	C
	HKSJ-24/1/120-185-UA-C	120-185	UA	C
	HKSJ-24/1/240-300-UA-C	240-300	UA	C

Heat Shrinkable Straight Through Joints for 6/10(12)kV to 12/20(24)kV, 3-core plastic insulated cable (wire/tape armour or /and wire/tape screen) with mechanical lconnectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
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U _o /U(U _m) 6/10(12)kV	HKSJ-12/3/50-95-A-M	50-95	A	M
	HKSJ-12/3/120-150-A-M	120-150	A	M
	HKSJ-12/3/185-240-A-M	185-240	A	M
	HKSJ-12/3/300-400-A-M	300-400	A	M
U _o /U(U _m) 8.7/15(17.5)kV	HKSJ-17.5/3/50-95-A-M	50-95	A	M
	HKSJ-17.5/3/120-185-A-M	120-185	A	M
	HKSJ-17.5/3/240-300-A-M	240-300	A	M
U _o /U(U _m) 12/20(24)kV	HKSJ-24/3/50-95-A-M	50-95	A	M
	HKSJ-24/3/120-185-A-M	120-185	A	M
	HKSJ-24/3/240-300-A-M	240-300	A	M

Heat Shrinkable Straight Through Joints for 6/10(12)kV to 12/20(24)kV, 3-core plastic insulated cable (wire/tape armour or /and wire/tape screen) with crimp connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
U _o /U(U _m) 6/10(12)kV	HKSJ-12/3/50-95-A-C	50-95	A	C
	HKSJ-12/3/120-150-A-C	120-150	A	C
	HKSJ-12/3/185-240-A-C	185-240	A	C
	HKSJ-12/3/300-400-A-C	300-400	A	C
U _o /U(U _m) 8.7/15(17.5)kV	HKSJ-17.5/3/50-95-A-C	50-95	A	C
	HKSJ-17.5/3/120-185-A-C	120-185	A	C
	HKSJ-17.5/3/240-300-A-C	240-300	A	C
U _o /U(U _m) 12/20(24)kV	HKSJ-24/3/50-95-A-C	50-95	A	C
	HKSJ-24/3/120-185-A-C	120-185	A	C
	HKSJ-24/3/240-300-A-C	240-300	A	C

Example: Kit part number : HKSJ-12/3/A-A-M

Where: HKSJ-Heat Shrinkable Straight Through Joints; 12-Voltage; 3-number of cable cores; A-cross section of cable conductor; A-the type of cable armour, SWA/AWA/STA; M- mechanical type connectors.

No connectors supplied unless specified.

Earthing materials: Earth braid, roll spring, armour clamp and copper mesh. Support ring and joint case are optional.

Transition joints are available on request.



Technical Parameters

Performance of heat shrinkable medium voltage cable joints when tested according to IEC 60502.4

Test sequence	Item	Requirements acc. to IEC 60502.4			Performed test acc. to IEC 60502.4
		Uo/U(Um) 6/10(12)kV	Uo/U(Um) 8.7/15(17.5)kV	Uo/U(Um) 12/20(24)kV	Result
1	AC Withstand Voltage Test(in Air and Ambient Temperature)	AC for 5 min. at 26kV. No breakdown, No flashover	AC for 5 min. at 39kV. No breakdown, No flashover	AC for 5 min. at 54kV. No breakdown, No flashover	Pass
2	Partial Discharge	10pC max. at 10kV	10pC max. at 15kV	10pC max. at 20kV	Pass
3	Impulse Withstand Test	10 impulses of each polarity at 65kV	10 impulses of each polarity at 95kV	10 impulses of each polarity at 125kV	Pass
4	Heating Cycles in Air	30 cycles at 95°C–100°C and 15kV in air, No breakdown, No flashover	30 cycles at 95°C–100°C and 22kV in air, No breakdown, No flashover	30 cycles at 95°C–100°C and 30kV in air, No breakdown, No flashover	Pass
5	Heating Cycles under Water	30 cycles at 95°C–100°C and 15kV under water, No breakdown, No flashover	30 cycles at 95°C–100°C and 22kV under water, No breakdown, No flashover	30 cycles at 95°C–100°C and 30kV under water, No breakdown, No flashover	Pass
6	Partial Discharge at 95°C–100°C	10pC max. at 10kV	10pC max. at 15kV	10pC max. at 20kV	Pass
7	Thermal Short-circuit (Screen)	10pC max. at 10kV	10pC max. at 15kV	10pC max. at 20kV	Pass
8	Thermal Short-circuit(Conductor)	No visible deterioration at 3.0 kA, 1s	No visible deterioration at 3.0 kA, 1s	No visible deterioration at 3.0 kA, 1s	Pass
9	Dynamic Short-circuit	No visible deterioration at 23.0 kA, 2s	No visible deterioration at 23.0 kA, 2s	No visible deterioration at 23.0 kA, 2s	Pass
10	Impulse Withstand Test	No visible deterioration at 81.0 kA, not less than 10 ms	No visible deterioration at 81.0 kA, not less than 10 ms	No visible deterioration at 81.0 kA, not less than 10 ms	Pass
11	AC Withstand Voltage Test	AC for 15 min. at 15kV. No breakdown, No flashover	AC for 15 min. at 22kV. No breakdown, No flashover	AC for 15 min. at 30kV. No breakdown, No flashover	Pass

**MV (6/10 (12) KV to 12/20 (24) KV) Heat Shrinkable Indoor and Outdoor Cable Termination Kits
HKIT/HKOT**



HKOT Single Core



HKOT Three Cores



HKIT Single Core



HKIT Three Cores

Application

HKIT and HKOT terminations are designed to terminate plastic insulated cables (with PVC, PE, XLPE, EPR outer sheath) with wire/tape armour, wire/tape screen. The designs cover a wide range of cable cross section.

Features

- High mechanical strength
- Wide cross section range suitable for all types of connectors
- Compact design
- Increased UV and weathering stability
- Unlimited shelf life, allowing immediate reenergizing

Standard

IEC 60502-4, BS 7933-3, BS 7888-4.1



Kit Contents

Stress control/void filling mastic
Sealing mastic
Stress control tube
Earthing materials
Support ring is optional.
Anti-tracking insulation tube
Anti-tracking rain sheds

Ordering Information

Heat Shrinkable Outdoor Termination Kits for 6/10(12)kV to 12/20(24)kV, single-core plastic insulated cable (wire/tape screen) with mechanical lugs

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
U _o /U(U _m) 6/10(12)kV	HKOT-12/1/50-95-UA-M	50-95	UA	M
	HKOT-12/1/120-150-UA-M	120-150	UA	M
	HKOT-12/1/185-240-UA-M	185-240	UA	M
	HKOT-12/1/300-400-UA-M	300-400	UA	M
U _o /U(U _m) 8.7/15(17.5)kV	HKOT-17.5/1/50-95-UA-M	50-95	UA	M
	HKOT-17.5/1/120-185-UA-M	120-185	UA	M
	HKOT-17.5/1/240-300-UA-M	240-300	UA	M
U _o /U(U _m) 12/20(24)kV	HKOT-24/1/50-95-UA-M	50-95	UA	M
	HKOT-24/1/120-185-UA-M	120-185	UA	M
	HKOT-24/1/240-300-UA-M	240-300	UA	M

Heat Shrinkable Outdoor Termination Kits for 6/10(12)kV to 12/20(24)kV, single-core plastic insulated cable (wire/tape screen) with crimp lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
U _o /U(U _m) 6/10(12)kV	HKOT-12/1/50-95-UA-C	50-95	UA	C
	HKOT-12/1/120-150-UA-C	120-150	UA	C
	HKOT-12/1/185-240-UA-C	185-240	UA	C
	HKOT-12/1/300-400-UA-C	300-400	UA	C
U _o /U(U _m) 8.7/15(17.5)kV	HKOT-17.5/1/50-95-UA-C	50-95	UA	C
	HKOT-17.5/1/120-185-UA-C	120-185	UA	C
	HKOT-17.5/1/240-300-UA-C	240-300	UA	C
U _o /U(U _m) 12/20(24)kV	HKOT-24/1/50-95-UA-C	50-95	UA	C
	HKOT-24/1/120-185-UA-C	120-185	UA	C
	HKOT-24/1/240-300-UA-C	240-300	UA	C

Heat Shrinkable Indoor Termination Kits for 6/10(12)kV to 12/20(24)kV, single-core plastic insulated cable (wire/tape screen) with mechanical lugs.

Voltage	Part No.	Cross Section mm ²	Cable type (Unarmoured)	Connector Type
U _o /U(U _m) 6/10(12)kV	HKIT-12/1/50-95-UA-M	50-95	UA	M
	HKIT-12/1/120-150-UA-M	120-150	UA	M
	HKIT-12/1/185-240-UA-M	185-240	UA	M
	HKIT-12/1/300-400-UA-M	300-400	UA	M
U _o /U(U _m) 8.7/15(17.5)kV	HKIT-17.5/1/50-95-UA-M	50-95	UA	M
	HKIT-17.5/1/120-185-UA-M	120-185	UA	M
	HKIT-17.5/1/240-300-UA-M	240-300	UA	M
U _o /U(U _m) 12/20(24)kV	HKIT-24/1/50-95-UA-M	50-95	UA	M
	HKIT-24/1/120-185-UA-M	120-185	UA	M
	HKIT-24/1/240-300-UA-M	240-300	UA	M

Heat Shrinkable Indoor Termination Kits for 6/10(12)kV to 12/20(24)kV, single-core plastic insulated cable (wire/tape screen) with crimp lugs.

Voltage	Part No.	Cross Section mm ²	Cable type (Unarmoured)	Connector Type
U _o /U(U _m) 6/10(12)kV	HKIT-12/1/50-95-UA-C	50-95	UA	C
	HKIT-12/1/120-150-UA-C	120-150	UA	C
	HKIT-12/1/185-240-UA-C	185-240	UA	C
	HKIT-12/1/300-400-UA-C	300-400	UA	C
U _o /U(U _m) 8.7/15(17.5)kV	HKIT-17.5/1/50-95-UA-C	50-95	UA	C
	HKIT-17.5/1/120-185-UA-C	120-185	UA	C
	HKIT-17.5/1/240-300-UA-C	240-300	UA	C
U _o /U(U _m) 12/20(24)kV	HKIT-24/1/50-95-UA-C	50-95	UA	C
	HKIT-24/1/120-185-UA-C	120-185	UA	C
	HKIT-24/1/240-300-UA-C	240-300	UA	C



Heat Shrinkable Outdoor Termination Kits for 6/10(12)kV to 12/20(24)kV, 3-core plastic insulated cable (steel wire/tape armour or/and copper wire/tape screen) with mechanical lugs.

Voltage	Part No.	Cross Section mm ²	Cable type (Armoured)	Connector Type
Uo/U(Um) 6/10(12)kV	HKOT-12/3/50-95-A-M	50-95	A	M
	HKOT-12/3/120-150-A-M	120-150	A	M
	HKOT-12/3/185-240-A-M	185-240	A	M
	HKOT-12/3/300-400-A-M	300-400	A	M
Uo/U(Um) 8.7/15(17.5)kV	HKOT-17.5/3/50-95-A-M	50-95	A	M
	HKOT-17.5/3/120-185-A-M	120-185	A	M
	HKOT-17.5/3/240-300-A-M	240-300	A	M
Uo/U(Um) 12/20(24)kV	HKOT-24/3/50-95-A-M	50-95	A	M
	HKOT-24/3/120-185-A-M	120-185	A	M
	HKOT-24/3/240-300-A-M	240-300	A	M

Heat Shrinkable Outdoor Termination Kits for 6/10(12)kV to 12/20(24)kV, 3-core plastic insulated cable (steel wire/tape armour or/and copper wire/tape screen) with crimp lugs.

Voltage	Part No.	Cross Section mm ²	Cable type (Armoured)	Connector Type
Uo/U(Um) 6/10(12)kV	HKOT-12/3/50-95-A-C	50-95	A	C
	HKOT-12/3/120-150-A-C	120-150	A	C
	HKOT-12/3/185-240-A-C	185-240	A	C
	HKOT-12/3/300-400-A-C	300-400	A	C
Uo/U(Um) 8.7/15(17.5)kV	HKOT-17.5/3/50-95-A-C	50-95	A	C
	HKOT-17.5/3/120-185-A-C	120-185	A	C
	HKOT-17.5/3/240-300-A-C	240-300	A	C
Uo/U(Um) 12/20(24)kV	HKOT-24/3/50-95-A-C	50-95	A	C
	HKOT-24/3/120-185-A-C	120-185	A	C
	HKOT-24/3/240-300-A-C	240-300	A	C

Heat Shrinkable Indoor Termination Kits for 6/10(12)kV to 12/20(24)kV, 3-core plastic insulated cable (steel wire/tape armour or/and copper wire/tape screen) with mechanical lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
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U _o /U(U _m) 6/10(12)kV	HKIT-12/3/50-95-A-M	50-95	A	M
	HKIT-12/3/120-150-A-M	120-150	A	M
	HKIT-12/3/185-240-A-M	185-240	A	M
	HKIT-12/3/300-400-A-M	300-400	A	M
U _o /U(U _m) 8.7/15(17.5)kV	HKIT-17.5/3/50-95-A-M	50-95	A	M
	HKIT-17.5/3/120-185-A-M	120-185	A	M
	HKIT-17.5/3/240-300-A-M	240-300	A	M
U _o /U(U _m) 12/20(24)kV	HKIT-24/3/50-95-A-M	50-95	A	M
	HKIT-24/3/120-185-A-M	120-185	A	M
	HKIT-24/3/240-300-A-M	240-300	A	M

Heat Shrinkable Indoor Termination Kits for 6/10(12)kV to 12/20(24)kV, 3-core plastic insulated cable (steel wire/tape armour or/and copper wire/tape screen) with crimp lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
U _o /U(U _m) 6/10(12)kV	HKIT-12/3/50-95-A-C	50-95	A	C
	HKIT-12/3/120-150-A-C	120-150	A	C
	HKIT-12/3/185-240-A-C	185-240	A	C
	HKIT-12/3/300-400-A-C	300-400	A	C
U _o /U(U _m) 8.7/15(17.5)kV	HKIT-17.5/3/50-95-A-C	50-95	A	C
	HKIT-17.5/3/120-185-A-C	120-185	A	C
	HKIT-17.5/3/240-300-A-C	240-300	A	C
U _o /U(U _m) 12/20(24)kV	HKIT-24/3/50-95-A-C	50-95	A	C
	HKIT-24/3/120-185-A-C	120-185	A	C
	HKIT-24/3/240-300-A-C	240-300	A	C

Example: Kit part number : HKIT-12/3/A- A-C

Where: HKIT-Heat Shrinkable Indoor Termination Kits; 12-Voltage; 3-number of cable cores; A-cross section of cable conductor; A-the type of cable armour, SWA/AWA/STA; C-crimp type lugs

No lugs supplied unless specified.

Earthing materials: Earth braid, roll spring, armour clamp and copper mesh. Support ring and joint case are optional.

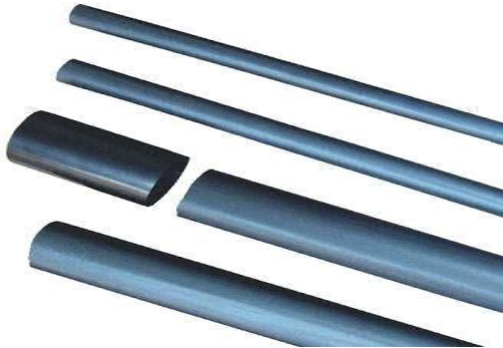
Technical Parameters

Performance of heat shrinkable medium voltage cable termination when tested according to IEC 60502.4



Test sequence	Item	Requirements acc. to IEC 60502.4			Performed test acc. to IEC 60502.4
		Uo/U(Um) 6/10(12)kV	Uo/U(Um) 8.7/15(17.5)kV	Uo/U(Um) 12/20(24)kV	Result
1	AC Withstand Voltage Test (in Air and Ambient Temperature)	AC for 5 min. at 28kV. No breakdown, No flashover	AC for 5 min. at 39kV. No breakdown, No flashover	AC for 5 min. at 54kV. No breakdown, No flashover	Pass
2	Partial Discharge	10pC max. at 12kV	10pC max. at 15kV	10pC max. at 20kV	Pass
3	Impulse Withstand Test	10 impulses of each polarity at 65kV	10 impulses of each polarity at 95kV	10 impulses of each polarity at 125kV	Pass
4	Heating Cycles in Air	60 cycles at 95°C- -100°C and 15kV in air, No breakdown, No flashover	60 cycles at 95°C- -100°C and 22kV in air, No breakdown, No flashover	60 cycles at 95°C- -100°C and 30kV in air, No breakdown, No flashover	Pass
5	Heating Cycles under Water	30 cycles at 95°C- -100°C and 15kV under water, No breakdown, No flashover	30 cycles at 95°C- -100°C and 22kV under water, No breakdown, No flashover	30 cycles at 95°C- -100°C and 30kV under water, No breakdown, No flashover	Pass
6	Partial Discharge at 95°C- -100°C	10pC max. at 10kV	10pC max. at 15kV	10pC max. at 20kV	Pass
7	Thermal Short-circuit (Screen)	10pC max. at 10kV	10pC max. at 15kV	10pC max. at 20kV	Pass
8	Thermal Short-circuit(Conductor)	No visible deterioration at 3.0 kA, 1s	No visible deterioration at 3.0 kA, 1s	No visible deterioration at 3.0 kA, 1s	Pass
9	Dynamic Short-circuit	No visible deterioration at 23.0 kA, 2s	No visible deterioration at 23.0 kA, 2s	No visible deterioration at 23.0 kA, 2s	Pass
10	Impulse Withstand Test	No visible deterioration at 81.0 kA, not less than 10 ms	No visible deterioration at 81.0 kA, not less than 10 ms	No visible deterioration at 81.0 kA, not less than 10 ms	Pass
11	AC Withstand Voltage Test	AC for 15 min. at 15kV. No breakdown, No flashover	AC for 15 min. at 22kV. No breakdown, No flashover	AC for 15 min. at 30kV. No breakdown, No flashover	Pass
12	Salt Fog (Outdoor Terminations only)	1000 hours 7.5kV, No breakdown, No flashover	1000 hours 11kV, No breakdown, No flashover	1000 hours 15kV, No breakdown, No flashover	Pass
13	Humidity (Indoor Terminations only)	300 hours 7.5kV, No breakdown, No flashover	300 hours 11kV, No breakdown, No flashover	300 hours 15kV, No breakdown, No flashover	Pass

MV (18/30 (36)KV) Heat Shrinkable Cable Joints HKSJ



HKSJ Single Core



HKSJ Three Cores

Application

Straight-through joints Type HKSJ are designed to cover 1 core and 3-core plastic insulated cables (with PVC, PE, XLPE, EPR outer sheath) with steel wire/tape armour, copper wire/tape screen. The designs cover a wide range of cable cross section.

Features

- High mechanical strength
- Wide cross section range suitable for all types of connectors
- Compact design
- Reduced components
- Unlimited shelf life, allowing immediate reenergizing

Standard

IEC 60502-4, BS 7933-3, BS 7888-4.1

Kit Contents

- Stress control/void filling mastic
- Sealing mastic
- Stress control tubes for stress relief
- Semi-conductive and insulation dual wall tube (Red/Black)
- Earthing materials
- Thick wall Heat Shrinkable outer and inner tube with adhesive

Ordering Information

Heat Shrinkable Straight Through Joints for 18/30 (36) kV, single-core plastic insulated cable (wire/tape screen) with mechanical connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
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Uo/U(Um) 18/30 (36) kV	HKSJ-36/1/50-95-UA-M	50 -95	UA	M
	HKSJ-36/1/120-150-UA-M	120 -150	UA	M
	HKSJ-36/1/185-240-UA-M	185-240	UA	M
	HKSJ-36/1/300-400-UA-M	300-400	UA	M

Heat Shrinkable Straight Through Joints for 18/30 (36) kV, single-core plastic insulated cable (wire/tape screen) with crimp connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
Uo/U(Um) 18/30 (36) kV	HKSJ-36/1/50-95-UA-C	50 -95	UA	C
	HKSJ-36/1/120-150-UA-C	120 -150	UA	C
	HKSJ-36/1/185-240-UA-C	185-240	UA	C
	HKSJ-36/1/300-400-UA-C	300-400	UA	C

Heat Shrinkable Straight Through Joints for 18/30(36) kV, 3-core plastic insulated cable (wire/tape armour or/and wire/tape screen) with mechanical connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
Uo/U(Um) 18/30 (36) kV	HKSJ-36/3/35-70-A-M	35-70	A	M
	HKSJ-36/3/95-150-A-M	95-150	A	M
	HKSJ-36/3/185-300-A-M	185-300	A	M
	HKSJ-36/3/400-A-M	400	A	M

Heat Shrinkable Straight Through Joints for 18/30(36) kV, 3-core plastic insulated cable (wire/tape armour or/and wire/tape screen) with crimp connectors.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
Uo/U(Um) 18/30 (36) kV	HKSJ-36/3/35-70-A-C	35-70	A	C
	HKSJ-36/3/95-150-A-C	95-150	A	C
	HKSJ-36/3/185-300-A-C	185-300	A	C
	HKSJ-36/3/400 A-C	400	A	C

Example: Kit part number : HKSJ-12/3/A A-M

Where: HKSJ-Heat Shrinkable Straight Through Jointss; 12-Voltage; 3-number of cable cores; A-cross section of cable onductor; A-the type of cable armour, SWA/AWA/STA; M- mechanical type connectors.

No connectors supplied unless specified.

Earthing materials: Earth braid, roll spring, armour clamp and copper mesh. Support ring and joint case are optional.

Transition joints are available on request.

Technical Parameters

Performance of heat shrinkable medium voltage cable joints when tested according to IEC 60502.4

Test sequence	Item	Requirements acc. to IEC 60502.4	Performed test acc. to IEC 60502.4
			Result
1	AC Withstand Voltage Test(in Air and Ambient Temperature)	AC for 5 min. at 80kV. No breakdown, No flashover	Pass
2	Partial Discharge	10pC max. at 36kV	Pass
3	Impulse Withstand Test	10 impulses of each polarity at 185kV	Pass
4	Heating Cycles in Air	30 cycles at 95°C – -100°C and 45kV in air, No breakdown, No flashover	Pass
5	Heating Cycles under Water	30 cycles at 95°C – -100°C and 45kV under water, No breakdown, No flashover	Pass
6	Partial Discharge at 95°C – -100°C	10pC max. at 30kV	Pass
7	Thermal Short-circuit (Screen)	10pC max. at 30kV	Pass
8	Thermal Short-circuit(Conductor)	No visible deterioration at 3.0 kA, 1s	Pass
9	Dynamic Short-circuit	No visible deterioration at 23.0 kA, 2s	Pass
10	Impulse Withstand Test	No visible deterioration at 81.0 kA, not less than 10 ms	Pass
11	AC Withstand Voltage Test	AC for 15 min. at 45kV. No breakdown, No flashover	Pass



MV (18/30 (36)KV) Heat Shrinkable Indoor and Outdoor Cable Termination Kits HKIT/HKOT



HKOT Single Core



HKIT Single Core



HKOT Three Cores



HKIT Three Cores

Application

HKIT / HKOT indoor and outdoor heat shrinkable termination kits are designed to terminate plastic insulated cables (with PVC, PE, XLPE, EPR outer sheath) with wire/tape armour, wire / tape screen. The designs cover a wide range of cable cross section.

