Nexans complete, innov
cabling solutions for mat

Rubber flat cables

Rubber flat cables
(PNCT-F, PNCT-RF)

Rubber round cables
(SPNCT-B, PNCT-B)

Standard reeling cables
(PNCT-B)

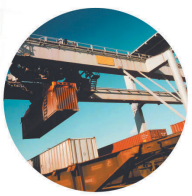
Pendant cables
(PNCT-R)

ative and reliable
erial handling systems.

Heavy-duty rubber cables
(PNCT-B, PNCT-RF)

High-stress rubber cables
(PNCT-B, PNCT-RF)

High voltage reeling cable
with/without integrated
optical Fibres
(HV PNCT-B, PNCT-RF)

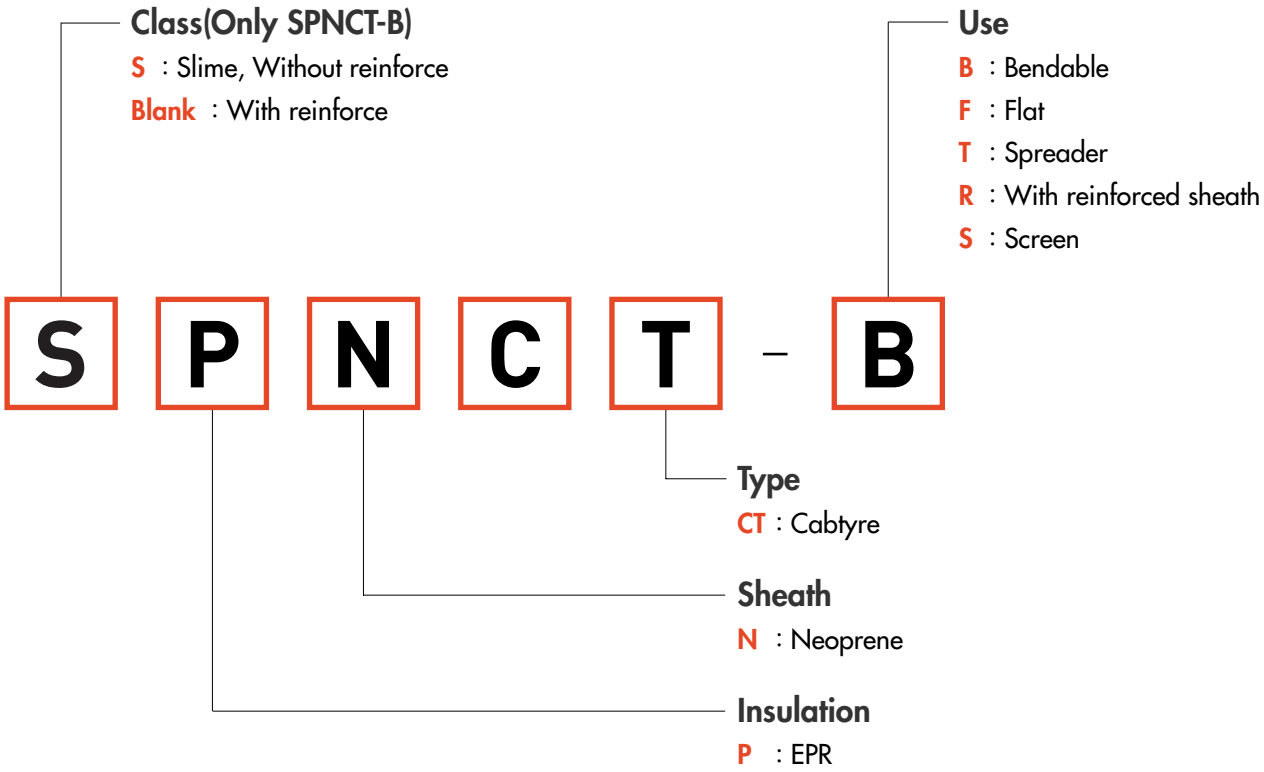


Flat reeling cables
(PNCT-F, PNCT-RF)

Rubber spreader cables
(PNCT-T)

Contents

CODE DESIGNATION OF HANDLING CABLES



CABLE SELECTION GUIDE

Condition / Cable type		Movement Parameters						
		Fixed	Trailing on plane	Reel	Carrierroller	Powertrack	Festoon	Spreader
Symbol	PNCT	M	N	N	N	N	N	N
	PNCT-R	S	M	N	N	N	N	N
	PNCT-B	S	S	M	M	M	M	N
	PNCT-F	S	S	M	M	M	M	N
	PNCT-T	N	N	N	N	N	N	M

M : Main field of application, S : Suitable, N : Not suitable

Cable selection tips

Used Machinery : Hoist, Crane, Elevator, etc. (호이스트, 크레인, 엘리베이터 등)
Movement : Cable reel, Festoon, Spreader, etc. (릴, 커텐, 스프레더용 등)
Movement spec. : Speed, Distance, Time, etc. (이동속도, 이동거리, 운행시간)
Stress : Tensile stress, Dynamic stress, Combination, etc.
(축방향 스트레스, 뒤틀림 스트레스, 축방향 및 뒤틀림 스트레스 등)
Site condition : Water, U.V, Cold, Fire condition, etc. (내수, 내후, 내한, 내화 등)

PNCT

Low Voltage Flexible Cable for Fixed installation
고정 설치용 저압 캡타이어 케이블

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

0.6/1kV PNCT

General purposes used flexible cables

EPR insulated PCP sheathed Round Type Flexible cable
(EP 절연 PCP 시스 원형 캡타이어 케이블)

Application

Portable electrical machinery for control and power supplies.
Used for low mechanical stresses, general purposes.
기계적 스트레스가 낮은 이동용 전기장치의 제어용과 전력 공급용으로 사용, 범용

Construction Details

1 **Conductor** : Tinned annealed copper wire stranded, KS C IEC 60228 Class 5
주석도금 연동선, KS C IEC 60228 Class 5
2 **Insulation** : EPR rubber compound
EP 고무절연
3 **Cabling** : if necessary with filler
4 **Binder tape** : if necessary
5 **Sheath** : PCP

Application Standard

- **Design guideline** : KS C IEC 60502-1


-25 to 60℃

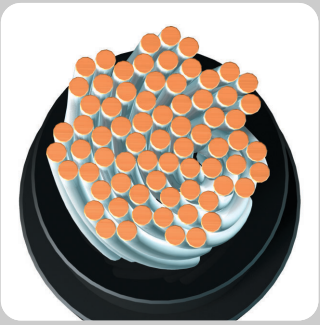

Flame retardant
IEC 60332-1


Weather
Resistance to severe
weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to
chemicals.



Applications

- Portable electrical machinery for control and power supplies
- Used for low mechanical stresses, general purposes

기계적 스트레스가 낮은 이동용 전기장치의 제어용과 전력 공급용으로 사용, 범용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT (General purpose flexiblle cables)

공칭 단면적 Nominal Sectional Area	절연두께 Thick -ness of Insula -tion	단심 1Core			2심 2Core			3심 3Core			4심 4Core			5심 5Core			도체저항 Conductor Resistant (20℃) (max.)	시험 전압 Test Voltage
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)		
mm²	mm	mm	mm	kg/km	mm	mm	kg/km	mm	mm	kg/km	mm	mm	kg/km	mm	mm	kg/km	Ω/km	V/5min
1.0	1.0	-	-	-	1.8	12.1	195	1.9	12.8	220	1.9	13.8	260	2.0	15.2	315	20.0	3,500
1.5	1.0	1.6	7.2	80	1.9	12.8	220	1.9	13.5	255	2.0	14.6	300	2.0	16.1	365	13.7	3,500
2.5	1.0	1.6	7.7	95	1.9	13.7	265	2.0	14.5	305	2.0	15.7	370	2.1	17.3	450	8.21	3,500
4	1.0	1.7	8.4	120	2.0	15.0	335	2.0	15.9	395	2.1	17.3	480	2.2	19.1	580	5.09	3,500
6	1.0	1.7	9.0	145	2.1	16.4	415	2.2	17.4	495	2.3	19.0	610	2.4	21.0	740	3.39	3,500
10	1.0	1.8	10.1	200	2.3	18.4	560	2.4	19.6	685	2.5	21.4	845	2.6	23.8	1,045	1.95	3,500
16	1.0	1.9	11.9	285	2.5	22.1	815	2.5	23.4	1,000	2.7	25.8	1,250	2.8	28.6	1,535	1.24	3,500
25	1.2	2.0	13.9	410	2.7	26.1	1,175	2.8	27.8	1,460	3.0	30.8	1,835	3.2	34.2	2,265	0.795	3,500
35	1.2	2.1	15.4	540	2.9	29.1	1,525	3.0	31.0	1,910	3.2	34.3	2,410	3.4	38.2	2,985	0.565	3,500
50	1.4	2.2	17.8	740	3.1	33.9	2,100	3.3	36.1	2,645	3.5	40.1	3,355	3.8	44.5	4,150	0.393	3,500
70	1.4	2.4	19.9	985	3.4	38.2	2,770	3.5	40.8	3,530	3.8	45.3	4,485	4.1	50.4	5,560	0.277	3,500
95	1.6	2.5	22.5	1,265	3.7	43.4	3,585	3.9	46.4	4,565	4.2	51.5	5,815	4.7	57.4	7,220	0.210	3,500
120	1.6	2.6	24.6	1,570	3.9	47.5	4,400	4.1	50.9	5,645	4.5	56.4	7,190	-	-	-	0.164	3,500
150	1.8	2.8	27.2	1,935	4.2	52.7	5,445	4.5	56.4	6,985	4.8	62.8	8,935	-	-	-	0.132	3,500
185	2.0	3.0	29.7	2,325	-	-	-	-	-	-	-	-	-	-	-	-	0.108	3,500
240	2.2	3.2	33.3	3,000	-	-	-	-	-	-	-	-	-	-	-	-	0.0817	3,500
300	2.4	3.4	36.7	3,700	-	-	-	-	-	-	-	-	-	-	-	-	0.0654	3,500
400	2.6	3.7	41.3	4,790	-	-	-	-	-	-	-	-	-	-	-		0.0495	3,500

Identification of insulation

- 1C : Black
- 2C : Black, White
- 3C : Black, White, Red
- 4C : Black, White, Red, Green
- 5C : Black, White, Red, Green, Blue

Identification of sheath

Black

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Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
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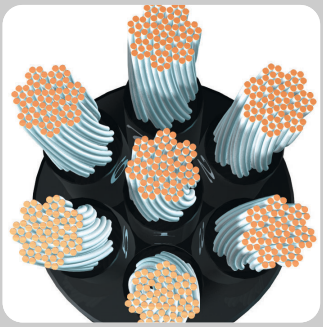


Applications

- Portable electrical machinery for control and power supplies
- Used for low mechanical stresses, general purposes

기계적 스트레스가 낮은 이동용 전기장치의 제어용과 전력 공급용으로 사용, 범용

Standard Applied

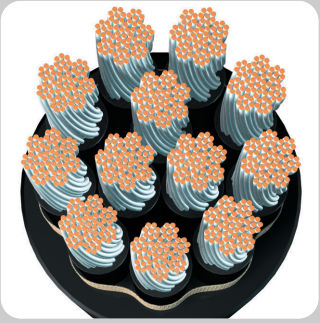
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT (General purpose flexiblle cables)

선심수 Number of Cores	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	도체저항 Conductor Resistant (20℃) (max.)	시험전압 Test Voltage
-	mm²	mm	mm	mm	Kg/km	Ω/km	V/5min
6	1.0	1.0	2.1	16.4	370	20.0	3,500
	1.5	1.0	2.2	17.4	430	13.7	3,500
	2.5	1.0	2.2	18.8	530	8.21	3,500
	4	1.0	2.4	20.8	690	5.09	3,500
	6	1.0	2.5	22.9	885	3.39	3,500
7	1.0	1.0	2.2	17.6	410	20.0	3,500
	1.5	1.0	2.2	18.8	480	13.7	3,500
	2.5	1.0	2.3	20.3	595	8.21	3,500
	4	1.0	2.5	22.5	775	5.09	3,500
	6	1.0	2.6	24.8	1,000	3.39	3,500
8	1.0	1.0	2.2	18.9	430	20.0	3,500
	1.5	1.0	2.3	20.1	500	13.7	3,500
	2.5	1.0	2.4	21.7	625	8.21	3,500
	4	1.0	2.6	24.2	820	5.09	3,500
	6	1.0	2.7	26.7	1,060	3.39	3,500
9	1.0	1.0	2.3	20.1	475	20.0	3,500
	1.5	1.0	2.4	21.5	565	13.7	3,500
	2.5	1.0	2.5	23.3	705	8.21	3,500
	4	1.0	2.7	25.9	925	5.09	3,500
	6	1.0	2.8	28.6	1,195	3.39	3,500
10	1.0	1.0	2.3	20.5	500	20.0	3,500
	1.5	1.0	2.4	21.8	585	13.7	3,500
	2.5	1.0	2.5	23.7	740	8.21	3,500
	4	1.0	2.7	26.4	980	5.09	3,500
	6	1.0	2.8	29.1	1,265	3.39	3,500

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black



Applications

- Portable electrical machinery for control and power supplies
- Used for low mechanical stresses, general purposes

기계적 스트레스가 낮은 이동용 전기장치의 제어용과 전력 공급용으로 사용, 범용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT (General purpose flexiblle cables)

선심수 Number of Cores	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	도체저항 Conductor Resistant (20℃) (max.)	시험전압 Test Voltage
-	mm²	mm	mm	mm	Kg/km	Ω/km	V/5min
12	1.0	1.0	2.4	21.2	555	20.0	3,500
	1.5	1.0	2.5	22.5	655	13.7	3,500
	2.5	1.0	2.6	24.4	825	8.21	3,500
	4	1.0	2.7	27.3	1,110	5.09	3,500
	6	1.0	2.9	30.1	1,440	3.39	3,500
16	1.0	1.0	2.5	23.3	685	20.0	3,500
	1.5	1.0	2.6	24.9	820	13.7	3,500
	2.5	1.0	2.7	27.1	1,055	8.21	3,500
	4	1.0	2.9	30.2	1,410	5.09	3,500
	6	1.0	3.1	33.5	1,845	3.39	3,500
19	1.0	1.0	2.6	24.6	770	20.0	3,500
	1.5	1.0	2.7	26.3	925	13.7	3,500
	2.5	1.0	2.8	28.5	1,185	8.21	3,500
	4	1.0	3.0	31.9	1,595	5.09	3,500
	6	1.0	3.2	35.3	2,100	3.39	3,500
24	1.0	1.0	2.8	28.6	980	20.0	3,500
	1.5	1.0	2.9	30.7	1,180	13.7	3,500
	2.5	1.0	3.1	33.4	1,515	8.21	3,500
	4	1.0	3.3	37.5	2,050	5.09	3,500
	6	1.0	3.6	41.6	2,700	3.39	3,500
27	1.0	1.0	2.9	29.3	1,060	20.0	3,500
	1.5	1.0	3.0	31.4	1,280	13.7	3,500
	2.5	1.0	3.1	34.2	1,650	8.21	3,500
	4	1.0	3.4	38.4	2,240	5.09	3,500
	6	1.0	3.6	42.6	2,960	3.39	3,500

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
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PNCT-R

Low Voltage Flexible Cable for Horizontal Trailing installation With Reinforcing

수평이동 포설용 시스 보강 캡타이어 케이블

Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

0.6/1kV PNCT-R

General purposes used flexible cables

EPR insulated PCP sheathed Round Type Flexible cable with reinforcing layer
EP 절연 PCP 시스 보강 원형 캡타이어 케이블

Application

Portable electrical machinery for control and power supplies.
Used for low mechanical stresses, general purposes.
기계적 스트레스가 낮은 이동용 전기장치의 제어용과 전력 공급용으로 사용, 범용

Construction Details

1. **Conductor** : Tinned annealed copper wire stranded, KS C IEC 60228 Class 5
2. **Insulation** : EPR rubber compound
3. **Cabling** : if necessary with filler
4. **Binder tape** : if necessary
5. **Reinforcing layer**
6. **Sheath** : PCP - with reinforcing layer shall be inserted in the middle of the sheath
   시스 중간에 보강층 삽입

Application Standard

- **Design guideline** : KS C IEC 60502-1


-25 to 60℃


Flame retardant
IEC 60332-1


Weather
Resistance to severe
weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to
chemicals.

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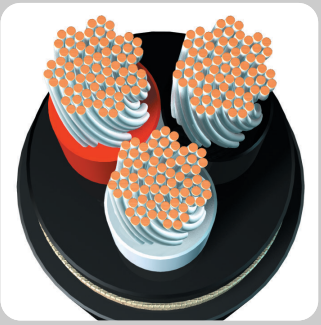


Applications

- Potable electrical machinery for control and power supplies
- Used for low mechanical stresses, general purposes

기계적 스트레스가 낮은 이동용 전기장치의 제어용과 전력 공급용으로 사용, 범용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-R (General purpose flexiblle cables)

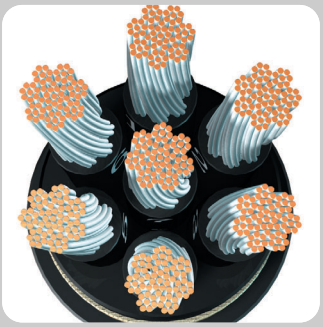
공칭 단면적 Nominal Sectional Area	절연두께 Thick -ness of Insula -tion	단심1Core			2심 2Core			3심3Core			4심4Core			5심 5Core			도체저항 Conductor Resistant (20℃) (max.)	시험 전압 Test Voltage
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)		
mm²	mm	mm	mm	kg/km	mm	mm	kg/km	mm	mm	kg/km	mm	mm	kg/km	mm	mm	kg/km	Ω/km	V/5min
1.0	1.1	2.5	10.0	130	2.8	14.3	260	2.8	15.0	290	2.9	16.2	345	3.0	17.6	405	20.0	3,500
1.5	1.1	2.5	10.4	145	2.8	15.0	295	2.9	15.7	335	2.9	17.0	390	3.0	18.5	460	13.7	3,500
2.5	1.1	2.6	10.8	160	2.9	15.9	345	2.9	16.7	395	3.0	18.1	465	3.1	19.8	555	8.21	3,500
4	1.1	2.6	11.5	190	2.9	17.3	420	3.0	18.2	485	3.1	19.7	580	3.2	21.6	700	5.09	3,500
6	1.1	2.6	12.2	225	3.0	18.7	510	3.1	19.7	600	3.2	21.4	720	3.3	23.4	865	3.39	3,500
10	1.1	2.7	13.2	285	3.1	20.7	665	3.2	21.8	790	3.3	23.8	975	3.5	26.1	1,180	1.95	3,500
16	1.1	2.8	15.0	385	3.4	24.3	940	3.4	25.8	1,135	3.6	28.2	1,400	3.8	31.0	1,705	1.24	3,500
25	1.4	2.9	17.3	535	3.6	28.9	1,355	3.7	30.7	1,655	3.9	33.6	2,050	4.1	37.1	2,510	0.795	3,500
35	1.4	3.0	18.8	675	3.8	31.8	1,715	3.9	33.8	2,120	4.1	37.2	2,650	4.4	41.2	3,260	0.565	3,500
50	1.8	3.2	21.6	920	4.1	37.5	2,400	4.3	40.0	2,985	4.5	44.0	3,735	4.8	48.8	4,605	0.393	3,500
70	1.8	3.3	23.8	1,185	4.4	41.8	3,105	4.6	44.6	3,895	4.8	49.3	4,920	5.1	54.6	6,070	0.277	3,500
95	2.0	3.5	26.4	1,490	4.7	47.0	3,960	4.9	50.2	4,995	5.2	55.5	6,310	5.6	61.6	7,800	0.210	3,500
120	2.0	3.6	28.4	1,800	4.9	51.1	4,815	5.1	54.6	6,100	5.5	60.5	7,735	-	-	-	0.164	3,500
150	2.2	3.8	31.0	2,190	5.2	56.3	5,900	5.5	60.2	7,490	5.9	66.7	9,515	-	-	-	0.132	3,500
185	2.4	3.9	33.5	2,605	-	-	-	-	-	-	-	-	-	-	-	-	0.108	3,500
240	2.6	4.1	37.1	3,310	-	-	-	-	-	-	-	-	-	-	-	-	0.0817	3,500
300	2.8	4.3	40.5	4,040	-	-	-	-	-	-	-	-	-	-	-	-	0.0654	3,500
400	3.0	4.6	45.2	5,180	-	-	-	-	-	-	-	-	-	-	-	-	0.0495	3,500

Identification of insulation

- 1C : Black
- 2C : Black, White
- 3C : Black, White, Red
- 4C : Black, White, Red, Green
- 5C : Black, White, Red, Green, Blue

Identification of sheath

Black



Applications

- Potable electrical machinery for control and power supplies
- Used for low mechanical stresses, general purposes

기계적 스트레스가 낮은 이동용 전기장치의 제어용과 전력 공급용으로 사용, 범용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-R (General purpose flexiblle cables)

선심수 Number of Cores	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	도체저항 Conductor Resistant (20℃) (max.)	시험전압 Test Voltage
-	mm²	mm	mm	mm	Kg/km	Ω/km	V/5min
6	1.0	1.1	3.0	19.0	460	20.0	3,500
	1.5	1.1	3.0	19.9	520	13.7	3,500
	2.5	1.1	3.1	21.3	630	8.21	3,500
	4	1.1	3.3	23.5	805	5.09	3,500
	6	1.1	3.3	25.3	1,000	3.39	3,500
7	1.0	1.1	3.0	20.2	500	20.0	3,500
	1.5	1.1	3.1	21.4	575	13.7	3,500
	2.5	1.1	3.2	22.9	700	8.21	3,500
	4	1.1	3.3	25.1	890	5.09	3,500
	6	1.1	3.4	27.2	1,115	3.39	3,500
8	1.0	1.1	3.1	21.5	525	20.0	3,500
	1.5	1.1	3.2	22.8	605	13.7	3,500
	2.5	1.1	3.3	24.5	740	8.21	3,500
	4	1.1	3.4	26.8	945	5.09	3,500
	6	1.1	3.6	29.4	1,195	3.39	3,500
9	1.0	1.1	3.2	22.9	585	20.0	3,500
	1.5	1.1	3.3	24.3	680	13.7	3,500
	2.5	1.1	3.4	26.1	830	8.21	3,500
	4	1.1	3.6	28.8	1,070	5.09	3,500
	6	1.1	3.7	31.4	1,345	3.39	3,500
10	1.0	1.1	3.3	23.4	615	20.0	3,500
	1.5	1.1	3.3	24.6	700	13.7	3,500
	2.5	1.1	3.4	26.4	860	8.21	3,500
	4	1.1	3.6	29.2	1,115	5.09	3,500
	6	1.1	3.7	31.8	1,410	3.39	3,500

