

Hongshang

Energy Products

Low and Medium Voltage
Cable Accessories Product Catalogue
2010-2011

Hongshang

Specialist in heat shrinkable technology
and manufacture

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Hongshang

Company Presentation

Hongshang Heat Shrinkable Materials Co., LTD. is one of the few enterprises in China that can provide a full range of business solutions from design, development, production and service about cable accessories for the energy and electricity enterprises.

Established in 1994 Hongshang is a national High-Tech award winning enterprise, with accredited ISO9001:2000 quality management system, member of Chinese Isotope and Radiation Profession Association. Our products cover the whole range of heat and cold shrinkable cable accessories, cast resin cable accessories and many other application specific designs which are used widely used in electronics, telecommunications, automotive, military and other industries. Our complete product range complies with the strict regulation of the EU; RoHS. As environmental regulations are a day to day issue, we do our best to meet latest requirements and standards. Please visit our web site to get a copy of our REACH declaration. www.hongshang.com

With high-quality products and services, we have established close business relationship with many world-renowned enterprises. Our products are exported to more than 60 countries and regions. **Hongshang** brand has become the symbol of high-quality within the heat shrink and cable accessories markets.



Hongshang invests substantially each year in new product research and development, and has built the Hongshang Research and Development Center for radiation modified polymer materials. Led by, a doctoral tutor who won the State Council special allowance and was one of the highest ranking researchers at the Chinese Academy of Sciences. The department has more than 60 people including a number of senior engineers, doctors and masters. The 2000m² R&D center includes polymer material mechanics, chemistry, thermal analysis and electrical testing laboratories, medium voltage cable accessories laboratories and pilot workshop. As a result, we have systemic research and development capabilities from materials development, product structure design, product performance analysis to new products trial production.

In 2008, we have moved to our newly built factory located in a high-tech industrial park that has a total floor space of 63000 m². This new factory facilitates the complete the production line from raw materials, compounding, extrusion, radiation crosslinking and expansion to packaging.

Our vision is to constantly grow and improve, both our technology and business through reliable quality which is controlled every step of the way, and by creating long lasting partnerships with both customers and suppliers.



Our Technology

Compounding

With strong background of research and development radiation modified polymer materials, we ourselves are producing and developing varieties of chemical formulations for different heat shrinkable products. Advanced equipped mixing facilities ensure the fine dispersion of components in each formulation and the homogeneously physical, electrical and chemical properties on final products.

Extrusion

To obtain the products with stable and homogeneous dimensions, we equipped with 30 advanced extrusion line in which many key parts were improved by technology from foreign countries. The co-extrusion technology makes it possible for us to manufacture polyolefin/hot melt adhesive dual wall and insulation / conductive multi-layers tubing.

Radiation Crosslinking

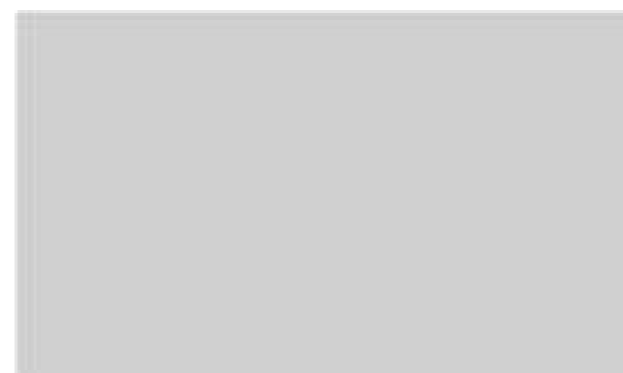
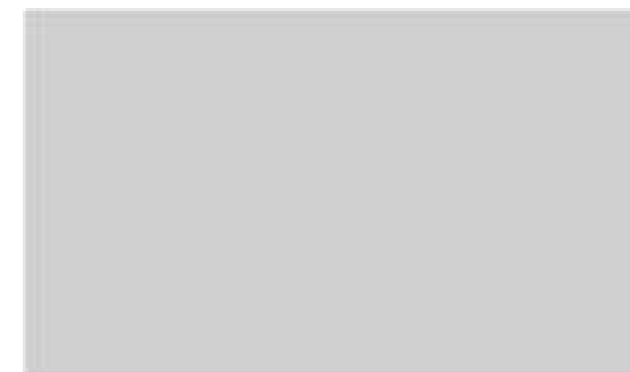
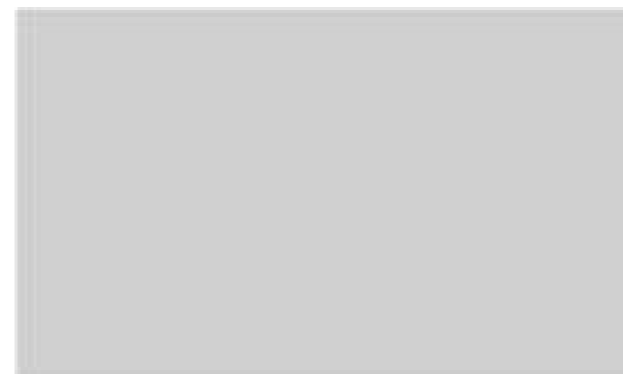
3 sets of powerful electronic accelerator were installed in our company. The specially designed advanced under beam facilities can be easily adjusted to meet the requirements of different size and shaped products and ensure the homogeneous crosslinking of products.

Expansion

Expansion is a very important and key process to obtain the final forms and dimensions of heat shrinkable products. With the equipments and technology from Europe, we can accurately control the dimensions, longitudinal changes and eccentricity of the final products.

R & D Center

In accordance with the requirement of UL 224, Sony-SS-00259, RoHS compliance, and IEC, we equipped more than 30 sets of instruments and facilities for R & D purpose by which we can test mechanical, thermal, electrical, chemical, flammable and fluid resistant performances of polymeric products. To meet the special requirement of power cable accessories products, we also have a high voltage laboratory to test high voltage performance of the power cable kits.



Testing Equipment and Facilities

Chemical Test Labs:

- Gel/sol content test
- Harmful heavy metal content test
- Oxygen Index test
- Aging property test
- Corrosion test
- Fluid resistance test
- Water absorption test
- Atomic absorption spectrophotometer test

Physical Test Labs:

- Tensile strength test
- Ultimate elongation test
- Secant modulus test
- Melting/crystallization temperature test
- Hardness test
- Melt flow rate test
- Density test
- Decomposition temperature test
- Cold bend test (up to -45℃)
- Ring-ball softening point test
- Melt viscosity test
- Rheology test

Electric Labs:

- AC voltage withstand test (up to 150kV)
- DC voltage withstand test (up to 100kV)
- Leakage current test
- Partial discharge test
- Lightening impulse test
- Electric heat cycle test
- Dielectric constant test
- Volume resistance test
- Anti-tracking index test



Product Catalog



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Repair Sleeve 11



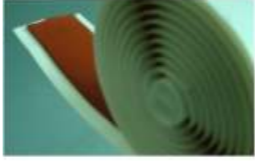
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Heat Shrinkable Cable Accessories

$U_0/U (U_m)$ 0.6/1.0 (1.2)kV



Heat Shrinkable LV Accessories

Low Voltage Heat Shrinkable Joints & Terminations

Heat Shrink Technology



Heat shrinkable joints and terminations for cables with XLPE, PVC, EPR, and MI/MIND Paper insulation; NYY, NAYY, CYKY, NYCY, NAYCWY, NYCWY, SZAMtKAtM, SZRMtKVM-J $U_0/U (U_m)$ (kV) 0.6/1 (1.2kV)

Heat shrinkable technology is one of the world's most simple and cost effective jointing system. When connecting 1kV power cables, Hongshang heat shrink tubing will insulate a variety of cables with XLPE, PVC, and MI/MIND paper insulation. All Hongshang kits are designed to be compact and range taking resulting in lower cost and reduced stock quantities. Hongshang's advanced polymer technology ensures high performing standards of both tubing and the adhesive. Performance and long term reliability are guaranteed, with excellent weathering resistance.



Hongshang kits have passed all tests according to EN50393 (CENELEC 623 - S1:1996). Additional impulse voltage test were performed further to regular testing. All samples passed additional testing as well.

Heat Shrinkable LV Accessories

Low Voltage Heat Shrinkable Joints & Terminations

Technical performance



The outer protective tubing covering the whole joint , is a heavy walled and adhesive lined tube which provides sufficient mechanical protection and a water and environmental seal on the cable oversheath. Cables with concentric neutral or SWA/AWA armor are sealed with heavy wall outer protective tubing to provide an even tougher mechanical protection.

Various kit designs can accommodate several commonly used cable types with different connectors, crimp or mechanical. Heavy wall adhesive lined tubing protect connectors. Perfect environmental and electrical



Installation of HLJV-4-A-M-D

Kits come complete with metal components. Upon request connectors and lugs are also provided in the kit content.