Features

- Excellent electrical, thermal and mechanical performance
- Complete stress control
- Superior anti tracking capability
- Excellent resistance to UV and weathering

Suitable for indoor and outdoor application

Standard

IEC 60502-4, BS 7933-3, BS 7888-4.1

Kit Contents

Stress control/void filling mastic

Sealing mastic

Stress control tube

Earthing materials

Support ring is optional.

Anti-tracking insulation tube

Anti-tracking rain sheds

Ordering Information

Heat Shrinkable Outdoor Termination Kits for 18/30(36)kV, single-core plastic insulated cable (wire/tape screen) with mechanical lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
U _o /U _(Um) 18/30(36)kV	HKOT-36/1/25-50-UA-M	25-50	UA	M
	HKOT-36/1/70-185-UA-M	70-185	UA	M
	HKOT-36/1/240-400-UA-M	240-400	UA	M
	HKOT-36/1/500-800-UA-M	500-800	UA	M
	HKOT-36/1/1000-UA-M	1000	UA	M

Heat Shrinkable Outdoor Termination Kits for 18/30(36)kV, single-core plastic insulated cable (wire/tape screen) with crimp lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Unarmoured)	Connector Type
U _o /U _(Um) 18/30(36)kV	HKOT-36/1/25-50-UA-C	25-50	UA	C
	HKOT-36/1/70-185-UA-C	70-185	UA	C
	HKOT-36/1/240-400-UA-C	240-400	UA	C
	HKOT-36/1/500-800-UA-C	500-800	UA	C
	HKOT-36/1/1000-UA-C	1000	UA	C



Heat Shrinkable Indoor Termination Kits for 18/30(36)kV, single-core plastic insulated cable (wire/tape screen) with mechanical lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
U _o /U(U _m) 18/30(36)kV	HKIT-36/1/25-50-UA-M	25-50	UA	M
	HKIT-36/1/70-185-UA-M	70-185	UA	M
	HKIT-36/1/240-400-UA-M	240-400	UA	M
	HKIT-36/1/500-800-UA-M	500-800	UA	M
	HKIT-36/1/1000-UA-M	1000	UA	M

Heat Shrinkable Indoor Termination Kits for 18/30(36)kV, single-core plastic insulated cable (wire/tape screen) with crimp lugs.

Voltage	Part No.	Cross Section mm ²	Cable Type (Armoured)	Connector Type
U _o /U(U _m) 18/30(36)kV	HKIT-36/1/25-50-UA-C	25-50	UA	C
	HKIT-36/1/70-185-UA-C	70-185	UA	C
	HKIT-36/1/240-400-UA-C	240-400	UA	C
	HKIT-36/1/500-800-UA-C	500-800	UA	C
	HKIT-36/1/1000-UA-C	1000	UA	C

Heat Shrinkable Outdoor Termination Kits for 18/30 (36)kV, 3-core plastic insulated cable (wire/tape armour or/and wire/tape screen) with mechanical lugs.

Voltage	Type	Cross Section mm ²	Cable type (Armoured)	Connector Type
U _o /U(U _m) 18/30(36)kV	HKOT-36/3/25-50-A-M	25-50	A	M
	HKOT-36/3/70-95-A-M	70-95	A	M
	HKOT-36/3/120-185-A-M	120-185	A	M
	HKOT-36/3/240-400-A-M	240-400	A	M

Heat Shrinkable Outdoor Termination Kits for 18/30 (36)kV, 3-core plastic insulated cable (wire/tape armour or/with wire/tape screen) with crimp lugs.

Voltage	Type	Cross Section mm ²	Cable type (Armoured)	Connector Type
U _o /U(U _m) 18/30(36)kV	HKOT-36/3/25-50-A-C	25-50	A	C
	HKOT-36/3/70-95-A-C	70-95	A	C
	HKOT-36/3/120-185-A-C	120-185	A	C
	HKOT-36/3/240-400-A-C	240-400	A	C

Heat Shrinkable Indoor Termination Kits for 18/30(36)kV, 3-core plastic insulated cable (wire/tape armour or/and wire/tape screen) with mechanical lugs.

Voltage	Type	Cross Section mm ²	Cable type (Armoured)	Connector Type
U _o /U(U _m) 18/30(36)kV	HKIT-36/3/25-50-A-M	25-50	A	M
	HKIT-36/3/70-95-A-M	70-95	A	M
	HKIT-36/3/120-185-A-M	120-185	A	M
	HKIT-36/3/240-400-A-M	240-400	A	M

Heat Shrinkable Indoor Termination Kits for 18/30(36)kV, 3-core plastic insulated cable (wire/tape armour or/and wire/tape screen) with crimp lugs.

Voltage	Type	Cross Section mm ²	Cable type (Armoured)	Connector Type
U _o /U(U _m) 18/30(36)kV	HKIT-36/3/25-50-A-C	25-50	A	C
	HKIT-36/3/70-95-A-C	70-95	A	C
	HKIT-36/3/120-185-A-C	120-185	A	C
	HKIT-36/3/240-400-A-C	240-400	A	C

Example: Kit part number : HKIT-36/3/A-A-C

Where: HKIT-Heat Shrinkable Indoor Termination Kits; 36-Voltage; 3-number of cable cores; A-cross section of cable conductor; A-the type of cable armour, SWA/AWA/STA; M-mechanical type lugs
No lugs supplied unless specified.

Earthing materials: Earth braid, roll spring, armour clamp and copper mesh. Support ring and joint case are optional.

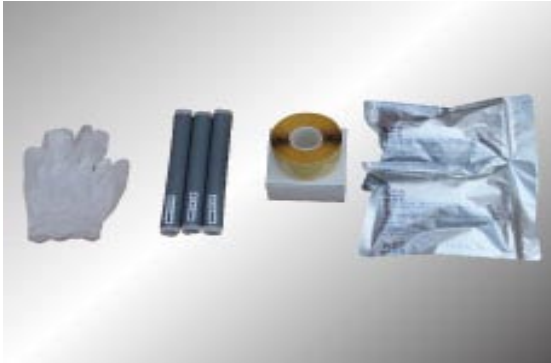


Technical Parameters

Performance of heat shrinkable medium voltage cable termination kits when tested according to IEC 60502.4

Test sequence	Item	Requirements acc. to IEC 60502.4	Performed test acc. to IEC 60502.4
			Result
1	AC Withstand Voltage Test (in Air and Ambient Temperature)	AC for 5 min. at 80kV. No breakdown, No flashover	Pass
2	Partial Discharge	10pC max. at 36kV	Pass
3	Impulse Withstand Test	10 impulses of each polarity at 185kV	Pass
4	Heating Cycles in Air	60 cycles at 95°C – -100°C and 45kV in air, No breakdown, No flashover	Pass
5	Heating Cycles under Water	30 cycles at 95°C – -100°C and 45kV under water, No breakdown, No flashover	Pass
6	Partial Discharge at 95°C – -100°C	10pC max. at 30kV	Pass
7	Thermal Short-circuit (Screen)	10pC max. at 30kV	Pass
8	Thermal Short-circuit (Conductor)	No visible deterioration at 3.0 kA, 1s	Pass
9	Dynamic Short-circuit	No visible deterioration at 23.0 kA, 2s	Pass
10	Impulse Withstand Test	No visible deterioration at 81.0 kA, not less than 10 ms	Pass
11	AC Withstand Voltage Test	AC for 15 min. at 45kV. No breakdown, No flashover	Pass
12	Salt Fog (Outdoor Terminations only)	1000 hours 22.5kV, No breakdown, No flashover	Pass
13	Humidity (Indoor Terminations only)	300 hours 22.5kV, No breakdown, No flashover	Pass

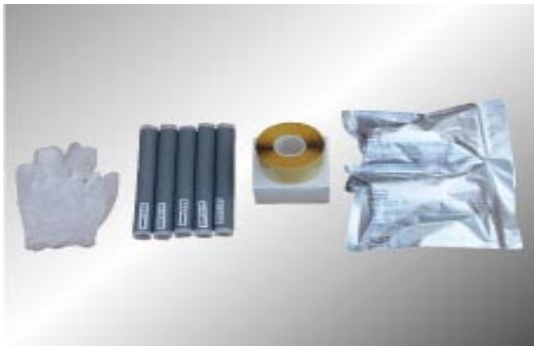
0.6/1 (1.2) KV Cold Shrinkable Cable Joints CLVJ



CLVJ Three Core



CLVJ Four Cores



CLVJ Five Cores

Application

The cold shrinkable cable joints are specially suitable for installation environment , such as coal, mine, oil field etc, where open fire is strictly prohibited. Cold shrinkable cable joints are suitable for the end of cable dealing and intermediate link of 1KV. The products are classified into three cores, four cores and five cores.

Features

Preferable electrical appliance function

Reliable insulation

Superior hermetic sealing

Excellent heat or cold proof, waterproof

Anti-aging

Widely used at the field of electric power, electronic, petroleum, chemical engineering, construction and communication

Standard

EN 50393, DIN VDE 0278-393



Ordering Information

Cable Cross Section(mm ²)	Part No.		
	Three cores	Four Cores	Five Cores
25-50	CLVJ-3/25-50	CLVJ-4/25-50	CLVJ-5/25-50
70-120	CLVJ-3/70-120	CLVJ-4/70-120	CLVJ-5/70-120
150-240	CLVJ-3/150-240	CLVJ-4/150-240	CLVJ-5/150-240
300-400	CLVJ-3/300-400	CLVJ-4/300-400	CLVJ-5/300-400

Technical Parameters

Test sequence	Test item	Testing Conditions and Standards	Results
1	AC Withstand Voltage Test	2.4kV4h No breakdown no flashover at 2.4kV for 4h	Pass

0.6/1 (1.2) KV Cold Shrinkable Cable Termination Kits CLVT



CLVT Three Core



CLVT Four Cores



CLVT Five Cores

Application

The cold shrinkable termination are specially suitable for installation environment , such as coal, mine, oil field etc, where open fire is strictly prohibited. The products are classified into three cores, four cores and five cores.

Features

Preferable electrical appliance function

Reliable insulation

Superior hermetic sealing

Excellent heat /cold proof, waterproof, Anti-aging,

Widely used at the field of electric power, electronic, petroleum, chemical engineering, construction and communication

Standard

EN 50393, DIN VDE 0278-393



Ordering Information

Cross Section (mm ²)	Part No,				
	Single Core	Two Cores	Three Cores	Four Cores	Five Cores
16-50	CLVT-1/16-50	CLVT-2/16-50	CLVT-3/16-50	CLVT-4/16-50	CLVT-5/16-50
70-120	CLVT-1/70-120	CLVT-2/70-120	CLVT-3/70-120	CLVT-4/70-120	CLVT-5/70-120
150-240	CLVT-1/150-240	CLVT-2/150-240	CLVT-3/150-240	CLVT-4/150-240	CLVT-5/150-240
300-400	CLVT-1/300-400	CLVT-2/300-400	CLVT-3/300-400	CLVT-4/300-400	CLVT-5/300-400
500	CLVT-1/500	-	-	-	-

Technical Parameters

Test sequence	Test item	Testing Conditions and Standards	Results
1	AC Withstand Voltage Test	4kV 1min No breakdown no flashover at 4kV for 1min	Pass

MV Cold Shrinkable Cable Joints up to 26/35 (42) KV CKSJ



CKSJ Single Core



CKSJ Three Core

Application

CKSJ cold shrinkable cable joints are made of materials, which are capable of shrinking without raising material above the ambient temperature of its immediate surroundings. The cold shrink accessories supplied in factory are expanded conditions & placed on a removal core. The removing of core when they are positioned over cable cores causes shrinking.

Features

User friendly: just pull out the plastic expansion core from the silicon rubber center and the stress cone will tightly shrink into position.

Reliable, superior insulation with high-recovery elasticity: cold shrinkable technology employs a special silicon rubber formulation which keeps its radial pressure. This permanently ensures the highest integrity of environmental & electrical protection.

Superior hermetic for cable splicing: a triple hermetic sealing technology is adopted

Easy convenient installation: the carefully engineered ordering information of the pre-stressed cone provides for larger tolerances and eases of installation.

Wide usage: The cold shrinkable product line has superior performance in high pollution, salt laden, thermally divergent locations. The Cold Shrink accessories can be widely applied in various regions, especially well suited for high altitudes, cold weather, high-humidity, salt-fog & high-pollution regions

Standard

DIN VDE 0278-629-1, CENELEC HD 629.1 S2, BS 7888-4.1, IEC 60502-4

Ordering Information

8.7/15(17.5) kV Cold Shrinkable Cable Joints							
Uo/U(Um)	Part No.	Cross Section (mm ²)	Insulation Dia Range (mm)	Uo/U(Um)	Part No.	Cross Section (mm ²)	Insulation Dia Range (mm)
8.7/15 (17.5) kV 1 core Cable Joints	CKSJ-17.5/1/25-50	25 - 50	16.2-20.2	8.7/15 (17.5) kV 3 core Cable Joints	CKSJ-17.5/3/25-50	25 - 50	16.2-20.2
	CKSJ-17.5/1/70-150	70 - 150	20.2-26.4		CKSJ-17.5/3/70-150	70 - 150	20.2-26.4
	CKSJ-17.5/1/185-400	185 - 400	26.4-36.8		CKSJ-17.5/3/185-400	185 - 400	26.4-36.8



12/20 (24) kV Cold Shrinkable Cable Joints

	Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)		Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)
Uo/U(Um) 12/20 (24) kV 1 core Cable Joints	CKSJ- 24/1/35-70	35-70	19.0-23.8	Uo/U(Um) 12/20 (24) kV 3 core Cable Joints	CKSJ- 24/3/35-70	35 - 70	19.0-23.8
	CKSJ- 24/1/95-185	95-185	23.8-30.6		CKSJ- 24/3/95-185	95 - 185	23.8-30.6
	CKSJ- 24/1/240-400	240-400	30.6-38.8		CKSJ- 24/3/240-400	240-400	30.6-38.8

26/35 (42) kV Cold Shrinkable Cable Joints

	Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)		Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)
Uo/U(Um) 26/35 (42) kV 1 core Cable Joints	CKSJ- 42/1/50-95	50-95	31.3-36.0	Uo/U(Um) 26/35 (42) kV 3 core Cable Joints	CKSJ- 42/3/50-95	50-95	31.3-36.0
	CKSJ- 42/1/120-185	120-185	36.0-41.4		CKSJ- 42/3/120-185	120-185	36.0-41.4
	CKSJ- 42/1/240-400	240-400	41.4-49.6		CKSJ- 42/3/240-400	240-400	41.4-49.6

Technical Parameters

Test sequence	Test item	Testing Conditions and Standards			Results
		8.7/15 (17.5) KV	12/20 (24) KV	26/35 (42) KV	
1	AC Withstand Voltage Test	39KV 5min Neither breakdown nor flashover shall occur at 39KV for 5min	54KV 5min Neither breakdown nor flashover shall occur at 54KV for 5min	105KV 5min Neither breakdown nor flashover shall occur at 92KV for 5min	Pass
2	Partial Discharge Test	The magnitude of the discharge at 15KV shall not exceed 10pc	The magnitude of the discharge at 20KV shall not exceed 10pc	The magnitude of the discharge at 35KV shall not exceed 10pc	Pass
3	Impulses Voltage Withstand Test	Neither breakdown nor flashover shall occur at 10 positive and 10 negative impulses of 95KV	Neither breakdown nor flashover shall occur at 10 positive and 10 negative impulses of 125KV	Neither breakdown nor flashover shall occur at 10 positive and 10 negative impulses of 250KV	No breakdown no flashover
4	Heating Cycle (in Air)	Temperature stability 2h, cooling 3 h,3 cycles in air at the conductor temperature of 95°C to 100 °C and 23KV	Temperature stability 2h, cooling 3 h,3 cycles in air at the conductor temperature of 95°C to 100 °C and 35KV	Temperature stability 2h, cooling 3 h,3 cycles in air at the conductor temperature of 95°C to 100 °C and 62KV	No breakdown. Evaluation by the following test results

5	Partial Discharge(at the Normal Operation the Conductor's High Temperature Add 5-10 °C)	The magnitude of the discharge at 15KV shall not exceed 10pc	The magnitude of the discharge at 20KV shall not exceed 10pc	The magnitude of the discharge at 35KV shall not exceed 10pc	Pass
6	Heating Cycle Voltage Test	Temperature stability 2h, cooling 3h ,60 cycles at the conductor temperature of 95°C to 100 °C and 23KV(30 times in air and 30 times in water)	Temperature stability 2h, cooling 3h ,60 cycles at the conductor temperature of 95°C to 100 °C and 35KV (30 times in air and /30 times in water)	Temperature stability 2h, cooling 3h ,60 cycles at the conductor temperature of 95°C to 100 °C and 62KV (30 times in air and /30 times in water)	No breakdown. Evaluation by the following test results
7	Partial Discharge(at the Normal Operation	The magnitude of the discharge at 15KV shall not exceed 10pc	The magnitude of the discharge at 20KV shall not exceed 10pc	The magnitude of the discharge at 35KV shall not exceed 10pc	Pass
8	Thermal Short-circuit Test	No visible deterioration at 23.0KA,2 short circuit	No visible deterioration at 23.0KA,2 short circuit	No visible deterioration at 23.0KA,2 short circuit	Pass
9	Dynamic Short-circuit test	No visible deterioration at 81KA,1 short circuit	No visible deterioration at 125KA,1 short circuit	No visible deterioration at 200KA,1 short circuit	Pass
10	Impulses Voltage Withstand	At 10 positive and 10 negative impulses of 95KV	At 10 positive and 10 negative impulses of 125KV	At 10 positive and 10 negative impulses of 250KV	No breakdown no flashover
11	AC Withstand Voltage Test	23KV, 15min.	30KV, 15min.	104KV, 4h	No breakdown no flashover
12	DC Withstand Voltage Test	23KV, 5min.	30KV, 5min.	156KV, 15min.	No breakdown no flashover



MV Cold Shrinkable Indoor Termination Kits up to 26/35 (42) KV CKIT



CKIT Single Core



CKIT Three Cores

Application

CKIT cold shrinkable indoor terminations are made of materials, which are capable of shrinking without raising material above the ambient temperature of its immediate surroundings. The cold shrink accessories supplied in factory are expanded conditions & placed on a removal core. The removing of core when they are positioned over cable cores causes shrinking.

Features

User friendly: just pull out the plastic expansion core from the silicon rubber center and the stress cone will tightly shrink into position.

Reliable, superior insulation with high-recovery elasticity: cold shrinkable technology employs a special silicon rubber formulation which keeps its radial pressure. This permanently ensures the highest integrity of environmental & electrical protection.

Superior hermetic for cable splicing: a triple hermetic sealing technology is adopted

Easy convenient installation: the carefully engineered ordering information of the pre-stressed cone provides for larger tolerances and eases of installation.

Wide usage: The cold shrinkable product line has superior performance in high pollution, salt laden, thermally divergent locations. The cold shrink accessories can be widely applied in various regions, especially well suited for high altitudes, cold weather, high-humidity, salt-fog & high-pollution regions

Standard

DIN VDE 0278-629-1, CENELEC HD 629.1 S2, BS 7888-4.1, IEC 60502-4

Kit Contents

Cold shrink insulation tube

Cold shrink breakout .
 Cold shrink sealing tube
 Roll spring
 Sealing mastic
 Void filler
 Copper mesh .
 PVC tape
 Semi-conductive tape
 Silicon grease
 Copper binding wire
 Cleaning tissue
 Abrasive strap • Plastic glove
 Cold shrink termination body
 Specify for lug and other components

Ordering Information

8.7/15(17.5) kV Cold Shrinkable Indoor Termination Kits							
	Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)		Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)
Uo/U(Um) 8.7/15 (17.5) kV 1 core Cable Terminations Kits	CKIT-17.5/1/25-50	25 - 50	16.2-20.2	Uo/U(Um) 8.7/15 (17.5) kV 3 core Cable Termination Kits	CKIT-17.5/3/25-50	25 - 50	16.2-20.2
	CKIT-17.5/1/70-150	70 - 150	20.2-26.4		CKIT-17.5/3/70-150	70 - 150	20.2-26.4
	CKIT-17.5/1/185-400	185 - 400	26.4-36.8		CKIT-17.5/3/185-400	185 - 400	26.4-36.8
	CKIT-17.5/1/500-800	500 - 800	36.8-45.0		CKIT-17.5/3/500-800	500-800	36.8-45.0

12/20 (24) kV Cold Shrinkable Indoor Termination Kits							
	Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)		Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)
Uo/U(Um) 12/20 (24) kV 1 core Cable Termination Kits	CKIT-24/1/35-70	35-70	19.0-23.8	Uo/U(Um) 12/20 (24) kV 3 core Cable Termination Kits	CKIT-24/3/35-70	35 - 70	19.0-23.8
	CKIT-24/1/95-185	95-185	23.8-30.6		CKIT-24/3/95-185	95 - 185	23.8-30.6
	CKIT-24/1/240-400	240-400	30.6-38.8		CKIT-24/3/240-400	240-400	30.6-38.8



26/35 (42) kV Cold Shrinkable Indoor Termination Kits							
	Part No.	Cross Section (mm ²)	Insulation Dia Range (mm)		Part No.	Cross Section (mm ²)	Insulation Dia Range (mm)
Uo/U(Um) 26/35 (42) kV 1 core Cable Termination Kits	CKIT-42/1/50-95	50-95	31.3-36.0	Uo/U(Um) 26/35 (42) kV 3 core Cable Termination Kits	CKIT-42/3/50-95	50-95	31.3-36.0
	CKIT-42/1/120-185	120-185	36.0-41.4		CKIT-42/3/120-185	120-185	36.0-41.4
	CKIT-42/1/240-400	240-400	41.4-49.6		CKIT-42/3/240-400	240-400	41.4-49.6

Technical Parameters

Test sequence	Test item	Testing Conditions and Standards			Results
		8.7/15 (17.5) KV	12/20 (24) KV	26/35 (42) KV	
1	AC Withstand Voltage Test	39KV 5min Neither breakdown nor flashover shall occur at 39KV for 5min	54KV 5min Neither breakdown nor flashover shall occur at 54KV for 5min	105KV 5min Neither breakdown nor flashover shall occur at 92KV for 5min	Pass
2	Partial Discharge Test	The magnitude of the discharge at 15KV shall not exceed 10pc	The magnitude of the discharge at 20KV shall not exceed 10pc	The magnitude of the discharge at 39KV shall not exceed 10pc	Pass
3	Impulses Voltage Withstand Test	Neither breakdown nor flashover shall occur at 10 positive and 10 negative impulses of 95KV	Neither breakdown nor flashover shall occur at 10 positive and 10 negative impulses of 125KV	Neither breakdown nor flashover shall occur at 10 positive and 10 negative impulses of 250KV	No breakdown no flashover
4	Heating Cycle (in Air)	Temperature stability 2h, cooling 3 h, 3 cycles in air at the conductor temperature of 95°C to 100 °C and 23KV	Temperature stability 2h, cooling 3 h, 3 cycles in air at the conductor temperature of 95°C to 100 °C and 35KV	Temperature stability 2h, cooling 3 h, 3 cycles in air at the conductor temperature of 95°C to 100 °C and 62KV	No breakdown. Evaluation by the following test results
5	Partial Discharge(at the Normal Operation the Conductor's High Temperature Add 5-10 °C)	The magnitude of the discharge at 15KV shall not exceed 10pc	The magnitude of the discharge at 20KV shall not exceed 10pc	The magnitude of the discharge at 35KV shall not exceed 10pc	Pass

6	Heating Cycle Voltage Test	Temperature stability 2h, cooling 3h ,60 cycles at the conductor temperature of 95°C to 100 °C and 23KV(30 times in air and 30 times in water)	Temperature stability 2h, cooling 3h ,60 cycles at the conductor temperature of 95°C to 100 °C and 35KV(30 times in air and /30 times in water)	Temperature stability 2h, cooling 3h ,60 cycles at the conductor temperature of 95°C to 100 °C and 62KV (30 times in air and /30 times in water)	No breakdown. Evaluation by the following test results
7	Partial Discharge(at the Normal Operation	The magnitude of the discharge at 15KV shall not exceed 10pc	The magnitude of the discharge at 20KV shall not exceed 10pc	The magnitude of the discharge at 35KV shall not exceed 10pc	Pass
8	Thermal Short-circuit Test	No visible deterioration at 23.0KA,2 short circuit	No visible deterioration at 23.0KA,2 short circuit	No visible deterioration at 23.0KA,2 short circuit	Pass
9	Dynamic Short-circuit test	No visible deterioration at 81KA,1 short circuit	No visible deterioration at 125KA,1 short circuit	No visible deterioration at 200 KA,1 short circuit	Pass
10	Impulses Voltage Withstand	At 10 positive and 10 negative impulses of 95KV	At 10 positive and 10 negative impulses of 125KV	At 10 positive and 10 negative impulses of 250KV	No breakdown no flashover
11	AC Withstand Voltage Test	23KV, 15min.	30KV, 15min.	104KV, 4h	No breakdown no flashover
12	DC Withstand Voltage Test	35KV, 5min.	45KV, 5min.	156KV, 15min.	No breakdown no flashover
13	Humidity Tests	11KV, 300h	15KV, 300h	29KV, 300h	No breakdown no flashover no over-current release



MV Cold Shrinkable Outdoor Cable Termination Kits up to 26/35 (42) KV CKOT



CKOT Single Core



CKOT Three Cores

Application

CKOT cold shrinkable outdoor terminations are made of materials, which are capable of shrinking without raising the material above the ambient temperature of its immediate surroundings. The cold shrink accessories are supplied from the factory in a pre-expanded condition and placed on a removable core. Removing the core when properly positioned over the cables causes shrinking.