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

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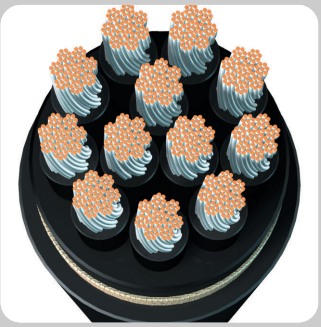
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297



Applications

- Portable electrical machinery for control and power supplies
- Used for low mechanical stresses, general purposes

기계적 스트레스가 낮은 이동용 전기장치의 제어용과 전력 공급용으로 사용, 범용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-R (General purpose flexiblle cables)

선심수 Number of Cores	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	도체저항 Conductor Resistant (20℃) (max.)	시험전압 Test Voltage
-	mm²	mm	mm	mm	Kg/km	Ω/km	V/5min
12	1.0	1.1	3.3	24.0	670	20.0	3,500
	1.5	1.1	3.3	25.2	770	13.7	3,500
	2.5	1.1	3.4	27.1	955	8.21	3,500
	4	1.1	3.6	30.0	1,245	5.09	3,500
	6	1.1	3.8	32.9	1,600	3.39	3,500
16	1.0	1.1	3.4	26.3	820	20.0	3,500
	1.5	1.1	3.6	28.1	980	13.7	3,500
	2.5	1.1	3.6	30.0	1,200	8.21	3,500
	4	1.1	3.8	33.2	1,575	5.09	3,500
	6	1.1	4.0	36.4	2,030	3.39	3,500
19	1.0	1.1	3.4	27.4	895	20.0	3,500
	1.5	1.1	3.6	29.3	1,075	13.7	3,500
	2.5	1.1	3.7	31.5	1,340	8.21	3,500
	4	1.1	3.9	34.9	1,770	5.09	3,500
	6	1.1	4.1	38.3	2,295	3.39	3,500
24	1.0	1.1	3.7	31.8	1,145	20.0	3,500
	1.5	1.1	3.9	34.0	1,365	13.7	3,500
	2.5	1.1	4.0	36.6	1,705	8.21	3,500
	4	1.1	4.3	40.8	2,275	5.09	3,500
	6	1.1	4.4	44.6	2,915	3.39	3,500
27	1.0	1.1	3.7	32.4	1,225	20.0	3,500
	1.5	1.1	3.9	34.6	1,465	13.7	3,500
	2.5	1.1	4.0	37.3	1,840	8.21	3,500
	4	1.1	4.3	41.6	2,465	5.09	3,500
	6	1.1	4.6	45.9	3,220	3.39	3,500

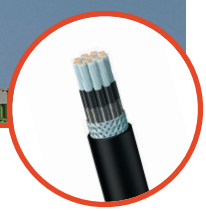
Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

SPNCT-B

Low Voltage Flexible Cable for Trailing installation in high mechanical stress application

기계적 스트레스가 높은 이동포설용 캡타이어 케이블



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Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

0.6/1kV SPNCT-B (-SB) / (-BS)

Bendable & Festoon system used flexible cables

EPR insulated PCP sheathed Round Type Bendable & Festoon system used Flexible cable

EP 절연 PCP 시스 원형 릴 & 커텐용 캡타이어 케이블

Application

Rubber reeling cable suitable for both control and power supplies.
Used for high mechanical stress applications, especiallyfor simultaneous tensile and torsion stresses.

축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Construction Details

1. **Conductor** : Tinned annealed copper wire stranded, KS C IEC 60228 Class 5
2. **Insulation** : EPR rubber compound
3. **Reinforce layer** : Yarn braid or Tape
4. **Individual shield(option, "-SB")** : Copper wire braid
5. **Cabling** : if necessary with filler
6. **Binder tape** : if necessary
7. **Collective shield (option, "-BS")** : Copper wire braid
8. **Sheath** : PCP

Application Standard

- **Design guideline** : KS C IEC 60502-1


-25 to 60℃

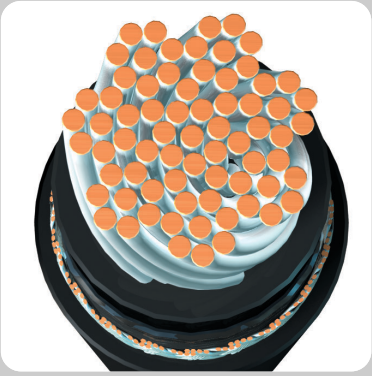

Flame retardant IEC 60332-1


Weather Resistance to severe weather conditions


Flexibillity


Impact


Chemical attacks Resistance to chemicals.



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

  축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 1Core, SPNCT-B (Bendable & Festoon system used flexible cables)

공칭 단면적 Nominal Sectional Area	절연 두께 Thickness of Insulation	SPNCT-B			SPNCT-BS			SPNCT-SB			도체 저항 Conductor Resistant (20℃) (max.)
		시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.0	1.6	7.4	70	1.6	8.6	105	-	-	-	13.70
2.5	1.0	1.6	8.2	90	1.7	9.3	125	-	-	-	8.210
4	1.0	1.6	8.9	110	1.7	10.0	155	-	-	-	5.090
6	1.0	1.7	9.6	140	1.8	10.7	185	-	-	-	3.390
10	1.0	1.8	10.7	190	1.8	11.8	245	-	-	-	1.950
16	1.0	1.8	12.1	265	1.9	13.2	335	-	-	-	1.240
25	1.2	2.0	14.1	390	2.0	15.2	465	-	-	-	0.795
35	1.2	2.1	15.9	525	2.2	17.6	655	-	-	-	0.565
50	1.4	2.2	18.2	720	2.3	19.9	870	-	-	-	0.393
70	1.4	2.3	20.2	950	2.4	21.9	1,120	-	-	-	0.277
95	1.6	2.5	22.9	1,255	2.6	24.6	1,450	-	-	-	0.210
120	1.6	2.6	25.0	1,550	2.7	26.7	1,765	-	-	-	0.164
150	1.8	2.7	27.6	1,930	2.8	29.3	2,165	-	-	-	0.132
185	2.0	2.9	30.1	2,320	3.0	31.8	2,580	-	-	-	0.108
240	2.2	3.1	33.6	2,965	3.2	35.3	3,255	-	-	-	0.0817
300	2.4	3.3	37.2	3,710	3.4	39.4	4,130	-	-	-	0.0654
400	2.6	3.6	41.6	4,755	3.7	43.8	5,225	-	-	-	0.0495

Identification of insulation
- 1C : Black

Identification of sheath
Black

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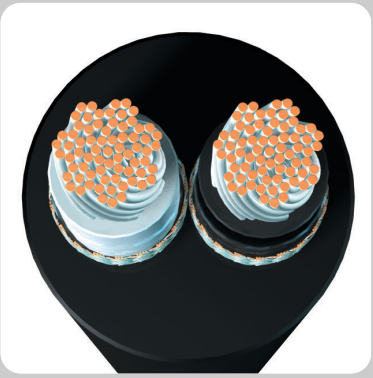


Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

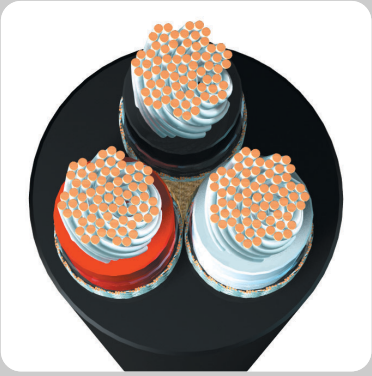
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 2Core, SPNCT-B (Bendable & Festoon system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	SPNCT-B			SPNCT-BS			SPNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.0	1.8	11.8	135	1.9	13.2	210	1.9	13.2	175	13.70
2.5	1.0	1.9	13.4	175	2.0	14.8	265	2.0	14.8	225	8.210
4	1.0	2.0	14.8	230	2.1	16.7	370	2.1	16.4	295	5.090
6	1.0	2.1	16.1	285	2.2	18.1	445	2.2	17.7	365	3.390
10	1.0	2.2	18.4	405	2.3	20.3	585	2.3	20.0	490	1.950
16	1.0	2.4	21.1	570	2.5	23.1	775	2.5	22.7	665	1.240
25	1.2	2.6	25.2	840	2.7	27.1	1,090	2.7	26.8	960	0.795
35	1.2	2.8	28.8	1,135	2.9	30.8	1,425	2.9	30.7	1,290	0.565
50	1.4	3.1	33.4	1,565	3.2	35.3	1,895	3.2	35.2	1,740	0.393
70	1.4	3.3	37.5	2,065	3.5	39.8	2,520	3.4	39.3	2,260	0.277
95	1.6	3.6	42.9	2,735	3.8	45.3	3,270	3.8	44.9	2,985	0.210
120	1.6	3.9	47.0	3,380	4.0	49.4	3,970	4.0	49.0	3,660	0.164
150	1.8	4.2	52.2	4,210	4.3	54.6	4,865	4.3	54.2	4,515	0.132
185	2.0	4.5	57.2	5,070	4.6	59.6	5,790	4.6	59.2	5,410	0.108
240	2.2	4.9	64.2	6,485	5.0	66.6	7,295	5.0	66.5	6,925	0.0817
300	2.4	5.3	71.5	8,140	5.5	73.8	9,025	5.5	74.4	8,755	0.0654

Identification of insulation
- 2C : Black, White

Identification of sheath
Black



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

  축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 3Core, SPNCT-B (Bendable & Festoon system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	SPNCT-B			SPNCT-BS			SPNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.0	1.9	12.5	170	1.9	13.9	250	1.9	14.0	235	13.70
2.5	1.0	2.0	14.2	225	2.0	15.6	325	2.0	15.7	300	8.210
4	1.0	2.0	15.7	300	2.2	17.6	455	2.1	17.4	400	5.090
6	1.0	2.1	17.2	390	2.2	19.1	555	2.2	18.9	495	3.390
10	1.0	2.3	19.7	555	2.4	21.6	745	2.4	21.4	675	1.950
16	1.0	2.4	22.5	780	2.6	24.4	1,005	2.5	24.2	930	1.240
25	1.2	2.7	26.9	1,170	2.8	28.8	1,430	2.8	28.6	1,340	0.795
35	1.2	2.9	30.9	1,590	3.1	32.8	1,895	3.1	32.8	1,810	0.565
50	1.4	3.2	35.8	2,200	3.3	37.7	2,555	3.3	37.7	2,460	0.393
70	1.4	3.5	40.2	2,920	3.6	42.6	3,420	3.6	42.1	3,210	0.277
95	1.6	3.8	46.0	3,885	4.0	48.3	4,445	4.0	48.2	4,260	0.210
120	1.6	4.1	50.4	4,815	4.2	52.8	5,445	4.2	52.5	5,225	0.164
150	1.8	4.4	56.0	6,000	4.6	58.4	6,705	4.5	58.2	6,470	0.132
185	2.0	4.7	61.4	7,250	4.9	63.7	8,005	4.9	63.5	7,750	0.108
240	2.2	5.2	69.0	9,300	5.3	71.3	10,150	5.3	71.3	9,925	0.0817
300	2.4	5.6	76.8	11,670	5.8	79.2	12,640	5.8	80.0	12,605	0.0654

Identification of insulation

- 3C : Black, White, Red

Identification of sheath

Black

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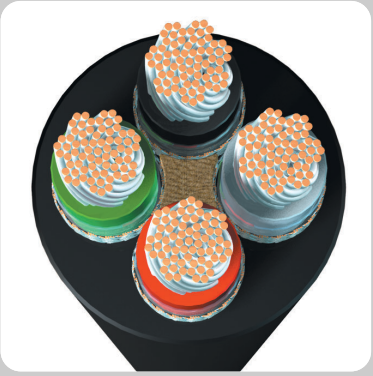
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 4Core, SPNCT-B (Bendable & Festoon system used flexible cables)

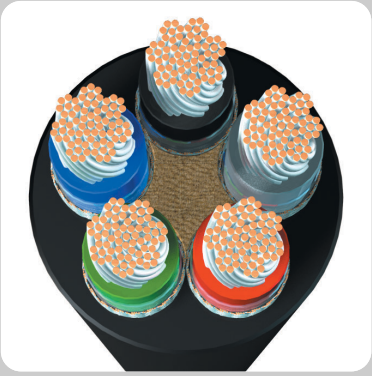
공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	SPNCT-B			SPNCT-BS			SPNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.0	1.9	13.7	210	2.0	15.0	300	2.0	15.4	300	13.70
2.5	1.0	2.0	15.6	285	2.2	17.5	440	2.1	17.3	390	8.210
4	1.0	2.1	17.3	390	2.3	19.2	555	2.2	19.1	520	5.090
6	1.0	2.2	18.9	500	2.3	20.8	680	2.3	20.8	645	3.390
10	1.0	2.4	21.6	710	2.5	23.5	925	2.5	23.5	880	1.950
16	1.0	2.6	24.9	1,020	2.7	26.8	1,265	2.7	26.8	1,215	1.240
25	1.2	2.9	29.9	1,530	3.0	31.8	1,825	3.0	31.7	1,760	0.795
35	1.2	3.1	34.2	2,080	3.2	36.1	2,420	3.3	36.4	2,385	0.565
50	1.4	3.5	39.6	2,880	3.6	42.0	3,375	3.6	41.9	3,245	0.393
70	1.4	3.7	44.6	3,835	3.9	47.0	4,395	3.9	46.7	4,235	0.277
95	1.6	4.1	51.1	5,120	4.3	53.5	5,750	4.3	53.7	5,645	0.210
120	1.6	4.4	56.0	6,345	4.6	58.4	7,050	4.6	58.5	6,920	0.164
150	1.8	4.8	62.4	7,935	4.9	64.8	8,720	4.9	64.9	8,580	0.132
185	2.0	5.1	68.4	9,580	5.3	70.8	10,440	5.3	70.9	10,285	0.108
240	2.2	5.6	76.9	12,300	5.8	79.3	13,270	5.8	79.6	13,180	0.0817
300	2.4	6.2	85.6	15,450	6.3	88.0	16,530	6.4	89.1	16,715	0.0654

Identification of insulation

- 4C : Black, White, Red, Green

Identification of sheath

Black



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

  축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 5Core, SPNCT-B (Bendable & Festoon system used flexible cables)

공칭 단면적 Nominal Sectional Area	절연 두께 Thickness of Insulation	SPNCT-B			SPNCT-BS			SPNCT-SB			도체 저항 Conductor Resistant (20℃) (max.)
		시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.0	2.0	15.1	270	2.1	16.8	410	2.1	17.1	395	13.70
2.5	1.0	2.1	17.3	375	2.2	19.0	535	2.2	19.1	510	8.210
4	1.0	2.2	19.1	500	2.3	20.8	675	2.4	21.2	675	5.090
6	1.0	2.4	21.0	645	2.5	22.7	840	2.5	23.2	845	3.390
10	1.0	2.6	24.1	930	2.6	25.8	1,155	2.7	26.2	1,155	1.950
16	1.0	2.8	27.7	1,325	2.9	29.4	1,585	2.9	29.9	1,590	1.240
25	1.2	3.1	33.3	1,990	3.2	35.0	2,305	3.2	35.4	2,305	0.795
35	1.2	3.4	38.1	2,706	3.5	40.3	3,165	3.5	40.5	3,120	0.565
50	1.4	3.7	44.3	3,760	3.9	46.4	4,290	3.9	46.6	4,235	0.393
70	1.4	4.0	49.7	4,995	4.2	51.8	5,585	4.2	52.2	5,545	0.277
95	1.6	4.5	57.1	6,670	4.6	59.2	7,355	4.6	59.9	7,375	0.210
120	-	-	-	-	-	-	-	-	-	-	-
150	-	-	-	-	-	-	-	-	-	-	-
185	-	-	-	-	-	-	-	-	-	-	-
240	-	-	-	-	-	-	-	-	-	-	-
300	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-

Identification of insulation

- 5C : Black, White, Red, Green, Blue

Identification of sheath

Black

Kukdong a Nexans company
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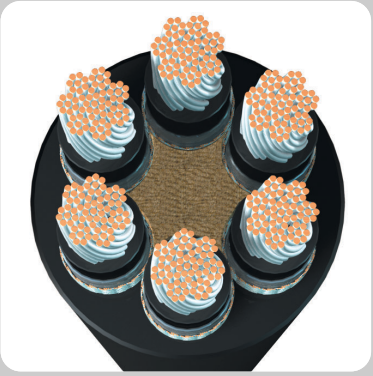
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

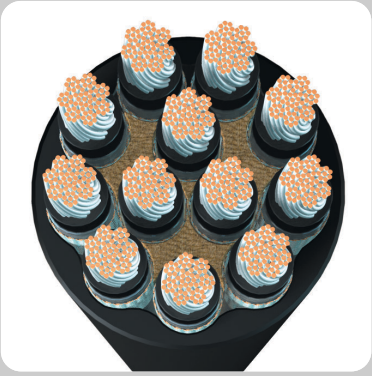
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV Multi-Core, SPNCT-B (Bendable & Festoon system used flexible cables)

선심수 Number of Cores	공칭단면적 Nominal Sectional Area	SPNCT-B			SPNCT-BS			SPNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
6	1.5	2.1	16.5	325	2.2	18.2	475	2.2	18.5	470	13.70
	2.5	2.2	18.9	445	2.3	20.6	620	2.4	20.9	615	8.210
	4	2.4	20.9	595	2.5	22.6	790	2.5	23.3	820	5.090
	6	2.5	22.9	765	2.6	24.6	985	2.6	25.3	1,015	3.390
7	1.5	2.2	17.8	360	2.3	19.5	520	2.3	20.1	535	13.70
	2.5	2.3	20.5	500	2.4	22.2	685	2.5	22.7	695	8.210
	4	2.5	22.7	665	2.6	24.4	875	2.6	25.3	930	5.090
	6	2.6	25.0	865	2.7	26.7	1,105	2.7	27.6	1,155	3.390
8	1.5	2.3	19.2	415	2.4	20.9	590	2.4	21.7	620	13.70
	2.5	2.4	22.0	570	2.5	23.7	770	2.6	24.5	805	8.210
	4	2.6	24.5	770	2.7	26.2	1,000	2.7	27.4	1,085	5.090
	6	2.7	27.0	1,000	2.8	28.7	1,255	2.9	29.9	1,350	3.390
9	1.5	2.3	20.6	470	2.4	22.3	660	2.5	23.3	710	13.70
	2.5	2.5	23.7	645	2.6	25.4	870	2.7	26.3	930	8.210
	4	2.7	26.3	870	2.8	28.0	1,125	2.9	29.5	1,245	5.090
	6	2.8	29.1	1,145	2.9	30.8	1,415	3.0	32.1	1,540	3.390
10	1.5	2.4	21.9	500	2.5	23.6	690	2.5	24.6	765	13.70
	2.5	2.5	25.1	690	2.6	26.8	920	2.7	27.8	1,005	8.210
	4	2.7	27.8	935	2.8	29.5	1,190	2.9	31.0	1,345	5.090
	6	2.9	30.5	1,215	3.0	32.2	1,495	3.0	33.7	1,665	3.390

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black



Applications

- Rubber reeling cable suitable for both control and power supplies.
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  축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV Multi-Core, SPNCT-B (Bendable & Festoon system used flexible cables)

선심수 Number of Cores	공칭단면적 Nominal Sectional Area	SPNCT-B			SPNCT-BS			SPNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
12	1.5	2.4	22.6	565	2.5	24.3	765	2.6	25.4	895	13.70
	2.5	2.6	25.9	785	2.7	27.6	1,020	2.8	28.7	1,175	8.210
	4	2.8	28.7	1,070	2.9	30.4	1,330	2.9	32.0	1,580	5.090
	6	2.9	31.5	1,395	3.0	33.2	1,685	3.1	34.8	1,955	3.390
16	1.5	2.5	25.0	720	2.6	26.7	950	2.7	28.3	1,225	13.70
	2.5	2.8	28.7	1,010	2.9	30.4	1,270	2.9	31.9	1,585	8.210
	4	2.9	31.9	1,385	3.0	33.6	1,680	3.2	35.6	2,135	5.090
	6	3.1	35.2	1,820	3.2	36.9	2,145	3.4	38.9	2,645	3.390
19	1.5	2.6	26.3	810	2.7	28.0	1,050	2.8	29.7	1,435	13.70
	2.5	2.8	30.3	1,145	2.9	32.0	1,420	3.0	33.7	1,870	8.210
	4	3.0	33.7	1,575	3.1	35.4	1,885	3.4	37.7	2,525	5.090
	6	3.2	37.1	2,075	3.3	38.8	2,415	3.5	41.1	3,125	3.390
24	1.5	2.9	30.7	1,050	3.0	32.4	1,330	3.1	34.8	1,945	13.70
	2.5	3.2	35.5	1,480	3.3	37.2	1,810	3.4	39.6	2,525	8.210
	4	3.4	39.6	2,040	3.5	41.7	2,495	3.7	44.3	3,395	5.090
	6	3.6	43.7	2,685	3.8	45.8	3,190	3.9	48.4	4,180	3.390
27	1.5	2.9	31.4	1,145	3.0	33.1	1,435	3.2	35.6	2,215	13.70
	2.5	3.2	36.3	1,620	3.3	38.0	1,955	3.4	40.5	2,865	8.210
	4	3.4	40.5	2,240	3.6	42.6	2,710	3.7	45.4	3,860	5.090
	6	3.7	44.7	2,955	3.8	46.8	3,475	4.0	49.6	4,750	3.390

Identification of insulation
By numbering on Black colored insulation

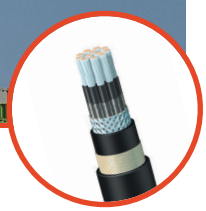
Identification of sheath
Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

PNCT-B

Low Voltage Flexible Cable for Trailing installation in high mechanical stress application With reinforcing

기계적 스트레스가 높은 이동포설용 시스보강용 캡타이어 케이블



0.6/1kV PNCT-B (-SB) / (-BS)

Bendable & Festoon system used flexible cables

EPR insulated PCP sheathed Round Type Bendable & Festoon system used Flexible cable with reinforcing layer

EP 절연 PCP 시스 보강용 원형 릴 & 커텐용 캡타이어 케이블

Application

Rubber reeling cable suitable for both control and power supplies.
Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Construction Details

1. **Conductor** : Tinned annealed copper wire stranded, KS C IEC 60228 Class 5
2. **Insulation** : EPR rubber compound
3. **Reinforce layer** : Yarn braid or Tape
4. **Individual shield (option, "-SB")** : Copper wire braid
5. **Cabling** : if necessary with filler
6. **Binder tape** : if necessary
7. **Collective shield (option, "-BS")** : Copper wire braid
8. **Reinforcing layer** 보강층
9. **Sheath** : PCP (with reinforcing layer shall be inserted in the middle of the sheath)

Application Standard

- **Design guideline** : KS C IEC 60502-1


-25 to 60℃


Flame retardant
IEC 60332-1


Weather
Resistance to severe weather conditions


Flexibillity


Cold impact
CSA C22.2 No.38, -35℃
Special requirement


Chemical attacks
Resistance to chemicals.