Heat Shrinkable LV Accessories

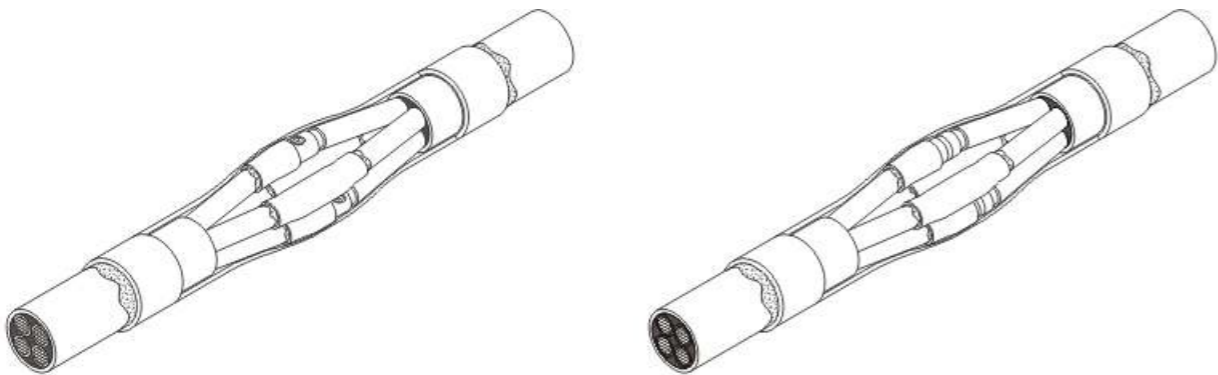
Low Voltage Heat Shrinkable Joints & Terminations

Performance of Hongshang heat shrinkable cable accessories when tested according to EN 50393 (VDE 0278)

Test sequence	Item	Requirements acc to EN50393	Results	Remarks EN50393
1	Impulse withstand voltage test	No breakdown shall occur at 10 positive and 10 negative impulses of 20kV	No breakdown 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)	≥50MΩ	≥50MΩ	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 (immersed in the water of with a height of 1000mm)	Heat the conductor to 95℃-100℃, 60times in the water, No breakdown	Heat the conductor to 95℃-100℃, 60times in the water, No breakdown	PASS
7	AC withstand voltage test (immersed in the water of with a height of 1000mm)	4kV, 1min No breakdown	4kV, 1min No breakdown	PASS
8	Insulation resistance (in air and ambient temperature)	≥50MΩ	≥50MΩ	PASS

Heat Shrinkable LV Accessories

Low Voltage Heat Shrinkable Joints



Application range:

Straight joints for unarmored plastic insulated cables, with mechanical connectors.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Connector type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVJ-4-	1.5-10	A	UA	M
	HLVJ-4-	6-25	B	UA	M
	HLVJ-4-	35-70	C	UA	M
	HLVJ-4-	50-120	D	UA	M
	HLVJ-4-	120-300	E	UA	M

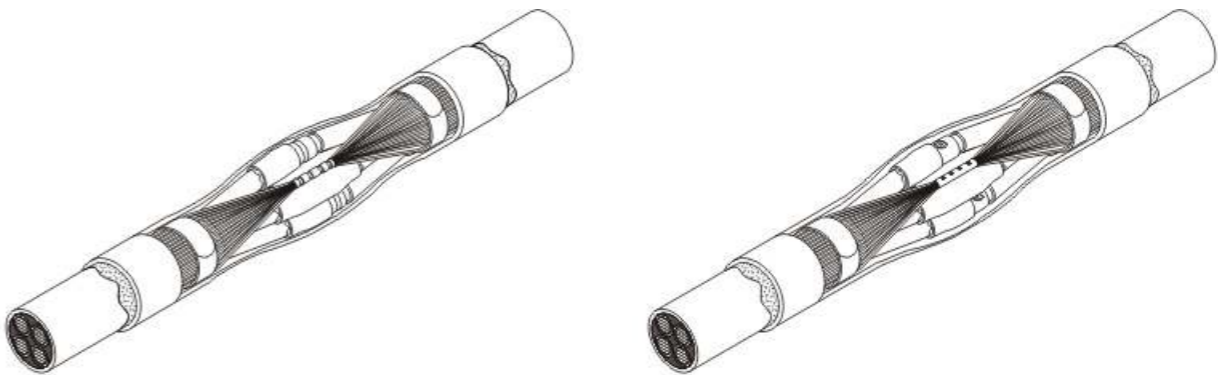
Straight joints for unarmored plastic insulated cables, with crimp connectors.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Connector type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVJ-4-	1.5-10	A	UA	C
	HLVJ-4-	6-25	B	UA	C
	HLVJ-4-	16-50	C	UA	C
	HLVJ-4-	70-120	D	UA	C
	HLVJ-4-	150-300	E	UA	C
	HLVJ-4-				

Example: Kit part number: HLVJ 4A-UA-M
Where: 4-number of cable cores; A-size ref.; UA-unarmoured cable; M-mechanical connectors.
No connectors supplied unless specified.

Heat Shrinkable LV Accessories

Low Voltage Heat Shrinkable Joints



Application range:

Straight joints for plastic insulated cables with concentric neutral, with mechanical connectors.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Connector type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVJ-4-	10-35	A	CN	M
	HLVJ-4-	25-70	B	CN	M
	HLVJ-4-	70-120	C	CN	M
	HLVJ-4-	150-240	D	CN	M

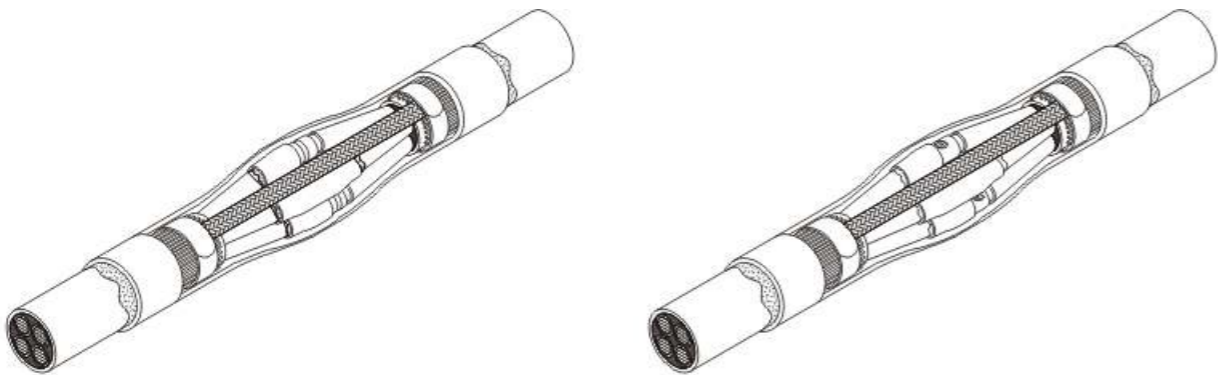
Straight joints for plastic insulated cables with concentric neutral, with crimp connectors.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Connector type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVJ-4-	10-16	A	CN	C
	HLVJ-4-	25-50	B	CN	C
	HLVJ-4-	70-150	C	CN	C
	HLVJ-4-	185-300	D	CN	C

Example: Kit part number: HLVJ 4A-CN-M
Where: 4-number of cable cores; A-size ref.; CN-concentric neutral cable; M-mechanical connectors.
No connectors supplied unless specified.

Heat Shrinkable LV Accessories

Low Voltage Heat Shrinkable Joints



Application range:

Straight joints for plastic insulated cables with SWA/AWA, with mechanical connectors.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Connector type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVJ-4-	1.5-35	A	A	M
	HLVJ-4-	25-70	B	A	M
	HLVJ-4-	50-150	C	A	M
	HLVJ-4-	120-300	D	A	M

Straight joints for plastic insulated cables with SWA/AWA, with crimp connectors.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Connector type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVJ-4-	1.5-4	A	A	C
	HLVJ-4-	6-16	B	A	C
	HLVJ-4-	25-50	C	A	C
	HLVJ-4-	70-150	D	A	C
	HLVJ-4-	185-300	E	A	C

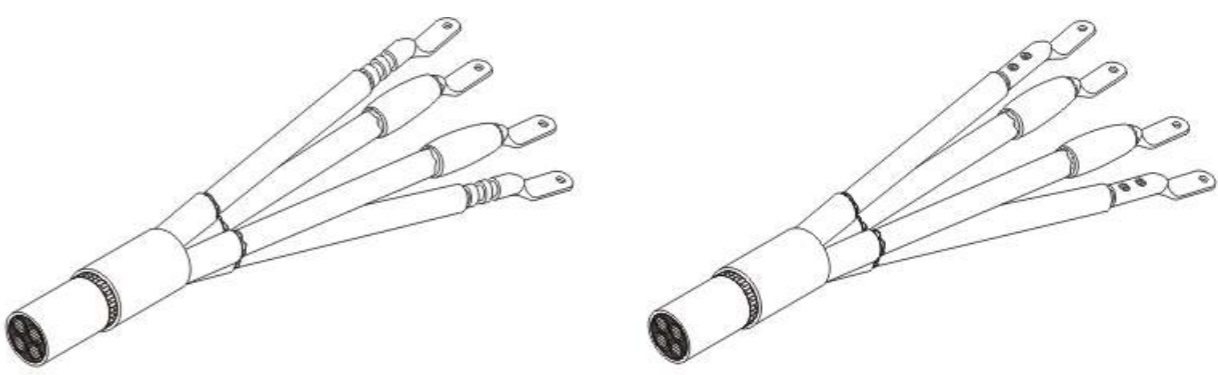
Example: Kit part number: HLVJ 4A-A-M

Where: 4-number of cable cores; A-size ref.; A-armoured cable; M-mechanical connectors.

No connectors supplied unless specified.

Heat Shrinkable LV Accessories

Low Voltage Heat Shrinkable Terminations



Application range:

Termination kits for polymeric insulated cables, with mechanical/bolted lugs.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Lug type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVT/4/i or HLVT/4/o	1.5-10	A	UA	M
	HLVT/4/i or HLVT/4/o	6-25	B	UA	M
	HLVT/4/i or HLVT/4/o	16-50	C	UA	M
	HLVT/4/i or HLVT/4/o	50-120	D	UA	M
	HLVT/4/i or HLVT/4/o	150-300	E	UA	M

Termination kits for polymeric insulated cables, with crimp lugs.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Lug type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVT/4/i or HLVT/4/o	1.5-10	A	UA	C
	HLVT/4/i or HLVT/4/o	6-25	B	UA	C
	HLVT/4/i or HLVT/4/o	16-50	C	UA	C
	HLVT/4/i or HLVT/4/o	70-120	D	UA	C
	HLVT/4/i or HLVT/4/o	120-240	E	UA	C

* i=indoor/o=outdoor

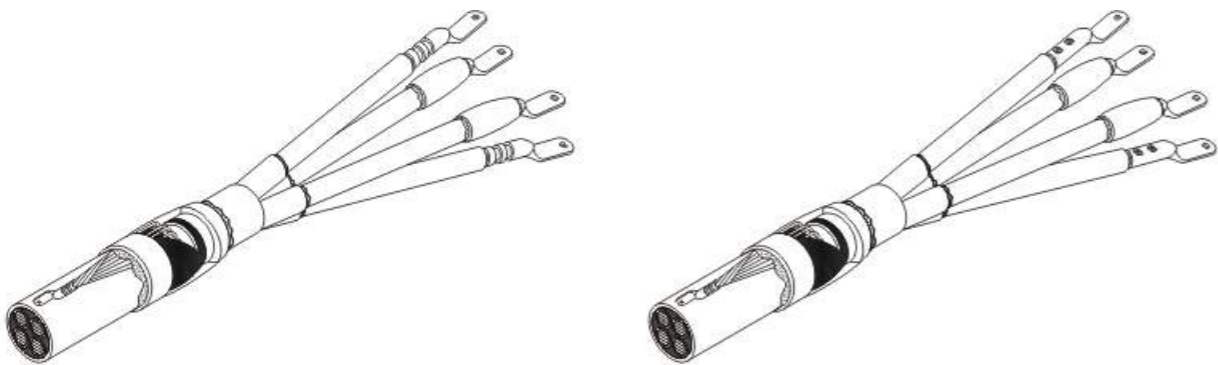
Example: Kit part number: HLVT 4A-i-UA-M

Where: 4-number of cable cores; A-size ref.; i-indoor; UA-unarmoured cable; M-mechanical lugs.