Features

User friendly: just pull out the plastic expansion core from the silicon rubber center and the stress cone will tightly shrink into position.

Reliable, superior insulation with high-recovery elasticity: cold shrinkable technology employs a special silicon rubber formulation which keeps its radial pressure. This permanently ensures the highest integrity of environmental & electrical protection.

Superior hermetic for cable splicing: a triple hermetic sealing technology is adopted

Easy/convenient installation: the carefully engineered ordering information of the pre-stressed cone provides for larger tolerances and eases of installation.

Wide usage: The cold shrinkable product line has superior performance in high pollution, salt laden, thermally divergent locations. The cold shrink accessories can be widely applied in various regions, especially well suited for high altitudes, cold weather, high-humidity, salt-fog & high-pollution regions.

Standard

DIN VDE 0278-629-1, CENELEC HD 629.1 S2, BS 7888-4.1, IEC 60502-4

Kit Contents

Cold shrink insulation tube
 Cold shrink breakout
 Cold shrink sealing tube
 Roll spring
 Sealing mastic
 Void filler
 Copper mesh
 Phase color marking tape
 Semi-conductive tape
 Silicon grease
 Copper Binding wire
 Cleaning tissue
 Abrasive strap
 Plastic glove

Ordering Information

8.7/15(17.5) kV Cold Shrinkable Outdoor Termination Kits

	Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)		Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)
Uo/U(Um) 8.7/15 (17.5) kV 1 core Cable Termination Kits	CKOT-17.5/1/25-50	25 - 50	16.2-20.2	Uo/U(Um) 8.7/15 (17.5) kV 3 core Cable Termination Kits	CKOT-17.5/3/25-50	25 - 50	16.2-20.2
	CKOT-17.5/1/70-150	70 - 150	20.2-26.4		CKOT-17.5/3/70-150	70 - 150	20.2-26.4
	CKOT-17.5/1/185-400	185 - 400	26.4-36.8		CKOT-17.5/3/185-400	185 - 400	26.4-36.8
	CKOT-17.5/1/500-800	500 - 800	36.8-45.0		CKOT-17.5/3/500-800	500-800	36.8-45.0

12/20 (24) kV Cold Shrinkable Outdoor Termination Kits

	Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)		Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)
Uo/U(Um) 12/20 (24) kV 1 core Cable Termination Kits	CKOT-24/1/35-70	35-70	19.0-23.8	Uo/U(Um) 12/20 (24) kV 3 core Cable Termination Kits	CKOT-24/3/35-70	35 - 70	19.0-23.8
	CKOT-24/1/95-185	95-185	23.8-30.6		CKOT-24/3/95-185	95 - 185	23.8-30.6
	CKOT-24/1/240-400	240-400	30.6-38.8		CKOT-24/3/240-400	240-400	30.6-38.8



26/35 (42) kV Cold Shrinkable Outdoor Termination Kits

	Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)		Part No.	Cross Section (mm ⁵)	Insulation Dia Range (mm)
Uo/U(Um) 26/35 (42) kV 1 core Cable Termination Kits	CKOT-42/1/50-95	50-95	31.3-36.0	Uo/U(Um) 26/35 (42) kV 3 core Cable Termination Kits	CKOT-42/3/50-95	50-95	31.3-36.0
	CKOT-42/1/120-185	120-185	36.0-41.4		CKOT-42/3/120-185	120-185	36.0-41.4
	CKOT-42/1/240-400	240-400	41.4-49.6		CKOT-42/3/240-400	240-400	41.4-49.6

Technical Parameters

Test sequence	Test item	Testing Conditions and Standards			Results
		8.7/15 (17.5) KV	12/20 (24) KV	26/35 (42) KV	
1	AC Withstand Voltage Test	39KV 5min Neither breakdown nor flashover shall occur at 39KV for 5min	54KV 5min Neither breakdown nor flashover shall occur at 54KV for 5min	105KV 5min Neither breakdown nor flashover shall occur at 92KV for 5min	Pass
2	Partial Discharge Test	The magnitude of the discharge at 15KV shall not exceed 10pc	The magnitude of the discharge at 20KV shall not exceed 10pc	The magnitude of the discharge at 35KV shall not exceed 10pc	Pass
3	Impulses Voltage Withstand Test	Neither breakdown nor flashover shall occur at 10 positive and 10 negative impulses of 95KV	Neither breakdown nor flashover shall occur at 10 positive and 10 negative impulses of 125KV	Neither breakdown nor flashover shall occur at 10 positive and 10 negative impulses of 250KV	No breakdown no flashover
4	Heating Cycle (in Air)	Temperature stability 2h, cooling 3 h, 3 cycles in air at the conductor temperature of 95°C to 100 °C and 23KV	Temperature stability 2h, cooling 3 h, 3 cycles in air at the conductor temperature of 95°C to 100 °C and 35KV	Temperature stability 2h, cooling 3 h, 3 cycles in air at the conductor temperature of 95°C to 100 °C and 62KV	No breakdown. Evaluation by the following test results
5	Partial Discharge(at the Normal Operation the Conductor's High Temperature Add 5-10 °C)	The magnitude of the discharge at 15KV shall not exceed 10pc	The magnitude of the discharge at 20KV shall not exceed 10pc	The magnitude of the discharge at 35KV shall not exceed 10pc	Pass

6	Heating Cycle Voltage Test	Temperature stability 2h, cooling 3h ,60 cycles at the conductor temperature of 95°C to 100 °C and 23KV(30 times in air and 30 times in water)	Temperature stability 2h, cooling 3h ,60 cycles at the conductor temperature of 95°C to 100 °C and 35KV(30 times in air and /30 times in water)	Temperature stability 2h, cooling 3h ,60 cycles at the conductor temperature of 95°C to 100 °C and 62KV(30 times in air and /30 times in water)	No breakdown. Evaluation by the following test results
7	Partial Discharge(at the Normal Operation	The magnitude of the discharge at 15KV shall not exceed 10pc	The magnitude of the discharge at 20KV shall not exceed 10pc	The magnitude of the discharge at 35KV shall not exceed 10pc	Pass
8	Thermal Short-circuit Test	No visible deterioration at 23.0KA,2 short circuit	No visible deterioration at 23.0KA,2 short circuit	No visible deterioration at 23.0KA,2 short circuit	Pass
9	Dynamic Short-circuit test	No visible deterioration at 81KA,1 short circuit	No visible deterioration at 125KA,1 short circuit	No visible deterioration at 200KA,1 short circuit	Pass
10	Impulses Voltage Withstand	At 10 positive and 10 negative impulses of 95KV	At 10 positive and 10 negative impulses of 125KV	At 10 positive and 10 negative impulses of 250KV	No breakdown no flashover
11	AC Withstand Voltage Test	23KV, 15min.	30KV, 15min.	104KV, 4h	No breakdown no flashover
12	DC Withstand Voltage Test	35KV, 5min.	45KV, 5min.	156KV, 15min.	No breakdown no flashover
13	Salt fog Tests	11KV, 300h	15KV, 300h	29KV, 300h	No breakdown no flashover no over-current release



Slip on Cable Joints up to 26/35 (42) KV RSJ



Features

One-piece design with integrated stress cone.
Quick and easy push-on installation.
Long time storage, quick delivery.
Waterproof lug special for outdoor termination.
High quality silicone rubber, reliable insulation.
Wide usage.
All products can be 100% tested before leaving factory.
Suitable for XLPE insulated cables up to 42kV.

Standard

IEC60502-4, DIN VDE 0278-629-1, CENELEC HD 629.1 S2, BS 7888-4.1

Ordering Information

Straight Joints for 1-core 8.7/15 (17.5) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RSJ-17.5/1/35-95	35 -95	17.0-37.0
RSJ-17.5/1/120-240	120-240	
RSJ-17.5/1/300-400	300-400	

Straight Joints for 3-core 8.7/15 (17.5) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RSJ-17.5/3/35-95	35 -95	17.0-37.0
RSJ-17.5/3/120-240	120-240	
RSJ-17.5/3/300-400	300-400	

Straight Joints for 1-core 12/20 (24) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RSJ-24/1/35-70	35-70	19.0-41.0
RSJ-24/1/95-240	95-240	
RSJ-24/1/300-500	300-500	

Straight Joints for 3-core 12/20 (24) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RSJ-24/3/35-70	35-70	19.0-41.0
RSJ-24/3/95-240	95-240	
RSJ-24/3/300-500	300 -500	

Straight Joints for 1-core 26/35 (42) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RSJ-42/1/50-95	50-95	31.0-54.0
RSJ-42/1/120-300	120-300	
RSJ-42/1/300-400	300-400	
RSJ-42/1/500-630	500-630	



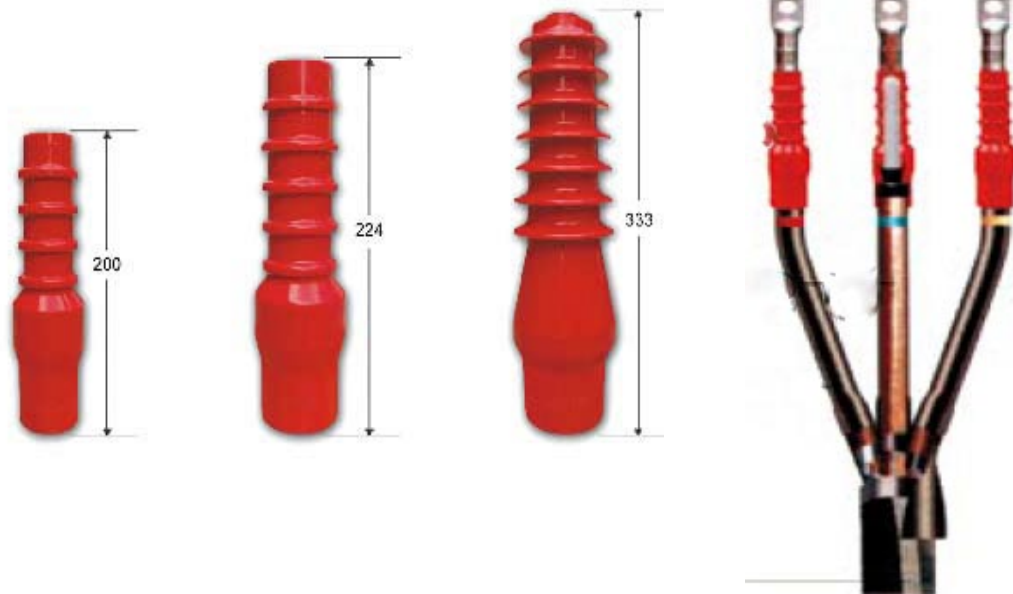
Straight Joints type RSJ-42/1 for 3-core 26/35 (42) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RSJ-42/3/50-95	50-95	31.0-54.0
RSJ-42/3/120-300	120-300	
RSJ-42/3/300-400	300-400	
RSJ-42/3/500-630	500-630	

Technical Parameters

Test Sequence	Test Item	Testing Conditions and Standards		
		8.7/15(17.5)kV	12/20(24)kV	26/35(42)kV
1	A.C. Voltage Withstand test	No flashover, no breakdown at 39kV for 5min.	No flashover, no breakdown at 54kV for 5min.	No flashover, no breakdown at 117kV for 5min.
2	Partial Discharge Test	15kV, <2pC	20kV, <2pC	45kV, <2pC
3	Heating Cycles Voltage Test	33 cycles in air, 30 cycles under water at 95-100°C, 23kV	33 cycles in air, 30 cycles under water at 95-100°C, 30kV	33 cycles in air, 30 cycles under water at 95-100°C, 65kV
4	Impulse Voltage Withstand Test at 95-100°C	No flashover, no breakdown at 10 positive and 10 negative impulses at 95kV	No flashover, no breakdown at 10 positive and 10 negative impulses at 125kV	No flashover, no breakdown at 10 positive and 10 negative impulses at 200kV
5	Thermal Short-circuit Test	No deformation or welding at 31.0kA, 2.02s and 31.1kA, 2.02s	No deformation or welding at 31.0kA, 2.02s and 31.1kA, 2.02s	No deformation or welding at 31.0kA, 2.02s and 31.1kA, 2.02s
6	Dynamic Short-circuit Test	No deformation or welding at 112.3kA, 60ms	No deformation or welding at 111.3kA, 60ms	No deformation or welding at 112.2kA, 60ms
7	15 min, A.C. Voltage Withstanding Test	23kV, 15min. no flashover, no breakdown	30kV, 15min. no flashover, no breakdown	65kV, 15min. no flashover, no breakdown

Slip on Indoor Cable Termination Kits up to 26/35 (42) KV RIT



Features

- One-piece design with integrated stress cone.
- Quick and easy push-on installation.
- Long time storage, quick delivery.
- Waterproof lug special for outdoor termination.
- High quality silicone rubber, reliable insulation.
- Wide usage.
- All products can be 100% tested before leaving factory.
- Suitable for XLPE insulated cables up to 42kV.

Standard

IEC60502-4, DIN VDE 0278-629-1, CENELEC HD 629.1 S2. BS 7888-4.1

Kit Contents

- Cable lug for conductor
- Sealing tube
- Insulating body
- Stress control element
- Outer layer
- Lug for screen
- Cable jacket



Ordering Information

Indoor Termination Kits for 1-core 8.7/15 (17.5) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RIT-17.5/1/25-95	25 -95	15.0-41.0
RIT-17.5/1/120-240	120-240	
RIT-17.5/1/300-400	300-400	
RIT-17.5/1/500-630	500-630	

Indoor Termination Kits for 3-core 8.7/15 (17.5) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RIT-17.5/3/25-95	25 -95	15.0-41.0
RIT-17.5/3/120-240	120-240	
RIT-17.5/3/300-400	300-400	
RIT-17.5/3/500-630	500-630	

Indoor Termination Kits for 1-core 12/20 (24) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RIT-24/1/35-70	35-70	19.0-41.0
RIT-24/1/95-240	95-240	
RIT-24/1/300-500	300-500	

Indoor Termination Kits for 3-core 12/20 (24) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RIT-24/3/35-70	35-70	19.0-41.0
RIT-24/3/95-240	95-240	
RIT-24/3/300-500	300 -500	

Indoor Termination Kits for 1-core 26/35 (42) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RIT-42/1/50-95	50-95	30.0-61.0
RIT-42/1/120-300	120-300	
RIT-42/1/400-500	400-500	
RIT-42/1/630-800	630-800	

Indoor Termination Kits for 3-core 26/35 (42) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
RIT-42/3/50-95	50-95	30.0-61.0
RIT-42/3/120-300	120-300	
RIT-42/3/400-500	400-500	
RIT-42/3/600-800	600-800	



Technical Parameters

Test sequence	Test item	Testing Conditions and Standards		
		8.7/15(17.5)kV	12/20(24)kV	26/35(42)kV
1	A.C. voltage withstand test	No flashover, no breakdown at 39kV for 5min.	No flashover, no breakdown at 54kV for 5min.	No flashover, no breakdown at 117kV for 5min.
2	Partial discharge test	15kV, <2pC	20kV, <2pC	45kV, <2pC
3	Heating cycles voltage test	63 cycles at 95-100°C, 23kV	63 cycles at 95-100°C, 30kV	63 cycles at 95-100°C, 65kV
4	Impulse voltage withstand test at 95-100°C	No flashover, no breakdown at 10 positive and 10 negative impulses at 95kV	No flashover, no breakdown at 10 positive and 10 negative impulses at 125kV	No flashover, no breakdown at 10 positive and 10 negative impulses at 200kV
5	Thermal short-circuit test	No deformation or welding at 31.0kA,2.02s and 31.1kA,2.02s	No deformation or welding at 31.0kA,2.02s and 31.1kA,2.02s	No deformation or welding at 31.0kA,2.02s and 31.1kA,2.02s
6	Dynamic short-circuit test	No deformation or welding at 112.3kA,60ms	No deformation or welding at 111.3kA,60ms	No deformation or welding at 112.2kA,60ms
7	15min, A.C. voltage withstanding test	23kV, 15min. no flashover, no breakdown	30kV, 15min. no flashover, no breakdown	65kV, 15min. no flashover, no breakdown
8	Humidity test	No flashover, tracking, erosion or mechanical damage at 300h,11kV	No flashover, tracking, erosion or mechanical damage at 300h, 15kV	No flashover, tracking, erosion or mechanical damage at 300h,32.5kV

Slip on Outdoor Cable Termination Kits up to 26/35 (42) KV ROT



Features

One-piece design with integrated stress cone.
Quick and easy push-on installation.
Long time storage, quick delivery.
Waterproof lug special for outdoor termination.
High quality silicone rubber, reliable insulation.
Wide usage.
All products can be 100% tested before leaving factory.
Suitable for XLPE insulated cables up to 42kV.

Standard

IEC60502-4, DIN VDE 0278-629-1, CENELEC HD 629.1 S2, BS 7888-4.1

Kit Contents

- 1 Cable lug for conductor
- 2 Sealing tube
- 3 Insulating body
- 4 Stress control element
- 5 Insulating screen
- 6 Sealing mastic
- 7 Tape clamp
- 8 Lug for screen
- 9 Cable jacket



Ordering Information

Outdoor Termination Kits for 1-core 8.7/15 (17.5) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
ROT-17.5/1/25-95	25 -95	15.0-41.0
ROT-17.5/1/120-240	120-240	
ROT-17.5/1/300-400	300-400	
ROT-17.5/1/500-630	500-630	

Outdoor Termination Kits for 3-core 8.7/15 (17.5) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
ROT-17.5/3/25-95	25 -95	15.0-41.0
ROT-17.5/3/120-240	120-240	
ROT-17.5/3/300-400	300-400	
ROT-17.5/3/500-630	500-630	

Outdoor Termination Kits for 1-core 12/20 (24) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
ROT-24/1/35-70	35-70	19.0-41.0
ROT-24/1/95-240	95-240	
ROT-24/1/300-500	300-500	

Outdoor Termination Kits for 3-core 12/20 (24) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
ROT-24/3/35-70	35-70	19.0-41.0
ROT-24/3/95-240	95-240	
ROT-24/3/300-500	300 -500	

Outdoor Termination Kits for 1-core 26/35 (42) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
ROT-42/1/50-95	50-95	30.0-61.0
ROT-42/1/120-300	120-300	
ROT-42/1/400-500	400-500	
ROT-42/1/630-800	630-800	

Outdoor Termination Kits for 3-core 26/35 (42) KV Polymeric-insulated Cables

Part No.	Cable Cross Section	Core Insulation Outer Diameter Min./Max.
	mm ²	mm
ROT-42/3/50-95	50-95	30.0-61.0
ROT-42/3/120-300	120-300	
ROT-42/3/400-500	400-500	
ROT-42/3/600-800	600-800	



Technical Parameters

Test sequence	Test item	Testing Conditions and Standards		
		8.7/15(17.5)kV	12/20(24)kV	26/35(42)kV
1	A.C. voltage withstand test	No flashover, no breakdown at 39kV for 5min.	No flashover, no breakdown at 54kV for 5min.	No flashover, no breakdown at 117kV for 5min.
2	Partial discharge test	15kV, <2pC	20kV, <2pC	45kV, <2pC
3	Heating cycles voltage test	63 cycles at 95-100°C, 23kV	63 cycles at 95-100°C, 30kV	63 cycles at 95-100°C, 65kV
4	Impulse voltage withstand test at 95-100°C	No flashover, no breakdown at 10 positive and 10 negative impulses at 95kV	No flashover, no breakdown at 10 positive and 10 negative impulses at 125kV	No flashover, no breakdown at 10 positive and 10 negative impulses at 200kV
5	Thermal short-circuit test	No deformation or welding at 31.0kA,2.02s and 31.1kA,2.02s	No deformation or welding at 31.0kA,2.02s and 31.1kA,2.02s	No deformation or welding at 31.0kA,2.02s and 31.1kA,2.02s
6	Dynamic short-circuit test	No deformation or welding at 112.3kA,60ms	No deformation or welding at 111.3kA,60ms	No deformation or welding at 112.2kA,60ms
7	15min, A.C. voltage withstanding test	23kV, 15min. no flashover, no breakdown	30kV, 15min. no flashover, no breakdown	65kV, 15min. no flashover, no breakdown
8	Salt fog test	No any flashover, tracking, erosion or mechanical damage at 11kV for 1000h	No any flashover, tracking, erosion or mechanical damage at 15kV for 1000h	No any flashover, tracking, erosion or mechanical damage at 32.5kV for 1000

Medium Voltage GIS Plug-in Termination up to 42kV and Accessories

Standard

IEC60502-4, CENELEC HD 629.1 S2.