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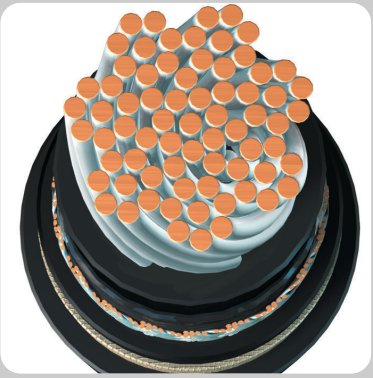

Applications

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축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

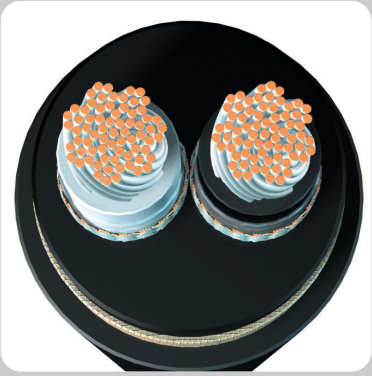
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 1Core, PNCT-B (Bendable & Festoon system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-B			PNCT-BS			PNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	2.4	10.3	135	2.6	11.7	190	-	-	-	13.70
2.5	1.1	2.6	11.4	170	2.6	12.4	215	-	-	-	8.210
4	1.1	2.6	12.0	195	2.6	13.0	250	-	-	-	5.090
6	1.1	2.6	12.6	230	2.7	13.8	290	-	-	-	3.390
10	1.1	2.7	13.8	295	2.7	14.8	360	-	-	-	1.950
16	1.1	2.7	15.0	380	2.8	16.2	455	-	-	-	1.240
25	1.4	2.9	17.4	530	3.0	19.1	665	-	-	-	0.795
35	1.4	3.0	19.2	680	3.1	20.9	830	-	-	-	0.565
50	1.8	3.1	21.8	910	3.3	23.7	1,100	-	-	-	0.393
70	1.8	3.3	24.0	1,170	3.4	25.7	1,365	-	-	-	0.277
95	2.0	3.4	26.6	1,495	3.6	28.5	1,730	-	-	-	0.210
120	2.0	3.6	28.8	1,825	3.7	30.5	2,060	-	-	-	0.164
150	2.2	3.7	31.3	2,220	3.8	33.0	2,480	-	-	-	0.132
185	2.4	3.9	33.9	2,645	4.0	35.6	2,925	-	-	-	0.108
240	2.6	4.0	37.2	3,310	4.1	38.9	3,625	-	-	-	0.0817
300	2.8	4.3	41.0	4,110	4.4	43.1	4,545	-	-	-	0.0654
400	3.0	4.6	45.5	5,205	4.7	47.6	5,695	-	-	-	0.0495

Identification of insulation
- 1C : Black

Identification of sheath
Black



Applications

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Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 2Core, PNCT-B (Bendable & Festoon system used flexible cables)

공칭 단면적 Nominal Sectional Area	절연 두께 Thickness of Insulation	PNCT-B			PNCT-BS			PNCT-SB			도체 저항 Conductor Resistant (20℃) (max.)
		시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	2.7	15.0	280	2.8	16.4	380	2.8	16.4	355	13.70
2.5	1.1	2.9	16.8	365	2.9	18.0	460	2.9	18.0	435	8.210
4	1.1	2.9	18.0	440	3.0	19.9	595	3.0	19.6	540	5.090
6	1.1	3.0	19.4	525	3.1	21.3	700	3.1	21.0	635	3.390
10	1.1	3.1	21.6	690	3.3	23.7	895	3.3	23.4	820	1.950
16	1.1	3.3	24.4	925	3.4	26.3	1,150	3.4	26.0	1,065	1.240
25	1.4	3.6	29.0	1,340	3.7	30.9	1,610	3.7	30.8	1,535	0.795
35	1.4	3.7	32.4	1,735	3.9	34.5	2,055	3.9	34.4	1,965	0.565
50	1.8	4.1	38.0	2,410	4.2	39.9	2,775	4.2	39.8	2,665	0.393
70	1.8	4.3	42.0	3,070	4.4	44.3	3,570	4.4	43.8	3,355	0.277
95	2.0	4.7	47.6	4,010	4.8	49.9	4,580	4.7	49.4	4,345	0.210
120	2.0	4.9	51.6	4,850	5.0	53.9	5,470	5.0	53.6	5,245	0.164
150	2.2	5.2	56.8	5,965	5.3	59.1	6,645	5.3	58.8	6,395	0.132
185	-	-	-	-	-	-	-	-	-	-	-
240	-	-	-	-	-	-	-	-	-	-	-
300	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-

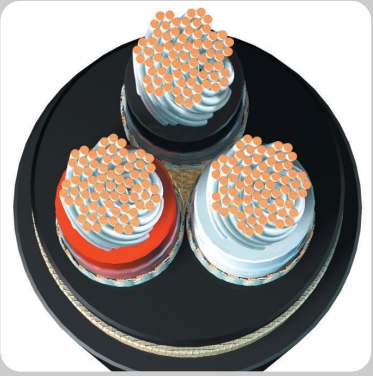
Identification of insulation

- 2C : Black, White

Identification of sheath

Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

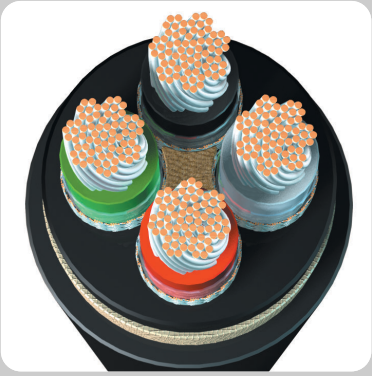
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 3Core, PNCT-B (Bendable & Festoon system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-B			PNCT-BS			PNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	2.8	15.8	325	2.9	17.2	420	2.9	17.3	415	13.70
2.5	1.1	2.9	17.5	410	3.0	19.4	565	3.0	19.0	510	8.210
4	1.1	3.0	19.0	510	3.1	20.9	680	3.1	20.7	640	5.090
6	1.1	3.0	20.3	610	3.2	22.4	805	3.1	22.0	750	3.390
10	1.1	3.2	22.9	825	3.3	24.8	1,040	3.3	24.6	990	1.950
16	1.1	3.4	25.9	1,125	3.4	27.6	1,350	3.4	27.4	1,295	1.240
25	1.4	3.7	30.8	1,645	3.7	32.5	1,920	3.7	32.5	1,875	0.795
35	1.4	3.9	34.6	2,160	4.0	36.5	2,490	4.0	36.6	2,445	0.565
50	1.8	4.3	40.6	3,010	4.4	42.9	3,490	4.3	42.3	3,320	0.393
70	1.8	4.6	45.1	3,890	4.6	47.2	4,400	4.6	46.8	4,235	0.277
95	2.0	4.9	50.9	5,065	5.0	53.2	5,675	5.0	53.0	5,535	0.210
120	2.0	5.1	55.1	6,160	5.3	57.6	6,850	5.3	57.5	6,700	0.164
150	2.2	5.4	60.7	7,590	5.6	63.2	8,355	5.6	63.0	8,185	0.132
185	-	-	-	-	-	-	-	-	-	-	-
240	-	-	-	-	-	-	-	-	-	-	-
300	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-

Identification of insulation
- 3C : Black, White, Red

Identification of sheath
Black



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

  축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 4Core, PNCT-B (Bendable & Festoon system used flexible cables)

공칭 단면적 Nominal Sectional Area	절연 두께 Thickness of Insulation	PNCT-B			PNCT-BS			PNCT-SB			도체 저항 Conductor Resistant (20℃) (max.)
		시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	시스 두께 Thickness of Sheath	완성 외경 Overall Diameter (approx.)	계산 중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	2.9	17.1	385	3.0	18.5	490	3.0	18.7	495	13.70
2.5	1.1	3.0	19.0	485	3.1	20.9	655	3.0	20.4	605	8.210
4	1.1	3.0	20.4	600	3.2	22.5	795	3.2	22.5	775	5.090
6	1.1	3.2	22.3	745	3.3	24.2	955	3.3	24.2	935	3.390
10	1.1	3.3	24.9	1,010	3.4	26.8	1,240	3.4	26.8	1,215	1.950
16	1.1	3.6	28.4	1,390	3.6	30.1	1,640	3.6	30.1	1,610	1.240
25	1.4	3.9	33.8	2,035	4.0	35.7	2,355	4.0	36.0	2,360	0.795
35	1.4	4.1	38.1	2,690	4.2	40.0	3,055	4.3	40.4	3,075	0.565
50	1.8	4.4	44.5	3,730	4.6	47.0	4,280	4.6	46.8	4,180	0.393
70	1.8	4.7	49.4	4,840	4.9	51.9	5,455	4.9	51.8	5,345	0.277
95	2.0	5.1	56.0	6,345	5.3	58.5	7,050	5.3	58.6	6,990	0.210
120	2.0	5.4	61.0	7,770	5.6	63.5	8,535	5.6	63.5	8,470	0.164
150	2.2	5.8	67.3	9,615	6.0	69.8	10,460	6.0	69.9	10,390	0.132
185	-	-	-	-	-	-	-	-	-	-	-
240	-	-	-	-	-	-	-	-	-	-	-
300	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-

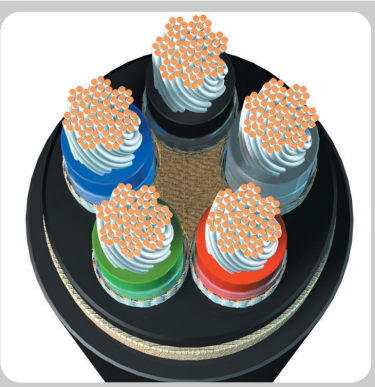
Identification of insulation

- 4C : Black, White, Red, Green

Identification of sheath

Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

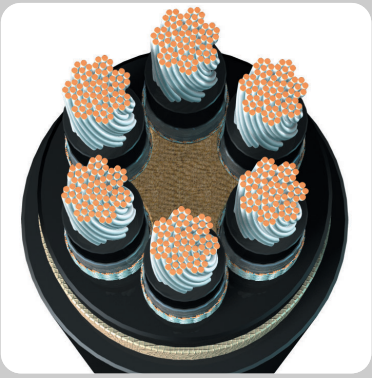
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 5Core, PNCT-B (Bendable & Festoon system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-B			PNCT-BS			PNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	3.0	18.7	465	3.0	20.2	610	3.0	20.3	600	13.70
2.5	1.1	3.1	20.8	595	3.2	22.5	770	3.2	22.6	760	8.210
4	1.1	3.2	22.6	745	3.3	24.3	945	3.3	24.7	965	5.090
6	1.1	3.3	24.4	925	3.4	26.1	1,140	3.4	26.5	1,155	3.390
10	1.1	3.4	27.3	1,245	3.6	29.2	1,505	3.6	29.6	1,525	1.950
16	1.1	3.7	31.1	1,720	3.8	32.8	2,000	3.8	33.2	2,025	1.240
25	1.4	4.0	37.1	2,535	4.1	38.8	2,875	4.2	39.7	2,970	0.795
35	1.4	4.3	42.1	3,375	4.4	44.2	3,860	4.4	44.4	3,855	0.565
50	1.8	4.7	49.3	4,715	4.9	51.6	5,310	4.9	51.9	5,305	0.393
70	1.8	5.1	55.0	6,140	5.3	57.3	6,810	5.3	57.6	6,800	0.277
95	2.0	5.6	62.5	8,080	5.7	64.6	8,815	5.7	65.1	8,885	0.210
120	-	-	-	-	-	-	-	-	-	-	-
150	-	-	-	-	-	-	-	-	-	-	-
185	-	-	-	-	-	-	-	-	-	-	-
240	-	-	-	-	-	-	-	-	-	-	-
300	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-

Identification of insulation
- 5C : Black, White, Red, Green, Blue

Identification of sheath
Black



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

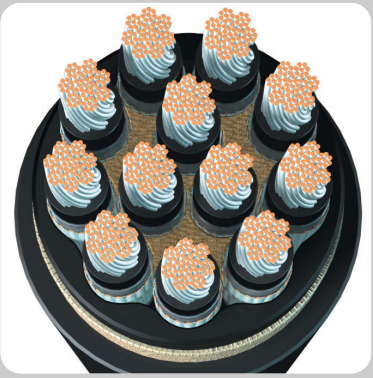
0.6/1kV Multi-Core, PNCT-B (Bendable & Festoon system used flexible cables)

선심수 Number of Cores	공칭단면적 Nominal Sectional Area	PNCT-B			PNCT-BS			PNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
6	1.5	3.0	19.9	520	3.1	21.6	690	3.1	21.9	700	13.70
	2.5	3.2	22.4	680	3.3	24.1	875	3.3	24.4	885	8.210
	4	3.4	24.4	865	3.4	26.1	1,080	3.4	26.7	1,125	5.090
	6	3.4	26.4	1,070	3.6	28.3	1,315	3.6	28.9	1,365	3.390
7	1.5	3.1	21.4	580	3.3	23.3	775	3.3	23.7	795	13.70
	2.5	3.3	24.1	755	3.4	25.8	970	3.4	26.2	995	8.210
	4	3.4	26.2	965	3.6	28.1	1,210	3.6	29.0	1,280	5.090
	6	3.6	28.6	1,205	3.6	30.1	1,445	3.7	31.1	1,535	3.390
8	1.5	3.2	22.8	610	3.3	24.5	805	3.3	25.2	840	13.70
	2.5	3.4	25.7	795	3.4	27.2	1,015	3.6	28.3	1,075	8.210
	4	3.6	28.3	1,030	3.6	29.8	1,270	3.7	31.0	1,365	5.090
	6	3.7	30.7	1,280	3.7	32.2	1,540	3.8	33.4	1,645	3.390
9	1.5	3.3	24.3	685	3.4	26.0	895	3.4	26.8	955	13.70
	2.5	3.4	27.2	880	3.6	29.1	1,140	3.6	30.0	1,205	8.210
	4	3.6	30.0	1,145	3.7	31.7	1,415	3.8	33.1	1,550	5.090
	6	3.7	32.5	1,420	3.9	34.4	1,730	4.0	35.9	1,880	3.390
10	1.5	3.3	24.6	705	3.4	26.3	925	3.4	27.2	1,005	13.70
	2.5	3.4	27.6	920	3.6	29.5	1,180	3.7	30.6	1,280	8.210
	4	3.7	30.6	1,205	3.7	32.1	1,465	3.9	33.8	1,655	5.090
	6	3.8	33.2	1,500	3.9	34.9	1,800	4.0	36.4	1,990	3.390

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses.

축방향 및 뒤틀림 스트레스가 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV Multi-Core, PNCT-B (Bendable & Festoon system used flexible cables)

선심수 Number of Cores	공칭단면적 Nominal Sectional Area	PNCT-B			PNCT-BS			PNCT-SB			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
12	1.5	3.3	25.2	775	3.4	26.9	1,000	3.6	28.3	1,165	13.70
	2.5	3.6	28.7	1,040	3.6	30.2	1,285	3.7	31.4	1,460	8.210
	4	3.7	31.4	1,345	3.8	33.1	1,625	3.9	34.7	1,895	5.090
	6	3.9	34.3	1,700	4.0	36.0	2,015	4.0	37.4	2,290	3.390
16	1.5	3.6	28.1	985	3.6	29.6	1,220	3.7	31.1	1,515	13.70
	2.5	3.7	31.6	1,295	3.8	33.3	1,580	3.9	34.8	1,920	8.210
	4	3.9	34.8	1,700	4.0	36.5	2,015	4.1	38.5	2,505	5.090
	6	4.1	38.0	2,165	4.2	39.7	2,510	4.3	41.7	3,045	3.390
19	1.5	3.6	29.3	1,080	3.7	31.0	1,345	3.7	32.5	1,745	13.70
	2.5	3.8	33.2	1,445	3.9	34.9	1,745	4.0	36.6	2,225	8.210
	4	4.0	36.6	1,910	4.1	38.3	2,245	4.3	40.7	2,935	5.090
	6	4.2	40.0	2,440	4.3	41.7	2,810	4.4	43.9	3,545	3.390
24	1.5	3.9	34.0	1,375	4.0	35.7	1,685	4.1	38.0	2,340	13.70
	2.5	4.1	38.6	1,840	4.3	40.5	2,215	4.4	42.8	2,970	8.210
	4	4.4	42.8	2,450	4.6	45.1	2,960	4.7	47.6	3,900	5.090
	6	4.6	46.8	3,125	4.7	48.9	3,665	4.9	51.6	4,720	3.390
27	1.5	3.9	34.6	1,475	4.0	36.3	1,790	4.1	38.7	2,620	13.70
	2.5	4.2	39.5	2,005	4.3	41.2	2,365	4.4	43.6	3,325	8.210
	4	4.4	43.6	2,655	4.6	45.9	3,180	4.7	48.5	4,375	5.090
	6	4.7	47.9	3,425	4.8	50.0	3,975	5.0	52.8	5,315	3.390

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

PNCT-F

Low Voltage Flexible Cable for Trailing installation in high mechanical stress application

기계적 스트레스가 높은 이동포설용 캡타이어 케이블

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

0.6/1kV PNCT-F
0.6/1kV PNCT-FS

Bendable & Festoon system used flexible cables

EPR insulated PCP sheathed Flat Type Bendable & Festoon system used Flexible cable EP 절연 PCP 시스 평형 릴 & 커텐용 캡타이어 케이블

Application

Ideal for cranes (festoon cable systems), storage systems, conveyor belts and conveyor systems for power supply and control.
Used for medium and high mechanical stress, especially where flexing is forceful and regular in concentrated points.
강한 구부림 강도와 계속적인 힘이 집중되는 곳에 사용되며, 기계적 스트레스가 높은 용도의 크레인, 컨베이어 벨트의 전력공급 및 제어용으로 사용

Construction Details

1. **Conductor** : Tinned annealed copper wire stranded, KS C IEC 60228 Class 5
2. **Insulation** : EPR rubber compound
3. **Reinforce layer** : Yarn braid or Tape
4. **Unit assembly** : if necessary
5. **Binder tape** : if necessary
6. **Collective shield (option, "-FS")** : Copper wire braid
7. **Arrangement**
8. **Sheath** : PCP

Application Standard

- **Design guideline** : KS C IEC 60502-1


-25 to 60℃


Flame retardant
IEC 60332-1


Weather
Resistance to severe weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to chemicals.

Applications

- Ideal for cranes (festoon cable systems), storage systems, conveyor belts and conveyor systems for power supply and control.
- Used for medium and high mechanical stress, especially where flexing is forceful and regular in concentrated points.