No lugs supplied unless specified.

Heat Shrinkable LV Accessories

Low Voltage Heat Shrinkable Terminations



Application range:

Termination kits for polymeric insulated cables with concentric neutral, with mechanical/bolted lugs.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Lug type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVT/4/i or HLVT/4/o	10-35	A	CN	M
	HLVT/4/i or HLVT/4/o	25-70	B	CN	M
	HLVT/4/i or HLVT/4/o	70-120	C	CN	M
	HLVT/4/i or HLVT/4/o	150-240	D	CN	M

Termination kits for polymeric insulated cables with concentric neutral, with crimp lugs.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Lug type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVT/4/i or HLVT/4/o	10-16	A	CN	C
	HLVT/4/i or HLVT/4/o	25-50	B	CN	C
	HLVT/4/i or HLVT/4/o	70-150	C	CN	C
	HLVT/4/i or HLVT/4/o	185-300	D	CN	C

* i=indoor/o=outdoor

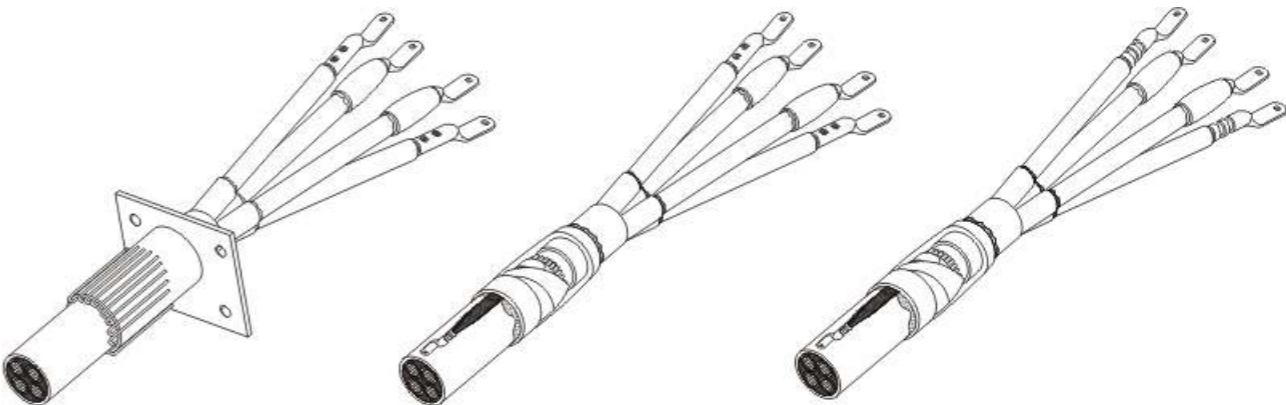
Example: Kit part number: HLVT 4A-i-CN-M

Where: 4-number of cable cores; A-size ref.; i-indoor; CN-concentric neutral cable; M-mechanical lugs. 1

No lugs supplied unless specified.

Heat Shrinkable LV Accessories

Low Voltage Heat Shrinkable Terminations



Application range:

Termination kits for polymeric insulated cables with armor, with mechanical/bolted lugs.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Lug type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVT/4/i or HLVT/4/o	10-35	A	A	M
	HLVT/4/i or HLVT/4/o	25-70	B	A	M
	HLVT/4/i or HLVT/4/o	70-120	C	A	M
	HLVT/4/i or HLVT/4/o	150-240	D	A	M

Termination kits for polymeric insulated cables with armor, with crimp lugs.

Voltage	Type	Cable cross section mm ²	Size Ref.	Cable type	Lug type
U ₀ /U(U _m) 0.6/1.0 (1.2) kV	HLVT/4/i or HLVT/4/o	1.5-4	A	A	C
	HLVT/4/i or HLVT/4/o	6-16	B	A	C
	HLVT/4/i or HLVT/4/o	25-50	C	A	C
	HLVT/4/i or HLVT/4/o	70-150	D	A	C
	HLVT/4/i or HLVT/4/o	185-300	E	A	C

* i=indoor/o=outdoor

Example: Kit part number: HLVT 4A-i-A-M

Where: 4-number of cable cores; A-size ref.; i-indoor; A-armoured cable; M-mechanical lugs.

No lugs supplied unless specified.

Heat Shrinkable LV Accessories

Low Voltage Heat Shrinkable Joints & Terminations

Kit contents: (typical)

- Core insulating tube
- Outer protective tube
- Abrasive strip
- Cleaning tissue
- Box or plastic bag with installation instructions

Outdoor terminations cores are protected by UV resistant heat shrinkable tubing without adhesive supplied with all outdoor terminations.
Available as complete kits or as components.
Core lengths are subject to installation site and requirements, minimum core lengths 100mm.

Joints and terminations kits designed for cables with concentric neutral or armor already include required hardware.

Earth kits available as separate kits as well.

Connectors NOT INCLUDED in any of the kits.

Approvals

- DIN EN 50393
- VDE 0278-393

Approval documentation is available upon request. Please contact us:
sales@hongshang.com

www.hongshang.com

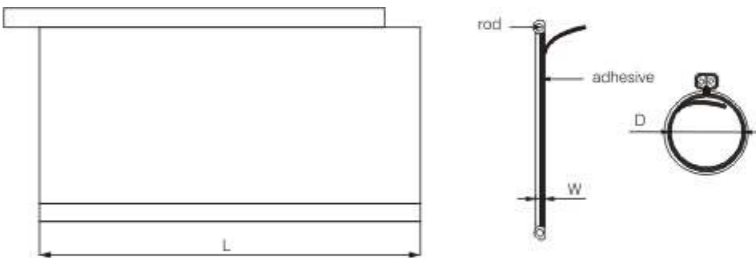
Heat Shrinkable LV Accessories

Heat Shrinkable Cable Repair Sleeve



HRSL is a heat shrinkable wrap around sleeve that is used for repairing damaged cable over sheaths on various types of cables. Provides excellent corrosion protection, abrasion, UV and weather resistance makes it also ideal for LV cable joint outer protection.

Operating temp.: -40°C to +65°C



Dimensions:

Size (mm)	As supplied (mm)		After recovered (mm)		Standard length L (mm.)
	D (mm.)	W (Min.)	d (Max.)	w (Min.)	
36/10	38	1.5	9	2.4	500, 750, 1000, 1500
55/13	57	1.5	13	2.5	500, 750, 1000, 1500
85/20	85	1.5	20	3.0	500, 750, 1000, 1500
108/27	110	1.5	27	3.0	500, 750, 1000, 1500
136/30	138	1.5	30	3.2	500, 750, 1000, 1500
180/50	183	1.5	50	3.2	500, 750, 1000, 1500

Technical properties:

Properties		Test Method	
Tensile Strength		ISO 37	17 MPa min.
Ultimate Elongation		ISO 37	350% min.
Density		ISO 1183 Method A	1.0–1.2 g/cm³
Hardness		ISO 868	50–70 D
Accelerated Ageing	7 days at 150°C ±2°C	ISO 188	
	Tensile Strength	ISO 37	14 MPa min.
	Ultimate Elongation	ISO 37	300% min.
Thermal Endurance		IEC 60216	120°C
Low Temperature Flexibility	4 hours at –40°C ±3°C	ASTM D2671 Procedure C	No cracking
Dielectric Strength		IEC 60243	1 mm 180kV/cm min. 3.5 mm 120kV/cm min.
Volume Resistivity		IEC 60093	1 x 10 ¹² Ω cm min.
Dielectric Constant		IEC 60250	5 max.
Water Absorption	14 days at 23°C ±2°C	ISO 62 Method	0.5% max.
Resistance to Liquids	7 days in transformer oil at 23°C ±2°C (VDE 0370)	ISO 1817	
	Tensile Strength	ISO 37	14 MPa min.
	Ultimate Elongation	ISO 37	300% min.
Resistance to Fungi		ASTM G21	Pass Rating 1

Ordering information:

Standard colors:

Black

Special colors:

No special colors available. Thermo-chromatic indicative paint applied if requested.

Packaging:

Standard packaging: 0.5m, 0.75m, 1m and 1.5m pieces.

Other: Other cut lengths are available, please contact our sales department.

Cast-Resin Cable Accessories

U₀/U (U_m) 0.6/1.0 (1.2kV)



Cast Resin Joints

Low Voltage Cast Resin Straight Through Joints

Cast Resin Technology

Type tested acc. to EN50393 (Cenelec HD623 S1:1996)



Resin filled straight joints for cables with XLPE, PVC EPR ,and Paper insulation;
NYY, NAYY, CYKY, NYCY, NAYCWY, NYCWY, SZAMtKAtM, SZRMtKVM-J $U_o/U (U_m)$ (kV) 0.6/1 (1.2kV)

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 standards, assuring only the highest quality. Quick setting properties in humid or even cold conditions make it a fast and reliable solution.



No need to measure or mix with spatula. just remove the dividing rail from the laminated Al-Pe bag and mix together. No spillage, or mess at installation site. An extended shelf-life of the resins are now 48 months* as standard even in the most difficult storage conditions. The kit shells are made of high quality shatter proof PC (polycarbonate) resulting in excellent hydrophobic properties and unmatched impact resistance. The resin has good adhesion to PVC and metals ensure a watertight seal and excellent impact resistance.

*IMPORTANT: Product available separately, and can be supplied in tins . * Shelf life up to 48 months, in ambient conditions of 15°C to 35°C. Special quantity pack available on request.