Feature

Suitable for the connection between electric equipments (such as switchgear, transformer) and cable termination.

Consists of bushing and plug-in termination; the bushing with plug termination and internal coupling are designed in accordance with DIN 47637,

Widely used in various regions, especially fire forbidden area, high sea level, cold weather, high-humidity, salt-fog and heavy polluted regions.

Renewable, easy maintenance.

Technical Data

According to standards of IEC60502-4:

Item	Unit	0#	1#	2S#	2#	3#	3S#
Rated voltage	kV	12/20(24)	26/35(42)	26/35(42)	12/20(24)	26/35(42)	27.5 for electro-railway
Rated current	A	250	630	800	1250	1250	1250
AC voltage withstand	kV	54, 5min	95, 1min	95, 1min	54, 5min	117, 5min	124, 5min
Partial discharge	pC	20kV, <10pC	45kV, <10pC	45kV, <10pC	45kV, <10pC	45kV, <10pC	48kV, <10pC
Thundering impulse at 10 positive and 10 negative	kV	125	200	200	125	200	250
Standard for bushing		DIN 47637			special design	DIN 47637	

Note: 1. 1#, 2S#, 3# can be also supplied for 8.7/15kV and 12/20kV.

2. 0#, 2# can be also supplied for 8.7/15kV.

3. Standard products designed for copper cable, please announce if it is for Aluminum cable



35kV plug-in termination in cable branch box installed in Tibet railway



35kV plug-in termination in cable branch box



Ordering Information



Part No.	Rated Voltage	Cable Cross Section	Bushing Type
CBN-17.5-A-0	8.7/15(17.5)kV	35mm ² -70mm ²	0#
CBN-24-A-0	12/20(24)kV	35mm ² -70mm ²	0#



Part No.	Rated Voltage	Cable Cross Section	Bushing Type
CBN-17.5-A-1	8.7/15(17.5)kV	35mm ² -70mm ²	1#
CBN-24-A-1	12/20(24)kV	35mm ² -70mm ²	1#
CBN-36-A-1	18/30(36)kV	50mm ² -70mm ²	1#
CBN-42-A-1	26/35(42)kV	50mm ² -70mm ²	1#



Part No.	Rated Voltage	Cable Cross Section	Bushing Type
CBN-17.5-A-2S	8.7/15(17.5)kV	35mm ² -300mm ²	2S#
CBN-24-A-2S	12/20(24)kV	35mm ² -300mm ²	2S#
CBN-36-A-2S	18/30(36)kV	50mm ⁵ -150mm ²	2S#
CBN-42-A-2S	26/35(42)kV	50mm ⁵ -150mm ²	2S#



Part No.	Rated Voltage	Cable Cross Section	Bushing Type
CBN-17.5-A-2	8.7/15(17.5)kV	35mm ² -630mm ²	2#
CBN-24-A-2	12/20(24)kV	35mm ⁵ -630mm ²	2#



Part No.	Rated Voltage	Cable Cross Section	Bushing Type
CBN-36-A-3(B)	18/30(36)kV	50mm ⁵ -630MM ²	3#
CBN-42-A-3(B)	26/35(42)kV	50mm ⁵ -630mm ²	3#

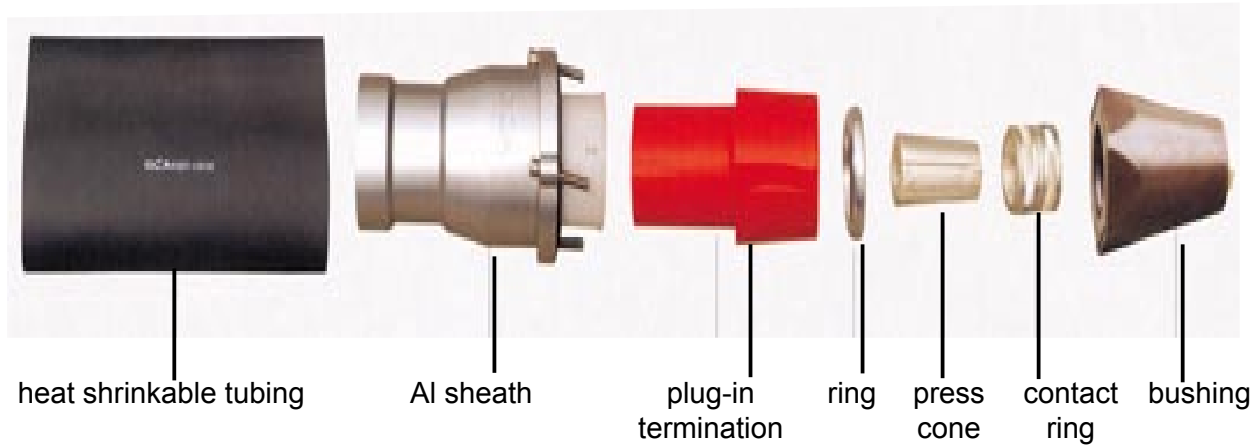
Part No.	Rated Voltage	Cable Cross Section	Bushing Type
CBN-27.5-A-3S	27.5(U0)kV for electro-railway	50mm ⁵ -400mm ²	3S#

Example: Kit part number : CBN-36-A-3S

Where: ; 36-rated voltage; A-cross section of cable conductor; 3S-bushing size



Installation sketch map



Components for Plug-in Termination



1. abrasive tape, 2. cleaning tissue, 3. semi-conductive tape, 4. PVC tape, 5. silicone grease, 6. rubber glove, 7. solder flux, 8. soldering strip, 9. copper binding wire, 10. copper braid

Please leave the below information when ordering

Max. voltage (U_m)		() kV	
Working voltage (U)		() kV	
Phase-earth voltage (U_0)		() kV	
Cable description		Size	() mm ²
Type of bushing	Size2 or Size3		
Diameter of cable conductor	() mm	Core insulation outer diameter	() mm
Material of conductor	Copper or Aluminium		
Type of screen	Copper wire & tape screen or Copper wire screen or Copper tape screen		

Technical Parameters

Test item	8.7/15(17.5)kV	12/20(24)kV	26/35(42)kV
A.C. voltage withstand test	No flashover, no breakdown at 39kV for 5min.	No flashover, no breakdown at 54kV for 5min.	No flashover, no breakdown at 117kV for 5min.
Partial discharge test	15kV, <2pC	20kV, <2pC	45kV, <2pC
Heating cycles voltage test	63 cycles at 95-100°C in air, 23kV	63 cycles at 95-100°C in air, 30kV	63 cycles at 95-100°C in air, 65kV
Impulse voltage withstand test at 95-100°C	No flashover, no breakdown at 10 positive and 10 negative impulses at 95kV	No flashover, no breakdown at 10 positive and 10 negative impulses at 125kV	No flashover, no breakdown at 10 positive and 10 negative impulses at 200kV
Thermal short-circuit test	No deformation or welding at 31.0kA,2.02s and 31.1kA,2.02s	No deformation or welding at 31.0kA,2.03s and 31.0kA,2.02s	No deformation or welding at 31.0kA,2.03s and 30.8kA,2.04s
Dynamic short-circuit test	No deformation or welding at 112.3kA,60ms	No deformation or welding at 111.3kA,60ms	No deformation or welding at 112.2kA,60ms
15min, A.C. voltage withstand test	23kV, 15min. no flashover, no breakdown	30kV, 15min. no flashover, no breakdown	65kV, 15min.no flashover, no breakdown

Above proved technical data table is according to IEC60502-4 standard. Meantime above products meet CENELEC HD 629.1 S2



Current Test Devices and Voltage Test Socket

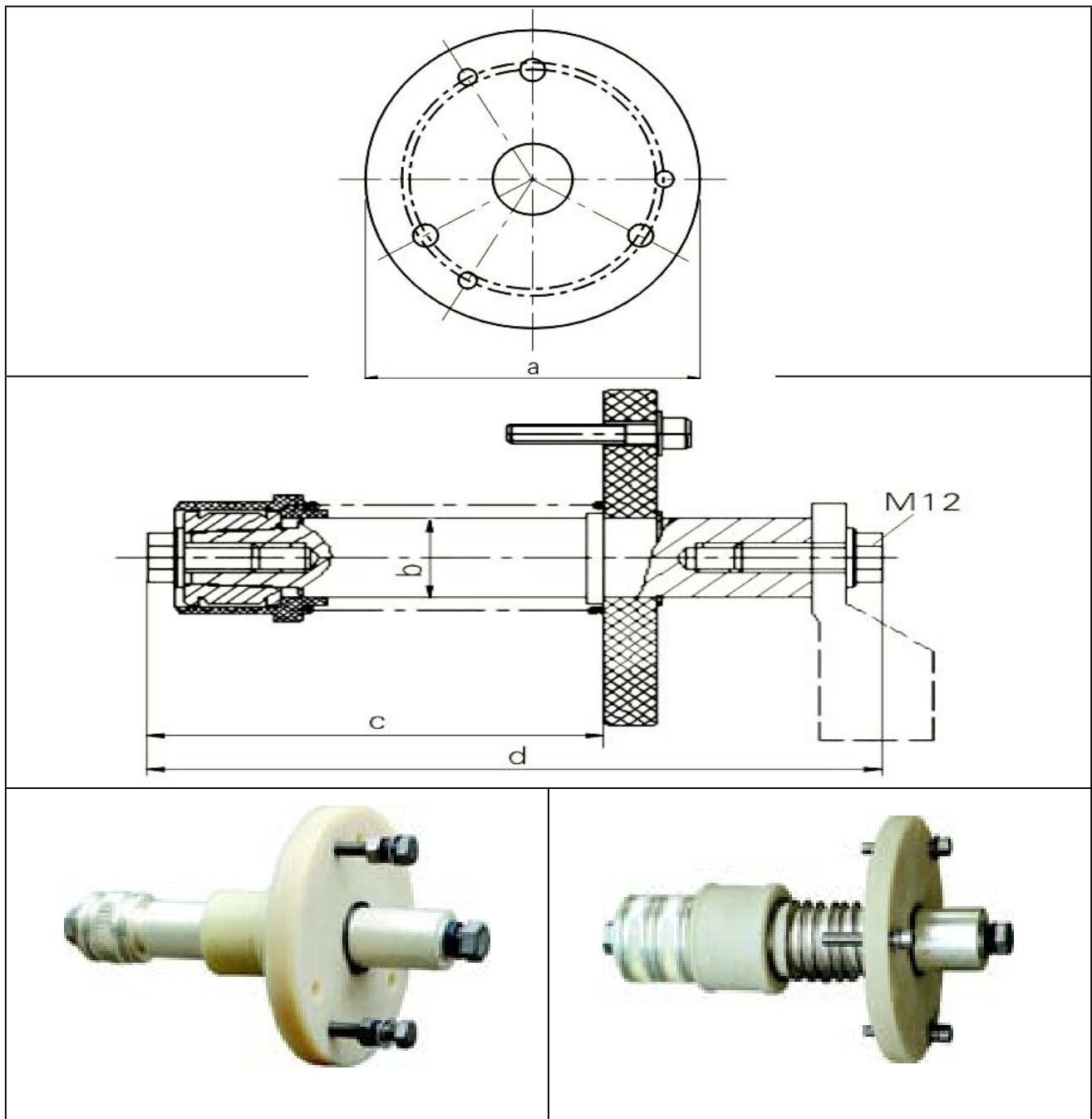
Application

Current test devices are suitable for current test of gas insulated switchgear and transformer with plug-in termination. They can install the devices into bushings and connect the test lead on the bolts of devices.

Voltage test socket is suitable for voltage test of cable with plug-in termination.

Ordering Information

Current test devices



Type	Part No.	Bushing Type	Rated Current	Main Size			
				a	b	c	d
TA-1	601.019	1#	630A	138	32	127	204
TA-2S	601.007	2S#	800A	138	32	127	204
TA-2	601.004	2#	1250A	136	38	125	205
TA-3	601.001	3#	1250A	147	38	188	265

Voltage test socket

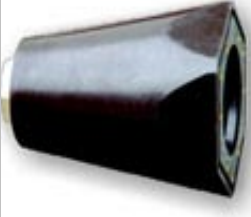
Type	Order No.	Bushing Type	AC Voltage Withstand (1min)
TB-1	602.004	1#	85kV
TB-2S	602.003	2S#	85kV
TB-2	602.001	2#	55kV
TB-3	602.002	3#	85kV
 1#, 2S#, 2# voltage test socket		 3# voltage test socket	



Epoxy Bushing and Stop End

Ordering Information

Epoxy Bushing according to DIN47637

			
Size 1: CBN-1 Order No: 706.043 (with test point) 706.044 (without test point)	Size 2S: CBN-2S Order No: 706.047 (with test point) 706.048 (without test point)	Size 2: CBN-2 Order No: 706.045 (with test point) 706.046 (without test point)	Size 3: CBN-3 Order No: 706.050 (with test point) 706.049 (without test point)

Insulation Stop End

			
Size 1: CBN35-630-1 Order No: 202.002	Size 2S: CBN35-800-2S Order No: 202.011	Size 2: CBN20 (10)-1250-2 Order No: 202.012	Size 3: CBN35-1250-3 (I) Order No: 202.003 Size 3: CBN35-1250-3 (II) Order No: 202.003B
Partial Discharge			
45kV<10pC	45kV<10pC	20kV<10pC	45kV<10pC
AC Voltage Withstand, 1min			
95kV	95kV	55kV	95kV

Test cable

Application

Suitable for electrical test of gas insulated switchgear with plug-in termination and transformers, according to IEC 60502-4:2005.

Standard

IEC 60502-4:

Ordering Information

26/35(42)kV XLPE cable, for 03-3#, 02-2S#, 01-1# plug-in bushings-35TC03

Item	35TC03	35TC02	35TC01	
AC Voltage Withstand	117kV, 5min	95kV, 1min	95kV, 1min	
Partial Discharge	45kV<10pC			
Thundering Impulse	10 positive and 10 negative impulses at 200kV			

8.7/15kV XLPE cable, for 2# plug-in bushing- 15TC02

AC Voltage Withstand	39kV, 5min or 42kV, 1min	
Partial Discharge	15kV<10pC	
Thundering Impulse	10 positive and 10 negative impulses at 95kV	



1KV Cast Resin Cable Joints HCRK



Introduction

PUR cast resin technology was especially developed to seal and protect power, signal and telephone cables. This new generation of two component cast resin has been developed for the most demanding environments and circumstances. Our cast resin joints have been tested according to EN50393

Voltage

$U_0/U(U_m)=0.6/1(1.2)\text{kV}$

Application

This cast resin products is highly suitable for application in straight joints, branch joints, double branch joints and transition joints. All cast resin accessories are qualified for application with PVC, XLPE and PE-insulated lines and cables. Our products are applicable to deliver joints in outdoor, indoor, under-ground and under-water environments. The primary application advantage of the system is that a single range of cast resin can be used in joints for all voltage up to 0.6 /1(1.2) KV. It can also be used in joints of telecommunication and signal cables. This is a 2-component-polyurethanic-cast resin system and corresponds to DIN VDE 0291 part 2 specification.

Cast resins are halogen-free. The molded casings are manufactured from high quality robust synthetic materials, which can withstand rough handling. For straight and transition joints our system are equipped with distance holders to provide the necessary safety clearance distance between the connectors. Feeders are found in small sized casing to facilitate easy delivery of resin into the casing.

Standard

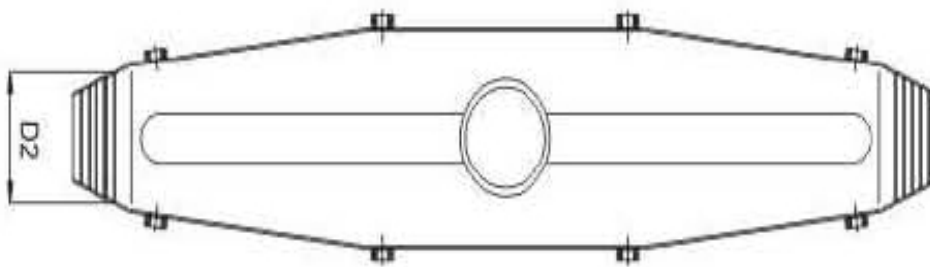
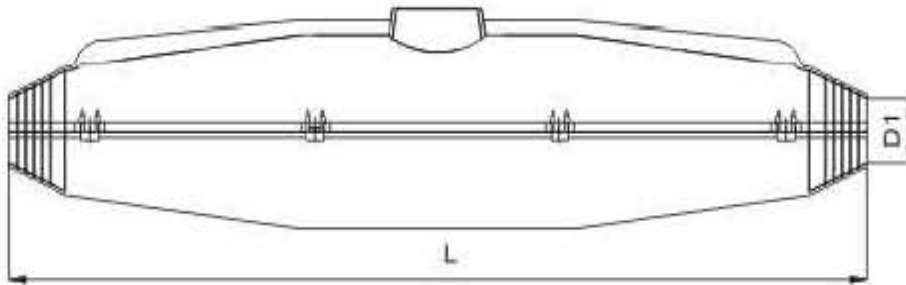
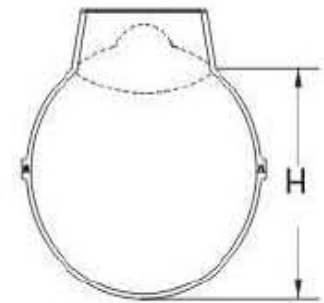
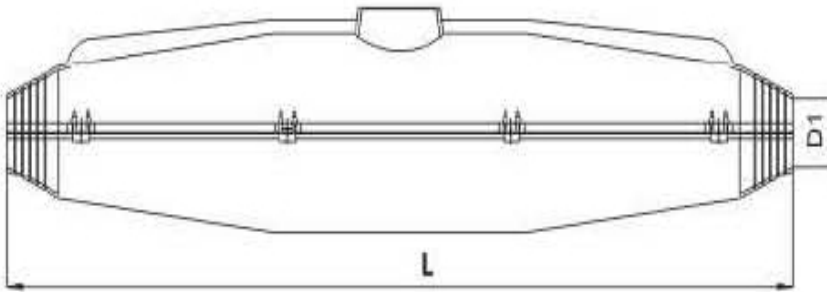
EN 50393, DIN VDE 0278-393, BS 7933-1. BS 6910-2

Features

- Earthing set
- Mould in two halves
- Cable jointing compound - resin and hardener mould holding clips
- Riser & pouring gate seal
- Compression connectors (mechanical shear head connectors on request)
- Sponge sheets
- Rubber insulating sheets

Kit contents

- 2 part mould
- Connector spacer
- 2 component PUR resin supplied in 5 layer laminated Al bag with dividing rod
- PVC tape
- Abrasive strip
- PE gloves
- Easy to follow installation instructions
- Funnel (optional)



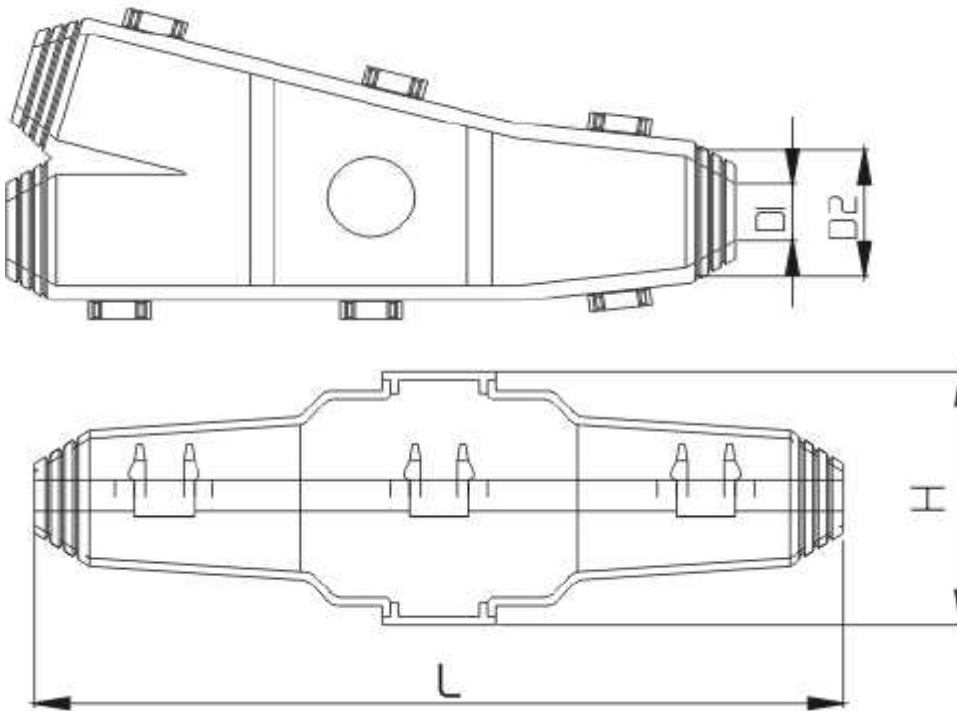


Ordering Information

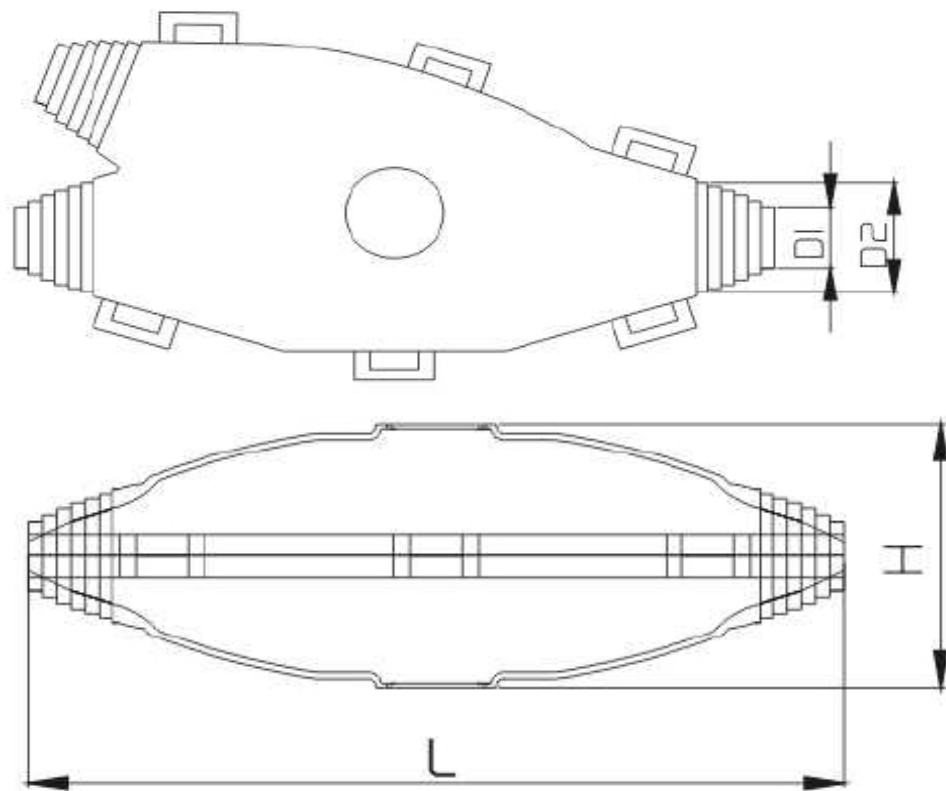
Part No.	Cable Size mm ²	L(mm)	H(mm)	D1 (mm)	D2 (mm)
HCRK-S1	4x1 .5-10	202	36	8	26
HCRK-S2	4x10 - 25	260	47	16	32
HCRK-S3	4x35 - 50	360	55	21	48
HCRK-S4	4x50 - 70	400	70	26	41
HCRK-S5	4x9S-150	530	100	35	56
HCRK-S6	4x185 - 300	700	125	47	74