강한 구부림 강도와 계속적인 힘이 집중되는 곳에 사용되며, 기계적 스트레스가 높은 용도의 크레인, 컨베이어 벨트의 전력공급 및 제어용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-F (Bendable & Festoon system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	2심 2Cores			3심 3Cores			4심 4Cores			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.0	1.0	1.8	7.6×16.2	185	2.1	8.2×25.4	325	2.1	8.2×24.0	315	20.00
1.5	1.0	1.9	8.1×17.0	215	2.2	8.7×26.5	365	2.1	8.5×25.2	355	13.70
2.5	1.0	1.9	8.5×17.8	245	2.2	9.1×27.7	415	2.2	9.1×27.0	425	8.210
4	1.0	2.0	9.3×19.2	305	2.3	9.9×29.7	510	2.3	9.9×29.6	540	5.090
6	1.0	2.0	9.9×20.4	370	2.4	10.7×31.7	615	2.4	10.7×32.2	670	3.390
10	1.0	2.1	11.0×22.4	490	2.5	11.8×34.6	800	2.5	11.8×36.0	905	1.950
16	1.0	2.3	13.0×26.0	685	2.7	13.8×39.8	1,110	2.8	14.0×43.0	1,305	1.240
25	1.2	2.4	15.0×29.8	960	2.9	16.0×45.6	1,550	3.1	16.4×50.8	1,885	0.795
35	1.2	2.6	16.7×32.8	1,245	3.1	17.7×49.9	1,990	3.3	18.1×56.4	2,450	0.565
50	1.4	2.8	19.2×37.4	1,685	3.4	20.4×56.8	2,690	3.7	21.0×65.6	3,385	0.393
70	1.4	3.0	21.5×41.6	2,220	3.6	22.7×62.9	3,510	4.0	23.5×73.8	4,485	0.277
95	1.6	3.2	24.0×46.2	2,810	3.9	25.4×69.8	4,445	4.3	26.2×82.8	5,710	0.210
120	1.6	3.4	26.2×50.2	3,450	4.2	27.8×75.8	5,460	4.6	28.6×90.6	7,045	0.164
150	1.8	3.6	28.9×55.2	4,240	4.5	30.7×83.3	6,710	5.0	31.7×100.6	8,725	0.132
185	2.0	3.8	31.5×60.0	5,085	4.8	33.5×90.5	8,045	5.4	34.7×110.2	10,530	0.108
240	2.2	4.1	35.3×67.0	6,535	5.2	37.5×100.9	10,310	5.9	38.9×124.0	13,580	0.0817
300	2.4	4.4	38.9×73.6	8,030	5.6	41.3×110.7	12,650	6.4	42.9×137.0	16,745	0.0654
400	-	-	-	-	-	-	-	-	-	-	-

Identification of insulation

- 2C : Black, White
- 3C : Black, White, Red
- 4C : Black, White, Red, Green

Identification of sheath

Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
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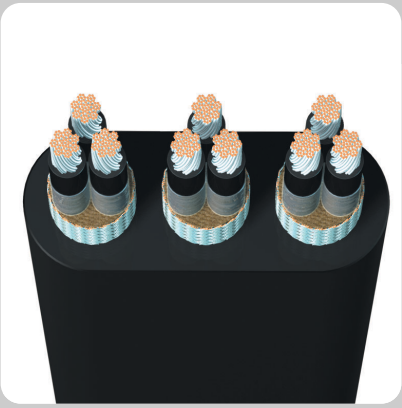


Applications

- Ideal for cranes (festoon cable systems), storage systems, conveyor belts and conveyor systems for power supply and control.
- Used for medium and high mechanical stress, especially where flexing is forceful and regular in concentrated points.

강한 구부림 강도와 계속적인 힘이 집중되는 곳에 사용되며, 기계적 스트레스가 높은 용도의 크레인, 컨베이어 벨트의 전력공급 및 제어용으로 사용

Standard Applied

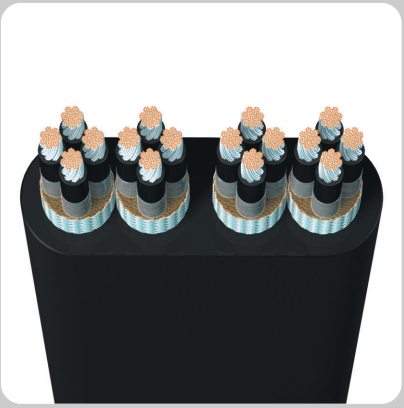
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-F & -FS (Bendable & Festoon system used flexible cables)

선심수 Number of Cores (Sub unit ×EA)	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-F			PNCT-FS			도체저항 Conductor Resistant (20℃) (max.)
			시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	Ω/km
6 (3×2)	1.0	1.0	2.3	13.3×26.6	495	2.4	14.7×29.2	660	20.00
	1.5	1.0	2.4	14.1×28.0	565	2.4	15.3×30.4	725	13.70
	2.5	1.0	2.4	15.0×29.8	665	2.5	16.4×32.4	855	8.210
	4	1.0	2.6	16.7×32.8	850	2.7	18.6×36.4	1,160	5.090
	6	1.0	2.7	18.2×35.6	1,060	2.8	20.1×39.2	1,395	3.390
8 (4×2)	1.0	1.0	2.4	14.4×28.6	580	2.5	15.8×31.2	755	20.00
	1.5	1.0	2.5	15.3×30.2	665	2.5	16.5×32.6	845	13.70
	2.5	1.0	2.6	16.5×32.4	810	2.7	18.4×36.0	1,115	8.210
	4	1.0	2.7	18.1×35.4	1,025	2.8	20.0×39.0	1,360	5.090
	6	1.0	2.8	19.8×38.6	1,285	3.0	21.9×42.4	1,665	3.390
9 (3×3)	1.0	1.0	2.7	14.1×40.7	820	2.9	15.7×44.7	1,095	20.00
	1.5	1.0	2.8	14.9×42.7	935	2.9	16.3×46.5	1,205	13.70
	2.5	1.0	2.9	16.0×45.6	1,110	3.1	17.6×49.6	1,420	8.210
	4	1.0	3.1	17.7×49.9	1,395	3.3	19.8×55.4	1,890	5.090
	6	1.0	3.3	19.4×54.2	1,735	3.5	21.5×59.7	2,275	3.390
10 (5×2)	1.0	1.0	2.5	15.6×30.8	665	2.6	17.5×34.4	955	20.00
	1.5	1.0	2.6	16.6×32.6	770	2.7	18.5×36.2	1,080	13.70
	2.5	1.0	2.7	17.9×35.0	945	2.8	19.8×38.6	1,275	8.210
	4	1.0	2.8	19.7×38.4	1,205	3.0	21.8×42.2	1,585	5.090
	6	1.0	3.0	21.8×42.2	1,535	3.1	23.7×45.8	1,935	3.390
12 (4×3)	1.0	1.0	2.9	15.4×43.8	965	3.0	16.8×47.6	1,245	20.00
	1.5	1.0	3.0	16.3×46.1	1,100	3.1	17.7×49.9	1,395	13.70
	2.5	1.0	3.1	17.5×49.3	1,320	3.3	19.6×54.8	1,805	8.210
	4	1.0	3.3	19.3×53.9	1,670	3.4	21.2×59.2	2,185	5.090
	6	1.0	3.5	21.2×58.8	2,090	3.6	23.1×64.1	2,655	3.390

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black



Applications

- Ideal for cranes (festoon cable systems), storage systems, conveyor belts and conveyor systems for power supply and control.
- Used for medium and high mechanical stress, especially where flexing is forceful and regular in concentrated points.

강한 구부림 강도와 계속적인 힘이 집중되는 곳에 사용되며, 기계적 스트레스가 높은 용도의 크레인, 컨베이어 벨트의 전력공급 및 제어용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-F & -FS (Bendable & Festoon system used flexible cables)

선심수 Number of Cores (Sub unit ×EA)	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-F			PNCT-FS			도체저항 Conductor Resistant (20℃) (max.)
			시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	Ω/km
16 (4×4)	1.0	1.0	3.0	15.6×48.2	1,075	3.2	17.2×53.4	1,455	20.00
	1.5	1.0	3.1	16.5×51.2	1,245	3.3	18.1×56.4	1,645	13.70
	2.5	1.0	3.3	17.9×55.6	1,540	3.5	20.0×62.8	2,170	8.210
	4	1.0	3.5	19.7×61.6	1,985	3.7	21.8×68.8	2,680	5.090
	6	1.0	3.8	21.8×68.2	2,550	4.0	23.9×75.4	3,320	3.390
24 (6×4)	1.0	1.0	3.4	18.5×57.4	1,490	3.6	20.6×64.6	2,140	20.00
	1.5	1.0	3.5	19.6×61.2	1,735	3.7	21.7×68.4	2,425	13.70
	2.5	1.0	3.7	21.2×66.4	2,155	3.9	23.3×73.6	2,905	8.210
	4	1.0	4.0	23.6×74.2	2,825	4.2	25.7×81.4	3,665	5.090
	6	1.0	4.3	26.0×82.0	3,625	4.5	28.1×89.2	4,550	3.390
27 (9×3)	1.0	1.0	3.6	22.2×61.4	1,810	3.8	24.3×66.9	2,430	20.00
	1.5	1.0	3.7	23.6×65.2	2,090	3.9	25.7×70.7	2,755	13.70
	2.5	1.0	4.0	25.8×70.6	2,600	4.1	27.7×75.9	3,295	8.210
	4	1.0	4.3	28.7×78.1	3,365	4.4	30.6×83.4	4,135	5.090
	6	1.0	4.6	31.7×85.9	4,280	4.8	33.8×91.4	5,165	3.390
30 (10×3)	1.0	1.0	3.6	22.5×62.3	1,900	3.8	24.6×67.8	2,530	20.00
	1.5	1.0	3.8	24.1×66.3	2,225	4.0	26.2×71.8	2,900	13.70
	2.5	1.0	4.0	26.1×71.5	2,745	4.2	28.2×77.0	3,475	8.210
	4	1.0	4.3	29.1×79.3	3,575	4.5	31.2×84.8	4,390	5.090
	6	1.0	4.6	32.1×87.1	4,555	4.8	34.2×92.6	5,460	3.390

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for low mechanical stress, stage cable.

기계적 스트레스가 낮은 무대 조명용 및 전력공급, 제어용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-F (Stage lighting power supplies used flexible cables)

선심수 Number of Cores (Sub unit ×EA)	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-F			도체저항 Conductor Resistant (20℃) (max.)
			시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	mm	Kg/km	Ω/km
5 (1×5)	4	1.0	2.6	10.5×40.1	810	5.090
	6	1.0	2.7	11.3×43.3	990	3.390
	10	1.0	2.9	12.6×48.2	1,325	1.950
7 (1×7)	4	1.0	2.9	11.1×50.5	1,080	5.090
	6	1.0	3.1	12.1×55.1	1,340	3.390
	10	1.0	3.3	13.4×61.8	1,800	1.950
9 (1×9)	4	1.0	3.3	11.9×61.1	1,410	5.090
	6	1.0	3.5	12.9×66.9	1,750	3.390
	10	1.0	3.8	14.4×75.6	2,375	1.950
11 (1×11)	4	1.0	3.6	12.5×71.5	1,705	5.090
	6	1.0	3.8	13.5×78.5	2,120	3.390
	10	1.0	4.2	15.2×89.2	2,900	1.950
13 (1×13)	4	1.0	3.9	13.1×81.9	2,040	5.090
	6	1.0	4.2	14.3×90.3	2,560	3.390
	10	1.0	4.6	16.0×102.8	3,485	1.950

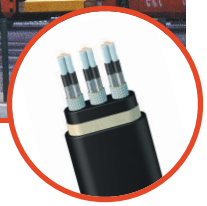
Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

PNCT-RF

Low Voltage Flexible Cable for Trailing installation in high mechanical stress application With reinforcing

기계적 스트레스가 높은 이동포설용 시스보강용 캡타이어 케이블



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Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

0.6/1kV PNCT-RF
0.6/1kV PNCT-RFS

Bendable & Festoon system used flexible cables

EPR insulated PCP sheathed Flat Type Bendable & Festoon system used Flexible cable with reinforcing layer

EP 절연 PCP 시스보강용 평형 릴 & 커텐용 캡타이어 케이블

Application

Ideal for cranes (festoon cable systems), storage systems, conveyor belts and conveyor systems for power supply and control.
Used for medium and high mechanical stress, especially where flexing is forceful and regular in concentrated points.

강한 구부림 강도와 계속적인 힘이 집중되는 곳에 사용되며, 기계적 스트레스가 높은 용도의 크레인, 컨베이어 벨트의 전력공급 및 제어용으로 사용

Construction Details

1. **Conductor** : Tinned annealed copper wire stranded, IEC 60228 Class 5
2. **Insulation** : EPR rubber compound
3. **Reinforce layer** : Yarn braid or Tape
4. **Unit assembly** : if necessary
5. **Binder tape** : if necessary
6. **Collective shield (option, "-RFS")** : Copper wire braid
7. **Arrangement**
8. **Sheath** : PCP(with reinforcing layer shall be inserted in the middle of the sheath)

Application Standard

- **Design guideline** : KS C IEC 60502-1


-25 to 60℃

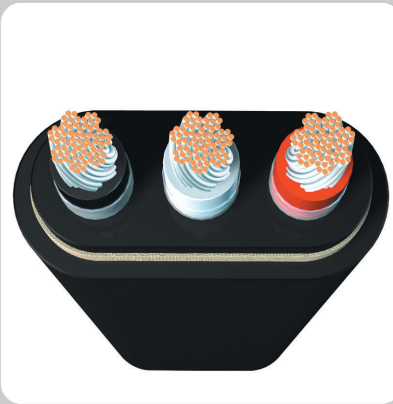

Flame retardant
IEC 60332-1


Weather
Resistance to severe
weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to
chemicals.



Applications

- Ideal for cranes (festoon cable systems), storage systems, conveyor belts and conveyor systems for power supply and control.
- Used for medium and high mechanical stress, especially where flexing is forceful and regular in concentrated points.

강한 구부림 강도와 계속적인 힘이 집중되는 곳에 사용되며, 기계적 스트레스가 높은 용도의 크레인, 컨베이어 벨트의 전력공급 및 제어용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-RF (Bendable & Festoon system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	2심 2Cores			3심 3Cores			4심 4Cores			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	2.8	10.1×19.2	295	3.1	10.7×28.9	485	3.1	10.7×28.0	480	13.70
2.5	1.1	2.8	10.8×20.6	350	3.2	11.6×31.2	575	3.2	11.6×31.0	590	8.210
4	1.1	2.9	11.6×22.0	420	3.3	12.4×33.2	680	3.3	12.4×33.6	720	5.090
6	1.1	3.0	12.4×23.4	495	3.3	13.0×35.0	785	3.4	13.2×36.2	865	3.390
10	1.1	3.1	13.6×25.6	630	3.5	14.4×38.4	1,015	3.5	14.4×40.4	1,135	1.950
16	1.1	3.2	15.0×28.2	810	3.6	15.8×42.2	1,295	3.7	16.0×45.4	1,505	1.240
25	1.4	3.4	17.4×32.6	1,140	3.9	18.4×48.8	1,810	4.1	18.8×54.4	2,180	0.795
35	1.4	3.5	19.0×35.6	1,435	4.1	20.2×53.4	2,285	4.3	20.6×60.4	2,795	0.565
50	1.8	3.8	22.0×41.0	1,950	4.4	23.2×61.2	3,080	4.7	23.8×70.8	3,850	0.393
70	1.8	3.9	24.0×44.8	2,465	4.6	25.4×67.0	3,900	5.0	26.2×78.6	4,950	0.277
95	2.0	4.2	27.0×50.2	3,185	5.0	28.6×75.0	5,035	5.4	29.4×89.0	6,440	0.210
120	2.0	4.4	29.2×54.2	3,860	5.2	30.8×80.8	6,070	5.7	31.8×96.8	7,835	0.164
150	2.2	4.6	31.9×59.2	4,715	5.5	33.7×88.3	7,415	6.1	34.9×106.8	9,650	0.132
185	2.4	4.8	34.5×64.0	5,600	5.8	36.5×95.5	8,810	6.5	37.9×116.4	11,535	0.108
240	2.6	5.1	38.2×70.8	7,045	6.2	40.4×105.6	11,070	7.0	42.0×129.8	14,585	0.0817
300	2.8	5.4	42.0×77.8	8,710	6.6	44.4×116.0	13,665	7.5	46.2×143.6	18,095	0.0654
400	-	-	-	-	-	-	-	-	-	-	-

Identification of insulation

- 2C : Black, White
- 3C : Black, White, Red
- 4C : Black, White, Red, Green

Identification of sheath

Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

Applications

- Ideal for cranes (festoon cable systems), storage systems, conveyor belts and conveyor systems for power supply and control.
- Used for medium and high mechanical stress, especially where flexing is forceful and regular in concentrated points.

강한 구부림 강도와 계속적인 힘이 집중되는 곳에 사용되며, 기계적 스트레스가 높은 용도의 크레인, 컨베이어 벨트의 전력공급 및 제어용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-RF & -RFS (Bendable & Festoon system used flexible cables)

선심수 Number of Cores (Sub unit ×EA)	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-RF			PNCT-RFS			도체저항 Conductor Resistant (20℃) (max.)
			시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
6 (3 ×2)	1.5	1.1	3.3	16.3 ×30.6	705	3.4	17.7 ×33.2	895	13.70
	2.5	1.1	3.4	18.0 ×33.8	870	3.6	20.1 ×37.6	1,200	8.210
	4	1.1	3.6	19.7 ×36.8	1,085	3.7	21.6 ×40.4	1,425	5.090
	6	1.1	3.7	21.2 ×39.6	1,300	3.8	23.1 ×43.2	1,670	3.390
8 (4 ×2)	1.5	1.1	3.4	17.6 ×33.0	820	3.5	19.5 ×36.6	1,130	13.70
	2.5	1.1	3.6	19.7 ×36.8	1,045	3.7	21.6 ×40.4	1,385	8.210
	4	1.1	3.7	21.3 ×39.8	1,290	3.8	23.2 ×43.4	1,660	5.090
	6	1.1	3.9	23.2 ×43.2	1,580	4.0	25.1 ×46.8	1,985	3.390
9 (3 ×3)	1.5	1.1	3.8	17.3 ×45.9	1,150	3.9	18.7 ×49.7	1,445	13.70
	2.5	1.1	4.0	19.2 ×50.8	1,425	4.1	21.1 ×56.1	1,910	8.210
	4	1.1	4.1	20.7 ×54.9	1,730	4.3	22.8 ×60.4	2,280	5.090
	6	1.1	4.3	22.4 ×59.2	2,090	4.5	24.5 ×64.7	2,685	3.390
10 (5 ×2)	1.5	1.1	3.5	19.0 ×35.6	950	3.6	20.9 ×39.2	1,280	13.70
	2.5	1.1	3.7	21.3 ×39.8	1,210	3.8	23.2 ×43.4	1,580	8.210
	4	1.1	3.9	23.3 ×43.4	1,520	4.0	25.2 ×47.0	1,930	5.090
	6	1.1	4.0	25.1 ×46.8	1,850	4.2	27.2 ×50.6	2,310	3.390
12 (4 ×3)	1.5	1.1	3.9	18.6 ×49.4	1,325	4.1	20.7 ×54.9	1,810	13.70
	2.5	1.1	4.1	20.7 ×54.9	1,660	4.3	22.8 ×60.4	2,210	8.210
	4	1.1	4.3	22.5 ×59.5	2,050	4.5	24.6 ×65.0	2,650	5.090
	6	1.1	4.5	24.4 ×64.4	2,500	4.7	26.5 ×69.9	3,150	3.390

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

Applications

- Ideal for cranes (festoon cable systems), storage systems, conveyor belts and conveyor systems for power supply and control.
- Used for medium and high mechanical stress, especially where flexing is forceful and regular in concentrated points.

강한 구부림 강도와 계속적인 힘이 집중되는 곳에 사용되며, 기계적 스트레스가 높은 용도의 크레인, 컨베이어 벨트의 전력공급 및 제어용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV PNCT-RF & -RFS (Bendable & Festoon system used flexible cables)

선심수 Number of Cores (Sub unit ×EA)	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-RF			PNCT-RFS			도체저항 Conductor Resistant (20℃) (max.)
			시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	Ω/km
16 (4×4)	1.5	1.1	4.1	19.0×55.2	1,520	4.3	21.1×62.4	2,145	13.70
	2.5	1.1	4.4	21.3×62.6	1,965	4.6	23.4×69.8	2,675	8.210
	4	1.1	4.6	23.1×68.6	2,465	4.8	25.2×75.8	3,245	5.090
	6	1.1	4.9	25.2×75.2	3,065	5.1	27.3×82.4	3,915	3.390
24 (6×4)	1.5	1.1	4.5	22.2×65.6	2,080	4.7	24.3×72.8	2,820	13.70
	2.5	1.1	4.9	25.1×74.8	2,730	5.1	27.2×82.0	3,575	8.210
	4	1.1	5.2	27.5×82.6	3,485	5.4	29.6×89.8	4,420	5.090
	6	1.1	5.5	29.9×90.4	4,335	5.7	32.0×97.6	5,360	3.390
27 (9×3)	1.5	1.1	4.7	26.4×69.6	2,475	4.9	28.5×75.1	3,185	13.70
	2.5	1.1	5.1	29.9×78.5	3,215	5.3	32.0×84.0	4,020	8.210
	4	1.1	5.4	32.9×86.3	4,070	5.6	35.0×91.8	4,965	5.090
	6	1.1	5.7	35.9×94.1	5,040	5.9	38.0×99.6	6,015	3.390
30 (10×3)	1.5	1.1	4.8	26.9×70.7	2,625	5.0	29.0×76.2	3,345	13.70
	2.5	1.1	5.2	30.5×79.9	3,415	5.3	32.4×85.2	4,205	8.210
	4	1.1	5.5	33.5×87.7	4,340	5.7	35.6×93.2	5,245	5.090
	6	1.1	5.8	36.5×95.5	5,375	6.0	38.6×101.0	6,370	3.390

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

PNCT-T

Low Voltage Flexible Cable for Spreader basket installation in high mechanical stress application

기계적 스트레스가 높은 스프레더 바스켓용 시스보강용 캡타이어 케이블

0.6/1kV PNCT-T (-ST) / (-TS)

Spreader Basket system used flexible cables

EPR insulated PCP sheathed Round Type Spreader system used Flexible cable
EP 절연 PCP 시스 원형 스프레더용 캡타이어 케이블

Application

Rubber reeling cable suitable for both control and power supplies.
Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses collector basket operation.
컬렉터 바스켓의 장력과 비틀림이 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Construction Details

1. **Conductor** : Tinned annealed copper wire stranded, IEC 60228 Class 5
2. **Insulation** : EPR rubber compound
3. **Individual shield (option, "-ST")** : Copper wire braid
4. **Reinforce layer** : Yarn braid or Tape
5. **Sub-unit** : if necessary
6. **Cabling** : if necessary with filler
7. **Binder tape** : if necessary
8. **Collective shield (option, "-TS")** : Copper wire braid
9. **Sheath** : PCP

Application Standard

- **Design guideline** : KS C IEC 60502-1


-25 to 60℃


Flame retardant
IEC 60332-1


Weather
Resistance to severe weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to chemicals.