Cast Resin Joints

Low Voltage Cast Resin Straight Through Joints

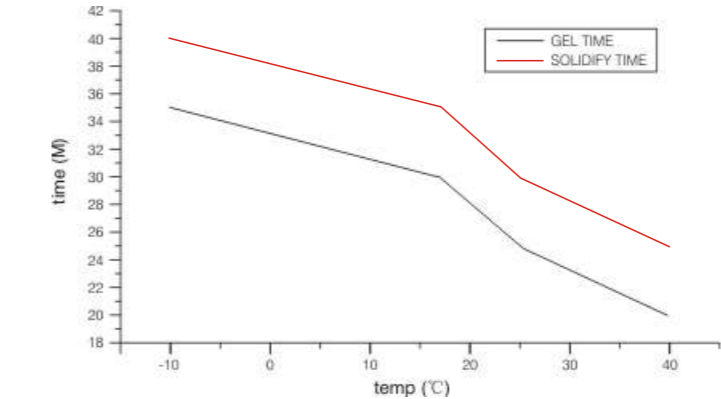


Table 1. shows gel time and complete solidifying time (shown in minutes) curves for installation reference at variable temperatures.

Technical Data of PU25	Value	According to DIN VDE 0291
Pot life @		
5°C	35 min	product conforms ±30%
23°C	20 min	
35°C	15 min	
Reactant		
Open cup flash point	>200°C	>55
Tensile strength	≥8.0 Mpa	≥5.0
Hot aging	-5 Shore A	-7
Adhesive	>1500 CP. S	<1500
Tear elongation	≥100%	≥50
Gel time for 300 ml @	23°C	
Pouch >1000ml	26 min	product conforms ±10%
Pouch <1000ml	17 min	product conforms ±10%
Max. reaction temp	60°C/333K	product conforms ±10%
Total vol. variable when hardening	6%	max. 6.5%
Cast resin component		
Open cup flash point	>200°C	>100
Density	1.07g/cm³	-
Impact strength	>10kJ/m²	>10kJ/m²
Hardness	75 Shore A	min. 20 Shore D

Cast Resin Joints

Low Voltage Cast Resin Straight Through Joints

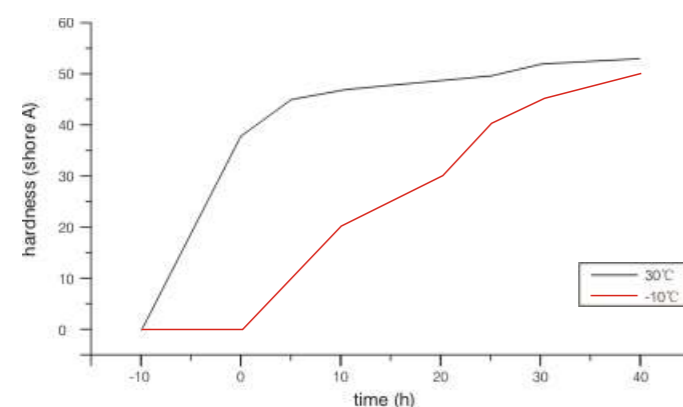


Table 2. shows hardness levels (shore A) together with elapsed time in hours at variable temperatures.

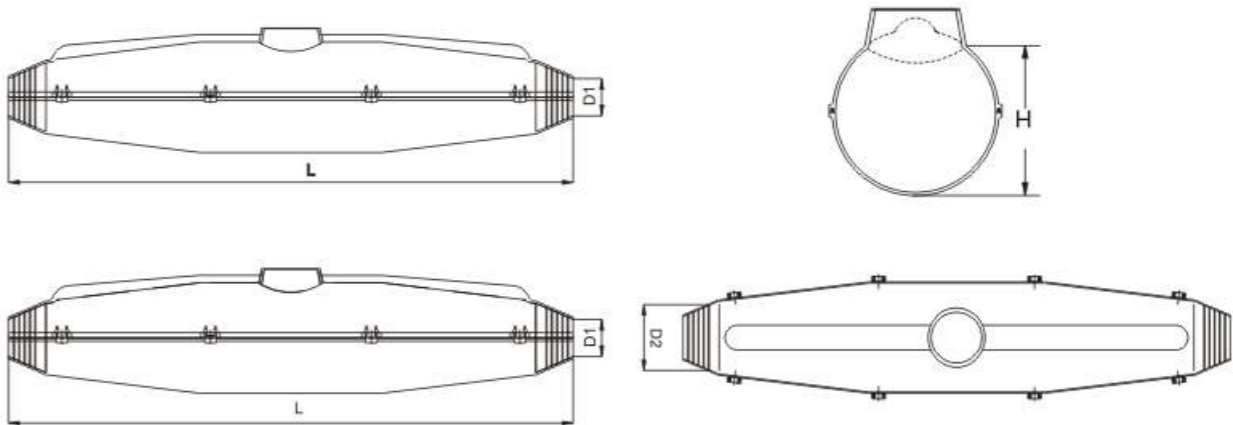
Technical data	Value	According to DIN VDE 0291
Expansion coefficient in temp range of 20-50°C	5.9 x 10-4 K ⁻¹	product conforms ± 15%
Thermal conductivity	0.2W x m-1 x K ⁻¹	product conforms ± 20%
Flammability	Class II c	acc to DIN VDE 0304, part 3
Water absorption 42 days@50°C	360mg	max. 400 mg
Electrolytic corrosion	A 1	-
Voltage test@ 23°C 80°C	>20kV >10kV	no breakdown @ test voltage 20kV 20kV
Dielectric dissipation factor @ 23°C and 50Hz @ 23°C and 1kHz	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	8.2N/mm ²	≥65% of initial value
Elongation at break	60%	≥65% of initial value
Hardness	47 Shore	≥80% of initial value

Cast Resin Joints

Low Voltage Cast Resin Straight Through Joints



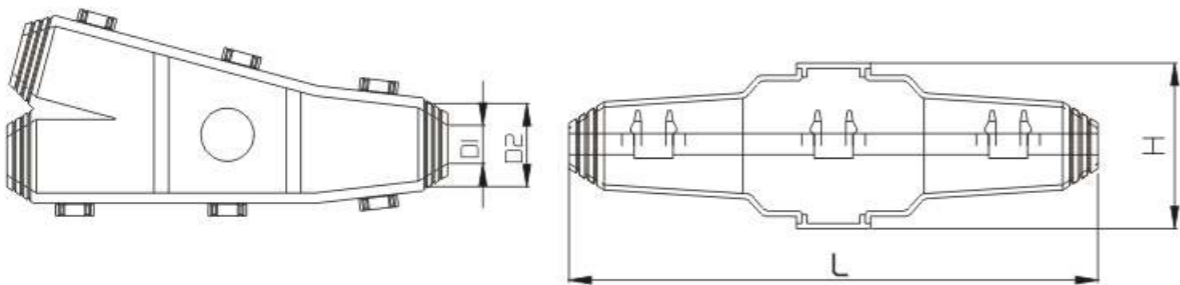
Type	Cable Size mm ²	L(mm)	H(mm)	D1(mm)	D2(mm)
HCRK-S1	4 x 1.5 - 10	202	36	8	26
HCRK-S2	4 x 10 - 25	260	47	16	32
HCRK-S3	4 x 35 - 50	360	55	21	38
HCRK-S4	4 x 50 - 70	400	70	26	41
HCRK-S5	4 x 95 - 150	530	100	35	56
HCRK-S6	4 x 185 - 300	700	125	47	74



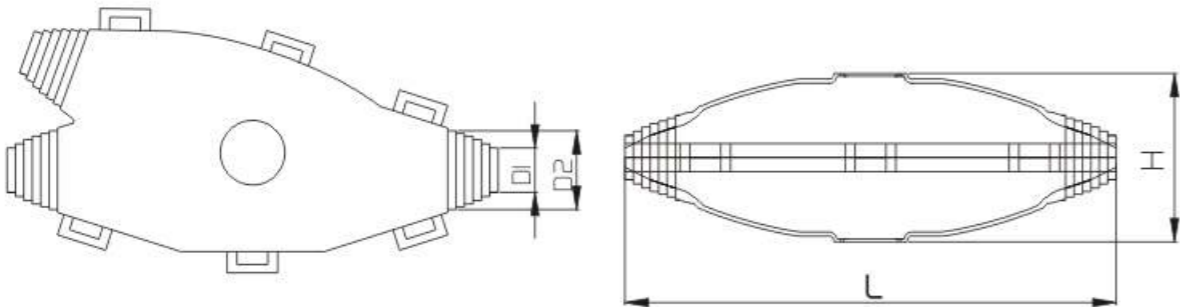
Cast Resin Joints

Low Voltage Cast Resin Branch Joints

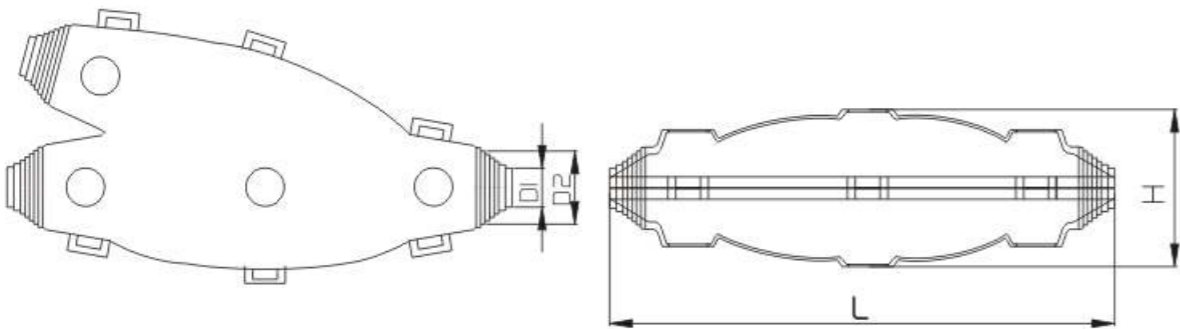
HCRK-B00



HCRK-B0



HCRK-B1



Type	Main Cable Size mm ²	Branch cable Size mm ²	D1(mm)	D2(mm)	H(mm)	L(mm)
HCRK-B00	4 x 1.5 – 2.5	4 x 1.5	11	20	50	150
HCRK-B0	4 x 4 - 10	4 x 4	6	21	60	175
HCRK-B1	4 x 6 - 25	4 x 16	9	24	70	225

Cast Resin Joints

Low Voltage Resins

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, good hydrophobic properties.