Low Voltage Cast Resin Branch Joints

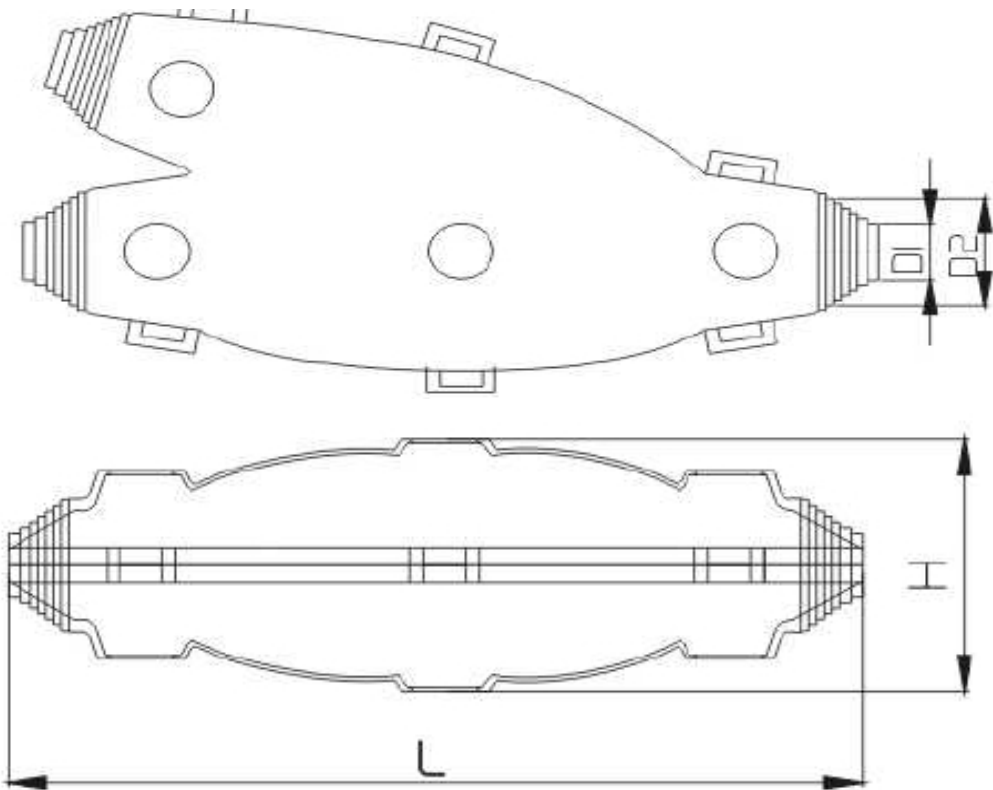
HCRK-B00



HCRK-B0



HCRK-B1





Part No.	Cable Size mm ²	Branch cable Size mm ²	D1 (mm)	D2(mm)	H(mm)	L(mm)
HCRK- B00	4x1 .5-2.5	4 x 1.5	11	20	50	150
HCRK- B0	4x4 - 10	4 x 4	6	21	60	175
HCRK- B1	4x6 - 25	4 x 16	9	24	70	225

2 component PUR resin

Two component PUR cast resin. Available also as separate packs. Large volume bags. and resin buckets are available on special request

PU25 Black cast resin is a high quality, and fast setting resin for tough ambient conditions. Ideal for power cable accessories as insulation or as protective layer in case of MV joints.

PU20 Beige color is an inexpensive casting resin mechanically tough, and having good hydrophobic properties.

Resin supplied in two chamber of moisture proof Al laminated bags

PU-25	PU-20
Volume (ml)	Volume (ml)
80	80
143	143
286	286
370	370
464	464
730	730
1000	1000
1150	1150
1500	1500
2000	2000

The 2 component PUR resin is suitable to be used for jointing PVC, XLPE, or paper Insulated cables up to 10 kV

Technical Parameters

Approval to DIN EN 50393 DIN VDE 0278-393

Technical data	Value	According 10 DIN VDE 0291
Expansion Coefficient in Temperature Range 20-50°C	$5.9 \times 10^{-4} \text{ K}^{-1}$	product conforms $\pm 15\%$
Thermal Conductivity	$0.2 \text{ W} \times \text{m}^{-1} \times \text{K}^{-1}$	product conforms $\pm 20\%$
Flammability	Class II c	acc 10 DIN VDE 0304 part 3
Water Absorption 42 Days @ 50°C	360mg	Max. 400mg
Electrolytic Corrosion	A1	-
Voltage Test @ 23°C 80°C	$> 20 \text{ kV}$ $> 10 \text{ kV}$	no breakdown @ test voltage 20kV 20kV
Dielectric Dissipation Factor @ 23°C and 50Hz @ 23°C and 1 kHz	0.08 0.05	max. 0.1 -
Relative Permittivity 23°C @ 50Hz 23°C @ 1kHz	5 5.1	< 6 -
Tracking Resistance	KA 3c	Min. KA 3c
Physical Values after 28 Days of Immersion in 90°C Water Tensile Strength' Elongation at Break Hardness	8.2N/mm' 60% 47shore	$\geq 60\%$ 01 initial value $\geq 60\%$ 01 initial value $\geq 60\%$ 01 initial value



Cast Resin Cable Joints up to 6/10 (12) KV CRSJ/CRBJ/CRTJ



Application

This cast resin products is highly suitable for application in straight joints, branch joints, double branch joints and transition joints. All cast resin accessories are qualified for application with PVC, XLPE and PE-insulated lines and cables. Our products are applicable to deliver joints in outdoor, indoor, under-ground and under-water environments. The primary application advantage of the system is that a single range of cast resin can be used in joints for all voltage up to 6/10 (12) KV. It can also be used in joints of telecommunication and signal cables. This is a 2-component-polyurethanic-cast resin system and corresponds to DIN VDE 0291 part 2 specification.

Cast resins are halogen-free. The molded casings are manufactured from high quality robust synthetic materials, which can withstand rough handling. For straight and transition joints the system are equipped with distance holders to provide the necessary safety clearance distance between the connectors. Feeders are found in small sized casing to facilitate easy delivery of resin into the casing.

Standard

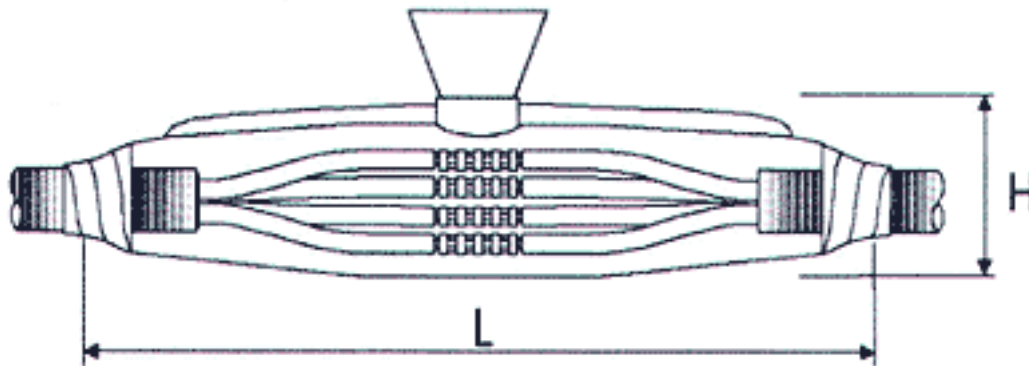
BS 50393, DIN VDE 0278-393, BS 7933-1. BS 6910-2

Kit contents

- 2 part mould
- Connector spacer
- 2 component PUR resin supplied in 5 layer laminated Al bag with dividing rod
- PVC tape
- Abrasive strip
- PE gloves
- Easy to follow installation instructions
- Funnel (optional)

Ordering Information

CRSJ - Cast Resin Straight Joint with molded casing

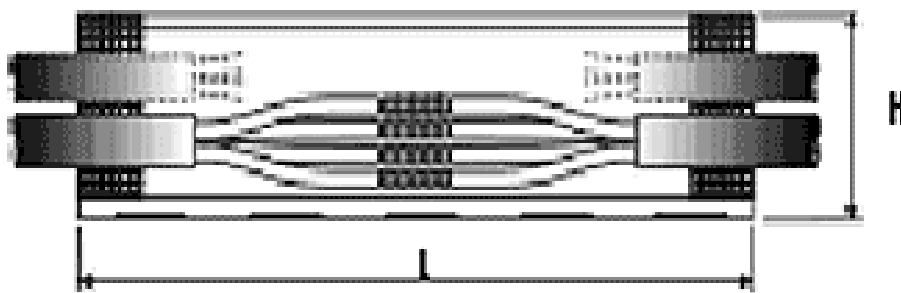


Straight Joints

Part No.	Cable Overall External Dia.	Casing Dimension L x H
CRSJ-12/6-19	6.0 mm to 19.0 mm	160 mm (L) x 36 mm (H)
CRSJ-12/6-22	6.0 mm to 22.0 mm	190 mm (L) x 48 mm (H)
CRSJ-12/14-35	14.0 mm to 35.0 mm	240 mm (L) x 50 mm (H)
CRSJ-12/16-37	16.0 mm to 37.0 mm	270 mm (L) x 65 mm (H)
CRSJ-12/20-44	20.0 mm to 44.0 mm	360 mm (L) x 80 mm (H)
CRSJ-12/26-52	26.0 mm to 52.0 mm	430 mm (L) x 95 mm (H)
CRSJ-12/35-65	35.0 mm to 65.0 mm	530 mm (L) x 120 mm (H)
CRSJ-12/45-80	45.0 mm to 80.0 mm	700 mm (L) x 180 mm (H)
CRSJ-12/50-90	50.0 mm to 90.0 mm	900 mm (L) x 190 mm (H)

Other sizes are available upon request. For more information, please contact our sales offices.

CRBJ- Cast Resin Straight / Branching Joints with Moulded Casing

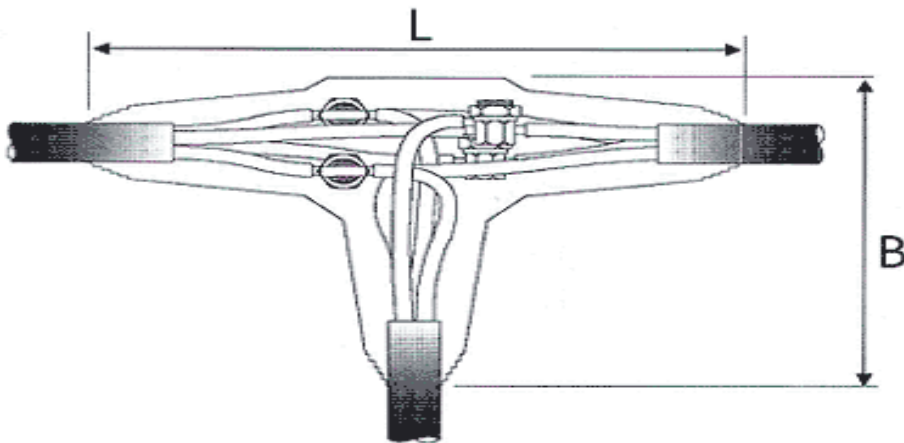


Straight/Branching Joints



Part No.	Cable Overall External Dia.	Casing Dimension L x H
CRBJ-12/13.5-22.8	13.5 mm to 22.8 mm	13.5 mm to 22.8 mm
CRBJ-12/20-27	20.0 mm to 27.0 mm	19.0 mm to 25.0 mm
CRBJ-12/20-34.5	20.0 mm to 34.5 mm	19.0 mm to 27.0 mm
CRBJ-12/32-48.5	32.0 mm to 48.5 mm	24.5 mm to 32.5 mm
CRBJ-12/38.5-48.5	38.5 mm to 48.5 mm	22.0 mm to 34.5 mm
CRBJ-12/32-553	32.0 mm to 53.0 mm	22.0 mm to 34.5 mm

CRTJ- Cast Resin T-shape Joints with Moulded Casing



Straight/Branching Joints

Part No.	Cable Overall External Dia.	Casing Dimension L x H
CRTJ-12A	9.0 mm to 22.0 mm	240 mm x 140 mm x 52 mm
CRTJ-12B	17.0 mm to 30.0 mm	270 mm x 164 mm x 77 mm

Thin Wall Heat Shrinkable Tubing for Flexible Gas Pipes HGB



Application

HGB flexible heat shrinkable tubing is made by specially designed formulations to provide outstanding physical properties. Very suitable for protecting flexible gas pipes

Features

Crosslinked polyolefin

Excellent shrinking properties

Outstanding physical properties

Bright yellow

Operating temp.: -55°C to +125°C

Minimum shrink temperature.: 80°C

Minimum full recovery temperature.: 110°C

RoHS compliant

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* Min.	d* Max.)	W* (Min.)	(m/spool)
HGB 12.7/6.4	12.7	6.4	0.62	100
HGB 23.0/9.5	23.0	9.5	0.65	100
HGB 27.5/12.7	27.5	12.7	0.70	100
HGB 29.0/12.7	29.0	12.7	0.70	100
HGB 31.8/15	31.8	15.0	0.80	100
HGB 33.5/16	33.5	16.0	0.80	100
HGB 40.5/19	40.5	19.0	0.80	100
HGB 51/25.4	51.0	25.4	0.80	100
HGB 65/32.5	65.0	32.5	1.20	50
HGB 76.2/38.1	77.0	38.1	1.20	50

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered



W*= Wall thickness after being fully recovered

Note:

Standard colors: Yellow

Packaging

Standard packaging on spools

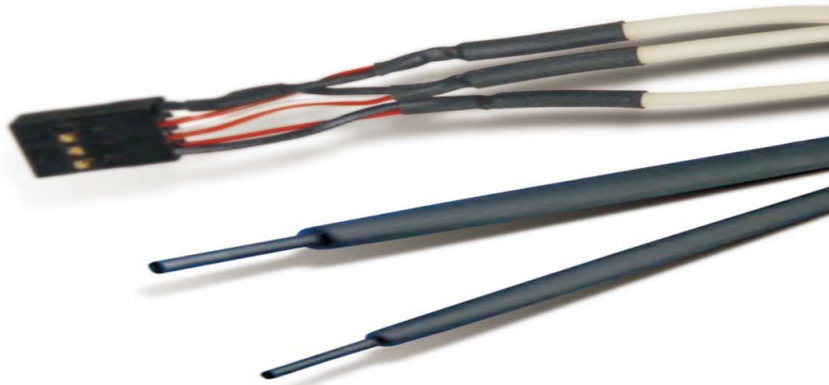
1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	> 12 MPa
Ultimate Elongation	ASTM D 2671	> 500%
Longitudinal Shrinkage	ASTM D 2671	0±!5%
Eccentricity	ASTM D 2671	<30%
Heat Aging Tensile Strength Ultimate Elongation	136°C, 166 hrs	>11 MPa >200%
Voltage Withstand	-	Flammable
Volume Resistance	ASTM D 2671/AC 2500V, 1 min	No breakout
Copper Stability	ASTM D 2671	>10 ¹⁴ Ω. cm
Copper Corrosion	UL224	Pass
Printability	UL224	No corrosion

Thin Wall Heat Shrinkable Tubing, Non Flame Retardant HB-1



Application

HB-1 is heat shrinkable tubing for general application where flame-retardant properties are not needed, but electrical insulation and mechanical performance are important. It fits to substrates more uniformly and with less longitudinal changes than most of PVC tubing. The bright polished surface is an attractive covering for many automotive, appliance, and consumer-goods application.

Features

Shrink Ratio: 2:1

Base materials: Modified cadmium and lead free polyolefin

Minimum shrink temperature: 80°C

Minimum fully recovery temperature: 110°C

Standard color: Yellow

Ordering Information

Part No.	As Supplied(mm)		After Being Fully Recovered (mm)		Standard Length Inside Diameter (m/spool)
	Inside Diameter (m/spool) (Min.)	Wall Thickness (Nom.)	Inside Diameter (Max.)	Wall Thickness (Min.)	
HB-1 1.2/0.5	1.2	0.18	0.5	0.33	200
HB-1 1.6/0.75	1.6	0.18	0.75	0.36	200
HB-1 2.4/1.25	2.4	0.25	1.25	0.44	200
HB-1 3.2/1.5	3.2	0.25	1.5	0.44	200
HB-1 4.8/2.5	4.8	0.25	2.5	0.56	100
HB-1 6.4/3	6.4	0.25	3	0.56	100
HB-1 8.0/4	8.0	0.25	4	0.56	100
HB-1 9.5/5	9.5	0.3	5	0.56	100



HB-1 12.7/6.5	12.7	0.35	6.5	0.65	50
HB-1 15.9/8	15.9	0.35	8	0.69	50
HB-1 19.1/10	19.1	0.40	10.	0.89	50
HB-1 25.4/12	25.4	0.45	12.	0.9	50
HB-1 31.8/15	31.8	0.45	15	0.9	50
HB-1 38.1/20	38.1	0.50	20	1	50
HB-1 50.8/25	50.8	0.50	25	1	50
HB-1 76.2/40	76.2	0.55	40	1.2	30
HB-1 101.6/50	101.6	0.55	50	1.3	30
HB-1 126/60	126	0.55	60	1.3	15
HB-1 150/75	150	0.55	75	1.3	15

Special size, cutting pieces are available on request

Standard colors: Yellow

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical parameter

Parameter	Test Method	Typical Data
Operating Temperature	UL 224	-55°C to +105°C
Tensile Strength	ASTM D 2671	>10.4MPa
Elongation at Break	ASTM D 2671	>500%
Longitudinal Shrinkage	UL 224	±5%
Eccentricity	ASTM D 2671	<30%
Flammability	—	Flammable
Dielectric Strength	IEC 93	>25kV/mm
Volume Resistance	ASTM D 2671	14 >10 Ω.cm
Copper Stability	ISO 62	Pass

Thin Wall Heat Shrinkable Tubing, General Purpose and Non Flame Retardant H-1



Application

H-1 is commercial grade heat shrinking tubing for general application where flame-Retardant is not required, but electrical insulation and mechanical performance are important.

H-1 fits to substrates more uniformly with less longitudinal variation than most of PVC tubing. The polished surface is an attractive covering for many automotive, appliance, and consumer-goods application. Precise version offers exceptional clarity (indication) for marked surfaces

Features

- Crosslinked polyolefin
- Commercial grade
- Excellent electrical and physical properties
- Outstanding physical properties
- Bright shiny black
- Clear is 100% transparent
- Operating temp.: -55°C to +105°C
- Minimum shrink temperature.: 70°C
- Minimum full recovery temperature.: 95°C
- Shrink ratio: 2:1
- RoHS compliant

Ordering Information

Part No. (mm)	As Supplied (mm) D* Min.	After Being Fully Recovered (mm)		Standard Length (m/spool)
		d* Max.)	W* (Min.)	
H-1 1.2/0.5	1.2	0.50	0.33	300
H-1 1.6/0.75	1.6	0.75	0.36	300
H-1 2.4/1.25	2.4	1.25	0.44	300
H-1 3.2/1.5	3.2	1.5	0.44	300
H-1 4.8/2.5	4.8	2.5	0.56	300
H-1 6.4/3	6.4	3	0.56	300



H-1 9.5/5	9.5	5	0.56	15**
H-1 12.7/6.5	12.7	6.5	0.66	150
H-1 16/8	16	8	0.69	75
H-1 19.1/10	19.1	10	0.8	75
H-1 25.4/12	25.4	12	0.9	75
H-1 31.8/15	31.8	15	0.9	30
H-1 38.1/20	38.1	20	1.0	30
H-1 50.8/25	50.8	25	1.0	30

D" = Inner diameter as supplied

d* = Inner diameter after being fully recovered

W* = Wall thickness after being fully recovered

** = Flat Shape. Air filled or oval shape is available on request

Standard colors: shiny black, transparent

Special colors are available on request.

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	> 12 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Longitudinal Shrinkage	ASTM D 2671	0±1.5%
Eccentricity	ASTM D 2671	<30%
Heat Aging Tensile Strength Ultimate Elongation	136°C, 166 hrs	>11 MPa >200%
Voltage Withstand	-	Flammable
Volume Resistance	ASTM D 2671/AC 2500V, 1 min	No breakout
Copper Stability	ASTM D 2671	>10 ¹⁴ Ω. cm
Copper Corrosion	UL224	Pass
Printability	UL224	No corrosion

Thin Wall Heat Shrinkable Tubing with Very Low Shrink Temperature, Flexible and Halogen Free

H-2 (LS)



Application

H-2(LS) is manufactured with modified radiation cross-linked polyolefin. The specially designed halogen free formulation makes the tubing very flexible and shrinking at lower temperature. Suitable for application where heat sensitive components and quick shrinkage is required.

Features

- Crosslinked polyolefin
- Quick shrinking
- Very low shrink temperature
- High flexibility
- Non flame retardant
- Flame propagation: FMVSS 302
- Shrink Ratio:2:1
- Standard Compliance: RoHS, Sony-SS-00259
- Operating temperature: -55°C to + 125°C
- Minimum shrink temperature: 65°C
- Minimum fully recovery temperature: 95°C
- Standard color: black
- RoHS compliant

Ordering Information

Part No. (mm)	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* Min.	d* Max.)	W* (Min.)	(m/spool)
H-2 (LS) 1.6/0.8	1.6	0.8	0.5	300
H-2 (LS) 2.4/1.2	2.4	1.2	0,5	300
H-2 (LS) 3.2/1.6	3.2	1.6	0.5	300
H-2 (LS) 4.8/2.4	4.8	2.4	0.5	300
H-2 (LS) 6.4/3.2	6.4	3.2	0.6	300
H-2 (LS) 8,0/4.0	8.0	4.0	0,6	150



H-2 (LS) 9.5/4.8	9.5	4.8	0.6	150**
H-2 (LS) 12.7/6.4	12.7	6.4	0.6	150
H-2 (LS) 16.0/8.0	16.0	8.0	0.6	75
H-2 (LS) 19.1/9.5	19.1	9.5	0.8	75
H-2 (LS) 25.4/12.7	25.4	12.7	0.9	75
H-2 (LS) 31.8/15	31.8	15	0.9	30
H-2 (LS) 38.1/20	38.1	20	1.0	30
H-2 (LS) 50.8/25	50.8	25	1.0	30

D" = Inner diameter as supplied

d* = Inner diameter after being fully recovered

W* = Wall thickness after being fully recovered

** = Flat Shape. Air filled or oval shape is available on request

Standard colors: Yellow

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters:

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	> 12 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Longitudinal Shrinkage	ASTM D 2671	0±! :5%
Eccentricity	ASTM D 2671	<30%
Heat Aging Tensile Strength Ultimate Elongation	136°C, 166 hrs	>11 MPa >200%
Voltage Withstand	-	Flammable
Volume Resistance	ASTM D 2671/AC 2500V, 1 min	No breakout
Copper Stability	ASTM D 2671	>10 ¹⁴ Ω. cm
Copper Corrosion	UL224	Pass
Printability	UL224	No corrosion

Thin Wall Heat Shrinkable Tubing with Yellow & Green Strip, Flexible and Flame Retardant H-2F(YG)



Application

Outstanding physical, chemical and electrical properties make it easy to install and identify ground conductors. Free from environment harmful substance as PBB's, PBBO's, PBBE's and toxic heavy metal compounds in its components.