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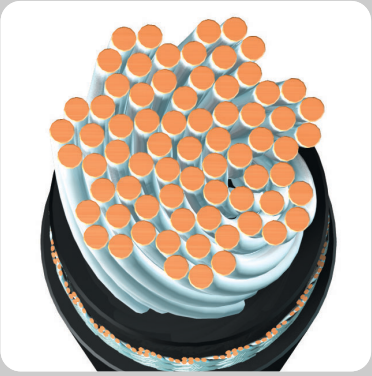


Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses collector basket operation.

컬렉터 바스켓의 장력과 비틀림이 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

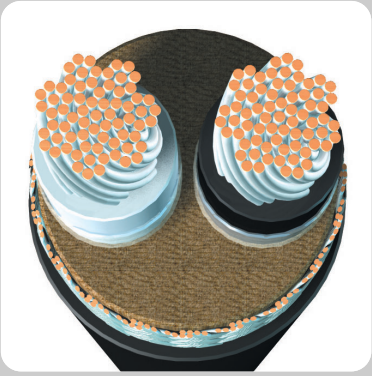
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 1Core, PNCT-T (Spreader system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-T			PNCT-TS			PNCT-ST			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	1.6	7.4	80	1.6	8.6	120	-	-	-	13.70
2.5	1.1	1.6	8.2	100	1.7	9.4	145	-	-	-	8.210
4	1.1	1.7	8.9	130	1.7	10.1	175	-	-	-	5.090
6	1.1	1.7	9.6	160	1.8	10.7	210	-	-	-	3.390
10	1.1	1.8	10.7	210	1.8	11.9	275	-	-	-	1.950
16	1.1	1.8	12.1	290	1.9	13.2	360	-	-	-	1.240
25	1.4	2.0	14.4	430	2.1	16.1	555	-	-	-	0.795
35	1.4	2.1	16.2	570	2.2	17.9	710	-	-	-	0.565
50	1.8	2.2	18.9	785	2.3	20.6	955	-	-	-	0.393
70	1.8	2.4	20.9	1,025	2.5	22.6	1,210	-	-	-	0.277
95	2.0	2.5	23.7	1,345	2.6	25.4	1,555	-	-	-	0.210
120	2.0	2.6	25.7	1,645	2.7	27.4	1,875	-	-	-	0.164
150	2.2	2.8	28.3	2,035	2.9	30.0	2,285	-	-	-	0.132
185	2.4	2.9	30.8	2,435	3.0	32.5	2,705	-	-	-	0.108
240	2.6	3.2	34.3	3,090	3.3	36.0	3,395	-	-	-	0.0817
300	2.8	3.4	37.9	3,850	3.5	40.1	4,285	-	-	-	0.0654
400	3.0	3.6	42.4	4,920	3.8	44.5	5,400	-	-	-	0.0495

Identification of insulation
- 1C : Black

Identification of sheath
Black



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses collector basket operation.

  컬렉터 바스켓의 장력과 비틀림이 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 2Core, PNCT-T (Spreader system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-T			PNCT-TS			PNCT-ST			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	1.9	13.2	230	2.0	14.6	325	2.0	14.6	295	13.70
2.5	1.1	2.0	14.8	295	2.1	16.2	400	2.1	16.2	375	8.210
4	1.1	2.1	16.2	380	2.2	18.1	530	2.2	17.8	470	5.090
6	1.1	2.2	17.5	460	2.3	19.5	630	2.3	19.1	560	3.390
10	1.1	2.3	19.8	615	2.4	21.7	805	2.4	21.4	735	1.950
16	1.1	2.5	22.5	835	2.6	24.4	1,055	2.6	24.1	970	1.240
25	1.4	2.7	27.1	1,235	2.8	29.0	1,500	2.8	28.9	1,420	0.795
35	1.4	2.9	30.7	1,630	3.1	32.6	1,935	3.0	32.5	1,840	0.565
50	1.8	3.3	36.1	2,270	3.4	38.0	2,630	3.4	37.9	2,520	0.393
70	1.8	3.5	40.2	2,930	3.6	42.6	3,430	3.6	42.0	3,205	0.277
95	2.0	3.8	45.6	3,825	4.0	48.0	4,395	3.9	47.7	4,190	0.210
120	2.0	4.1	49.7	4,665	4.2	52.1	5,285	4.2	51.8	5,060	0.164
150	2.2	4.4	54.9	5,755	4.5	57.3	6,445	4.5	57.0	6,195	0.132
185	2.4	4.7	59.9	6,895	4.8	62.3	7,650	4.8	62.0	7,375	0.108
240	2.6	5.1	66.9	8,740	5.2	69.3	9,580	5.2	69.2	9,330	0.0817
300	2.8	5.5	74.2	10,880	5.6	76.6	11,815	5.7	77.1	11,720	0.0654
400	-	-	-	-	-	-	-	-	-	-	-

Identification of insulation
- 2C : Black, White

Identification of sheath
Black

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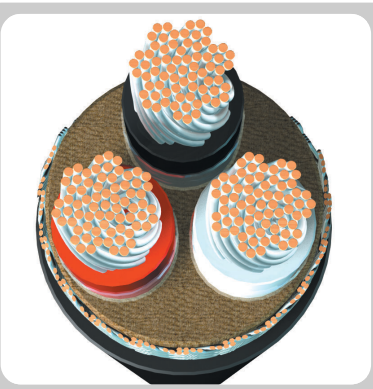


Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses collector basket operation.

컬렉터 바스켓의 장력과 비틀림이 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

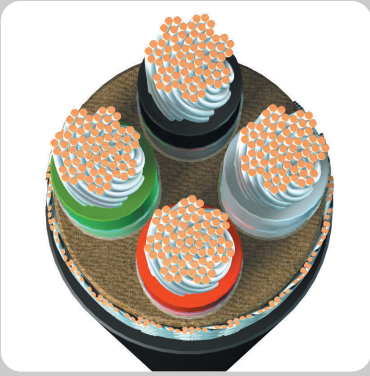
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 3Core, PNCT-T (Spreader system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-T			PNCT-TS			PNCT-ST			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	2.0	13.9	265	2.0	15.3	360	2.0	15.4	355	13.70
2.5	1.1	2.1	15.6	350	2.2	17.5	495	2.1	17.1	445	8.210
4	1.1	2.1	17.1	440	2.3	19.0	605	2.2	18.8	565	5.090
6	1.1	2.2	18.6	550	2.3	20.5	725	2.3	20.3	680	3.390
10	1.1	2.4	21.0	745	2.5	23.0	955	2.5	22.7	895	1.950
16	1.1	2.5	24.0	1,030	2.7	25.9	1,265	2.6	25.7	1,205	1.240
25	1.4	2.8	28.9	1,535	2.9	30.8	1,815	2.9	30.8	1,775	0.795
35	1.4	3.1	32.7	2,035	3.2	34.6	2,355	3.2	34.8	2,320	0.565
50	1.8	3.4	38.6	2,850	3.5	41.0	3,330	3.5	40.5	3,175	0.393
70	1.8	3.7	43.0	3,705	3.8	45.4	4,240	3.8	45.0	4,080	0.277
95	2.0	4.0	48.9	4,870	4.2	51.3	5,480	4.1	51.1	5,345	0.210
120	2.0	4.3	53.2	5,960	4.4	55.6	6,625	4.4	55.5	6,480	0.164
150	2.2	4.6	58.9	7,385	4.7	61.3	8,125	4.7	61.1	7,960	0.132
185	2.4	4.9	64.2	8,850	5.1	66.6	9,660	5.0	66.5	9,480	0.108
240	2.6	5.4	71.8	11,260	5.5	74.2	12,165	5.5	74.3	12,040	0.0817
300	2.8	5.8	79.6	14,040	6.0	82.0	15,045	6.0	82.8	15,165	0.0654
400	-	-	-	-	-	-	-	-	-	-	-

Identification of insulation
- 3C : Black, White, Red

Identification of sheath
Black



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses collector basket operation.

  컬렉터 바스켓의 장력과 비틀림이 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 4Core, PNCT-T (Spreader system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-T			PNCT-TS			PNCT-ST			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	2.0	15.2	320	2.1	16.5	420	2.1	16.7	425	13.70
2.5	1.1	2.1	17.1	420	2.3	19.0	580	2.2	18.7	540	8.210
4	1.1	2.2	18.7	535	2.3	20.6	710	2.3	20.6	695	5.090
6	1.1	2.3	20.4	665	2.4	22.3	860	2.4	22.3	840	3.390
10	1.1	2.5	23.1	925	2.6	25.0	1,145	2.6	25.0	1,120	1.950
16	1.1	2.7	26.4	1,280	2.8	28.3	1,535	2.8	28.3	1,505	1.240
25	1.4	3.0	31.8	1,905	3.1	33.7	2,220	3.1	34.1	2,230	0.795
35	1.4	3.3	36.2	2,550	3.4	38.2	2,920	3.4	38.4	2,920	0.565
50	1.8	3.7	42.8	3,585	3.8	45.2	4,120	3.8	45.0	4,025	0.393
70	1.8	3.9	47.7	4,680	4.1	50.1	5,280	4.1	49.9	5,160	0.277
95	2.0	4.3	54.3	6,170	4.5	56.6	6,835	4.5	56.7	6,775	0.210
120	2.0	4.6	59.2	7,560	4.8	61.6	8,305	4.8	61.6	8,240	0.164
150	2.2	5.0	65.5	9,385	5.1	67.9	10,210	5.1	68.0	10,135	0.132
185	2.4	5.3	71.5	11,265	5.5	73.9	12,165	5.5	74.0	12,085	0.108
240	2.6	5.8	80.0	14,350	6.0	82.4	15,360	6.0	82.7	15,370	0.0817
300	2.8	6.4	88.7	17,910	6.5	91.1	19,035	6.6	92.3	19,380	0.0654
400	-	-	-	-	-	-	-	-	-	-	-

Identification of insulation
- 4C : Black, White, Red, Green

Identification of sheath
Black

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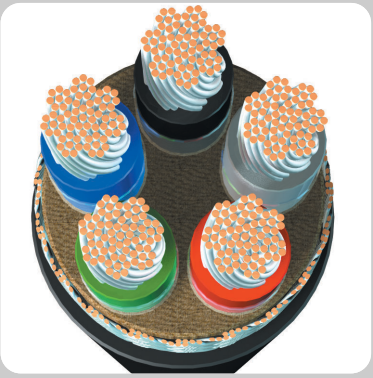
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses collector basket operation.

컬렉터 바스켓의 장력과 비틀림이 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

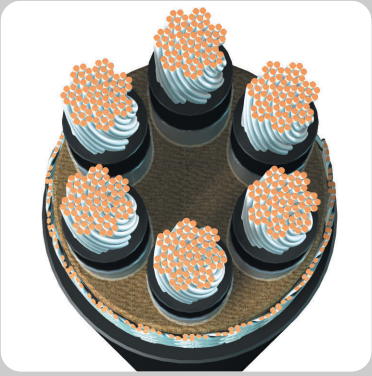
- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV 5Core, PNCT-T (Spreader system used flexible cables)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	PNCT-T			PNCT-TS			PNCT-ST			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
1.5	1.1	2.1	16.7	395	2.2	18.4	545	2.2	18.6	535	13.70
2.5	1.1	2.2	18.9	520	2.3	20.6	690	2.4	20.7	680	8.210
4	1.1	2.4	20.7	665	2.5	22.4	855	2.5	22.9	875	5.090
6	1.1	2.5	22.5	830	2.6	24.2	1,045	2.6	24.7	1,070	3.390
10	1.1	2.6	25.6	1,160	2.7	27.3	1,395	2.8	27.7	1,420	1.950
16	1.1	2.9	29.2	1,605	3.0	30.9	1,880	3.0	31.4	1,910	1.240
25	1.4	3.2	35.3	2,410	3.3	37.0	2,745	3.4	37.8	2,830	0.795
35	1.4	3.5	40.3	3,235	3.6	42.5	3,720	3.6	42.7	3,710	0.565
50	1.8	3.9	47.6	4,555	4.1	49.7	5,120	4.1	50.1	5,125	0.393
70	1.8	4.3	53.1	5,945	4.4	55.3	6,590	4.4	55.6	6,580	0.277
95	2.0	4.7	60.5	7,840	4.8	62.6	8,565	4.9	63.2	8,650	0.210
120	-	-	-	-	-	-	-	-	-	-	-
150	-	-	-	-	-	-	-	-	-	-	-
185	-	-	-	-	-	-	-	-	-	-	-
240	-	-	-	-	-	-	-	-	-	-	-
300	-	-	-	-	-	-	-	-	-	-	-
400	-	-	-	-	-	-	-	-	-	-	-

Identification of insulation
- 5C : Black, White, Red, Green, Blue

Identification of sheath
Black



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses collector basket operation.

  컬렉터 바스켓의 장력과 비틀림이 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

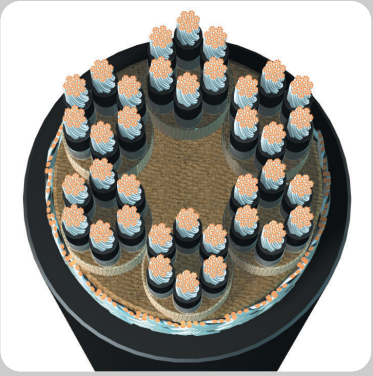
0.6/1kV Multi Core, PNCT-T (Spreader system used flexible cables)

선심수 Number of Cores	공칭단면적 Nominal Sectional Area	PNCT-T			PNCT-TS			PNCT-ST			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
6	1.5	2.2	18.1	450	2.3	19.8	615	2.3	20.1	620	13.70
	2.5	2.2	19.5	555	2.4	21.2	735	2.4	21.5	740	8.210
	4	2.4	21.5	720	2.5	23.2	920	2.5	23.9	965	5.090
	6	2.5	23.5	910	2.6	25.2	1,130	2.7	25.9	1,185	3.390
7	1.5	2.3	19.6	505	2.4	21.3	680	2.4	21.7	700	13.70
	2.5	2.4	21.0	615	2.5	22.7	810	2.5	23.3	835	8.210
	4	2.5	23.3	805	2.6	25.0	1,025	2.7	25.9	1,090	5.090
	6	2.6	25.5	1,030	2.7	27.2	1,265	2.8	28.2	1,345	3.390
8	1.5	2.4	20.9	525	2.5	22.6	715	2.5	23.4	750	13.70
	2.5	2.5	22.6	650	2.6	24.3	860	2.6	25.0	895	8.210
	4	2.6	25.0	850	2.7	26.7	1,085	2.8	28.0	1,175	5.090
	6	2.8	27.5	1,090	2.9	29.2	1,350	2.9	30.3	1,140	3.390
9	1.5	2.5	22.4	590	2.6	24.1	795	2.6	25.0	855	13.70
	2.5	2.6	24.2	735	2.7	25.9	965	2.7	26.8	1,020	8.210
	4	2.7	26.8	960	2.8	28.5	1,210	2.9	30.0	1,340	5.090
	6	2.9	29.5	1,235	3.0	31.2	1,510	3.1	32.6	1,645	3.390
10	1.5	2.5	22.7	610	2.6	24.4	820	2.6	25.5	905	13.70
	2.5	2.6	24.6	770	2.7	26.3	1,000	2.7	27.3	1,090	8.210
	4	2.7	27.3	1,010	2.8	29.0	1,265	2.9	30.5	1,425	5.090
	6	2.9	30.0	1,300	3.0	31.7	1,580	3.1	33.2	1,760	3.390

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297



Applications

- Rubber reeling cable suitable for both control and power supplies.
- Used for high mechanical stress applications, especially for simultaneous tensile and torsion stresses collector basket operation.

컬렉터 바스켓의 장력과 비틀림이 함께 존재하고, 기계적 스트레스가 높은 용도의 고무 릴케이블에 제어용과 전력 공급용으로 사용

Standard Applied

- Design guideline : KS C IEC 60502-1
- Material properties : KS C IEC 60502-1, EPR
  KS C IEC 60502-1, SE1

0.6/1kV Multi Core, PNCT-T (Spreader system used flexible cables)

선심수 Number of Cores (Sub unit ×EA)	공칭단면적 Nominal Sectional Area	PNCT-T			PNCT-TS			PNCT-ST			도체저항 Conductor Resistant (20℃) (max.)
		시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
-	mm²	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω /km
24 (6×4)	1.5	3.4	38.1	1,730	3.6	42.6	2,690	3.7	43.0	2,825	13.70
	2.5	3.7	43.8	2,340	4.0	48.5	3,465	4.0	48.7	3,600	8.210
	4	4.0	48.7	3,075	4.3	53.4	4,325	4.3	54.4	4,705	5.090
	6	4.3	53.7	3,920	4.6	58.4	5,300	4.6	59.3	5,710	3.390
30 (6×5)	1.5	3.6	42.2	2,110	3.9	47.4	3,325	3.9	47.6	3,620	13.70
	2.5	4.0	48.6	2,865	4.3	53.8	4,265	4.3	54.1	4,620	8.210
	4	4.3	54.1	3,780	4.6	59.3	5,335	4.7	60.6	6,060	5.090
	6	4.6	59.6	4,820	4.9	64.7	6,515	5.0	66.0	7,320	3.390
36 (6×6)	1.5	3.9	46.6	2,570	4.2	52.3	4,040	4.2	52.6	4,585	13.70
	2.5	4.3	53.7	3,500	4.6	59.4	5,185	4.7	59.9	5,855	8.210
	4	4.7	59.9	4,630	5.0	65.6	6,500	5.1	67.0	7,650	5.090
	6	5.0	65.9	5,885	5.4	71.8	7,975	5.4	73.0	9,215	3.390
42 (6×7)	1.5	4.1	50.9	3,065	4.5	57.3	4,820	4.5	57.7	5,690	13.70
	2.5	4.6	58.8	4,190	5.0	65.3	6,220	5.0	65.6	7,225	8.210
	4	5.0	65.6	5,540	5.4	72.0	7,780	5.5	73.5	9,450	5.090
	6	5.4	72.3	7,055	5.8	78.8	9,540	5.9	80.3	11,385	3.390

Identification of insulation
By numbering on Black colored insulation

Identification of sheath
Black

PNCT-B / F

High Voltage Flexible Cable for Trailing installation in high mechanical stress application With and Without Fibre-Optics

기계적 스트레스가 높은 이동포설용 고압 & 광통신 복합 캡타이어 케이블

Kukdong a Nexans company
Marketing Office Tel:82-2-2140-3062 Fax:82-2-2140-3098
Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

H.V PNCT-B
H.V PNCT-F

Bendable & Festoon system used flexible cables

EPR insulated PCP sheathed Round Type Spreader system used Flexible cable
EP 절연 PCP 시스 원형 스프레더용 캡타이어 케이블

Application

Trailing cables used for control and power supply of heavy mobile equipment where mechanical stress is very high.
Their main applications are for conveying and hoisting equipment at voltages of up to 15 kV.
기계적 스트레스가 매우 큰 이동용 중장비의 전력 및 제어용으로 주로 운반/게양 장치에 사용

Construction Details

1. **Conductor** : Tinned annealed copper wire stranded, IEC 60228 Class 5
2. **Conductor screen** : Semi conducting layer
3. **Insulation** : EPR rubber compound
4. **Insulation screen** : Semi conducting layer
5. **Metallic screen** : Copper wire braid
6. **Cabling** : if necessary with filler and Fibre-optics
   * Fibre-optics
     - Optical Fibre : 9.5/125㎛(Single Mode)
     - Fibre covering : Buffering tube with filling compound
     - Identification of the Fibre : Color coding on buffering tube
     - Sheath over the cabling : Special material
7. **Binder tape** : if necessary
8. **Reinforcing layer** 보강층
9. **Sheath** : PCP (with reinforcing layer shall be inserted in the middle of the sheath)

Application Standard

- **Design guideline** : KS C IEC 60502-2


-25 to 60℃

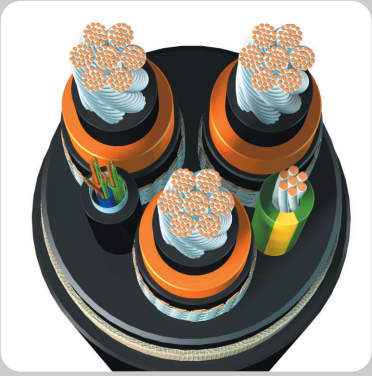

Flame retardant
IEC 60332-1


Weather
Resistance to severe
weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to
chemicals.



Applications

- Trailing cables used for control and power supply of heavy mobile equipment where mechanical stress is very high.
- Their main applications are for conveying and hoisting equipment at voltages of up to 10 kV.