Resin supplied in two chamber moisture proof Al laminate 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 1kV.

Cast Resin Joints

Low Voltage Cast Resin Joints



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)

Approvals

- DIN EN 50393
- VDE 0278-393

Approval documentation is available upon request. Please contact us:

sales@hongshang.com

www.hongshang.com

Hongshang reserves the right to change any of its design to further improve its products without notice.

Heat Shrinkable Medium Voltage Cable Accessories

$U_0/U (U_m)$ 6.35/11 (12) – 12/20 (24)kV



Medium Voltage Accessories

Medium Voltage Heat Shrinkable Joints & Terminations



Medium voltage heat shrink cable accessories are commonly used throughout the world when jointing or terminating medium voltage cables. Design variations depend on geographical region, type of application, as well given location, the kits can be tailor made to suit almost all cable types. Manufactured from cross linked materials they provide a versatile solution for a vast range of cable design. Superior range taking capabilities allow them to be used with a wide variety of connectors and lugs mechanical or crimp. Material and compound R&D ensure that each tube has its own and special characteristic. With the use of stress grading mastic and stress control tube the equipotential lines are harmonized and placing the anti tracking tube would finish a termination, where as a joint would be completed by the use of a dual layer tube (insulating/semi conducting) and an adhesive thick walled tube to restore the outer jacket. Constant technological and material development has reduced the kit components needed to complete a joint or termination, making them easier to be installed. Shelf life is practically unlimited and few kit sizes cover a vast cross section range reducing inventory values.



Medium Voltage Accessories

Medium Voltage Heat Shrinkable Joints & Terminations

Performance of Hongshang Heat Shrinkable Medium Voltage cable accessories when tested according to IEC 60502.4

Test sequence	Item	Requirements acc. to IEC 60502.4			Performed test acc. to IEC 60502.4
		6.35/11 (12)kV	8.7/15 (17.5)kV	12/20 (24)kV	Result
1	AC withstand voltage test(in air and ambient temperature)	AC for 5 min. at 29kV. 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 11kV	10pC max. at 15kV	10pC max. at 20kV	PASS
3	Impulse withstand test	10 impulses of each polarity at 75kV	10 impulses of each polarity at 95kV	10 impulses of each polarity at 125kV	PASS
4	Heating cycles in air (Joints only)	30 cycles at 95°C-100°C and 16kV 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(Joints only)	30 cycles at 95°C-100°C and 16kV 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	Heating cycles in air (Terminations only)	60 cycles at 95°C-100°C and 16kV 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
7	Partial discharge at 95°C-100°C	10pC max. at 11kV	10pC max. at 15kV	10pC max. at 20kV	PASS
8	Thermal short-circuit (screen)	10pC max. at 11kV	10pC max. at 15kV	10pC max. at 20kV	PASS
9	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
10	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
11	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
12	AC withstand voltage test	AC for 15 min. at 16kV. 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
13	Salt fog (Outdoor terminations only)	1000 hours 8kV, No breakdown, No flashover	1000 hours 11kV, No breakdown, No flashover	1000 hours 15kV, No breakdown, No flashover	PASS
14	Humidity (Indoor terminations only)	300 hours 8kV, No breakdown, No flashover	300 hours 11kV, No breakdown, No flashover	300 hours 15kV, No breakdown, No flashover	PASS

Medium Voltage Accessories

Medium Voltage Heat Shrinkable Straight Through Joints

HKSJ

Heat Shrinkable Straight Through Joint for 6.35/11 (12)kV to 12/20 (24)kV, 3-core plastic insulated cable with tape/wire screen & SWA

Application:

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

Feature:

- High mechanical strength
- Wide cross section range suitable for all types of connectors
- Compact dimensions
- Reduced components
- Unlimited shelf life and allows immediate reenergizing



Design:

Typical contents of the kit:

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

Ordering Information:

Voltage rate U_0/U_m	Type	Cross section(mm ²)	Cable type(armoured)	Connector type
6.35/11 (12)kV	HKSJ-11/3x50-95	50-95	A	C/M
	HKSJ-11/3x120-150	120-150	A	C/M
	HKSJ-11/3x185-240	185-240	A	C/M
	HKSJ-11/3x300-400	300-400	A	C/M
8.7/15 (17.5)kV	HKSJ-15/3x50-95	50-95	A	C/M
	HKSJ-15/3x120-185	120-185	A	C/M
	HKSJ-15/3x240-300	240-300	A	C/M
12/20 (24)kV	HKSJ-20/3x50-95	50-95	A	C/M
	HKSJ-20/3x120-185	120-185	A	C/M
	HKSJ-20/3x240-300	240-300	A	C/M

Example: Kit part number : HKSJ-11/3x300 A-C

Where: 11-voltage rate; 3-number of cable cores; 300-cross section of cable conductor; A-the type of cable armour, SWA/AWA/STA; C- crimp 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.

Medium Voltage Accessories

Medium Voltage Heat Shrinkable Straight Through Joints

HKSJ

Heat Shrinkable Straight Through Joint for 6.35/11 (12)kV to 12/20 (24)kV, single-core plastic insulated cable with tape/wire screen

Application:

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

Feature:

- High mechanical strength
- Wide cross section range suitable for all types of connectors
- Compact dimensions
- Reduced components
- Unlimited shelf life and allows immediate reenergizing



Design:

Typical contents of the kit:

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

Ordering Information:

Voltage rate U_0/U_m	Type	Cross section(mm ²)	Cable type(unarmoured)	Connector type
6.35/11 (12)kV	HKSJ-11/1x50-95	50-95	UA	C/M
	HKSJ-11/1x120-150	120-150	UA	C/M
	HKSJ-11/1x185-240	185-240	UA	C/M
	HKSJ-11/1x300-400	300-400	UA	C/M
	HKSJ-15/1x50-95	50-95	UA	C/M
8.7/15 (17.5)kV	HKSJ-15/1x120-185	120-185	UA	C/M
	HKSJ-15/1x240-300	240-300	UA	C/M
	HKSJ-20/1x50-95	50-95	UA	C/M
12/20 (24)kV	HKSJ-20/1x120-185	120-185	UA	C/M
	HKSJ-20/1x240-300	240-300	UA	C/M

Example: Kit part number : HKSJ-11/1x300 UA-C

Where: 11-voltage rate; 1-number of cable cores; 300-cross section of cable conductor; UA-unarmored; C- crimp type connectors.

No connectors supplied unless specified.

Earthing materials: Earth braid, roll spring and copper mesh.

Transition joints are available on request.

Medium Voltage Accessories

Medium Voltage Heat Shrinkable Outdoor Terminations

HKOT

Heat Shrinkable Outdoor Terminations for 6.35/11 (12)kV to 12/20 (24)kV, 3-core plastic insulated cable with tape/wire screen & SWA

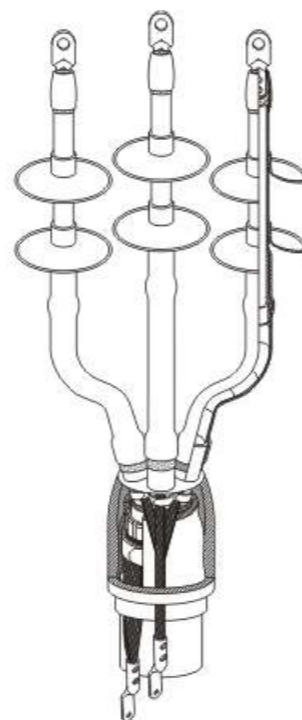
Design:

Typical contents of the kit:

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

Application:

Outdoor terminations Type HKOT designed to cover 3-core plastic insulated cables (with PVC, PE, XLPE, and EPR outer sheath) with steel wire/tape armour, copper wire/tape screen. The designs cover a wide application cross section.



Feature:

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

Ordering Information:

Voltage rate $U_o/U(U_m)$	Type	Cross section(mm ²)	Cable type(armoured)	Connector type
6.35/11 (12)kV	HKOT-11/3x50-95	50-95	A	C/M
	HKOT-11/3x120-150	120-150	A	C/M
	HKOT-11/3x185-240	185-240	A	C/M
	HKOT-11/3x300-400	300-400	A	C/M
8.7/15 (17.5)kV	HKOT-15/3x50-95	50-95	A	C/M
	HKOT-15/3x120-185	120-185	A	C/M
	HKOT-15/3x240-300	240-300	A	C/M
12/20 (24)kV	HKOT-20/3x50-95	50-95	A	C/M
	HKOT-20/3x120-185	120-185	A	C/M
	HKOT-20/3x240-300	240-300	A	C/M

Example: Kit part number : HKOT-11/3x300 A-C

Where: 11-voltage rate; 3-number of cable cores; 300-cross section of cable conductor; A-the type of cable armour, SWA/AWA/STA; C- crimp type lugs.

Earthing materials: Earth braid, roll spring and armour clamp.

No lugs supplied unless specified.

Medium Voltage Accessories

Medium Voltage Heat Shrinkable Outdoor Terminations

HKOT

Heat Shrinkable Outdoor Terminations for 6.35/11 (12)kV to 12/20 (24)kV, single-core plastic insulated cable with tape/wire screen

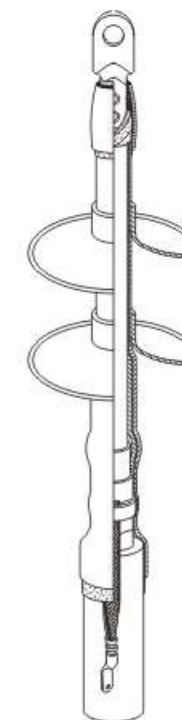
Design:

Typical contents of the kit:

- Stress control/void filling mastic
- Sealing mastic
- Stress control tube
- Earthing materials
- Anti-tracking insulation tube
- Anti-tracking rain sheds

Application:

Outdoor terminations Type HKOT designed to cover single core plastic insulated cables (with PVC, PE, XLPE, and EPR outer sheath) with copper wire/tape screen. The designs cover a wide application cross section.