Features

Crosslinked polyolefin
Highly flame retardant
Outstanding physical, chemical properties
Excellent electrical properties
UV resistant
Standard compliance: SAE-AMS-DTL-23053/5 Class 1&3
Standard compliance: RoHS, Sony-SS-00259
Operating Temperature: -55°C to + 135°C
Minimum shrink temperature: 70°C
Minimum fully recovery temperature: 100°C
Shrink Ratio: 2:1, 3:1
RoHS compliant

Ordering Information

Part No. (mm)	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length (m/spool)
	D* Min.	d* Max.)	W* (Min.)	
H-2F(YG) 1.6/0.5	1.6	0.5	0.51	300
H-2F(YG) 2.4/0.8	2.4	0.8	0.51	300
H-2F(YG) 3.2/1	3.2	1	0.55	300
H-2F(YG) 4.8/1.5	4.8	1.5	0.60	300
H-2F(YG) 6.4/2	6.4	2	0.65	300
H-2F(YG) 6.4/2	9.5	3	0.75	150**



H-2F(YG) 12.7/4	12.7	4	0.75	150
H-2F(YG) 19.1/6	19.1	6	0.85	75
H-2F(YG) 25.4/8	25.4	8	1	75
H-2F(YG) 39/13	39	13	1.15	30

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

**= Flat shape.

Oval shape is available on request

Standard colors: Yellow and Green striped

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

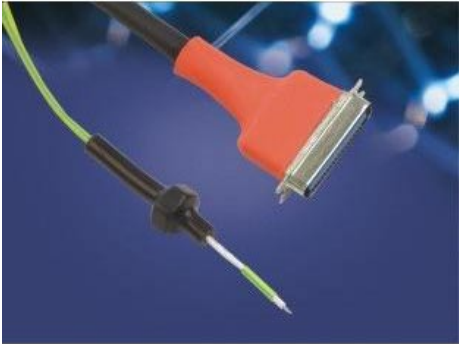
Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 600%
Longitudinal Shrinkage	ASTM D 2671	0±!5%
Eccentricity	ASTM D 2671	<30%
Heat Aging Tensile Strength Ultimate Elongation	136°C, 166 hrs	>11 MPa >350%
Flammable	WI-1	Pass
Voltage Withstand	ASTM D 2671/AC 2500V, 1 min	No breakout
Dialectic Strength	ASTM D 150	>20 kV/mm
Volume Resistance	ASTM D 2671	>10 ¹⁴ Ω. cm
Copper Stability	UL224	Pass
Copper Corrosion	UL224	No corrosion

Thin Wall Heat Shrinkable Tubing, Highly Flexible and Flame Retardant (Shrink Ratio 4:1)

H-2F(4X)



Application

H-2F (4X) tubing is manufactured with specially developed formulation and technology, it can fit a large diameter connector or transition, and then shrink down onto a smaller diameter jacket. Outstanding physical, chemical and electrical properties make it widely used in some important fields such as military, aerospace and fine electronic Instruments for insulating or repairing harness, cables and connectors

Features

Shrink Ratio:4:1

Standard compliance: 125□ VW-1 600V

Standard compliance: SAE-AMS-DTL-23053/5 Class 1&3

Standard compliance: RoHS, Sony-SS-00259

Operating Temperature: -55℃ to + 135℃

Minimum shrink temperature: 70℃

Minimum fully recovery temperature: 100℃

Standard color: Black

Special color: Red, Blue, Yellow, Green

Ordering Information

Part No. (mm)	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length (m/spool)
	D* (Min.)	d*(Max.)	W* (Min.)	
H-2F(4X) 19.1/6	19.1	6	0.85	75
H-2F(4X) 25.4/8	25.4	8	1	75
H-2F(4X) 38.1/9.5	38.1	9.5	1.0	30
H-2F(4X) 50.8/14	50.8	14	1.7	1.22
H-2F(4X) 76.2/20.6	76.2	20.6	1.7	1.22
H-2F(4X) 102/26.7	102	26.7	1.7	1.22
H-2F(4X) 115/36.8	115	36.8	1.7	1.22

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered



W*= Wall thickness after being fully recovered

Standard colors: Yellow

Special colors: Red, Blue, Yellow, Green

Other colors are available on request.

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 600%
Longitudinal Shrinkage	UL224	0±!5%
Eccentricity	ASTM D 2671	<30%
Heat Aging Tensile Strength Ultimate Elongation	175°C, 166 hrs	>11 MPa >350%
Flammable	WI-1	Pass
Voltage Withstand	ASTM D 2671/AC 2500V, 1 min.	No breakout
Dialectic Strength	ASTM D 150	>20 kV/mm
Volume Resistance	ASTM D 2671	>10 ¹⁴ Ω. cm
Copper Stability	UL224	Pass
Copper Corrosion	UL224	No corrosion

Thin Wall Heat Shrinkable Tubing, Highly Flexible and Flame Retardant (Shrink Ratio 3:1)

H-2F(3X)



Application

With outstanding physical, chemical and electrical parameter. It is widely used for electrical insulation, bundling to prevent corrosion and provide mechanical protection. 3:1 shrink ratio is more suitable for application to irregular, awkward shapes.

Features

Shrink Ratio:3:1

Standard compliance: 125□ VW-1 600V

Standard compliance: SAE-AMS-DTL-23053/5 Class 1&3

Standard compliance: RoHS, Sony-SS-00259

Very flexible, highly flame retardant

Operating Temperature: -55°C to + 135°C

Minimum shrink temperature: 70°C

Minimum fully recovery temperature: 100°C

Standard color: Red, Blue Yellow, Green, Clear (class 2)

Ordering Information

Part No. (mm)	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length (m/spool)
	D* Min.	d* Max.)	W* (Min.)	
H-2F(3X) 1.6/0.5	1.6	0.5	0.45	300
H-2F(3X) 3.2/1.0	3.2	1.0	0.55	300
H-2F(3X) 4.8/1.5	4.8	1.5	0.60	300
H-2F(3X) 6.4/2	6.4	2.	0.65	300
H-2F(3X) 9.5/3	9.5	3	0.75	150**
H-2F(3X) 12.7/4	12.7	4	0.80	150
H-2F(3X) 19.1/6	19.1	6	0.85	75
H-2F(3X) 25.4/8	25.4	8	1	75
H-2F(3X) 39/13	39	13	1.0	30

D" = Inner diameter as supplied



d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

**= Flat Shape. Oval shape is available on request

Standard colors: Yellow

Special colors: Red, Blue, Yellow, Green

Other colors are available on request.

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 600%
Longitudinal Shrinkage	UL224	0±!5%
Eccentricity	ASTM D 2671	<30%
Heat Aging Tensile Strength Ultimate Elongation	175°C, 166 hrs	>11 MPa >350%
Flammable	WI-1	Pass
Voltage Withstand	ASTM D 2671/AC 2500V, 1 min	No breakout
Dialectic Strength	ASTM D 150	>20 kV/mm
Volume Resistance	ASTM D 2671	>10 ¹⁴ Ω. cm
Copper Stability	UL224	Pass
Copper Corrosion	UL224	No corrosion

**Thin Wall Heat Shrinkable Tubing, Highly Flexible and Flame Retardant (Shrink Ratio 2: 1)
H-2F**



Application

H-2F is suitable for both commercial and military applications, providing electrical insulation and protecting in line components, disconnect terminals and splices with its high strength and excellent resilience, bundling wires for very flexible light-duty harnesses. Identifies for color codes, terminals and components.

Features

Shrink Ratio: 2:1

Standard compliance: 125°C VW-1 600V

Standard compliance: SAE-AMS-DTL-23053/5 Class 1&3

Standard compliance: RoHS, Sony-SS-00259

Very flexible, highly flame retardant (except clear)

Resistance to common fluids and solvents

Operating Temperature: -55°C to + 135°C

Minimum shrink temperature: 70°C

Minimum fully recovery temperature: 100°C

Standard color: Black, Red, Blue Yellow, Green, White, Clear(class 2)



Ordering Information

Part No. (mm)	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length (m/spool)
	D* Min.	d* Max.)	W* (Min.)	
H-2F 1.2/0.6	1.2	0.6	0.40	300
H-2F 1.6/0.8	1.6	0.8	0.40	300
H-2F 2.4/1.2	2.4	1.2	0.48	300
H-2F 3.2/1.6	3.2	1.6	0.48	300
H-2F 4.8/2.4	4.8	2.4	0.48	300
H-2F 6.4/3.2	6.4	3.2	0.56	300
H-2F 8.0/4.0	8.0	4.0	0.62	150
H-2F 6.4/4.8	9.5	4.8	0.62	150**
H-2F 12.7/6.4	12.7	6.4	0.62	150
H-2F 15.9/8.0	15.9	8.0	0.68	75
H-2F 19.1/9.5	19.1	9.5	0.68	75
H-2F 25.4/12.7	25.4	12.7	0.87	75
H-2F 31.8/15.9	31.8	15.9	1.0	30
H-2F 38.1/20	38.1	20	1.0	30
H-2F 50.8/25.4	50.8	25.4	1.10	30
H-2F 76.2/38.1	76.2	38.1	1.20	30
H-2F 102/50.8	102	50.8	1.35	15
H-2F 125/63.5	125	63.5	1.40	15
H-2F 151/75.0	151	75.0	1.4	15

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

**= Flat Shape. Oval shape is available on request.

Standard colors: Yellow

Special colors: Red, Blue, Yellow, Green, White, Clear [Class 2, size available up to 3 inch (76.2 mm)]

Other colors are available on request.

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 600%
Longitudinal Shrinkage	UL224	0±!5%
Eccentricity	ASTM D 2671	<30%
Heat Aging Tensile Strength Ultimate Elongation	175°C, 166 hrs	>11 MPa >350%
Flammable	WI-1	Pass
Voltage Withstand	ASTM D 2671/AC 2500V, 1 min	No breakout
Dialectic Strength	ASTM D 150	>20 kV/mm
Volume Resistance	ASTM D 2671	>10 ¹⁴ Ω. cm
Copper Stability	UL224	Pass
Copper Corrosion	UL224	No corrosion



Thin Wall Heat Shrinkable Tubing, Semi-rigid, Multi-purpose and Flame Retardant H-2R



Application

H-2R tubing is manufactured with specially developed formulation and technology, which makes the tubing to be excellent abrasion resistant. The outstanding physical, chemical and electrical properties make it widely used in some important fields such as military, aerospace and fine electronic instruments for insulating of harness, and connectors.

Features

Shrink Ratio: 2:1

Standard compliance: UL 224 VW-1, 125°C 600V

Standard compliance: SAE-AMS-DTL-23053/5 Class 1 & 3

Standard compliance: RoHS, Sony-SS-00259

Resistance to common fluids and solvents

Operating Temperature: -55°C to + 135°C

Minimum fully recovery temperature: 130°C

Standard color: Black, Clear (Non flame retardant)

Ordering Information

Part No. (mm)	As Supplied (mm)	After Being Fully Recovered (mm)		Standard length (m/spool)
	D* Min.	d* Max.)	W* (Min.)	
H-2R 1.2/0.6	1.2	0.6	0.40	300
H-2R 1.6/0.8	1.6	0.8	0.40	300
H-2R 2.4/1.2	2.4	1.2	0.5	300
H-2R 3.2/1.6	3.2	1.6	0.5	300
H-2R 4.8/2.4	4.8	2.4	0.5	300
H-2R 6.4/3.2	6.4	3.2	0.6	300
H-2R 9.5/4.8	9.5	4.8	0.6	150**
H-2R 12.7/6.4	12.7	6.4	0.6	150
H-2R 15.9/8.0	15.9	8.0	0.7	75
H-2R 19.1/9.5	19.1	9.5	0.7	75
H-2R 25.4/12..7	25.4	12.7	0.7	75

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered
W*= Wall thickness after being fully recovered
**= Flat Shape. Oval shape is available on request
Standard colors: Black Clear {non-flame retardant}
Special colors:
Other colors are available on request.

Packaging

Standard packaging on spools
1m, 1.22m pieces are available as option
Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	> 16 MPa
Ultimate Elongation	ASTM D 2671	> 500%
Longitudinal Shrinkage	UL224	0±!5%
Eccentricity	ASTM D 2671	<30%
Heat Aging Tensile Strength Ultimate Elongation	175°C, 166 hrs	>12 MPa >350%
Flammable	WI-1	Pass
Voltage Withstand	ASTM D 2671/AC 2500V, 1 min	No breakout
Dialectic Strength	ASTM D 150	>20 kV/mm
Volume Resistance	ASTM D 2671	>10 ¹⁴ Ω. cm
Copper Stability	UL224	Pass
Copper Corrosion	UL224	No corrosion



Thin Wall Heat Shrinkable Tubing, Halogen Free and Flame Retardant H-2 (HF)



Application

As a kind of fully environmental friendly heat-shrinkable tube, it is made with specially designed halogen free polyolefin. It produces neither toxic smoke nor harmful substance when burning, which Standard compliances the growing demand of environmental protection all over the world. Other than the common physical and chemical specifications, the tube also shows excellent flame-retardant, insulation, low temperature shrinking and flexible properties and thus is widely used in electronic, communication and automobile industry.

Features

Shrink Ratio: 2:1

Operating Temperature: -55°C to + 105°C

Minimum shrink temperature: 70°C

Minimum fully recovery temperature: 100°C

Standard color: Black, White

Other colors are available on request

Ordering Information

Part No. (mm)	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length (m/spool)
	D* Min.	d* Max.)	W* (Min.)	
H-2(HF) 1.2/0.6	1.2	0.6	0.33	300
H-2(HF) 1.6/0.8	1.6	0.8	0.36	300
H-2(HF) 2.4/1.2	2.4	1.2	0.44	300
H-2(HF) 3.2/1.6	3.2	1.6	0.44	300
H-2(HF) 4.8/2.4	4.8	2.4	0.51	300
H-2(HF) 6.4/3.2	6.4	3.2	0.56	300
H-2(HF) 8.0/4.0	8.0	4.0	0.56	150
H-2(HF) 9.5/4.8	9.5	4.8	0.56	150**
H-2(HF) 12.7/6.4	12.7	6.4	0.65	150
H-2(HF) 15.9/8.0	15.9	8.0	0.69	75
H-2(HF) 19.1/9.5	19.1	9.5	0.80	75

H-2(HF) 25.4/12.7	25.4	12.7	0.90	75
H-2(HF) 31.8/15.9	31.8	15.9	1.02	30
H-2(HF) 38.1/20	38.1	20	1.02	30
H-2(HF) 50.8/25.4	50.8	25.4	1.14	30
H-2(HF) 76.2/38.1	76.2	38.1	1.27	30

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

**= Flat Shape. Oval shape is available on request

Standard colors: Black Clear {non-flame retardant}

Special colors: Other colors are available on request.

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	> 12 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Longitudinal Shrinkage	UL224	0±!5%
Eccentricity	ASTM D 2671	<30%
Heat Aging Tensile Strength Ultimate Elongation	175°C, 166 hrs	>11 MPa >200%
Flammable	WI-1	Self extinguish in 30 secs
Voltage Withstand	ASTM D 2671/AC 2500V, 1 min	No breakout
Volume Resistance	ASTM D 2671	>10 ¹⁴ Ω. cm
Copper Stability	UL224	Pass
Copper Corrosion	UL224	No corrosion



Medium Wall Heat Shrinkable Tubing with Hot Melting Adhesive HRTM



Application

HRTM is a type of medium wall heat shrinkable tubing with hot melt adhesive, having properties of excellent insulating, environmental sealing, and resistance to impact and abrasion. It is designed for sealing and protecting electrical splices, cable terminations and joints where electrical insulation and waterproofness are required. 3:1 shrink ratio allows it easily fit over irregular shape and large connectors.

Features

Resistance to UV-radiation

High electrical insulation

Superior mechanical parameter

Minimum fully recovery temperature: 120°C

Standard color: Black

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* (Min.)	d* (Max.)	W* (Min.)	(m/spool)
HRTM 12/3	12	3	1.5	1000-1500mm
HRTM16/4	16	4	1.5	1000-1500mm
HRTM 22/6	22	6	2.0	1000-1500mm
HRTM 33/8	33	8	2.0	1000-1500mm
HRTM 45/12	45	12	2.0	1000-1500mm
HRTM 55/16	55	16	2.0	1000-1500mm
HRTM 65/19	65	19	2.5	1000-1500mm
HRTM 75/22	75	22	2.7	1000-1500mm

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered
Standard colors: Black

Packaging

Standard packaging on spools
1m, 1.22m pieces are available as option
Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Parameter of jacket		
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Heat Aging Tensile Strength Ultimate Elongation	ASTM D 2671 / 150°C, 168 hrs	>12 MPa >300%
Density	ASTM D792	1.05g/cm ³
Longitudinal Shrinkage	UL224	0 to 10%
Dielectric Strength	IEC 243	≥ 18kV/mm
Volume Resistance	IEC 93	>10 ¹⁴ Ω. cm
Copper Stability	ASTM D 2671	Pass
Water Absorption	ISO 62/23°C. 14 days	<0. 15%
Parameter of adhesive		
Water Absorption	ISO 62	<0. 2%
Softening Point	ASTM E28	85±5°C
Peal Strength (PE)	DIN30672	4N/cm
Resistance to Fungus and Decay	ISO 646	Pass



Medium Wall Heat Shrinkable Tubing, Flame Retardant (Shrink ratio 5.6 :1) HFR5X



Application

HFR5X tubing is manufactured with special technology with shrink ratio as high as 5.6:1. Suitable to fit components with large size differences

Features

Standard compliance: UL 224 VW-1 125°C 600V

Standard compliance: SAE-AMS-DTL-23053/15

Standard compliance: RoHS, Sony-SS-00259

Shrink ratio: 5.6:1

Flame retardant

Resistance to common fluids and solvents

Operating temperature: -55°C to + 135°C

Minimum fully recovery temperature: 130°C

Standard color: Black

Ordering Information

Normal Part No.	As Supplied (mm)	After Being Fully Recovered (mm)	
	Inside Diameter (Min.)	Inside Diameter (Max.)	Wall Thickness
HFR5X 15/4	15	3.8	1.52
HFR5X 32/6	32	5.6	1.52
HFR5X 45/8	45	8.0	2.40
HFR5X 51/10	51	9.5	2.70

Standard colors: Black

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters:

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	16MPa
Elongation at Break	ASTM D 2671	500%
Tensile Strength after Aging (175°C/168hrs.)	ASTM D 2671	14MPa
Elongation after Aging (175°C/168hrs.)	ASTM D 2671	250%
Flammability	Self-extinguish in 30sec.	Pass
Heat Shock (250°C/4hrs.)	ASTM D 2671	No cracking
Cold Bend Test (-55°C/4hrs.)	ASTM D 2671	No cracking
Dielectric Strength	ASTM D 150	20kV/mm
Volume Resistance	ASTM D 876	14 10 Ω.cm
Copper Corrosion	UL 224	Pass
Water Absorption	ASTM D 570	0.15%
Chemical Resistance	SAE-AMS-DTL-23053/5	Pass
Longitudinal Shrinkage	UL 224	0±5%
Eccentricity	UL 224	30%



Medium Wall Heat Shrinkable Tubing with Black Sealant Mastic HRS



Application

HRS is a mastic lined heat shrinkable tubing, designed specially for protecting metal pipe's joint, soil nails and other connectors requiring environmental sealing. The radiation crosslinked jacket provides effective mechanical protection and the mastic layer provides excellent water and moisture proof.

Features

Resistance to UV-radiation

High electrical insulation

Coated with black mastic

Minimum fully recovery temperature: 120 °C

Standard color: Black

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* Min.	d* Max.)	W* (Min.)	(m/spool)
HRS 33/8	33	8	2.5	1000-1500mm
HRS 45/12	45	12	2.5	1000-1500mm
HRS 55/16	55	16	2.0	1000-1500mm
HRS 65/19	65	19	2.0	1000-1500mm
HRS 75/25	75	25	2.0	1000-1500mm
HRS 95/30	95	30	2.0	1000-1500mm
HRS 120/40	120	40	2.0	1000-1500mm
HRS 140/50	140	50	2.3	1000-1500mm
HRS160/50	160	50	2.3	1000-1500mm
HRS 180/60	180	60	2.5	1000-1500mm
HRS 205/6	205	66	2.5	1000-1500mm
HRS 235/70	235	70	2.5	1000-1500mm

HRS 265/75	265	75	3.0	1000-1500mm
HRS 300/85	300	85	3.0	1000-1500mm
HRS 350/100	350	100	3.0	1000-1220mm
HRS 380/150	380	150	3.5	500-1000mm
HRS 410/150	410	150	4.0	500-1000mm

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

Standard colors: Black

Special colors: N/A

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Parameter of jacket		
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Heat Aging Tensile Strength Ultimate Elongation	ASTM D 2671 / 150°C, 168 hrs	>12 MPa >300%
Density	ASTM D792	1.05g/cm ³
Longitudinal Shrinkage	UL224	0 to 10%
Dielectric Strength	IEC 243	≥ 18kV/mm,
Volume Resistance	IEC 93	>10 ¹⁴ Ω. cm
Copper Stability	ASTM D 2671	Pass
Water Absorption	ISO 62/23°C. 14days	<0. 15%
Parameter of adhesive		
Water Absorption	ISO 62	<0. 2%
Softening Point	ASTM E28	85±5°C
Peal Strength (PE)	DIN30672	4N/cm
Resistance to Fungus and Decay	ISO 846	Pass



Medium Wall Heat Shrinkable Tubing for CATV Network HSTV



Application

HSTV is an adhesive lined heat shrinkable tubing. It is designed specially for protecting of splices and connectors in CATV industry. The heat shrinkable jacket provides effective mechanical protection and hot melt adhesive seals against water and moisture.