기계적 스트레스가 매우 큰 이동용 중장비의 전력 및 제어용으로 주로 운반/게양 장치에 사용

Standard Applied

- Design guideline : KS C IEC 60502-2
- Material properties : KS C IEC 60502-2, EPR
  KS C IEC 60502-2, SE1

High Voltage PNCT-B (Bendable & Festoon system used flexible cables)

적용전압 Voltage Rating	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	3심 3Cores			3심+접지선 3Cores+1Earth			3심+3접지선 3Cores+3Earth			도체저항 Conductor Resistant (20℃) (max.)
			시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
V	mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	mm	mm	Kg/km	Ω/km
3.6/6kV	16	3.0	5.0	45.7	3,385	5.0	45.9	3,580	5.0	45.7	3,485	1.240
	25	3.0	5.2	49.2	4,015	5.2	49.2	4,205	5.2	49.2	4,110	0.795
	35	3.0	5.4	52.6	4,700	5.4	53.0	5,005	5.4	52.6	4,855	0.565
	50	3.0	5.6	56.4	5,575	5.6	56.5	5,875	5.6	56.4	5,725	0.393
	70	3.0	5.8	60.7	6,665	5.9	61.3	7,115	5.9	60.7	6,890	0.277
	95	3.0	6.1	65.6	7,995	6.2	67.0	8,655	6.2	65.6	8,325	0.210
	120	3.0	6.4	70.1	9,345	6.5	71.9	10,225	6.5	70.1	9,785	0.164
	150	3.0	6.7	74.8	10,900	6.8	77.3	12,080	6.8	74.8	11,490	0.132
	185	4.0	7.3	85.0	13,795	7.4	86.6	14,950	7.4	85.0	14,375	0.108
	240	4.0	7.7	91.7	16,490	7.8	93.4	17,925	7.8	91.7	17,210	0.0817
	300	4.0	8.1	98.5	19,530	8.2	100.7	21,330	8.2	98.5	20,430	0.0654
6/10kV	16	4.5	5.4	53.0	4,315	5.4	53.0	4,505	5.4	53.0	4,410	1.240
	25	4.5	5.6	56.4	4,995	5.6	56.4	5,185	5.6	56.4	5,090	0.795
	35	4.5	5.8	59.8	5,730	5.8	59.8	6,030	5.8	59.8	5,880	0.565
	50	4.5	6.0	63.7	6,670	6.0	63.7	6,965	6.0	63.7	6,820	0.393
	70	4.5	6.3	68.2	7,860	6.3	68.2	8,270	6.3	68.2	8,065	0.277
	95	4.5	6.6	73.1	9,270	6.6	73.5	9,875	6.6	73.1	9,575	0.210
	120	4.5	6.8	77.4	10,655	6.9	78.5	11,520	6.8	77.4	11,090	0.164
	150	4.5	7.1	82.1	12,285	7.2	83.9	13,450	7.1	82.1	12,870	0.132
	185	5.0	7.6	89.9	14,835	7.6	90.8	15,935	7.6	89.9	15,385	0.108
	240	5.0	7.9	96.4	17,560	8.0	97.7	18,980	7.9	96.4	18,270	0.0817
	300	5.0	8.3	103.2	20,670	8.5	105.2	22,505	8.3	103.2	21,590	0.0654

Identification of insulation

- 3C : Black, White, Red
- 4C : Black, White, Red, Green/Yellow
- Note) colored tape inserted under the metallic screen

Identification of sheath

Black

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Applications

- Trailing cables used for control and power supply of heavy mobile equipment where mechanical stress is very high.
- Their main applications are for conveying and hoisting equipment at voltages of up to 10 kV.

기계적 스트레스가 매우 큰 이동용 중장비의 전력 및 제어용으로 주로 운반/계양 장치에 사용

Standard Applied

- Design guideline : KS C IEC 60502-2
- Material properties : KS C IEC 60502-2, EPR
  KS C IEC 60502-2, SE1

High Voltage PNCT-F (Bendable & Festoon system used flexible cables)

적용전압 Voltage Rating	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	3심 3Cores			3심+접지선 3Cores+Earth			도체저항 Conductor Resistant (20℃) (max.)
			시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	시스두께 Thickness of Sheath	완성외경 Overall Diameter (approx.)	계산중량 Weight (approx.)	
V	mm²	mm	mm	mm	Kg/km	mm	mm	Kg/km	Ω/km
3.6/6kV	16	3.0	5.1	27.8×70.6	3,930	-	-	-	-
	25	3.0	5.3	29.6×75.2	4,535	5.4	29.8×78.6	4,825	0.795
	35	3.0	5.5	31.3×79.5	5,185	5.7	31.7×85.1	5,680	0.565
	50	3.0	5.7	33.4×85.0	6,135	5.9	33.8×90.6	6,645	0.393
	70	3.0	6.0	35.9×91.3	7,330	6.2	36.3×98.5	8,030	0.277
	95	3.0	6.2	38.0×96.8	8,420	6.5	38.6×106.6	9,430	0.210
	120	3.0	6.4	40.2×102.6	9,715	6.8	41.0×114.4	11,060	0.164
	150	3.0	6.7	42.7×108.9	11,200	7.1	43.5×123.1	12,930	0.132
	185	4.0	7.2	47.9×122.5	14,405	7.7	48.9×136.9	16,310	0.108
	240	4.0	7.6	51.5×131.7	16,830	8.1	52.5×147.9	19,155	0.0817
	300	4.0	8.0	54.9×140.3	19,510	8.5	55.9×158.8	22,350	0.0654
6/10kV	16	4.5	5.5	31.6×80.4	4,865	-	-	-	-
	25	4.5	5.7	33.4×85.0	5,510	5.8	33.6×88.4	5,820	0.795
	35	4.5	5.9	35.1×89.3	6,200	6.1	35.5×94.9	6,730	0.565
	50	4.5	6.1	37.2×94.8	7,205	6.3	37.6×100.4	7,755	0.393
	70	4.5	6.4	39.7×101.1	8,470	6.6	40.1×108.3	9,215	0.277
	95	4.5	6.6	41.8×106.6	9,605	6.9	42.4×116.4	10,680	0.210
	120	4.5	6.8	44.0×112.4	10,960	7.2	44.8×124.2	12,380	0.164
	150	4.5	7.1	46.5×118.7	12,505	7.5	47.3×132.9	14,330	0.132
	185	5.0	7.5	50.5×129.1	15,195	8.0	51.5×143.5	17,165	0.108
	240	5.0	7.9	54.1×138.3	17,880	8.4	55.1×154.5	20,275	0.0817
	300	5.0	8.2	57.3×146.7	20,560	8.8	58.5×165.4	23,530	0.0654

Identification of insulation

- 3C : Black, White, Red
- 4C : Black, White, Red, Green/Yellow
- Note) colored tape inserted under the metallic screen

Identification of sheath

Black

CURRENT CARRYING CAPACITY

10kV 이하 Flexible 고무절연 케이블
주위온도 : 30℃ 기준
3부하 케이블 기준

단면적	직선밀착	공기층지지	1층	2층	3층	4층	5층	6층	7층
mm²	계수	1.05	0.8	0.61	0.49	0.42	0.34	0.27	0.22
1.0	18	19	14	11	9	8	6	5	4
1.5	23	24	18	14	11	10	8	6	5
2.5	30	32	24	18	15	13	10	8	7
4	41	43	33	25	20	17	14	11	9
6	53	56	42	32	26	22	18	14	12
10	74	78	59	45	36	31	25	20	16
16	99	104	79	60	49	42	34	27	22
25	131	138	105	80	64	55	45	35	29
35	162	170	130	99	79	68	55	44	36
50	202	212	162	123	99	85	69	55	44
70	250	263	200	153	123	105	85	68	55
95	301	316	241	184	147	126	102	81	66
120	352	370	282	215	172	148	120	95	77
150	404	424	323	246	198	170	137	109	89
185	461	484	369	281	226	194	157	124	101
240	540	567	432	329	265	227	184	146	119
300	620	651	496	378	304	260	211	167	136
400	750	787	600	457	367	315	255	202	165

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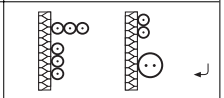
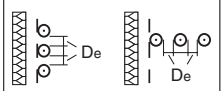
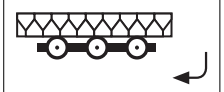
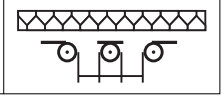
DERATING FACTOR

주위온도에 대한 저감계수

Ambient Temperature	10	15	20	25	30	35	40	45	50	55	60	65	70
Factor	1.18	1.14	1.10	1.05	1.00	0.95	0.89	0.84	0.77	0.71	0.63	0.55	0.45

Group 포설시 저감계수

배치(케이블 밀착)		회로 또는 다심케이블의 수													
		1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
기중이나 벽면에 묶거나 매설 또는 수납(Conduit or ducting)		1.0	0.8	0.7	0.65	0.6	0.57	0.54	0.52	0.50	0.48	0.45	0.43	0.41	0.38	0.38
벽 또는 막힘형 트레이의 단일층		1.0	0.85	0.79	0.75	0.73	0.72	0.72	0.72	0.71	0.70	-	-	-	-	-
벽 또는 막힘형 트레이의 단일층에 케이블 자기외경만큼 간격을 두어 포설시		1.0	0.94	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
천장면 아래에 직접 고정한 단일층		0.95	0.81	0.72	0.68	0.66	0.64	0.63	0.62	0.61	-	-	-	-	-	-
천장면 아래에 직접 고정한 단일층에 케이블 자기외경만큼간격을 두어 포설시		0.95	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85

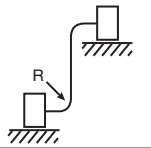
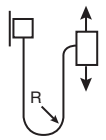
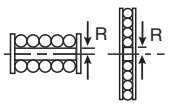
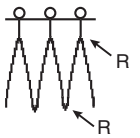
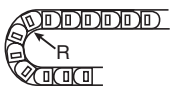
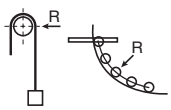
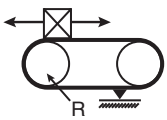
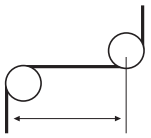
간헐적인 사용에 따른 저감계수 (De-rating factors for intermittent periodic duty)

주위온도 : 30℃		단면적 (mm^2)	Duty factor 60 %			
			60	40	25	15
Duty cycle	10분	0.75	1.00	1.00	1.00	1.00
		1.0	1.00	1.00	1.00	1.00
		1.5	1.00	1.00	1.00	1.00
		2.5	1.00	1.00	1.04	1.07
		4	1.00	1.03	1.05	1.19
		6	1.00	1.04	1.13	1.27
		10	1.03	1.09	1.21	1.44
		16	1.07	1.16	1.34	1.62
		25	1.10	1.23	1.46	1.79
		35	1.13	1.28	1.53	1.90
		50	1.16	1.34	1.62	2.03
		70	1.18	1.38	1.69	2.13
		95	1.20	1.42	1.74	2.21
		120	1.21	1.44	1.78	2.26
		150	1.22	1.46	1.81	2.30
		185	1.23	1.48	1.82	2.32
		240	1.23	1.49	1.85	2.36
		300	1.23	1.50	1.87	2.39
		400	1.25	1.53	1.93	2.53

* Duty factor 60%는 6분간 전류(부하)가 흐르고 4분간 무부하 상태를 의미함.

BENDING RADIUS

최소 굴곡 반경 & (Minimum bending radius) (IEC 62440 Ed.1.0의 Table 3 참조)

캡 타이어 케이블		PNCT / PNCT-R / PNCT-B / PNCT-T				
케이블 최대 외경 (mm)		0.6/1kV 이하				0.6/1kV 초과
		8 이하	8.1 ~ 12	12.1 ~ 20	20초과	(고압케이블)
	고정 포설	3 ×d	3 ×d	4 ×d	4 ×d	6 ×d
	이동 운전	4 ×d	4 ×d	5 ×d	6 ×d	10 ×d
	중심기준으로 이동 운전	6 ×d	6 ×d	6 ×d	8 ×d	10 ×d
	Reel에 적용 운전	6 ×d	6 ×d	6 ×d	8 ×d	12 ×d
	Festoon 운전	6 ×d	6 ×d	6 ×d	8 ×d	10 ×d
	케이블 체인 운전	6 ×d	6 ×d	6 ×d	8 ×d	10 ×d
	도르레나 휠차 적용 운전	6 ×d	8 ×d	8 ×d	8 ×d	15 ×d
	이송(tender)시스템	8 ×d	8 ×d	8 ×d	8 ×d	15 ×d
	S-type 2 방향 굴곡운전	20 ×d	20 ×d	20 ×d	20 ×d	20 ×d

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TRAVELLING SPEED

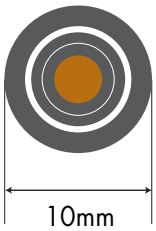
• 이동 속도

케이블의 이동속도에 대한 적용은 정상적인 운전상태를 가정하고 적용한다. 케이블의 수명에 관계되는 최소 굴곡 반경이나 Reel의 크기 등을 고려하여 케이블을 최적의 환경 하에서 운전하는 것이 필요하다. 특히, 처음 포설시는 정상적인 운전상태의 50%이하의 수준으로 운전하여 케이블이 이완되어 시스템에 적용될 수 있도록 하는 것이 중요하다. 처음부터 과도한 기계적 스트레스는 케이블 파손의 중요한 인자로 작용한다.

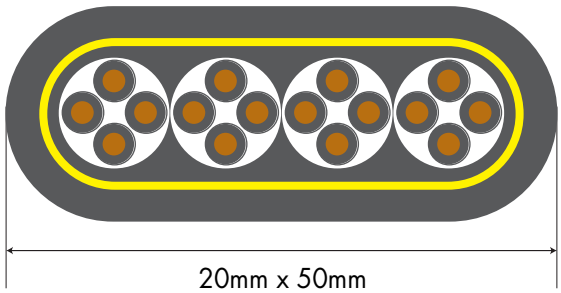
최대 적용 이동 속도

캡 타이어 케이블	Reeling	Festoons & tenders	Vertical run reeling or basket
PNCT-B	180	200	160
PNCT-F(fllat)	-	180	-
PNCT-T	-	-	160

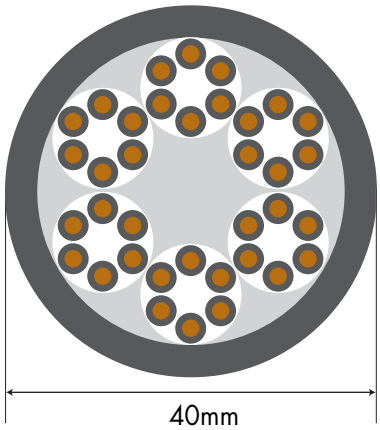
CABLE SCALE



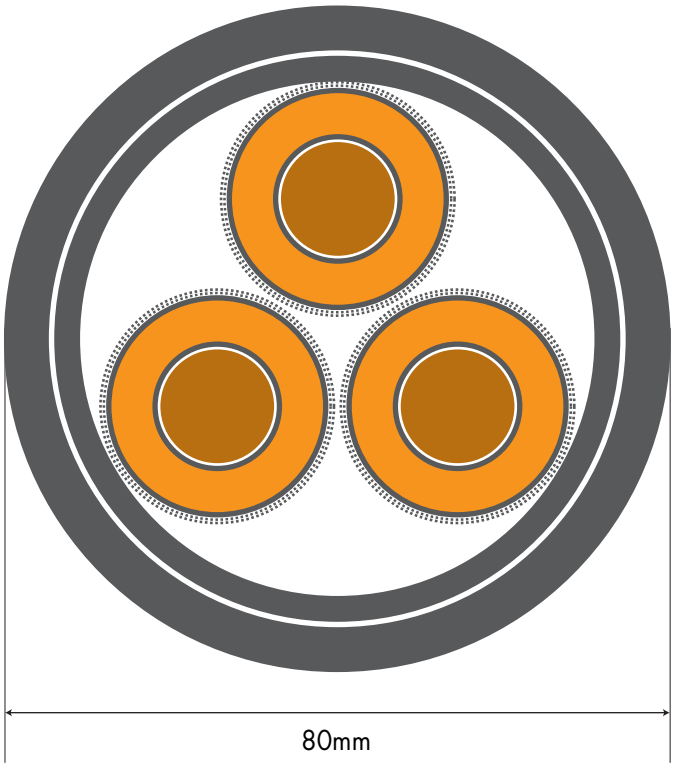
0.6/1kV PNCT-B
1.0SQMMx1C



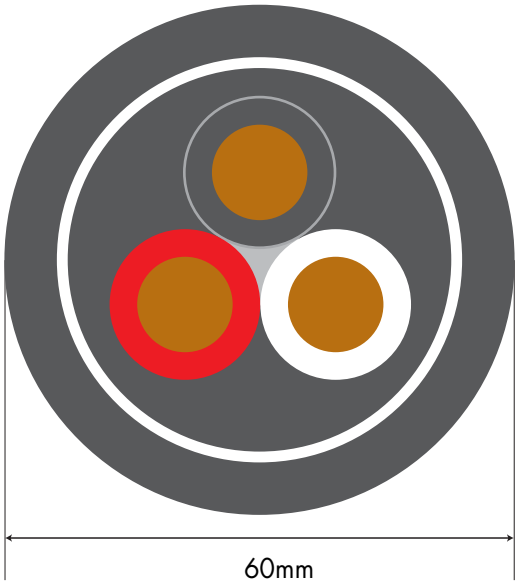
0.6/1kV PNCT-RFS
1.0SQMMx16C



0.6/1kV PNCT-T
1.0SQMMx36C



6/10kV PNCT-B
150SQMMx3C



0.6/1kV PNCT-R
150SQMMx3C

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Contents

60245 KSIEC

Low Voltage Flexible Cord or Cable for indoor pendand luminaires or small electric appliances

정격 전압 450/750V 이하 고무 절연 케이블

Kukdong a Nexans company
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60245 IEC 53

Ordinary purposes used flexible cord
범용 질긴(Ordinary tough) 고무 시스 코드

IE1 (EPR) insulated SE3 (PCP) sheathed Round Type Flexible cord
IE1(합성고무) 절연 SE3(천연고무 혼합물) 시스 코드

Application

Mainly for indoor pendant luminaires or small electric appliances, a.c. 300/500V
실내 조명, 작은 전기제품에 사용 a.c 300/500V

Construction Details

1. **Conductor** : Plain or Tinned annealed copper wire stranded, KS C IEC 60228 Class 5
2. **Insulation** : EPR rubber as per KS C IEC 60245-1, IE1
3. **Cabling** : if necessary with filler
4. **Binder tape** : if necessary
5. **Sheath** : PCP as per KS C IEC 60245-1, SE3

Application Standard

- **Design guideline** : KS C IEC 60245-4

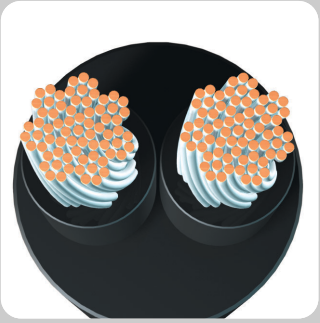

-25 to 60℃


Weather
Resistance to severe weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to chemicals.



Applications

- Mainly for indoor pendand luminaires or small electric appliances, a.c. 300/500V
  실내 조명, 작은 전기제품에 사용 a.c 300/500V

Standard Applied

- Design guideline : KS C IEC 60245-4
- Material properties : KS C IEC 60245-1, IE1 (EPR)
  KS C IEC 60245-1, SE3 (PCP)

300/500V 60245 IEC 53 (Ordinary tough rubber sheath cord)

선심수 Nominal sectional Area	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath	완성외경 Mean overall diameter		도체저항 Conductor Resistant (20℃) (max.)	시험전압 Test Voltage
				하한 Lower limit	상한 Upper limit		
-	mm²	mm	mm	mm	mm	Ω /km	V/5min
2	0.75	0.6	0.8	5.7	7.4	26.7	2,000
	1.0	0.6	0.9	6.1	8.0	20.0	2,000
	1.5	0.8	1.0	7.6	9.8	13.7	2,000
	2.5	0.9	1.1	9.0	11.6	8.21	2,000
3	0.75	0.6	0.9	6.2	8.1	26.7	2,000
	1.0	0.6	0.9	6.5	8.5	20.0	2,000
	1.5	0.8	1.0	8.0	10.4	13.7	2,000
	2.5	0.9	1.1	9.6	12.4	8.21	2,000
4	0.75	0.6	0.9	6.8	8.8	26.7	2,000
	1.0	0.6	0.9	7.1	9.3	20.0	2,000
	1.5	0.8	1.1	9.0	11.6	13.7	2,000
	2.5	0.9	1.2	10.7	13.8	8.21	2,000
5	0.75	0.6	1.0	7.6	9.9	26.7	2,000
	1.0	0.6	1.0	8.0	10.3	20.0	2,000
	1.5	0.8	1.1	9.8	12.7	13.7	2,000
	2.5	0.9	1.3	11.9	15.3	8.21	2,000

Identification of insulation

- 2C : no preferred color scheme (on purchaser order)
- 3C : Green/Yellow, Light blue, Brown
- 4C : Green/Yellow, Light blue, Black, Brown
- 5C : Green/Yellow, Light blue, Black, Brown, Black

Identification of sheath

Black

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60245 IEC 57

Ordinary PCP sheath cord
범용(Ordinary) 클로로프렌 또는 이와 동등한 합성 고무 시스 코드

IE1 (EPR) insulated SE4 (PCP) sheathed Round Type Flexible cord

IE1절연 SE4(클로로프렌 고무 또는 이와 동등한 합성 고무 혼합물) 시스 코드

Application

Mainly for indoor pendant luminaires or small electric appliances, a.c. 300/500V

실내 조명, 작은 전기제품에 사용 a.c 300/500V

Construction Details

1. **Conductor** : Plain or Tinned annealed copper wire stranded, KS C IEC 60228 Class 5
2. **Insulation** : EPR rubber as per KS C IEC 60245-1, IE1(EPR)
3. **Cabling** : if necessary with filler
4. **Binder tape** : if necessary
5. **Sheath** : PCP as per KS C IEC 60245-1, SE3

Application Standard

- **Design guideline** : KS C IEC 60245-4

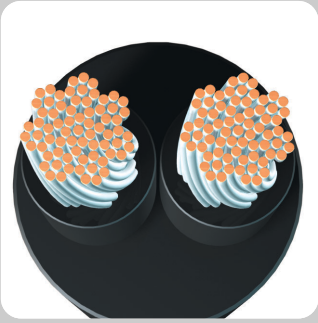

-25 to 60℃


Weather
Resistance to severe weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to chemicals.