Feature:

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

Ordering Information:

Voltage rate $U_o/U(U_m)$	Type	Cross section(mm ²)	Cable type(unarmoured)	Connector type
6.35/11 (12)kV	HKOT-11/1x50-95	50-95	UA	C/M
	HKOT-11/1x120-150	120-150	UA	C/M
	HKOT-11/1x185-240	185-240	UA	C/M
	HKOT-11/1x300-400	300-400	UA	C/M
	HKOT-15/1x50-95	50-95	UA	C/M
8.7/15 (17.5)kV	HKOT-15/1x120-185	120-185	UA	C/M
	HKOT-15/1x240-300	240-300	UA	C/M
	HKOT-20/1x50-95	50-95	UA	C/M
12/20 (24)kV	HKOT-20/1x120-185	120-185	UA	C/M
	HKOT-20/1x240-300	240-300	UA	C/M

Example: Kit part number : HKOT-11/1x300 UA-C

Where: 11-voltage rate; 1-number of cable cores; 300-cross section of cable conductor; UA-unarmoured; C- crimp type lugs.

No lugs supplied unless specified.

Earthing materials: Earth braid and roll spring.

Medium Voltage Accessories

Medium Voltage Heat Shrinkable Indoor Terminations

HKIT

Heat Shrinkable Indoor Terminations for 6.35/11 (12)kV to 12/20 (24)kV, 3-core plastic insulated cable with tape screen & SWA

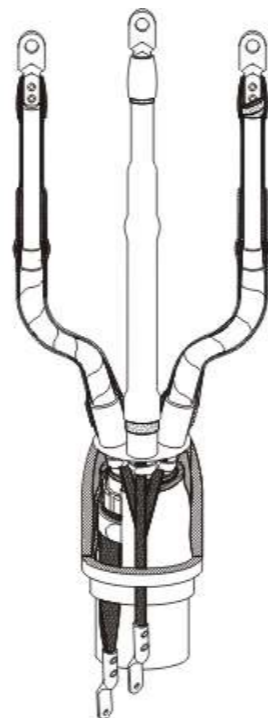
Design:

Typical contents of the kit:

- Crimp lug and mechanical lug are available as optional.
- Stress relief mastic and sealing mastic
- Stress control tubes for stress relief
- Earthing materials
- Anti-tracking insulation tube
- Anti-tracking rain sheds are optional

Application:

Indoor terminations Type HKIT designed to cover 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 application cross section.



Feature:

- High mechanical strength
- Wide cross section range suitable for all types of connectors
- Reduced size for compact equipment
- Unlimited shelf life and allows immediate reenergizing

Ordering Information:

Voltage rate $U_0/U(U_m)$	Type	Cross section(mm ²)	Cable type(armoured)	Connector type
6.35/11 (12)kV	HKIT-11/3x50-95	50-95	A	C/M
	HKIT-11/3x120-150	120-150	A	C/M
	HKIT-11/3x185-240	185-240	A	C/M
	HKIT-11/3x300-400	300-400	A	C/M
8.7/15 (17.5)kV	HKIT-15/3x50-95	50-95	A	C/M
	HKIT-15/3x120-185	120-185	A	C/M
	HKIT-15/3x240-300	240-300	A	C/M
12/20 (24)kV	HKIT-20/3x50-95	50-95	A	C/M
	HKIT-20/3x120-185	120-185	A	C/M
	HKIT-20/3x240-300	240-300	A	C/M

Example: Kit part number : HKIT-11/3x300 A-C

Where: 11-voltage rate; 3-number of cable cores; 300-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 and armour clamp.

Medium Voltage Accessories

Medium Voltage Heat Shrinkable Indoor Terminations

HKIT

Heat Shrinkable Indoor Terminations for 6.35/11 (12)kV to 12/20 (24)kV, single-core plastic insulated cable with tape/wire screen

Design:

Typical contents of the kit:

- Crimp lug and mechanical lug are available as optional.
- Stress relief mastic and sealing mastic
- Stress control tubes for stress relief
- Earthing materials
- Anti-tracking insulation tube
- Anti-tracking rain sheds are optional

Application:

Indoor termination Type HKIT designed to cover single-core plastic insulated cables (with PVC, PE, XLPE, and EPR outer sheath) with copper wire/tape screen. The designs cover a wide application cross section.



Feature:

- High mechanical strength
- Wide cross section range suitable for all types of connectors
- Reduced size for compact equipment
- Unlimited shelf life and allows immediate reenergizing

Ordering Information:

Voltage rate $U_0/U(U_m)$	Type	Cross section(mm ²)	Cable type(unarmoured)	Connector type
6.35/11 (12)kV	HKIT-11/1x50-95	50-95	UA	C/M
	HKIT-11/1x120-150	120-150	UA	C/M
	HKIT-11/1x185-240	185-240	UA	C/M
	HKIT-11/1x300-400	300-400	UA	C/M
8.7/15 (17.5)kV	HKIT-15/1x50-95	50-95	UA	C/M
	HKIT-15/1x120-185	120-185	UA	C/M
	HKIT-15/1x240-300	240-300	UA	C/M
12/20 (24)kV	HKIT-20/1x50-95	50-95	UA	C/M
	HKIT-20/1x120-185	120-185	UA	C/M
	HKIT-20/1x240-300	240-300	UA	C/M

Example: Kit part number : HKIT-11/1x300 UA-C

Where: 11-voltage rate; 1-number of cable cores; 300-cross section of cable conductor; UA-unarmoured; C- crimp type lugs.

No lugs supplied unless specified.

Earthing materials: Earth braid and roll spring.

Pre expanded Medium Voltage Cable Accessories

$U_0/U (U_m)$ 8.7/15 (17.5) – 12/20 (24)kV



Medium Voltage Accessories

Pre expanded Medium Voltage Joints & Terminations



Hongshang pre expanded cable accessories are made from liquid silicone material with injection molding vulcanization technology. The products are pre expanded as supplied, with a supporting spiral. Pre expanded cable accessories are preferred in certain markets and application fields where the use of open flame is restricted or prohibited by law. These products meet the IEC 60502-4 & Cenelec HD 629-S1 standards. Excellent weathering, and hydrophobic properties, and superior electrical performance are guaranteed due to material technology and design. Geometric stress cone ensures a securely controlled electrical field and the body provides strong anti-tracking. Flexibility is combined with mechanical protection, due to compact designs. Easy, fast, user friendly installation without special tools, and supports a wide range of cross sections, reducing stock.

Utilizing the highest quality raw materials the outstanding performance even after a long shelf life is guaranteed.

Various kit designs can accommodate several commonly used cable types with different connectors, crimp or mechanical. Kits come complete with earthing components. Upon request connectors and lugs are also provided in the kit.



Medium Voltage Accessories

Pre expanded Medium Voltage Joints & Terminations

Performance of Hongshang Pre expanded cable accessories when tested according to IEC 60502.4

Test sequence	Item	Requirements acc. to IEC 60502.4		Remarks IEC 60502.4
		8.7/15 (17.5)kV	12/20 (24)kV	Result
1	AC withstand voltage test(in air and ambient temperature)	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 15kV	10pC max. at 20kV	PASS
3	Impulse withstand test	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 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 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 15kV	10pC max. at 20kV	PASS
7	Thermal short-circuit(screen)	No visible deterioration at 3.0 kA, 1s	No visible deterioration at 3.0 kA, 1s	PASS
8	Thermal short-circuit(conductor)	No visible deterioration at 23.0 kA, 2s	No visible deterioration at 23.0 kA, 2s	PASS
9	Dynamic short-circuit	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
10	Impulse withstand test	10 impulses of each polarity at 95kV	10 impulses of each polarity at 125kV	PASS
11	AC withstand voltage test	AC for 15 min. at 22kV. No breakdown, No flashover	AC for 15 min. at 30kV. No breakdown, No flashover	PASS

Medium Voltage Accessories

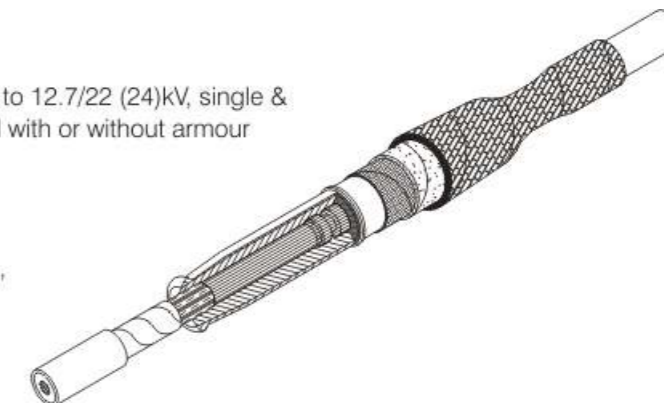
Pre expanded Medium Voltage Joints

HCSJ

Pre expanded Straight Through Joint for 8.7/15 (17.5)kV to 12.7/22 (24)kV, single & 3 core plastic insulated cable with tape/wire screen and with or without armour

Application:

Straight-through joints Type HCSJ designed to cover single and 3-core plastic insulated cables (with PVC, PE, XLPE, EPR outer sheath), with copper wire/tape screen and with or without armour. Completely cold applied solution for various cable types.



Feature:

- Quick, easy and safe installation
- High mechanical strength
- Wide cross section range
- Compact dimensions
- Unlimited shelf life
- Immediate reenergizing

Design:

Typical contents of the kit:

- Pre expanded silicon splice body
- Sealing mastics/lubricating material
- Insulation tape
- Earthing material
- Reinforced glass fiber tape for rebuilding cable armour

Pre expanded straight joints for plastic insulated, single core cables with crimp connectors.

Voltage U_0/U_n	Type	Cable cross section(mm ²)	Cable type	Connector type	Max. outer Dia. of cable(mm)
8.7/15 (17.5)kV	HCSJ-15/1x25-35	25-35	UA/A	C	29
	HCSJ-15/1x35-70	35-70	UA/A	C	33
	HCSJ-15/1x70-150	70-150	UA/A	C	37
	HCSJ-15/1x150-300	150-300	UA/A	C	43
	HCSJ-15/1x300-400	300-400	UA/A	C	48
12/20 (24)kV	HCSJ-20/1x25-50	25-50	UA/A	C	33
	HCSJ-20/1x50-120	50-120	UA/A	C	37
	HCSJ-20/1x120-240	120-240	UA/A	C	43
	HCSJ-20/1x240-400	240-400	UA/A	C	48

Pre expanded straight joints for plastic insulated, 3 core cables with crimp connectors.