Features

Minimum fully recovery temperature: 120°C

Standard color: Black

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* Min.	d* Max.)	W* (Min.)	(m/spool)
HSTV 10/3.8	10	3.8	2.0	1220mm
HSTV 19/5.6	19	5.6	2.4	1220mm
HSTV 28/9	28	9	2.4	1220mm
HSTV 33/10	33	10	2.4	1220mm
HSTV 38/12	38	12	2.4	1220mm
HSTV 45/13	45	13	2.4	1220mm
HSTV 55/19	55	19	2.4	1220mm
HSTV 70/25	70	25	2.4	1220mm

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

Standard colors: Black

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters:

Parameter	Test Method	Typical Data
Parameter of jacket		
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Heat Aging Tensile Strength Ultimate Elongation	ASTM D 2671 / 150°C, 168 hrs	>12 MPa >300%
Density	ASTM D792	1.05g/cm ³
Longitudinal Shrinkage	UL224	0 to 10%
Dielectric Strength	IEC 243	≥ 18kV/mm,
Volume Resistance	IEC 93	>10 ¹⁴ Ω. cm
Copper Stability	ASTM D 2671	Pass
Water Absorption	ISO 62/23°C. 14days	<0. 15%
Parameter of adhesive		
Water Absorption	ISO 62	<0. 2%
Softening Point	ASTM E28	85±5°C
Peal Strength (PE)	DIN30672	4N/cm
Resistance to Fungus and Decay	ISO 646	Pass



Medium Wall Heat Shrinkable Tubing with Hot Melting Adhesive, Flame Retardant HFRA2



Application

HFRA2 is made from radiation crosslinked flame retardant polyolefin and lined with hot melt adhesive. HFRA2 is specially suitable for protecting electrical splices, cable terminations and joints where flame retardance, electrical insulation and waterproofness are required.

Features

Flame retardance

Operating temperature: -55°C to 110°C

Shrink temperature: 120°C

Standard color: Black

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* Min.	d* Max.)	W* (Min.)	(m/spool)
HFRA2 22/6	22	6	2.5	1000-1500mm
HFRA2 33/8	33	8	2.5	1000-1500mm
HFRA2 40/12	40	12	2.5	1000-1500mm
HFRA2 50/16	50	16	2.7	1000-1500mm
HFRA2 65/19	65	19	2.8	1000-1500mm
HFRA2 75/22	75	22	3.0	1000-1500mm
HFRA2 95/29	95	29	3.0	1000-1500mm
HFRA2 115/34	115	34	3.0	1000-1500mm
HFRA2 140/42	140	42	3.0	1000-1500mm
HFRA2 160/50	160	50	3.0	1000-1500mm

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

Standard colors: Black

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Parameter of jacket		
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Heat Aging Tensile Strength Ultimate Elongation	ASTM D 2671 / 150°C, 168 hrs	>14 MPa >300%
Density	ASTM D792	1.05g/cm ³
Longitudinal Shrinkage	UL224	0 to 10%
Dielectric Strength	IEC 243	≥ 18kV/mm,
Volume Resistance	IEC 93	>10 ¹⁴ Ω. cm
Flammability	-	Self extinguish in 60 secs
Water Absorption	ISO 62/23°C. 14days	<0. 15%
Parameter of adhesive		
Water Absorption	ISO 62	<0. 2%
Softening Point	ASTM E28	85±5°C
Peal Strength (PE)	DIN30672	4N/cm
Resistance to Fungus and Decay	ISO 646	Pass



Heavy Wall Heat Shrinkable Tubing with Hot Melting Adhesive HRTH



Application

HRTH is a heavy wall heat shrinkable tubing with hot melt adhesive, having properties of excellent insulating, environmental sealing, and resistance to impact and abrasion. It is designed for sealing and protecting electrical splices, cable terminations and joints where electrical insulation and waterproofness are required. 3:1 shrink ratio allows it easily fit over irregular shape and large connectors.

Features

Resistance to UV-radiation

High electrical insulation

Superior mechanical parameter

Minimum fully recovery temperature: 120°C

Standard color: Black

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* Min.	d* Max.)	W* (Min.)	(m/spool)
HRTH 9/3	9	3	2.0	1000-1500mm
HRTH 15/4	15	4	2.4	1000-1500mm
HRTH 22/6	22	6	2.5	1000-1500mm
HRTH 33/8	33	8	3.2	1000-1500mm
HRTH 45/12	45	12	4.3	1000-1500mm
HRTH 55/16	55	16	4.3	1000-1500mm

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

Standard colors: Black

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Parameter of jacket		
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Heat Aging Tensile Strength Ultimate Elongation	ASTM D 2671 / 150°C, 168 hrs	>12 MPa >300%
Density	ASTM D792	1.05g/cm ³
Longitudinal Shrinkage	UL224	0 to 10%
Dielectric Strength	IEC 243	≥ 18kV/mm
Volume Resistance	IEC 93	>10 ¹⁴ Ω. cm
Copper Stability	ASTM D 2671	Pass
Water Absorption	ISO 62/23°C. 14 days	<0. 15%
Parameter of adhesive		
Water Absorption	ISO 62	<0. 2%
Softening Point	ASTM E28	85±5°C
Peal Strength (PE)	DIN30672	4N/cm
Resistance to Fungus and Decay	ISO 646	Pass



Heavy Wall Heat Shrinkable Tubing (Shrink Ratio 6:1) HRA-6X



Application

HRA-6X is ideal for application for connectors and components with extremely different diameter cables. The very high shrink ratio provides closely fit for a wide variety of irregular connector profile and configurations. HRA-6X provides excellent mechanical protection and terminations with complete environmental sealing and resistance to impact and abrasion

Features

Shrink Ratio: 6:1

Resistance to UV-radiation

High electrical insulation

Superior mechanical Parameter

Minimum fully recovery temperature: 120°C

Standard color: Black

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* (Min.)	d* (Max.)	W* (Min.)	(m/spool)
HRA-6X 19/3.2	19	3.2	3.3	1000-1220mm
HRA-6X 33/5.5	33	5.5	3.4	1000-1220mm
HRA-6X 44.4/7.4	44.4	7.4	3.6	1000-1220mm
HRA-6X 50.8/8.3	50.8	8.3	4.3	1000-1220mm
HRA-6X 69.8/11.7	69.8	11.7	4.8	1000-1220mm
HRA-6X 88.9/17.1	88.9	17.1	4.8	1000-1220mm
HRA-6X 119.4/22.9	119.4	22.9	4.8	1000-1220mm
HRA-6X 235/40	235	40	4.8	1000-1220mm

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

Standard colors: Black

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Parameter of jacket		
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Heat Aging Tensile Strength Ultimate Elongation	ASTM D 2671 / 150°C, 168 hrs	>12 MPa >300%
Density	ASTM D792	1.05g/cm ³
Longitudinal Shrinkage	UL224	0 to 10%
Dielectric Strength	IEC 243	≥ 18kV/mm,
Volume Resistance	IEC 93	>10 ¹⁴ Ω. cm
Copper Stability	ASTM D 2671	Pass
Water Absorption	ISO 62/23°C. 14days	<0. 15%
Parameter of adhesive		
Water Absorption	ISO 62	<0. 2%
Softening Point	ASTM E28	85±5°C
Peal Strength (PE)	DIN30672	4N/cm
Resistance to Fungus and Decay	ISO 646	Pass



Heavy Wall Heat Shrinkable Tubing with Hot Melting Adhesive HRA5



Application

HRA5 is semi-rigid heavy wall tubing with hot melt adhesive. Suitable for protecting electrical splices, cable terminations and joints where electrical insulation and waterproofness are required.

Features

Wall thickness up to 5.5mm

Operating temperature: -55°C to 110°C

Shrink temperature: 120°C

Standard color: Black

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length (m/spool)
	D* Min.	d* Max.)	W* (Min.)	
HRA5-35/8	35	8	4.5	1220mm
HRA5-45/12	45	12	4.5	1220mm
HRA5-55/16	55	16	4.5	1220mm
HRA5-75/22	75	22	4.5	1220mm
HRA5-95/29	95	29	4.5	1220mm
HRA5-105/30	105	30	4.5	1220mm
HRA5-115/34	115	34	4.5	1220mm
HRA5-130/36	130	36	4.5	1220mm
HRA5-140/42	140	42	4.5	1220mm
HRA5-160/50	160	50	4.5	1220mm

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

Standard colors: Black

Packaging

Standard packaging on spools
1m, 1.22m pieces are available as option
Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Operating Temperature	IEC 216	-55°C to +110°C
Tensile Strength	ASTM D 2671	≥14MPa
Elongation at Break	ASTM D 2671	≥400%
Tensile Strength after Aging (175°C/168hrs.)	ASTM D 2671	≥12MPa
Elongation after Aging (175°C/168hrs.)	ASTM D 2671	≥300%
Density	ASTM 792	1.05g/cm ³
Dielectric Strength	IEC 243	≥20kV/mm
Volume Resistance	IEC 93	≥10 Ω.cm
Eccentricity	ASTM 2671	<30%
Copper Stability	ASTM 2671	Pass
Resistance to Stress Cracking (50°C)	ASTM 1693	No cracking
Water Absorption (23°C/14days)	ISO 62	<0.15%

Thermoplastic Adhesive

Parameter	Test Method	Typical Data
Water	ISO	<0.2%
Softening	ASTM	85°C
Peel	DIN	4N/cm
Copper	ASTM	Non-corrosive
Resistance	ISO	Pass



Heavy Wall Heat Shrinkable Tubing with Hot Melting Adhesive, Flame Retardant HFRA3



Application

HFRA3 is made from radiation crosslinked polyolefin with hot melt Adhesive. Suitable for protecting electrical splices, cable terminations and joints where flame retardance and electrical insulation and waterproofness are required

Features

Flame retardance

Operating temperature: -55°C to 110°C

Shrink temperature: 120°C

Standard color: Black

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* Min.	d* Max.)	W* (Min.)	(m/spool)
HFRA 9/3	9	3	2	1000-1500mm
HFRA3 13/4	13	4	2.5	1000-1500mm
HFRA3 22/6	22	6	2.7	1000-1500mm
HFRA3 33/8	33	8	3.2	1000-1500mm
HFRA3 40/12	40	12	4.1	1000-1500mm
HFRA3 75/22	75	22	4.1	1000-1500mm
HFRA3 95/29	95	29	4.1	1000-1500mm
HFRA3 115/34	115	34	4.3	1000-1500mm
HFRA3 130/36	130	36	4.3	1000-1500mm

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

Standard colors: Black

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Parameter of jacket		
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Heat Aging Tensile Strength Ultimate Elongation	ASTM D 2671 / 150°C, 168 hrs	>14 MPa >300%
Density	ASTM D792	1.05g/cm ³
Longitudinal Shrinkage	UL224	0 to 10%
Dielectric Strength	IEC 243	≥ 18kV/mm,
Volume Resistance	IEC 93	>10 ¹⁴ Ω. cm
Copper Stability	ASTM D 2671	Pass
Water Absorption	ISO 62/23°C. 14days	<0.15%
Parameter of adhesive		
Water Absorption	ISO 62	<0.2%
Softening Point	ASTM E28	85±5°C
Peal Strength (PE)	DIN30672	4N/cm
Resistance to Fungus and Decay	ISO 646	Pass



Heavy Wall Heat Shrinkable Tubing with or without Hot Melting Adhesive HRA3/HR3



Application

HRA3 have properties of excellent insulating, environmental sealing, and resistance to impact and abrasion for application to seal and protect electrical and communication connections, providing excellent mechanical protection for cable joints and terminations, 3:1 shrink ratio allows it easily fit over irregular shape and large connectors. HRA3 is recommended to apply for light cable and wire harnesses requiring waterproofness, protection of connector components, where HRA3 seals components contained within the tubing.

Features

Resistance to UV-radiation

High electrical insulation

Superior mechanical parameter

Minimum fully recovery temperature: 120°C

Standard color: Black

Ordering Information

Part No.	As Supplied (mm)	After Being Fully Recovered (mm)		Standard Length
	D* Min.	d* Max.)	W* (Min.)	(m/spool)
HRA3 9/3	9	3	1.8	1000-1500mm
HRA3 15/4	15	4	2.4	1000-1500mm
HRA3 22/6	22	6	2.7	1000-1500mm
HRA3 33/8	33	8	3.2	1000-1500mm
HRA3 40/12	40	12	4.1	1000-1500mm
HRA3 45/12	45	12	4.1	1000-1500mm
HRA3 55/16	50	16	4.1	1000-1500mm
HRA3 75/22	75	22	4.1	1000-1500mm
HRA3 85/25	85	25	4.3	1000-1500mm
HRA3 95/30	95	30	4.3	1000-1500mm
HRA3 105/30	105	30	4.3	1000-1500mm
HRA3 115/34	115	34	4.3	1000-1500mm
HRA3 130/36	130	36	4.3	1000-1500mm

HRA3 160/50	160	50	4.3	1000-1500mm
HRA3 180/50	180	50	4.3	1000-1500mm
HRA3 200/60	200	60	4.3	1000-1500mm
HRA3 235/65	235	65	4.5	1000-1500mm
HRA3 365/75	365	75	4.5	1000-1500mm
HRA3 300/85	300	85	4.5	1000-1500mm
HRA3 350/100	350	100	4.5	1000-1500mm

D" = Inner diameter as supplied

d*= Inner diameter after being fully recovered

W*= Wall thickness after being fully recovered

Standard colors: Black

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

Special cut lengths are available upon request.

Technical Parameters

Parameter	Test Method	Typical Data
Parameter of jacket		
Tensile Strength	ASTM D 2671	> 14 MPa
Ultimate Elongation	ASTM D 2671	> 400%
Heat Aging Tensile Strength Ultimate Elongation	ASTM D 2671 / 150°C, 168 hrs	>12 MPa >300%
Density	ASTM D792	1.05g/cm ³
Longitudinal Shrinkage	UL224	0 to 10%
Dielectric Strength	IEC 243	≥ 18kV/mm,
Volume Resistance	IEC 93	>10 ¹⁴ Ω. cm
Copper Stability	ASTM D 2671	Pass
Water Absorption	ISO 62/23°C. 14days	<0.15%
Parameter of adhesive		
Water Absorption	ISO 62	<0.2%
Softening Point	ASTM E28	85±5°C
Peal Strength (PE)	DIN30672	4N/cm
Resistance to Fungus and Decay	ISO 646	Pass



3 Cores Conductive Cable Breakout HCB



Application

The cable breakout is made from radiation cross-linked conductive polyolefin. The electrically semi-conductive parameter of the breakout provides effective conductive screen and sealing protection for the cable terminations. The breakout can be used for cable terminations up to 36kV.

Features

Minimum shrink temperature: 110°C

Minimum fully recovery temperature: 130°C

Standard color: Black

Ordering Information

Part No.	D		I		Recovered Length $\pm 10\%$		Recovered Wall $\pm 20\%$	
	a * (Min.)	b* (Max)	a * (Min.)	b* (Max)	L	F	Dw	Iw
HCB 60/24	60	24	25	8	183	45	30	2.5
HCB 80/36	80	3s	35	11	215	57	4.0	40
HCB 110/48	110	50	46	17.5	250	65	4.0	4.0
HCB 125/55	125	57	55	20	260	57	4.0	4.0
HCB 140/68	140	70	62	26	280	70	4.0	4.0

a * = As Supplied

b* =after recovery

Standard colors: Black

Special colors: N/A

Packaging

Standard packaging on spools

1m, 1.22m pieces are available as option

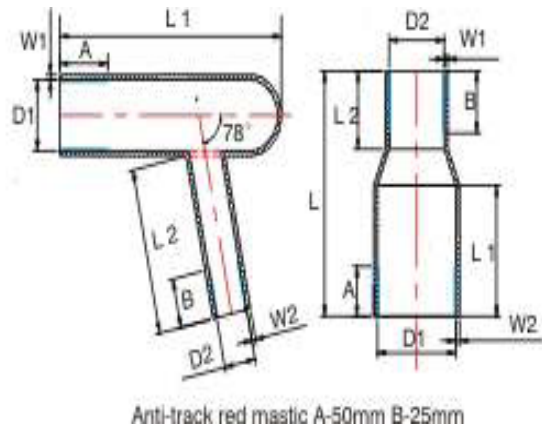
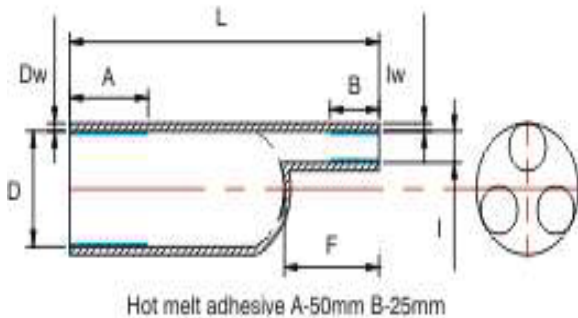
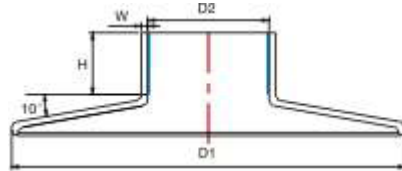
Special cut lengths are available upon request.

Technical Parameters:

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	12MPa
Tensile Strength after Aging (175°C/168hrs.)	ASTM D 2671/120°C/168hrs	10MPa
Ultimate Elongation	ASTM D 2671	≥250%
Ultimate Elongation After Terminal Ageing	ASTM D 2671/120°C/168hrs	≥200%
Water Absorption	ISO 62	≤1%
Volume Resistance	IEC 93	≥10 Ω.cm



Heat Shrinkable Medium Voltage Right /Straight Cable Boot HMR/HMB/HMR



Application

The cable boot is made from radiation cross-linked polyolefin. The specially designed formulation enables the boots exhibits excellent performance for electrically insulating, anti-tracking, UV resistance, weather proof properties and flame retardance. It can be safely used in protecting cable rated up to 36kV against flashover, or surges induced during working life in switch gear and transformer boxes

Features

Minimum shrink temperature: 110°C

Minimum fully recovery temperature: 130°C

Standard color: Red

Ordering Information

Anti-tracking rain shed - HAS

Part No.	D1		D1(Nom)	H (Min) F	W (±10%)
	a* (Min.)	b* (±10%)			
HAS 35//12	35	12	95	18	3
HAS 48/20	48	20	120	21	3
HAS 60/20	60	20	120	21	3
HAS 60/30	60	30	140	25	3
HAS 75/30	75	30	140	25	3
HAS 100/35	100	35	140	35	3
HAS 120/45	120	45	200	35	3

a * = As Supplied

b* =after recovery

MV 3 cores cable Breakout-HMB

Part No.	D		I		Recovered Length ±10%		Recovered Wall ±20%	
	a* (Min.)	b* (Max)	a* (Min.)	b* (Max)	L	F	Dw	lw
HMB 60/24	60	24	25	8	183	45	30	2.5
HMB 80/35	80	38	35	11	215	57	4.0	40
HMB 10/46	110	50	46	17.5	250	65	4.0	4.0
HMB 125/55	125	57	55	20	260	57	4.0	4.0
HMB 140/62	140	70	62	26	280	70	4.0	4.0

a * = As Supplied

b* =after recovery



MV right/ Straight Cable about HMR

	Part No.	As Supplied				After Being Fully Recovered				
		D1 (Min.)	D2 (Min.)	D1 (Max.)	D2 (Max.)	L1 (Nom)	L2 (±10%)	L (±10%)	W1 (±10%)	W2 (±10%)
Right Angle	HMR 110 (80/36- 35/18)	80	35	36	18	170	125	/	4.2	3.5
	HMR 120 (80/36- 50/18)	80	50	36	18	170	125	/	3.8	3.5
	HMR 130 (80/36- 50/27)	80	50	36	27	160	140	/	3.8	3.5
	HMR 140 (95/38- 70/28)	95	70	38	28	160	140	/	4.2	4.8
	HMR 150 (145/72- 68/34)	145	68	72	34	215	140	/	4.0	4.0
Straight	HMR 160 (80/35- 34/20)	80	34	35	20	145	30	220	3.2	3.2
	HMR 170 (80/35- 58/20)	80	58	35	20	145	30	220	3.2	3.2
	HMR 180 (140/65- 90/33)	140	90	65	33	155	45	320	4.0	4.0

Packaging

Standard packaging on bags.

Technical Parameters

Anti-tracking Rain Shed - HAS		
Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	13MPa
Ultimate Elongation	ASTM D 2671	≥400%
Tensile Strength after Aging (175°C/168hrs.)	ASTM D 2671/120°C/168hrs	10.4 MPa
Ultimate Elongation After Terminal Ageing	ASTM D 2671/120°C/168hrs	≥350%
Dielectric Strength	ASTM D 2671/3.75kv 1hr	≥15KV/mm
Tracking Resistance	ASTM 2303	Pass
Electric Constant	IEC250	≥3.0

Volume Resistance	IEC 93	$\geq 10 \Omega \cdot \text{cm}$
Flammability (Oxygen Index)	ISO4589	≥ 25
Copper Corrosion	ASTM D 2671/120°C/168hrs	No Corrosion
Cold Bend	ASTM D 2671/-40°C/4hrs	No Cracking
MV 3 Cores Cable Breakout - HMB		
Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	8Pa
Ultimate Elongation	ASTM D 2671	$\geq 300\%$
Tensile Strength after Aging (175°C/168hrs.)	ASTM D 2671/120°C/168hrs	7 MPa
Ultimate Elongation After Terminal	ASTM D 2671/120°C/168hrs	$\geq 200\%$
Dielectric Strength	ASTM D 2671/3.75kv 1hr	$\geq 20\text{KV/mm}$
Water Absorption	ISO 62	$\leq 1\%$
Volume Resistance	IEC 93	$\geq 10 \Omega \cdot \text{cm}$
Flammability (Oxygen Index)	ISO4589	≥ 25
Cold Bend	ASTM D 2671/-40°C/4hrs	No Cracking
MV Right/ Straight Cable - HMR		
Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	12MPa
Ultimate Elongation	ASTM D 2671	$\geq 300\%$
Tensile Strength after Aging (175°C/168hrs.)	ASTM D 2671/120°C/168hrs	8.5 MPa
Ultimate Elongation After Terminal	ASTM D 2671/120°C/168hrs	$\geq 200\%$
Dielectric Strength	ASTM D 2671/3.75kv 1hr	$\geq 15\text{KV/mm}$
Tracking Resistance	ASTM 2303	Pass
Water Absorption	ISO 62	$\leq 1\%$
Volume Resistance	IEC 93	$\geq 10 \Omega \cdot \text{cm}$
Flammability (Oxygen Index)	ISO4589	≥ 25
Copper Corrosion	ASTM D 2671/120°C/168hrs	No Corrosion
Cold Bend	ASTM D 2671/-40°C/4hrs	No Cracking



Low Voltage 2-5 cores Cable Breakout HLB



Application

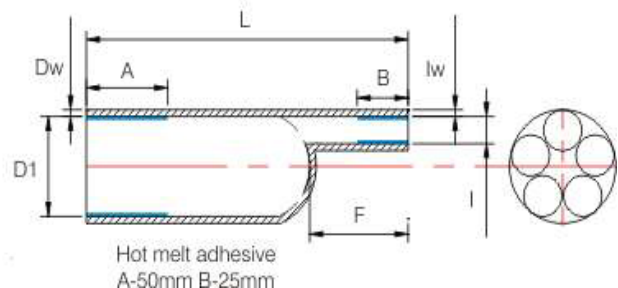
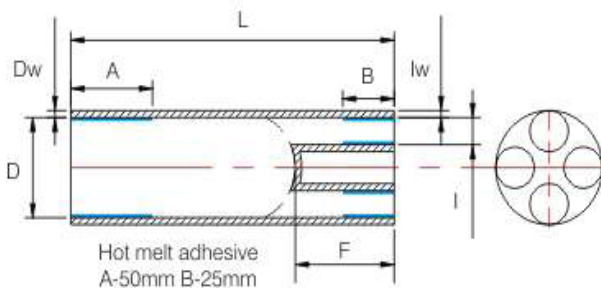
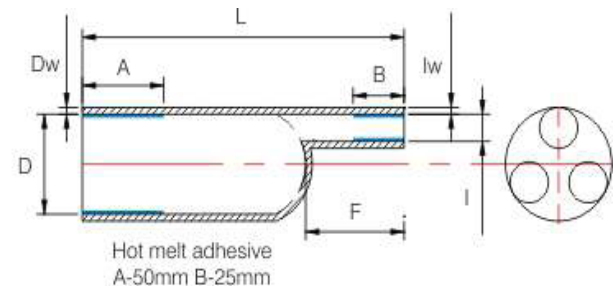
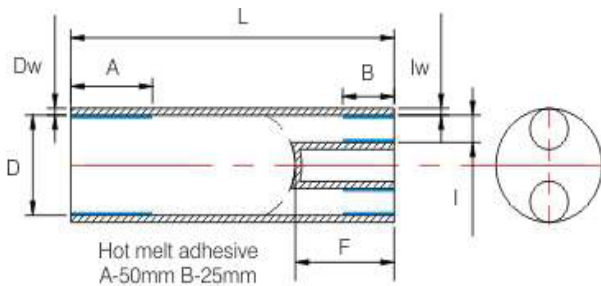
HLB is made from radiation cross-linked polyolefin and suitable for application up to 1kV. The properties of electrically insulating, UV resistance and waterproof properties make HLB widely used in electric power industry to provide insulation and sealing over the crutch of multi-core cables.