Applications

- Mainly for indoor pendand luminaires or small electric appliances, a.c. 300/500V
  실내 조명, 작은 전기제품에 사용 a.c 300/500V

Standard Applied

- Design guideline : KS C IEC 60245-4
- Material properties : KS C IEC 60245-1, IE1 (EPR)
  KS C IEC 60245-1, SE4 (PCP)

300/500V 60245 IEC 57 (Ordinary PCP sheath cord)

선심수 Nominal sectional Area	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath	완성외경 Mean overall diameter		도체저항 Conductor Resistant (20℃) (max.)	시험전압 Test Voltage
				하한 Lower limit	상한 Upper limit		
-	mm²	mm	mm	mm	mm	Ω /km	V/5min
2	0.75	0.6	0.8	5.7	7.4	26.7	2,000
	1.0	0.6	0.9	6.1	8.0	20.0	2,000
	1.5	0.8	1.0	7.6	9.8	13.7	2,000
	2.5	0.9	1.1	9.0	11.6	8.21	2,000
3	0.75	0.6	0.9	6.2	8.1	26.7	2,000
	1.0	0.6	0.9	6.5	8.5	20.0	2,000
	1.5	0.8	1.0	8.0	10.4	13.7	2,000
	2.5	0.9	1.1	9.6	12.4	8.21	2,000
4	0.75	0.6	0.9	6.8	8.8	26.7	2,000
	1.0	0.6	0.9	7.1	9.3	20.0	2,000
	1.5	0.8	1.1	9.0	11.6	13.7	2,000
	2.5	0.9	1.2	10.7	13.8	8.21	2,000
5	0.75	0.6	1.0	7.6	9.9	26.7	2,000
	1.0	0.6	1.0	8.0	10.3	20.0	2,000
	1.5	0.8	1.1	9.8	12.7	13.7	2,000
	2.5	0.9	1.3	11.9	15.3	8.21	2,000

Identification of insulation

- 2C : no preferred color scheme (on purchaser order)
- 3C : Green/Yellow, Light blue, Brown
- 4C : Green/Yellow, Light blue, Black, Brown
- 5C : Green/Yellow, Light blue, Black, Brown, Black

Identification of sheath

Black

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60245 IEC 58
60245 IEC 58f

PCP sheathed cable for decorative chains
클로로프렌 고무 또는 이와 동등한 합성 고무 시스 장식 전등 기구용 원형 및 평형 케이블

IE1 (EPR) insulated SE4 (PCP) sheathed Round or Flat Type Flexible cord
IE1절연 SE4(클로로프렌 고무 또는 이와 동등한 합성 고무 혼합물) 시스 평형 케이블

Application

Mainly for indoor pendant luminaires or small electric appliances, a.c. 300/500V
실내 조명, 작은 전기제품에 사용 a.c 300/500V

Construction Details

1. **Conductor** : Plain or Tinned annealed copper wire stranded, KS C IEC 60228 Class 5
2. **Insulation** : EPR rubber as per KS C IEC 60245-1, IE1
3. **Cabling** : if necessary with filler
4. **Binder tape** : if necessary
5. **Sheath** : PCP as per KS C IEC 60245-1, SE4

Application Standard

- **Design guideline** : KS C IEC 60245-4

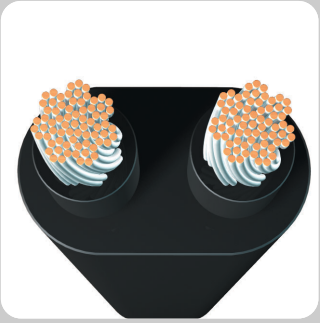

-25 to 60℃


Weather
Resistance to severe weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to chemicals.



Applications

- Mainly for indoor pendand luminaires or small electric appliances, a.c. 300/500V
  실내 조명, 작은 전기제품에 사용 a.c 300/500V

Standard Applied

- Design guideline : KS C IEC 60245-4
- Material properties : KS C IEC 60245-1, IE1 (EPR)
  KS C IEC 60245-1, SE4 (PCP)

300/500V 60245 IEC 58, 58f (PCP sheathed cable for decorative chains)

선심수 Nominal sectional Area	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	선심 중심 사이의 거리 Distance between centers of conductors		시스두께 Thickness of Sheath	완성외경 Mean overall diameter		도체저항 Conductor Resistant (20 ℃) (max.)	시험전압 Test Voltage
			하한 Mean Lower limit	상한 Mean Upper limit		하한 Lower limit	상한 Upper limit		
-	mm²	mm	mm	mm	mm	mm	mm	Ω /km	V/5min
1	0.75	0.8	-	-	0.8	4.1	5.2	26.7	2,000
	1.5	0.8	-	-	0.8	4.5	5.6	13.7	2,000
2	1.5	0.8	6.7	7.0	0.8	5.0 × 13.0	6.0 × 14.0	13.7	2,000

Identification of insulation

- 1C : no preferred color scheme (on purchaser order)
- 2C : no preferred color scheme (on purchaser order)

Identification of sheath

Black

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60245 IEC 66

Heavy PCP sheathed cable
경질(Heavy) 클로로프렌 또는 이와 동등한 합성 고무 시스 가요 케이블

IE1 (EPR) insulated SE4 or SE3 (PCP) sheathed Round Type Flexible cable
IE1 절연 SE4(클로로프렌 고무 또는 이와 동동한 합성 고무 혼합물) 또는 SE3 (천연 고무 혼합물) 시스 평형 케이블

Application

Applications include handling equipment, mobile power supplies, worksites, stage and audio visual equipment, aquatic environment, 450/750V
운전설비, 이동식 전원공급, 건축현장, 무대 및 음향영상설비, 수중환경등에 사용, a.c 450/750V

Construction Details

1. **Conductor** : Plain or Tinned annealed copper wire stranded, KS C IEC 60228 Class 5
2. **Insulation** : EPR rubber as per KS C IEC 60245-1, IE1
3. **Proof layer** : Textile tape
4. **Cabling** : if necessary with filler
5. **Binder tape** : if necessary
6. **Sheath** : PCP as per KS C IEC 60245-1, SE4 or SE3

Application Standard

- **Design guideline** : KS C IEC 60245-4

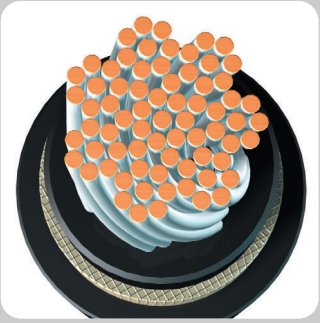

-25 to 60℃


Weather
Resistance to severe weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to chemicals.



Applications

- Applications include handling equipment, mobile power supplies, worksites, stage and audio visual equipment, aquatic environment, 450/750V
  운전설비, 이동식 전원공급, 건축현장 무대 및 음향 영상설비, 수중환경등에 사용, a.c 450/750V

Standard Applied

- Design guideline : KS C IEC 60245-4
- Material properties : KS C IEC 60245-1, IE1 (EPR)
  KS C IEC 60245-1, SE4 or SE3 (PCP)

450/750V 60245 IEC 66 (Heavy PCP sheathed cable)

선심수 Number of Wires	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath			완성외경 Mean overall diameter		도체저항 Conductor Resistant (20 ℃) (max.)	시험전압 Test Voltage
			단일시스 One layer	이중시스 Two layers		하한 Lower limit	상한 Upper limit		
				내부시스 Inner layer	외부시스 Outer layers				
EA	mm^2	mm	mm	mm	mm	mm	mm	Ω /km	V/5min
1	1.5	0.8	1.4	-	-	5.7	7.1	13.70	2,500
	2.5	0.9	1.4	-	-	6.3	7.9	8.210	2,500
	4	1.0	1.5	-	-	7.2	9.0	5.090	2,500
	6	1.0	1.6	-	-	7.9	9.8	3.390	2,500
	10	1.2	1.8	-	-	9.5	11.9	1.950	2,500
	16	1.2	1.9	-	-	10.8	13.4	1.240	2,500
	25	1.4	2.0	-	-	12.7	15.8	0.795	2,500
	35	1.4	2.2	-	-	14.3	17.9	0.565	2,500
	50	1.6	2.4	-	-	16.5	20.6	0.393	2,500
	70	1.6	2.6	-	-	18.6	23.3	0.277	2,500
	95	1.8	2.8	-	-	20.8	26.0	0.210	2,500
	120	1.8	3.0	-	-	22.8	28.6	0.164	2,500
	150	2.0	3.2	-	-	25.2	31.4	0.132	2,500
	185	2.2	3.4	-	-	27.6	34.4	0.108	2,500
	240	2.4	3.5	-	-	30.6	38.3	0.0817	2,500
	300	2.6	3.6	-	-	33.5	41.9	0.0654	2,500
	400	2.8	3.8	-	-	37.4	46.8	0.0495	2,500

Identification of insulation

- 1C : no preferred color scheme (on purchaser order)

Identification of sheath

Black

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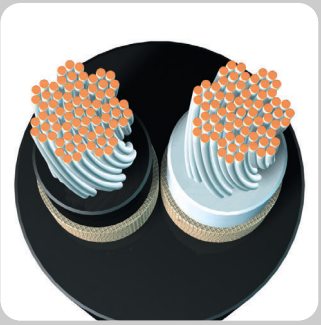


Applications

- Applications include handling equipment, mobile power supplies, worksites, stage and audio visual equipment, aquatic environment, 450/750V
  운전설비, 이동식 전원공급, 건축현장, 무대 및 음향 영상설비, 수중환경 등에 사용 a.c 450/750V

Standard Applied

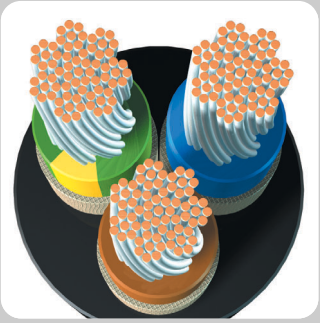
- Design guideline : KS C IEC 60245-4
- Material properties : KS C IEC 60245-1, IE1 (EPR)
  KS C IEC 60245-1, SE4 or SE3 (PCP)

450/750V 60245 IEC 66 (Heavy PCP sheathed cable)

선심수 Number of Wires	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath			완성외경 Mean overall diameter		도체저항 Conductor Resistant (20℃) (max.)	시험전압 Test Voltage
			단일시스 One layer	이중시스 Two layers		하한 Lower limit	상한 Upper limit		
				내부시스 Inner layer	외부시스 Outer layers				
EA	mm^2	mm	mm	mm	mm	mm	mm	Ω/km	V/5min
2	1.0	0.8	1.3	-	-	7.7	10.0	20.00	2,500
	1.5	0.8	1.5	-	-	8.5	11.0	13.70	2,500
	2.5	0.9	1.7	-	-	10.2	13.1	8.210	2,500
	4	1.0	1.8	-	-	11.8	15.1	5.090	2,500
	6	1.0	2.0	-	-	13.1	16.8	3.390	2,500
	10	1.2	3.1	-	-	17.7	22.6	1.950	2,500
	16	1.2	3.3	1.3	2.0	20.2	25.7	1.240	2,500
	25	1.4	3.6	1.4	2.2	24.3	30.7	0.795	2,500

Identification of insulation
- 2C : no preferred color scheme (on purchaser order)

Identification of sheath
Black



Applications

- Applications include handling equipment, mobile power supplies, worksites, stage and audio visual equipment, aquatic environment, 450/750V
  운전설비, 이동식 전원공급, 건축현장 무대 및 음향 영상설비, 수중환경 등에 사용 a.c 450/750V

Standard Applied

- Design guideline : KS C IEC 60245-4
- Material properties : KS C IEC 60245-1, IE1 (EPR)
  KS C IEC 60245-1, SE4 or SE3 (PCP)

450/750V 60245 IEC 66 (Heavy PCP sheathed cable)

선심수 Number of Wires	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath			완성외경 Mean overall diameter		도체저항 Conductor Resistant (20 ℃) (max.)	시험전압 Test Voltage
			단일시스 One layer	이중시스 Two layers		하한 Lower limit	상한 Upper limit		
				내부시스 Inner layer	외부시스 Outer layers				
EA	mm^2	mm	mm	mm	mm	mm	mm	Ω /km	V/5min
3	1.0	0.8	1.4	-	-	8.3	10.7	20.00	2,500
	1.5	0.8	1.6	-	-	9.2	11.9	13.70	2,500
	2.5	0.9	1.8	-	-	10.9	14.0	8.210	2,500
	4	1.0	1.9	-	-	12.7	16.2	5.090	2,500
	6	1.0	2.1	-	-	14.1	18.0	3.390	2,500
	10	1.2	3.3	-	-	19.1	24.2	1.950	2,500
	16	1.2	3.5	1.4	2.1	21.8	27.6	1.240	2,500
	25	1.4	3.8	1.5	2.3	26.1	33.0	0.795	2,500
	35	1.4	4.1	1.6	2.5	29.3	37.1	0.565	2,500
	50	1.6	4.5	1.8	2.7	34.1	42.9	0.393	2,500
	70	1.6	4.8	1.9	2.9	38.4	48.3	0.277	2,500
	95	1.8	5.3	2.1	3.2	43.3	54.0	0.210	2,500

Identification of insulation

- 3C : Green/Yellow, Light boue, Brown or Light blue, Black, Brown

Identification of sheath

Black

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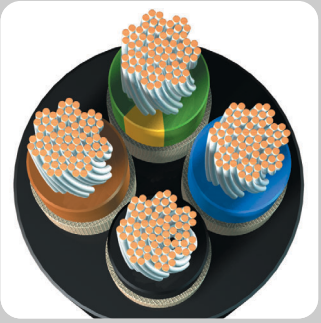


Applications

- Applications include handling equipment, mobile power supplies, worksites, stage and audio visual equipment, aquatic environment, 450/750V
  운전설비, 이동식 전원공급, 건축현장, 무대 및 음향 영상설비, 수중환경 등에 사용 a.c 450/750V

Standard Applied

- Design guideline : KS C IEC 60245-4
- Material properties : KS C IEC 60245-1, IE1 (EPR)
  KS C IEC 60245-1, SE4 or SE3 (PCP)

450/750V 60245 IEC 66 (Heavy PCP sheathed cable)

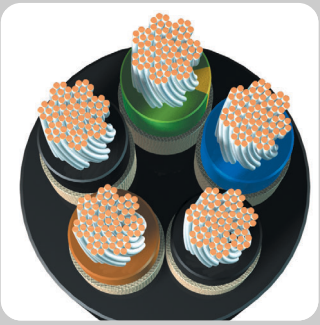
선심수 Number of Wires	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath			완성외경 Mean overall diameter		도체저항 Conductor Resistant (20℃) (max.)	시험전압 Test Voltage
			단일시스 One layer	이중시스 Two layers		하한 Lower limit	상한 Upper limit		
				내부시스 Inner layer	외부시스 Outer layers				
EA	mm^2	mm	mm	mm	mm	mm	mm	Ω/km	V/5min
4	1.0	0.8	1.5	-	-	9.2	11.9	20.00	2,500
	1.5	0.8	1.7	-	-	10.2	13.1	13.70	2,500
	2.5	0.9	1.9	-	-	12.1	15.5	8.210	2,500
	4	1.0	2.0	-	-	14.0	17.9	5.090	2,500
	6	1.0	2.3	-	-	15.7	20.0	3.390	2,500
	10	1.2	3.4	-	-	20.9	26.5	1.950	2,500
	16	1.2	3.6	1.4	2.2	23.8	30.1	1.240	2,500
	25	1.4	4.1	1.6	2.5	28.9	36.6	0.795	2,500
	35	1.4	4.4	1.7	2.7	32.5	41.1	0.565	2,500
	50	1.6	4.8	1.9	2.9	37.7	47.5	0.393	2,500
	70	1.6	5.2	2.0	3.2	42.7	54.0	0.277	2,500
	95	1.8	5.9	2.3	3.6	48.4	61.0	0.210	2,500
	120	1.8	6.0	2.4	3.6	53.0	66.0	0.164	2,500
	150	2.0	6.5	2.6	3.9	58.0	73.0	0.132	2,500

Identification of insulation

- 4C : Green/Yellow, Light boue, Black, Brown or Light blue, Black, Brown, Black

Identification of sheath

Black



Applications

- Applications include handling equipment, mobile power supplies, worksites, stage and audio visual equipment, aquatic environment, 450/750V
  운전설비, 이동식 전원공급, 건축현장 무대 및 음향 영상설비, 수중환경 등에 사용 a.c 450/750V

Standard Applied

- Design guideline : KS C IEC 60245-4
- Material properties : KS C IEC 60245-1, IE1 (EPR)
  KS C IEC 60245-1, SE4 or SE3 (PCP)

450/750V 60245 IEC 66 (Heavy PCP sheathed cable)

선심수 Number of Wires	공칭단면적 Nominal Sectional Area	절연두께 Thickness of Insulation	시스두께 Thickness of Sheath			완성외경 Mean overall diameter		도체저항 Conductor Resistant (20 ℃) (max.)	시험전압 Test Voltage
			단일시스 One layer	이중시스 Two layers		하한 Lower limit	상한 Upper limit		
				내부시스 Inner layer	외부시스 Outer layers				
EA	mm^2	mm	mm	mm	mm	mm	mm	Ω /km	V/5min
5	1.0	0.8	1.6	-	-	10.2	13.1	20.00	2,500
	1.5	0.8	1.8	-	-	11.2	14.4	13.70	2,500
	2.5	0.9	2.0	-	-	13.3	17.0	8.210	2,500
	4	1.0	2.2	-	-	15.6	19.9	5.090	2,500
	6	1.0	2.5	-	-	17.5	22.2	3.390	2,500
	10	1.2	3.6	-	-	22.9	29.1	1.950	2,500
	16	1.2	3.9	1.5	2.4	26.4	33.3	1.240	2,500
	25	1.4	4.4	1.7	2.7	32.0	40.4	0.795	2,500

Identification of insulation

- 5C : Green/Yellow, Light boue, Black, Brown, Black or Light blue, Black, Brown, Black, Brown

Identification of sheath

Black

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Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

60245
IEC 81, 82

Heat, Oil and Flame retardant Arc welding cable for the second side of arc welder appliances

내열, 내유, 난연성 아크용접용 케이블

60245 IEC 81
60245 IEC 82

Arc Welding Electrode Cables

Heat resisting, Oil resisting and Flame retardant Compound sheathed Arc welding cable 내열, 내유, 난연성 아크용접용 케이블

Application

For the transmission of high currents from the electric welding machine to the welding tool.
Welding cable used for the second side of arc welder
용접선에서 높은 전류의 전송을 위해 사용

Construction Details

1 **Conductor** : Plain or Tinned annealed copper wire stranded, KS C IEC 60228 Class 5

2 **Sheath** : 60245 KSIEC 81 : Rubber as per KS C IEC 60245-1, SE3
60245 KSIEC 82 : PCP as per KS C IEC 60245-1, SE4
복합(Composite covering) : IE1 insulation + SE4 Sheath

Application Standard

- **Design guideline** : KS C IEC 60245-6


-25 to 60℃


Flame retardant IEC 60332-3, A


Weather Resistance to severe weather conditions


Flexibillity


Impact


Chemical attacks Resistance to chemicals.

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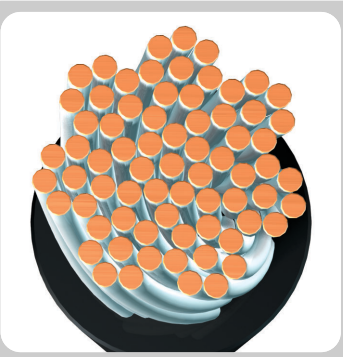

Applications

- For the transmission of high currents from the electric welding machine to the welding tool.
- Welding cable used for the second side of arc welder

용접선에서 높은 전류의 전송을 위해 사용

Standard Applied

- Design guideline : KS C IEC 60245-6
- Material properties : KS C IEC 60245-1, IE1
  KS C IEC 60245-1, SE3, SE4

60245 IEC 81, 60245 IEC 82 (Arc Welding Electrode Cables)

공칭단면적 Nominal Sectional Area	도체구성 Construction of Conductor	시스두께 Total Thickness of Sheath	복합시스두께 Thickness of Composite Sheath	완성외경 Mean overall diameter		도체저항 Conductor resistant (20℃)	
				하한 Lower limit	상한 Upper limit	비도금 Plain	도금 Tinned
mm²	mm²	Mm	mm	mm	mm	mm	mm
16	513/0.20	2.0	1.3	9.2	11.5	1.16	1.19
25	783/0.20	2.0	1.3	10.5	13.0	0.758	0.780
35	1,107/0.20	2.0	1.3	11.5	14.5	0.536	0.552
50	1,566/0.20	2.2	1.5	13.5	17.0	0.379	0.390
70	2,214/0.20	2.4	1.6	15.5	19.5	0.268	0.276
95	2,997/0.20	2.6	1.7	18.0	22.0	0.198	0.204

Identification of sheath
Black

WL1, 2, 3 & Eco WL1

Rolling stock cable for connection line, lead wire, power line in chassis, jumper wire appliances

철도차량용 케이블

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WL1, WL2, WL3 Eco WL1

Rolling stock Cables

Cross-linked polyethylene insulated Rolling stock cable

Application

Used for connection line, lead wire, power line in chassis, jumper wire
chassis의 연결선, 리드선, 전력선, 점퍼선으로 사용

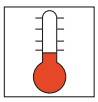
Construction Details

1 **Conductor** : Plain or Tinned annealed copper wire bunched
2 **Insulation** : Mechanical stress & Oil resistance XLPE
Eco WL1 : Kukdong has developed a special polyolefin insulation compound against RoHS

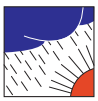
Application Standard

- **Design guideline** : KRS 2240-2267

RoHS


-25 to 60℃

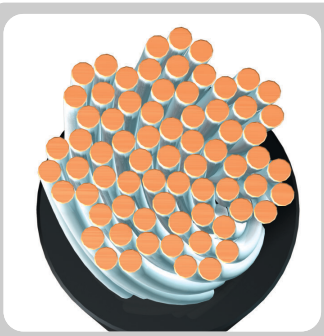

Flame retardant
IEC 60332-3, A


Weather
Resistance to severe
weather conditions


Flexibillity


Impact


Chemical attacks
Resistance to
chemicals.