Voltage U_0/U_n	Type	Cable cross section(mm ²)	Cable type	Connector type
8.7/15 (17.5)kV	HCSJ-15/3x25-35	25-35	UA/A	C
	HCSJ-15/3x35-70	35-70	UA/A	C
	HCSJ-15/3x70-150	70-150	UA/A	C
	HCSJ-15/3x150-300	150-300	UA/A	C
	HCSJ-15/3x300-400	300-400	UA/A	C
12/20 (24)kV	HCSJ-20/3x25-50	25-50	UA/A	C
	HCSJ-20/3x50-120	50-120	UA/A	C
	HCSJ-20/3x120-240	120-240	UA/A	C
	HCSJ-20/3x240-400	240-400	UA/A	C

Example: Kit part number : HCSJ-15/1x300 UA-C

Where: 15-voltage rate; 3-number of cable cores; 300-cross section of cable conductor; UA-the type of cable; unarmoured; C- crimp type connectors.

No connectors supplied unless specified.

Earthing materials: Earth braid, roll spring, and copper mesh.

Medium Voltage Accessories

Pre expanded Medium Voltage Indoor Terminations

HCIT

Pre expanded Indoor Termination for 8.7/15 (17.5)kV to 12.7/22 (24)kV, single & 3 core plastic insulated cable

Application:

Indoor termination Type HCIT, designed to cover single and 3-core plastic insulated cables (with PVC, PE, XLPE, EPR outer sheath) copper wire/tape screen. The designs cover a wide application cross section.

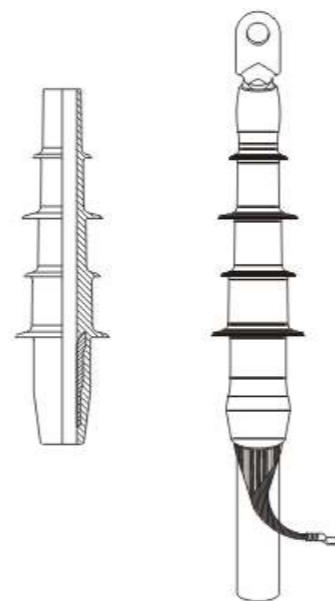
Feature:

- Quick, easy and safe installation
- Wide cross section range
- Compact dimensions
- Unlimited shelf life
- Immediate reenergizing

Design:

Typical contents of the kit:

- Pre expanded silicon termination
- Pre expanded silicon breakout for multicore cables
- Sealing mastics/lubricating material
- Insulation tape
- Lugs optional



Indoor termination kits for polymeric insulated, single core cables with crimp lugs.

Voltage $U_o/U(U_m)$	Type	Cable cross section(mm ²)	Cable type (unarmoured)	Connector type	Max. outer Dia. of cable(mm)
8.7/15 (17.5)kV	HCIT-15/1x25-35	25-35	UA	C	29
	HCIT-15/1x35-70	35-70	UA	C	33
	HCIT-15/1x70-150	70-150	UA	C	37
	HCIT-15/1x150-300	150-300	UA	C	43
	HCIT-15/1x300-400	300-400	UA	C	48
12/20 (24)kV	HCIT-20/1x25-50	25-50	UA	C	33
	HCIT-20/1x50-120	50-120	UA	C	37
	HCIT-20/1x120-240	120-240	UA	C	43
	HCIT-20/1x240-400	240-400	UA	C	48

Indoor termination kits for polymeric insulated, 3-core cables with crimp lugs.

Voltage $U_o/U(U_m)$	Type	Cable cross section(mm ²)	Cable type (unarmoured)	Connector type
8.7/15 (17.5)kV	HCIT-15/3x25-35	25-35	UA	C
	HCIT-15/3x35-70	35-70	UA	C
	HCIT-15/3x70-150	70-150	UA	C
	HCIT-15/3x150-300	150-300	UA	C
	HCIT-15/3x300-400	300-400	UA	C
12/20 (24)kV	HCIT-20/3x25-50	25-50	UA	C
	HCIT-20/3x50-120	50-120	UA	C
	HCIT-20/3x120-240	120-240	UA	C
	HCIT-20/3x240-400	240-400	UA	C

Example: Kit part number : HCIT-20/3x300 UA-C

Where: 20-voltage rate; 3-number of cable cores; 300-cross section of cable conductor; UA-unarmored; C- crimp type connectors.

No lugs supplied unless specified.

Medium Voltage Accessories

Pre expanded Medium Voltage Outdoor Terminations

HCOT

Pre expanded Outdoor Termination for 8.7/15 (17.5)kV to 12.7/22 (24)kV, single & 3 core plastic insulated cable

Application:

Outdoor termination Type HCOT designed to cover single and 3-core plastic insulated cables (with PVC, PE, XLPE, EPR outer sheath) copper wire/tape screen. The designs cover a wide application cross section.

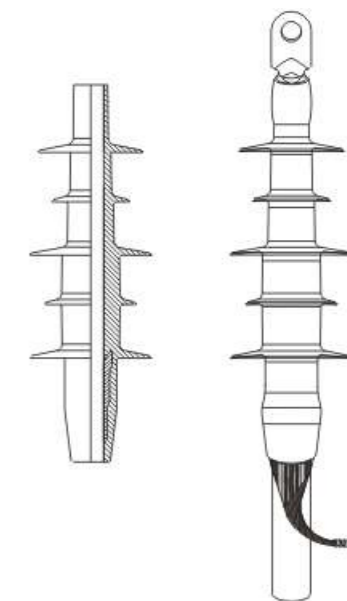
Feature:

- Quick, easy and safe installation
- Wide cross section range
- Compact dimensions
- Unlimited shelf life
- Immediate reenergizing

Design:

Typical contents of the kit:

- Pre expanded silicon termination
- Pre expanded silicon breakout for multicore cables
- Sealing mastics/lubricating material
- Insulation tape
- Lugs optional



Outdoor termination kits for polymeric insulated, single core cables with crimp lugs.

Voltage $U_o/U(U_m)$	Type	Cable cross section(mm ²)	Cable type (unarmoured)	Connector type	Max. outer Dia. of cable(mm)
8.7/15 (17.5)kV	HCOT-15/1x25-35	25-35	UA	C	29
	HCOT-15/1x35-70	35-70	UA	C	33
	HCOT-15/1x70-150	70-150	UA	C	37
	HCOT-15/1x150-300	150-300	UA	C	43
	HCOT-15/1x300-400	300-400	UA	C	48
12/20 (24)kV	HCOT-20/1x25-50	25-50	UA	C	33
	HCOT-20/1x50-120	50-120	UA	C	37
	HCOT-20/1x120-240	120-240	UA	C	43
	HCOT-20/1x240-400	240-400	UA	C	48

Outdoor termination kits for polymeric insulated, 3-core cables with crimp lugs.

Voltage $U_o/U(U_m)$	Type	Cable cross section(mm ²)	Cable type (unarmoured)	Connector type
8.7/15 (17.5)kV	HCOT-15/3x25-35	25-35	UA	C
	HCOT-15/3x35-70	35-70	UA	C
	HCOT-15/3x70-150	70-150	UA	C
	HCOT-15/3x150-300	150-300	UA	C
	HCOT-15/3x300-400	300-400	UA	C
12/20 (24)kV	HCOT-20/3x25-50	25-50	UA	C
	HCOT-20/3x50-120	50-120	UA	C
	HCOT-20/3x120-240	120-240	UA	C
	HCOT-20/3x240-400	240-400	UA	C

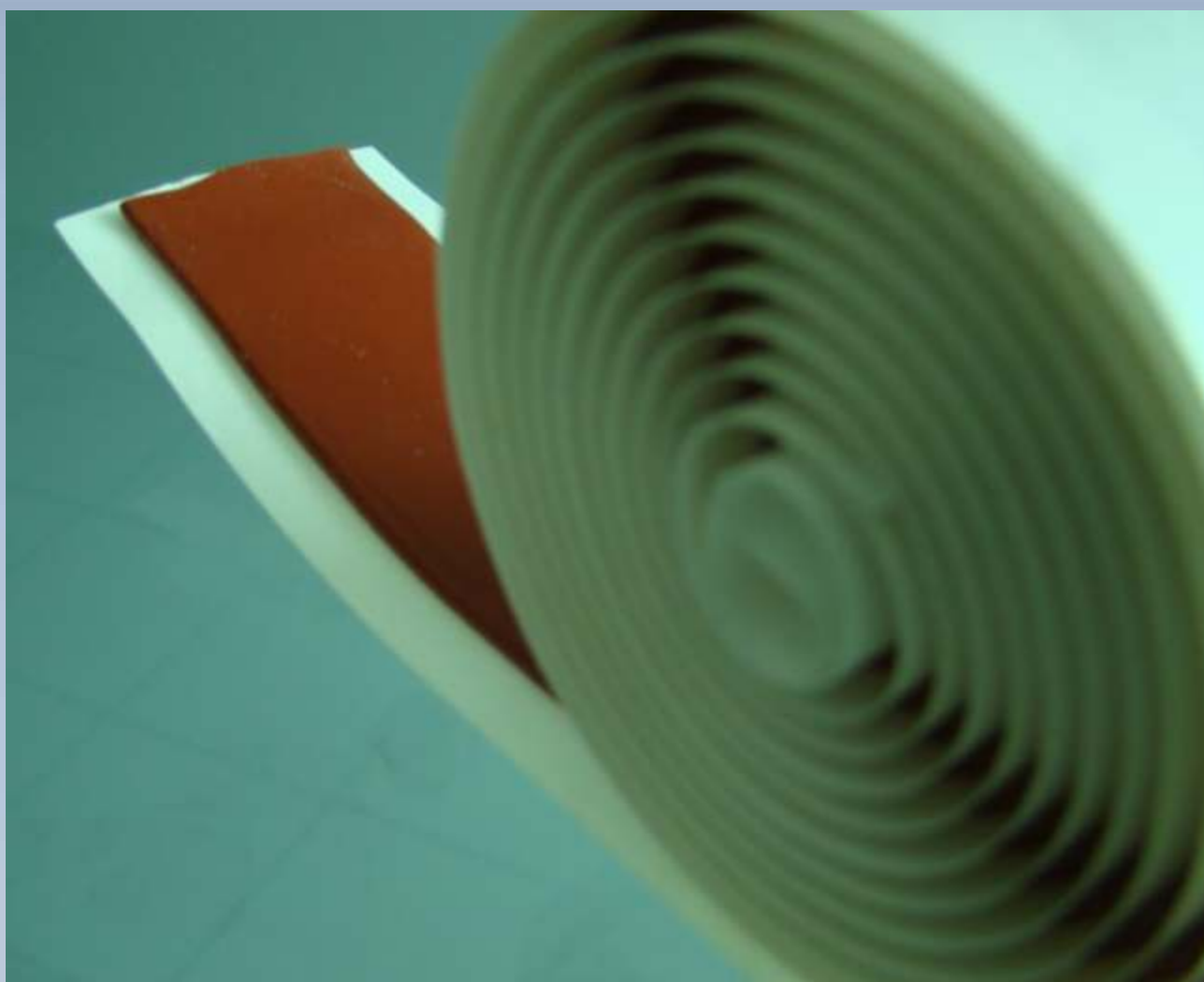
Example: Kit part number : HCOT-15/3x300 UA-C

Where: 15-voltage rate; 3-number of cable cores; 300-cross section of cable conductor; UA –unarmored; C- crimp type connectors.