Features

Minimum shrink temperature: 110°C

Minimum fully shrink temperature: 130°C

Standard color: Black



Ordering Information

Part No.	D		I		Recovered Length $\pm 10\%$		Recovered Wall $\pm 20\%$	
	a* (Min.)	b* (Max)	a* (Min.)	b* (Max)	L	F	Dw	lw
2 Cores Cable Breakout								
HLB 205-22/8	22	8	9	3.5	55	18	2.2	1.8

HLB 210-30/12	30	12	14	4.5	93	23	2.6	2.2
HLB 215-40/16	40	16	15	5	125	35	2.1	2.1
HLB 220-60/23	60	23	25	7.5	118	29	2.6	2.6
HLB 220L-60/23	60	23	25	7.5	155	45	2.6	2.6
HLB 230-100/42	100	42	30	9	155	55	3.1	3.1
HLB 240-150/75	150	75	20	6	170	64	3.8	3.8
3 Cores Cable Breakout								
HLB 310-38/16	38	16	14	4.5	98	23	2.7	2.7
HLB 320-60/24	60	24	25	8	165	50	3.0	2.5
HLB 330-80/36	80	36	35	11	185	55	3.5	3.5
HLB 340-110/48	110	50	46	17.5	250	65	4.0	4.0
HLB 350- 125/57	125	57	55	20	260	75	4.0	4.0
HLB 360-140/70	140	70	62	26	280	75	4.0	4.0
HLB 370-170/77	170	77	75	28	280	80	4.0	4.0
HLB 310L-38/16	38	16	15	4.5	125	35	2.1	2.1
HLB 320L-60/24	60	24	25	8	180	45	3.2	2.8
HLB 330L-80/36	80	36	35	11	215	57	4.0	4.0
4 Cores Cable Breakout								
HLB 410-40/15	40	15	14	3.5	105	26	2.2	2.0
HLB 420-55/21	55	21	20	5	150	40	3.1	2.6
HLB 425-62/26	62	26	26	7	175	45	3.3	2.9
HLB 430-75/26	75	26	28	7	175	45	3.3	2.9
HLB 440-82/37	82	37	30	9	190	60	4.0	3.0
HLB 445-90/37	90	37	32	9	190	60	4.0	3.0



HLB 450-100/47	100	47	38	12	198	58	4.0	3.0
HLB 460-125/52	125	52	52	15	240	75	4.0	4.0
HLB 470-160/70	160	70	64	19	260	75	4.0	4.0
5 Cores Cable Breakout								
HLB 510-40/19	40	19	13	4	98	25	2.5	2.0
HLB 520-55/24	55	24	18	5	155	40	3.2	2.6
HLB 530-80/33	80	33	36	8	175	53	3.0	2.8
HLB 540-100/42	100	42	34	10	190	60	3.0	3.0

a * = As Supplied

b* =after recovery

Standard colors: Black

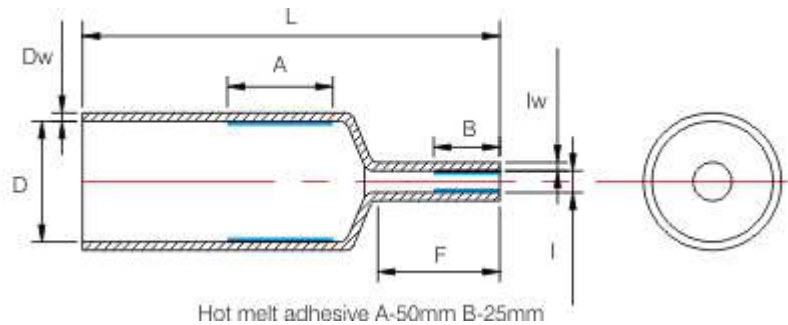
Packaging

Standard packaging on bags.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	13Pa
Ultimate Elongation	ASTM D 2671	≥300%
Tensile Strength after Aging (175°C/168hrs.)	ASTM D 2671/120°C/168hrs	10MPa
Ultimate Elongation After Terminal Ageing	ASTM D 2671/120°C/168hrs	≥250%
Dielectric strength	ASTM D 2671/3.75kv 1hr	≥15KV/mm
Water Absorption	ISO 62	≤1%
Volume Resistance	IEC 93	≥10 Ω.cm

Heat Shrinkable Cable Feed Throughs HCFT



Application

HCFT is made from radiation cross-linked polyolefin, suitable for application in moisture and pressure proof sealing of plastic and metal part. The specially designed structure make HCFT suitable for sealing vacant cable duct and protecting pipes.

Features

Suitable for pressure up to 1 bar
Resistance against chemical and UV
Easy to install
Minimum fully shrink temperature: 110°C

Ordering Information

Part No.	D		I		Recovered Length $\pm 10\%$		Recovered Wall $\pm 20\%$	
	a* (Min.)	b* (Max)	a* (Min.)	b* (Max)	L	F	Dw	Iw
HCFT110(85/42-15/5)	85	42	15	5	130	45	2.5	2.8
HCFT120(60/30-45/10)	60	30	45	10	130	45	2.5	4.5
HCFT130(100/52-20/8)	100	52	20	8	150	65	3.0	3.0
HCFT130L(100/50-20/8)	100	50	20	8	210	70	3.0	3.0
HCFT135(150/92-14/5)	150	92	14	5	150	55	3.5	3.5
HCFT140(160/92-60/20)	160	92	60	20	150	50	3.2	3.0
HCFT150(160/92-100/45)	160	92	100	45	150	50	3.5	3.5

a * = As supplied

b* =After being fully Recovered

Standard colors: Black



Packaging

Standard packaging on bags.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	13Pa
Ultimate Elongation	ASTM D 2671	≥300%
Tensile Strength after Aging (175°C/168hrs.)	ASTM D 2671/120°C/168hrs	10MPa
Ultimate Elongation After Terminal Ageing	ASTM D 2671/120°C/168hrs	≥250%
Dielectric Strength	ASTM D 2671/3.75kv 1hr	≥15KV/mm
Water Absorption	ISO 62	≤1%
Volume Resistance	IEC 93	≥10 Ω.cm

Conductive Cable End Caps with Conductive Mastic HSEC/HCEC



Application

HCEC offers an economical means of sealing the end of power cable with a perfect watertight seal. The internal surface of the end cap has a layer of spiral coated hot melt adhesive, which retains its flexible properties after recovery. HSEC is recommended for power distribution cables with PVC, lead or XLPE sheaths both in open air and underground.

Features

Effectively offering protection against oxidation, ozone, UV-radiation etc.
Coated with conductive mastic to ensure environment seal
Easily fit into the cable end
Minimum fully shrink temperature: 120°C

Ordering Information

Part No.	As Supplied(mm)		After Being Fully Recovered (mm)		
	D*(Min.)	A*(±10%)	d*(Max.)	L*(±10%)	W*(±10%)
Cable end cap-HSEC Standard Length					
HSEC 105-12/4	12	15	4	40	2.6
HSEC 110-14/5	14	18	5	45	2.2
HSEC 115-20/6	20	25	6	55	2.8
HSEC 120-25/8.6	25	30	8.6	68	2.8
HSEC 130-35/16	35	35	16	83	3.3
HSEC 135-40/16	40	35	16	90	3.5
HSEC 140-55/26	55	50	26	103	4.0
HSEC 150-75/36	75	55	36	120	4.0
HSEC 160-100/52	100	70	52	140	4.0
HSEC 170-120/60	120	70	60	150	4.0
HSEC 180-145/60	145	70	60	150	4.0
HSEC 190-160/82	160	70	82	150	4.0



Cable end cap-HSEC-L Extended Length					
HSEC 110L-14/5	14	30	5	55	2.2
HSEC 130L 40/15	40	40	15	90	3.3
HSEC 135L-42/15	42	40	15	110	3.3
HSEC 140L-55/23	55	70	23	140	3.8
HSEC 145L-62/23	62	70	23	140	3.8
HSEC 150L-75/36	75	70	36	150	4.0
HSEC 150XL-75/36	75	70	36	170	4.2
HSEC 160L-100/47	100	65	47	165	4.0
Conductor Cable cap-HCEC Standard Length					
HCEC 120-25/8.5	25	30	8.5	68	2.8
HCEC 130-42/15	42	40	15	110	3.3
HCEC 140-55/23	55	70	23	140	3.8
HCEC 145-62/23	62	70	23	140	3.8
HCEC 150-75/32	75	65	32	150	4.0
HCEC 150L-75/36	72	70	36	170	4.2
HCEC 160-105/45	105	65	45	150	4.0

D*=Inner diameter as supplied

d * = Inner diameter after being fully recovered

W*=Wall thickness after being fully recovered

A*=Length of adhesive

L*= Length of end cable

Standard colors: Black

Packaging

Standard packaging on bags.

Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	11Pa
Ultimate Elongation	ASTM D 2671	≥400%
Tensile Strength after Aging (175°C/168hrs.)	ASTM D 2671/120°C/168hrs	10MPa
Ultimate Elongation After Terminal Ageing	ASTM D 2671/120°C/168hrs	≥300%
Dielectric strength	ASTM D 2671/3.75kv 1hr	≥15KV/mm
Density	ASTM 792	1.05g/cm ³
Volume Resistance	IEC 93	≥10 Ω.cm

Heat Shrinkable Insulation Tape HBIT



Application

HBIT is made from radiation cross-linked polyolefin. The dual layer structure of insulation / hot melt adhesive effectively provides electric insulation and shock protection to busbar up to 24kV. Widely used to protect irregular shape busbar or connectors where tube products cannot be applied.

Standard

BS EN 60454-1

Features

Very flexible and easy installation

Meltable inner layer

Easily remove the tape upon inspection

Shrink ratio: 30%

Operating Temperature: -55°C to + 105°C

Minimum fully shrink temperature: 100°C

Standard color: Red

Product Ordering Information

Part No.	As Supplied(mm)	After Being Fully Recovered (mm)	Standard Length
	Width of Tape (Nom.)	Wall Thickness (min.)	
HBIT-25	25	1.0 ± 0.1	5m or 10m
HBIT-50	50	1.0 ± 0.1	5m or 10m
HBIT-100	100	1.0 ± 0.1	5m or 10m



Technical Parameters

Parameter	Test Method	Typical Data
Tensile Strength	ASTM D 2671	$\geq 11.8\text{MPa}$
Ultimate Elongation	ASTM D 2671	$\geq 550\%$
Heat Aging Tensile Strength Ultimate Elongation	120°C/168hrs	$> 10\text{MPa}$ $> 450\%$
Dielectric strength	IEC243	$\geq 20\text{KV/mm}$
Volume Resistance	IEC 93	$\geq 10 \Omega.\text{cm}$
Delectric Constant	IEC250	≤ 35
Copper Corrosion	ASTM D 2671/120°C/168hrs	No Corrosion
Water Absorption	ISO 62/23°C, 14 days	$\leq 0.5\%$
Flammability	ASTM D 2671	Self Extinguish in 60secs

Medium Voltage Line Cover (1-35KV) MLC



Application

This cover is a core applied wraparound cover that provides retrofit insulation for overhead conductors to help prevent electrical outages caused by incidental contact from tree branches or wildlife. The cover may be applied selectively on problem spans to avoid costly conductor replacement. Installation is possible on energized lines utilizing the tool which attaches directly to the overhead conductor and remains stationary in a single location. The tool may be manually or automatically operated, using a gasoline power. The tool forms, closes and feeds the cover along the conductor with speed and consistency. The hand tool allows for quick installation on short lengths of conductors, especially in substations.

Ordering Information

Part No	Product I.D(mm)	Suitable Conductor O.D(mm)	Suitable conductor Section(mm ²)
MLC-11.5	11.50	8.5-10	35-50
MLC-15	15.00	12-13.5	95-70
MLC-18	18.50	15-17	150-120
MLC-23	23.00	18.5-21	240-185
MLC-25	25.00	23	300
MLC-29	29.00	26	400



Self-fusing Rubber Splicing Tape (EPR or PIB) RC



Application:

Self-fusing Rubber Splicing Tape is a high flexible electrical insulation, which is made from ethylene propylene rubber PIB & EPR. The tape can also be supplied as a cone of wrap package for electric power cable rated under 35KV.

RC-A specification

Part No.	Width	Length	Thickness
RC-A-19	19mm	5.0M, 9.1M	0.76mm
RC-A-25	25mm		
RC-A-38	38mm		
RC-A-50	50mm		

RC-B specification

Part No.	Width	Length	Thickness
RC-B-19	19mm	3M, 5M, 9.1, 10M	0.5mm
RC-B-25	25mm		
RC-B-38	38mm		
RC-B-50	50mm		

RC-C specification

Part No.	Width	Length	Thickness
RC-C-19	19mm	3M, 5M, 9.1M, 10M	0.76mm
RC-C-25	25mm		
RC-C-38	38mm		
RC-C-50	50mm		



Standard Resin for Application up to 10KV RCGA



Features

For paper- and polymeric-insulated cables up to 10KV

Telephone and signal cables

The cast resin joints correspond to DIN DIN VDE 0278 and can be used on all polymeric- and paper-insulated cables

Hydrolysis-resistant PUR-cast resin type GA, in a two-chamber mixing bag

Resistance against UV-rays, chemical and alkaline earth

Halogen-free

No risk of stress cracking

Soft-elastic

Low hardening temperature

No toxic emission

High adherence to all cable materials

Storage temperatures between +10 and +35°C

Hardening under water influence

Permanent temperature resistance up to +140°C according to IEC 216

Standard

BS 7933-1, DIN VDE 0278-631

Ordering Information

Part No.	Contents (ml)	Gross Weight (kg)
RCGA 100	100	0,210
RCGA 170	170	0,310
RCGA 360	360	0,620
RCGA 470	470	0,780
RCGA 800	800	1,220
RCGA 1200	1200	1,900
RCGA 1800	1800	2,730

RCGA 2100	2100	3,110
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Packed in tins (resin in tin with practical ripping top)

Part No.	Contents ml	Gross Weight kg
RCGA/T 800	800	1,320
RCGA/T 1200	1200	2,010
RCGA/T 1800	1800	2,890
RCGA/T 2100	2100	3,290



Cast Resin for Increased Requirements with Regard to Flammability RCGB



Features

Telephone and signal cables

The cast resin joints correspond to DIN VDE 0278 and can be used on all polymeric- and paper-insulated cables

Resistance against UV-rays, chemical and alkaline earth

Halogen-free

No risk of stress cracking

Soft-elastic

Low hardening temperature

No toxic emission

High adherence to all cable materials

Storage temperatures between +10 and +35°C

Burning reaction according to UL94, criteria point V0

Standard

BS 7933-1, DIN VDE 0278-631

Ordering Information

Part No.	Contents ml	Gross Weight kg
RCGB 100	100	0,220
RCGB 170	170	0,20
RCGB 360	360	0,630
RCGB 470	470	0,810
RCGB 800	800	1,280
RCGB 1200	1200	1,970
RCGB 1800	1800	2,800
RCGB 2100	2100	3,200

Packed in tins (resin in tin with practical ripping top)

Part No.	Contents ml	Gross Weight kg
RCGB/T 800	800	1,330
RCGB/T 1200	1200	2,070
RCGB/T 1800	1800	2,970
RCGB/T 2100	2100	3,370

Removable Resin Suitable for Low Voltage and Telecommunication Application RCGW



Application

RCGW is a cold-hardening, non-toxic 2-components-cast resin of the newest generation suitable for use in cable accessories up to 1 kV.

Features

- For polymeric-insulated low voltage cables
- Telephone and signal cables
- The cast resin joints correspond to DIN VDE 0278-623 S1
- Insensitive against variation in temperature
- Resistance against UV-rays, chemical and alkaline earth
- Halogen-free
- No risk of stress cracking
- Soft-elastic
- Low hardening temperature
- No toxic emission
- Storage temperatures between +10 and +35°C
- Excellent hydrolytic stability
- Accessories can be opened again
- For opening, no pre-warming necessary
- Storage time 24 month
- Environmental-friendly by high proportion of re-growing raw-materials
- Continuous humidity protection
- Good corrosion resistance
- Low shrinking loss when hardening
- Continuous temperature stability up to +120°C

Standard

BS 7933-1, DIN VDE 0278-623, S1

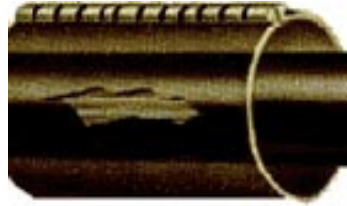
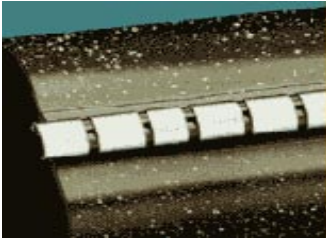
Ordering Information

Part No.	Contents(ml)	Gross Weight (kg)
RCGW 100	100	0,210
RCGW 170	170	0,310
RCGW 360	360	0,620
RCGW 470	470	0,780
RCGW 800	800	1,220
RCGW 1200	1200	1,900
RCGW 1800	1800	2,750
RCGW 2100	2100	3,130

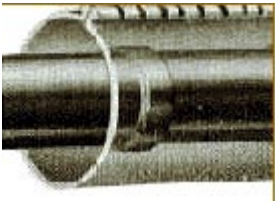


Cable Repair & Enclosure Kits

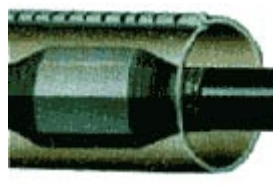
RWRMT



Repair of Damaged Cables



Corrosion Protection for Pipes



Insulation of Cable Joints

Application

- Repairing of cables up to 1KV without cutting the cable
- Insulation of cable joints in tight areas
- Repair and protect un-pressurized pipes
- Permit re-entering a joint for repair or add on connections with minimum disruption.

Features

Tested to conformance of: IEC, ASTM and MIL-SPEC

High resistance to ultra-violet rays, fungus, copper and chemical corrosion.

High shrink ratio of approximately 3.5 to 4:1 (depending on size)

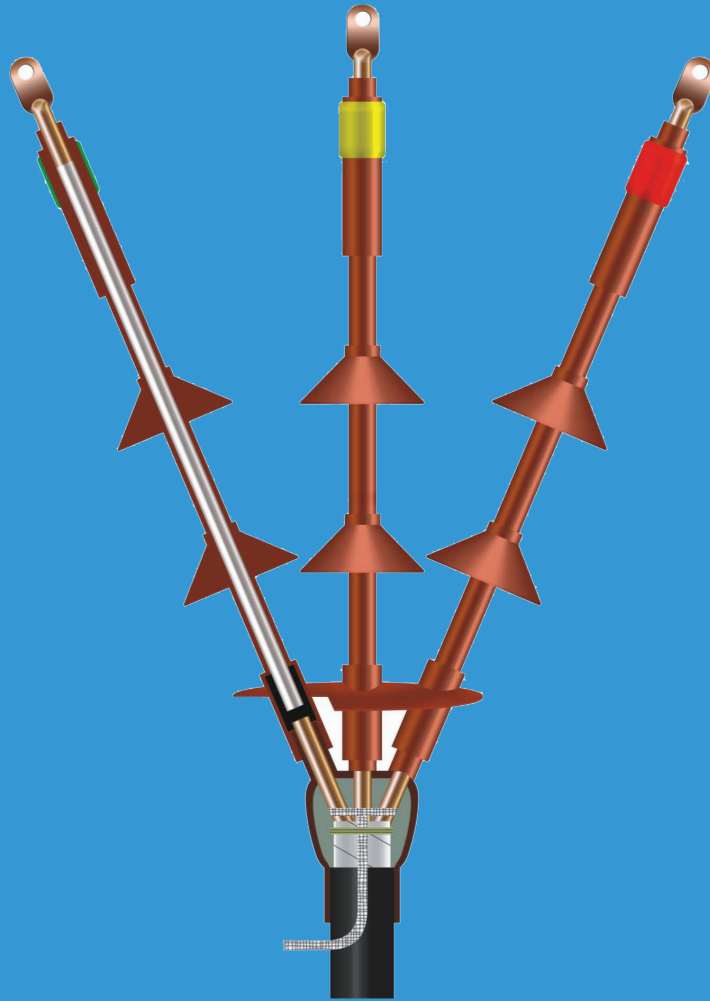
Longitudinal change at max 10 percent

Dielectric Strength of 12KV/mm

Hot melt adhesive in wrap around tube provides excellent waterproofness and environmental sealing properties.

Ordering Information

Part No.	Diameter (mm)	Length (mm)
RWRMT 50/10	50 mm -10 mm	250/500/750/1000
RWRMT 75/22	75 mm-22 mm	250/500/750/1000
RWRMT 100/30	100 mm -30 mm	250/500/750/1000
RWRMT 140/38	140 mm-38 mm	250/500/750/1000
RWRMT 155/55	155 mm-55 mm	250/500/750/1000



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