No lugs supplied unless specified.

For detailed product datasheet, please contact us: sales@hongshang.com

Mastic Tapes



Mastics



Application:

- **TAPE 55:** Yellow color stress relief, void filling mastic. Used at the connectors and screen cut on MV cables when installing joints or terminations. Oil resistant, suitable for paper insulated cables. High permattivity.
- **TAPE 65:** Red color anti-tracking mastic. Used to seal and insulate lugs in MV terminations, as well as other metal parts in joints, and terminations. Ensures a watertight seal. Excellent electrical properties.
- **TAPE 75:** Black butyl rubber self amalgamating sealing mastic. UV resistant, excellent electrical properties. Creates a perfectly watertight seal around connectors and armouring.

Dimensions:

Property	Thickness (mm)	Width (mm)	Length (m)
Tape 55	1.6	25	0.5, 1.5, 30
Tape 65	0.8	25	1.5, 50
Tape 75	3.0	38	1.5, 20

Technical properties:

Property	Test Method	Typical Data
TAPE55 stress relief mastic		
Density	ASTM D792	1.3 g/cm ³
Tensile strength	ASTM D 638	0.1 MPa
Ultimate elongation	ASTM D 638	> 1000%
Dielectric strength	IEC 250	≥ 15 kV/mm
Dielectric constant	IEC 250	10-15
Volume resistance	ASTM D 527	10 ⁸ -10 ¹² Ω .cm
50Hz Loss factor (tgδ)		0.035
Service temperature (max)		-20 to +90 °C
Adhesive and self-amalgamation		Good
TAPE65 anti-tracking mastic		
Density	ASTM D792	1.2 g/cm ³
Tensile strength	ASTM D 638	0.1 MPa
Ultimate elongation	ASTM D 638	> 1000%
Dielectric strength	IEC 250	≥ 10 kV/mm
Dielectric constant	IEC 250	3
Volume resistance	ASTM D 527	10 ¹³ Ω .cm
50Hz Loss factor (tgδ)		0.035
Service temperature (max)		-20 to +90 °C
Adhesive and self-amalgamation		Good
TAPE75 black sealing mastic		
Density	ASTM D792	1.2 g/cm ³
Tensile strength	ASTM D 638	0.1 MPa
Ultimate elongation	ASTM D 638	> 1000%
Dielectric strength	IEC 250	≥ 15 kV/mm
Dielectric constant	IEC 250	2-3
Volume resistance	ASTM D 527	10 ¹³ Ω .cm
50Hz Loss factor (tgδ)		0.035
Service temperature (max)		-20 to +90 °C
Adhesive and self-amalgamation		Good

Ordering information:

Standard colors:

Yellow, Red, Black

Special colors:

N/A.

Packaging:

Standard packaging on spools.

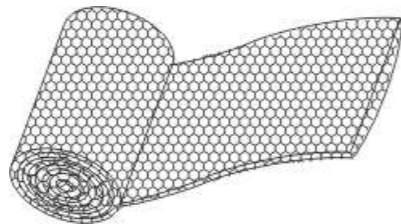
Other: Other cut lengths are available, please contact our sales department.

Solderless Earth and Metal Accessories



Cable Accessories

Metal Parts



HKC-01
Copper Wire Mesh

Application:

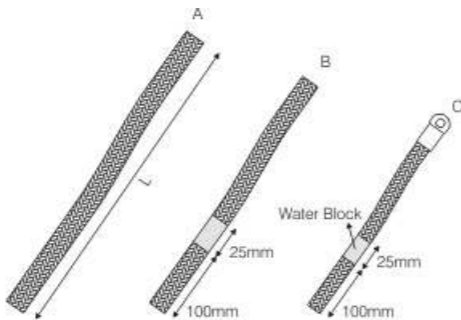
It's used for the connection of cable metallic shielding of low voltage and medium voltage cable joints and terminations.

Features:

Formed by knitting from wire into a tube.
Wire is tinned copper with no evidence of tarnish.

Dimensions:

Size	Diameter of wire	Width of mesh	Length of mesh
HKC 0101	0.13mm	70mm	500-6000mm



HKC-02
Earth Braid

Application:

It's used for the earthing system of low voltage and medium voltage cable application.

Features:

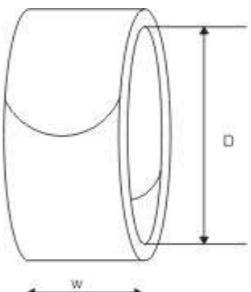
Wire is tinned copper, minimum 99.9% copper after stripping of tin coating.

Dimensions:

Size	Cross section(mm ²)	Diameter of wire(mm)	Width of solder(mm)	Length of earth braid(mm)
HKC 02A01 HKC 02B01 HKC 02C01	10	0.13	/ 25-30 25-30	200-2000
HKC 02A02 HKC 02B02 HKC 02C02	16	0.13	/ 25-30 25-30	200-2000
HKC 02A03 HKC 02B03 HKC 02C03	25	0.13	/ 25-30 25-30	200-2000
HKC 02A04 HKC 02B04 HKC 02C04	35	0.13	/ 25-30 25-30	200-2000
HKC 02A05 HKC 02B05 HKC 02C05	50	0.13	/ 25-30 25-30	200-2000

Cable Accessories

Metal Parts



HKC-03
Roll Spring

Application:

It's used for fixing the shielding of low voltage and medium voltage cable joints and terminations.

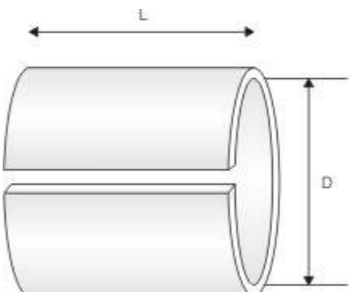
Features:

It's made of roll steel with polished surface.

Dimensions:

Size	Application range(mm)	Detail description of roll spring size(mm)			Length of the roll
		T \pm 0.1	w \pm 0.5	D \pm 2	
HKC 0301	9-15	0.1	10	7.5	240
HKC 0302	12-21	0.15	16	11	260
HKC 0303	17-22	0.2	19	14	300
HKC 0304	19-29	0.2	19	16	340
HKC 0305	25-37	0.24	19	22	700
HKC 0306	31-50	0.35	19	23	780
HKC 0307	34-70	0.45	19	32	800
HKC 0308	58-94	0.45	19	42	950
HKC 0309	60-130	0.6	19	45	980

T — thickness of the strip.



HKC-04
Support Ring

Application:

It's used for the earthing system of low voltage and medium voltage cable application.

Features:

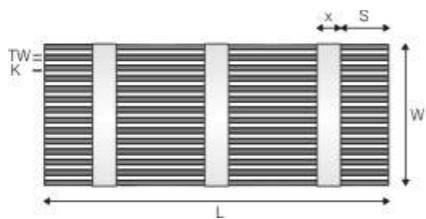
Support ring is plated so as to prevent any corrosion. All edges are deburred and smoothed. Available as single piece or 2 halves.

Dimensions:

Size	Detail description of support ring size(mm)		Wall thickness
	L	D	
HKC 0401	20	13	1.0
HKC 0402	25	19	1.5
HKC 0403	30	27	1.5
HKC 0404	40	44	2.0
HKC 0405	50	60	2.0
HKC 0406	60	70	2.0

Cable Accessories

Metal Parts



HKC-06
Joint Case

Application:

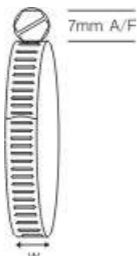
It's used for the recovery of the cable armour with excellent mechanical protection.

Features:

Joint case is made of strips of galvanized steel, and rusting will not occur. All strips are deburred at ends leaving no sharp edges. Aluminium foil is completely adhered to strips.

Dimensions:

Size	Detail description of support ring size(mm)							
	L	W	S	T1	K	TW	T2	X
HKC 0601	250	95-100	100	0.5	1	5.5	0.1	40
HKC 0601	400	115-120	100	0.5	1	5.5	0.1	40
HKC 0601	520	225-230	150	0.5	1	5.5	0.1	40
HKC 0601	720	315-320	150	0.8	1	10	0.1	40
HKC 0601	830	395-400	150	0.8	1	10	0.1	40
HKC 0601	1450	525-530	150	1.0	1	10	0.1	40
HKC 0601	1600	590-600	150	1.0	1	10	0.1	40



HKC-09
Armour Clamp

Application:

It's used for the earthing system of low voltage and medium voltage cable application.

Features:

All edges are smoothed and chamfered. Screw head is hexagon as shown in the drawing. Heat treated steel. The clip is reusable.

Dimensions:

Size	Detail description of support ring size(mm)		
	Application range	W +/-0.1	Thickness
HKC 0901	25-35	13	1
HKC 0902	30-40	13	1
HKC 0903	32-45	13	1
HKC 0904	35-50	13	1
HKC 0905	40-55	13	1
HKC 0906	45-60	13	1
HKC 0907	55-70	13	1
HKC 0908	60-80	13	1
HKC 0909	70-90	13	1
HKC 0910	85-100	13	1
HKC 0911	90-120	13	1
HKC 0912	110-140	13	1