Applications

- Used for connection line, lead wire, power line in chassis, jumper wire
  chassis의 연결선, 리드선, 전력선, 점퍼선으로 사용

Standard Applied

- Design guideline : KRS 2240-2267
- Material properties : KRS 2240-2267, XLPE

600V WL1, Eco WL1 (Rolling stock Cables)

공칭단면적 Nominal Sectional Area	도체구성 Component of Wires	도체외경 Overall Diameter	절연두께 Thickness of Insulation	완성외경 Overall Diameter	절연저항 Insulation Resistant (20℃) (min)	표면누설저항 Surface Leakage Resistant	도체저항 Conductor Resistant (20℃) (max)	시험전압 Test Voltage
mm²	No./mm	mm	mm	mm	MΩ · km	MΩ	Ω/km	kV/1min
0.75	30/0.18	1.2	1.1	3.5	80	300	25.8	2.2
1.25	50/0.18	1.5	1.1	3.8	70	200	15.5	2.2
2.0	37/0.26	1.8	1.1	4.2	60	200	9.91	2.2
3.5	45/0.32	2.5	1.1	4.8	45	200	5.38	2.2
5.5	35/0.45	3.1	1.1	5.4	40	200	3.50	2.2
8	50/0.45	3.7	1.1	6.0	35	200	2.45	2.2
14	88/0.45	4.9	1.1	7.2	30	100	1.39	2.2
22	7/20/0.45	7.0	1.4	9.9	25	100	0.892	2.2
30	7/27/0.45	8.1	1.4	11.0	20	100	0.661	2.2
38	7/34/0.45	9.1	1.4	12.0	20	100	0.525	2.2
50	19/16/0.45	10.4	1.8	14.1	20	90	0.411	2.5
60	19/20/0.45	11.6	1.8	15.4	20	80	0.329	2.5
80	19/27/0.45	13.5	1.8	17.2	20	70	0.243	2.5
100	19/34/0.45	15.2	2.3	19.9	20	70	0.193	3.0
125	19/42/0.45	16.9	2.3	21.8	20	60	0.156	3.0
150	27/34/0.45	18.7	2.3	23.6	20	60	0.136	3.0
200	37/34/0.45	21.2	3.0	28.0	20	50	0.0993	3.0
250	37/42/0.45	23.6	3.0	30.0	20	50	0.0803	3.0

Identification of insulation

Red or Black

고객의 요구에 따라 선심 구분방법은 변경될 수 있음

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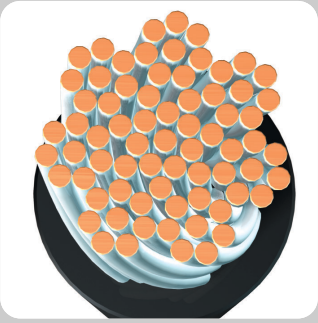


Applications

- Used for connection line, lead wire, power line in chassis, jumper wire
  chassis의 연결선, 리드선, 전력선, 점퍼선으로 사용

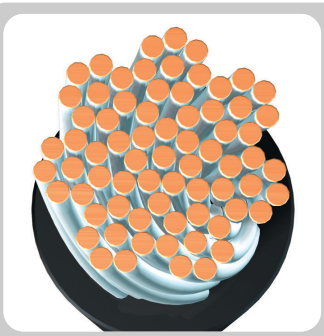
Standard Applied

- Design guideline : KRS 2240-2267
- Material properties : KRS 2240-2267, XLPE

1,500V WL2 (Rolling stock Cables)

공칭단면적 Nominal Sectional Area	도체구성 Component of Wires	도체외경 Overall Diameter	절연두께 Thickness of Insulation	완성외경 Overall Diameter	절연저항 Insulation Resistant (20℃) (min)	표면누설저항 Surface Leakage Resistant	도체저항 Conductor Resistant (20℃) (max)	시험전압 Test Voltage
mm²	No./mm	mm	mm	mm	MΩ · km	MΩ	Ω/km	kV/1min
0.75	30/0.18	1.2	2.0	5.3	120	200	25.8	5.4
1.25	50/0.18	1.5	2.0	5.6	100	200	15.5	5.4
2.0	37/0.26	1.8	2.0	6.0	95	200	9.91	5.4
3.5	45/0.32	2.5	2.0	6.6	75	200	5.38	5.4
5.5	35/0.45	3.1	2.0	7.2	65	200	3.50	5.4
8	50/0.45	3.7	2.0	7.8	60	100	2.45	5.4
14	88/0.45	4.9	2.0	9.0	50	100	1.39	5.4
22	7/20/0.45	7.0	2.0	11.1	45	100	0.892	5.4
30	7/27/0.45	8.1	2.0	12.3	35	90	0.661	5.4
38	7/34/0.45	9.1	2.0	13.2	30	90	0.525	5.4
50	19/16/0.45	10.4	2.5	15.5	30	90	0.411	5.4
60	19/20/0.45	11.6	2.5	16.8	30	80	0.329	5.4
80	19/27/0.45	13.5	2.5	18.6	25	80	0.243	5.4
100	19/34/0.45	15.2	2.5	20.3	25	70	0.193	5.4
125	19/42/0.45	16.9	2.5	23.0	20	60	0.156	5.4
150	27/34/0.45	18.7	2.5	24.0	20	60	0.136	5.4
200	37/34/0.45	21.2	3.0	28.0	20	50	0.0993	5.4
250	37/42/0.45	23.6	3.0	30.0	20	50	0.080	5.4

Identification of insulation
Black



Applications

- Used for connection line, lead wire, power line in chassis, jumper wire
  chassis의 연결선, 리드선, 전력선, 점퍼선으로 사용

Standard Applied

- Design guideline : KRS 2240-2267
- Material properties : KRS 2240-2267, XLPE

3,300V WL3 (Rolling stock Cables)

공칭단면적 Nominal Sectional Area	도체구성 Component of Wires	도체외경 Overall Diameter	절연두께 Thickness of Insulation	완성외경 Overall Diameter	절연저항 Insulation Resistant (20℃) (min)	표면누설저항 Surface Leakage Resistant	도체저항 Conductor Resistant (20℃) (max)	시험전압 Test Voltage
mm²	No./mm	mm	mm	mm	MΩ · km	MΩ	Ω /km	kV/1min
2.0	37/0.26	1.8	2.5	7.4	100	100	9.91	8.0
3.5	45/0.32	2.5	2.5	8.1	85	100	5.38	8.0
5.5	35/0.45	3.1	2.5	8.7	75	100	3.50	8.0
8	50/0.45	3.7	2.5	9.3	65	100	2.45	8.0
14	88/0.45	4.9	2.5	10.5	55	90	1.39	8.0
22	7/20/0.45	7.0	2.5	12.8	40	90	0.892	8.0
30	7/27/0.45	8.1	2.5	14.0	35	80	0.661	8.0
38	7/34/0.45	9.1	2.5	15.0	35	60	0.525	8.0
50	19/16/0.45	10.4	3.0	17.4	35	60	0.411	8.0
60	19/20/0.45	11.6	3.0	18.7	35	60	0.329	8.0
80	19/27/0.45	13.5	3.0	20.7	30	60	0.243	8.0
100	19/34/0.45	15.2	3.0	22.5	25	60	0.193	8.0
125	19/42/0.45	16.9	3.0	24.3	25	50	0.156	8.0
150	27/34/0.45	18.7	3.0	26.1	25	50	0.136	8.0
200	37/34/0.45	21.2	3.5	29.8	20	40	0.0993	8.0
250	37/42/0.45	23.6	3.5	32.3	20	40	0.0803	8.0

Identification of insulation
Blue or Black
고객의 요구에 따라 선심 구분방법은 변경될 수 있음

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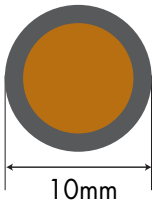
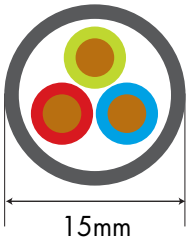
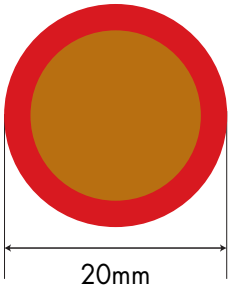
CABLE SCALE



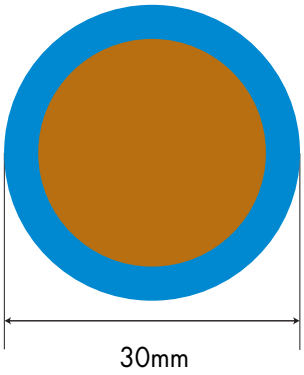
HOFR
25SQMMx1C



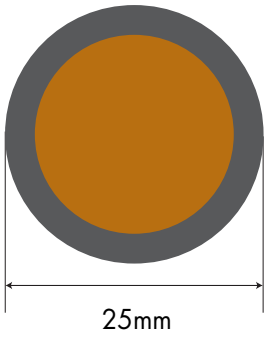
300/500 60245 KS
IEC 53
2.5SQMMx3C



600V WL1
100SQMMx 1C



3300V WL3
25SQMMx 1C



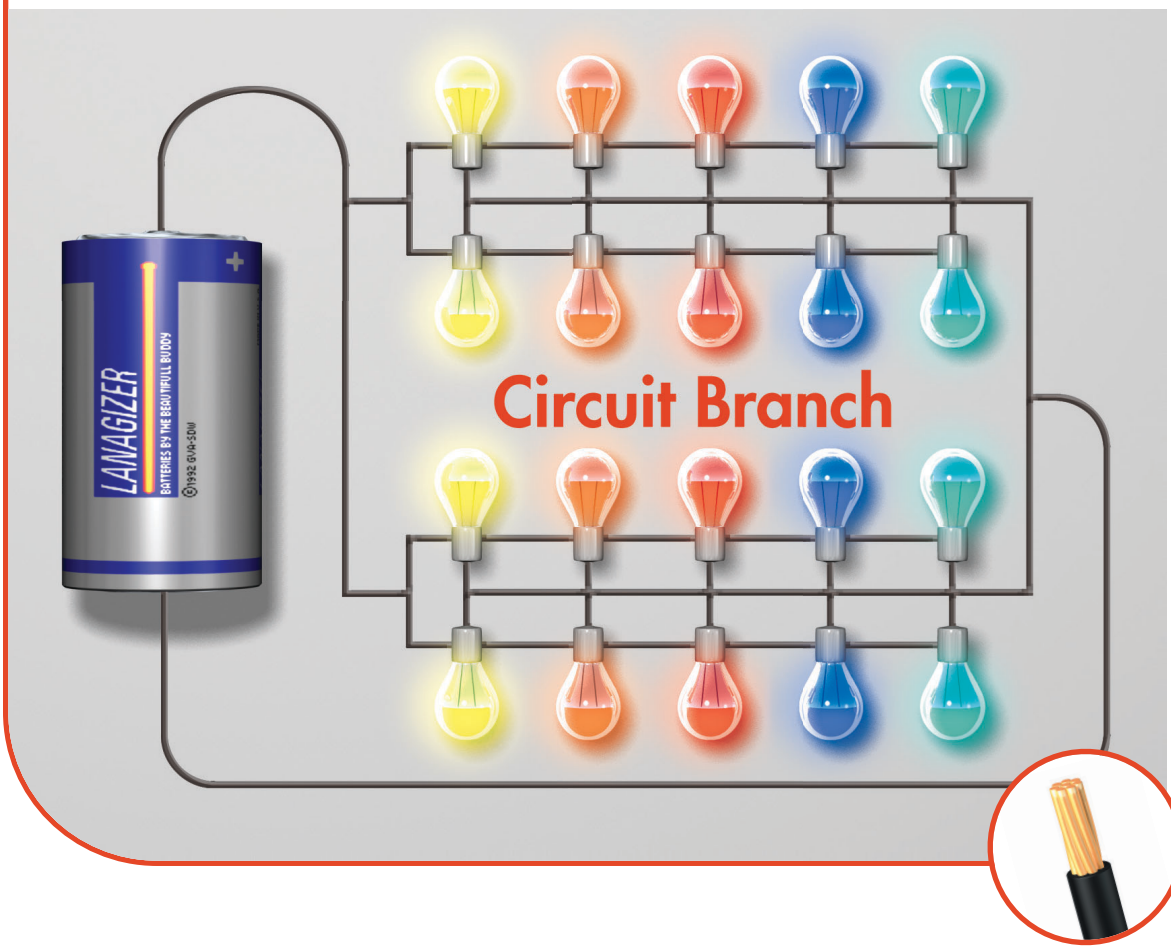
1500V WL2
125SQMMx 1C

Contents

XHHW/SIS

Flame retardant XLPE insulated wire for conduit or recognized raceways services, feeders, and branch circuit wiring appliances

Conduit 혹은 급지용 Raceway 또는 Branch cirecuit wireing용 난연 XLPE 절연 케이블



0.6/1kV XHHW/SIS

Branch circuit wiring

Flame retardant cross-linked polyethylene insulated wire

Application

Used in conduit or recognized raceways for services, feeders, and branch circuit wiring as specified in the National Electrical Code.

국내전기규약에 명시된 branch circuit wiring, conduit 혹은 급지를 위한 raceways에 사용

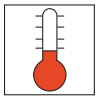
Construction Details

1 **Conductor** : Plain or Tinned annealed copper wire as per KS C IEC 60228 Class 2 or 5.

2 **Insulation** : XLPE as per UL44

Application Standard

- **Design guideline** : UL 44


-25 to 60℃


Flame retardant VW-1 UL 44


Flexibillity


Cold bending UL 44

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Head Office Tel:82-43-530-2000 Fax:82-43-530-2144 Pusan Office Tel:82-51-817-0295 Fax:82-51-817-0297

Applications

- Used in conduit or recognized raceways for services, feeders, and branch circuit wiring as specified in the National Electrical Code.
- Standard applied
  국내전기규약에 명시된 branch circuit wiring, conduit 혹은 급지를 위한 raceways에 사용

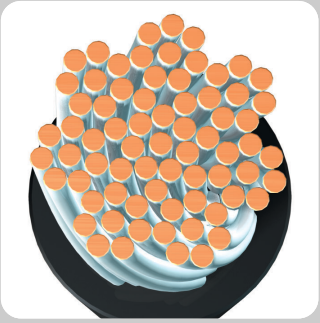
Standard Applied

- Design guideline : UL 44
- Material properties : UL 44, XL

0.6/1kV XHHW/SIS Class 2 (Branch circuit wiring wire)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of insulation		완성외경 Overall Diameter	도체저항 Conductor resistant (20℃)		계산중량 Weight (Approx.)
	평균 Average	최소 Minimum		비도금 Plain	도금 Tinned	
mm²	mm	mm	mm	Ω/km	Ω/km	kg/km
1.5	0.76	0.69	3.3	12.1	12.2	30
2.5	0.76	0.69	3.7	7.41	7.56	40
4	0.76	0.69	4.3	4.61	4.70	55
6	0.76	0.69	4.8	3.08	3.11	75
10	1.14	1.02	6.5	1.83	1.84	125
16	1.14	1.02	7.6	1.15	1.16	190
25	1.14	1.02	8.9	0.727	0.734	285
35	1.14	1.02	10.2	0.524	0.529	385
50	1.40	1.27	12.0	0.387	0.391	520
70	1.40	1.27	13.8	0.286	0.270	725
95	1.40	1.27	15.7	0.193	0.195	990

Identification of insulation
Colored on purchaser order



Applications

- Used in conduit or recognized raceways for services, feeders, and branch circuit wiring as specified in the National Electrical Code.
  국내전기규약에 명시된 branch circuit wiring, conduit 혹은 급지를 위한 raceways에 사용

Standard Applied

- Design guideline : UL 44
- Material properties : UL 44, XL

0.6/1kV XHHW/SIS Class 5 (Branch circuit wiring wire)

공칭단면적 Nominal Sectional Area	절연두께 Thickness of insulation		완성외경 Overall Diameter	도체저항 Conductor resistant (20℃)		계산중량 Weight (Approx.)
	평균 Average	최소 Minimum		비도금 Plain	도금 Tinned	
mm²	mm	mm	mm	Ω/km	Ω/km	kg/km
0.5	0.76	0.69	2.7	39.0	40.1	20
0.75	0.76	0.69	3.0	26.0	26.7	20
1.0	0.76	0.69	3.1	19.5	20.0	25
1.5	0.76	0.69	3.4	13.3	13.7	30
2.5	0.76	0.69	3.9	7.98	8.21	40
4	0.76	0.69	4.4	4.95	5.09	55
6	0.76	1.02	5.0	3.30	3.39	80
10	1.14	1.02	6.7	1.91	1.95	130
16	1.14	1.02	8.2	1.21	1.24	190
25	1.14	1.02	9.6	0.780	0.795	285
35	1.14	1.02	11.0	0.554	0.565	400
50	1.40	1.27	13.2	0.386	0.393	565
70	1.40	1.27	15.1	0.272	0.277	775
95	1.40	1.27	17.0	0.206	0.210	1,005

Identification of insulation
Colored on purchaser order

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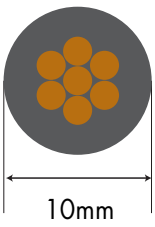
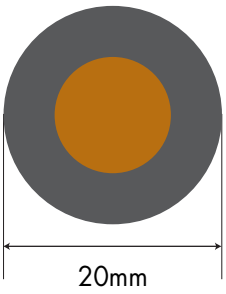
CABLE SCALE



0.6/1kV XHHW/SIS
CLASS 2
25SQMMx1C



0.6/1kV XHHW/SIS
CLASS 5
95SQMMx1C

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MECHNICAL TEST FOR FLEXIBLE HANDLING CABLES
KS C 3004 / JIS C 3005

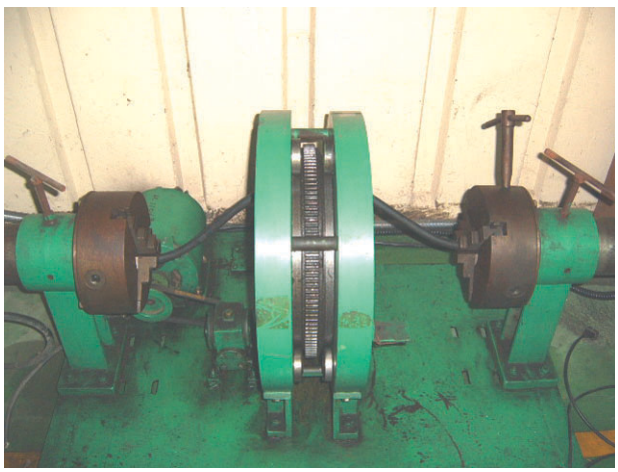
캡타이어 케이블의 운영형태에 따라서 비틀림 또는 비틀림을 수반한 굴곡운동, 수직 상하로 이동되며 복합적 형태의 스트레스가 케이블에 가해진다. 따라서 Kukdong은 케이블의 수명동안에 발생할 수 있는 비틀림 또는 구부림의 기계적 스트레스에 대하여 신뢰성을 확보하기 위하여 완성된 케이블에 대해 반복적으로 시험을 수행하여 견딜 수 있는 능력을 확인하고 있으며 오랜 기간의 경험을 통하여 이같은 문제에 대하여 Kukdong은 많은 해답을 가지고 있다.

Torsional Resistance Test / Twisting Endurance

비틀림에 대한 케이블의 신뢰성을 검증하는 시험으로 시편의 외경에 따라 회전자의 시편 관통 구멍을 통하여 양끝을 고정점에 고정시키고 회전자를 규격에서 규정하는 속도 및 회전횟수를 가지고 연속 회전시킨 다음, 단락 시험을 행하며, 시료에 생기는 파손 또는 파열, 균열의 정도, 각 선심의 도체 소선의 단선수를 조사한다. 또한 시료의 관통 부분은 적당한 방법에 의하여 가급적 구부러지지 않도록 한다.

Operating conditions

- 회전속도 : 20회/분
- 회전수 : 200회
- 구부림 반지름 : 100mm 또는 150mm



MECHNICAL TEST FOR FLEXIBLE HANDLING CABLES
KS C 3004 / JIS C 3005

Alternating/Reversed Bending Test

구부림에 대한 케이블의 신뢰성을 검증하는 시험으로 시편을 시편 외경의 2배의 외경을 갖는 원통 사이를 통하여 고정대에 고정시키고 다른 한쪽 끝은 무게 추를 달고 시편에 전류를 통하면서 좌우로 번갈아 회전 시켜 구부림시험을 행한다.
굴곡 시험후 단락 시험과 외부시스의 파열 또는 균열현상을 조사한다.

Operating conditions

- 추의 무게 : 150g/mm^2
- 회전 각도 : 180°
- 회전 속도 : 10회/분
- 회전수 : 100회

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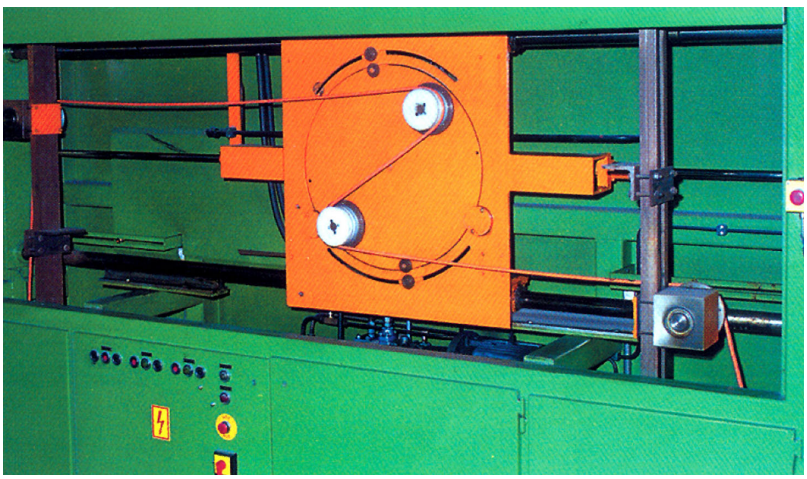
MECHNICAL TEST FOR FLEXIBLE HANDLING CABLES
KS C IEC 60245-2

Flexing Test

구부림에 대한 케이블의 기계적 강도 신뢰성을 검증하는 시험으로 케이블의 공칭 단면적 4mm²를 초과하지 않는 케이블에 대하여 시험을 실시한다.
4개의 pulley에 케이블을 수평을 유지하여 그림처럼 설치하고 이동장치는 규정된 속도와 이동거리를 가지고 앞 뒤로 움직여 유연성을 시험하며, 시험 중에 규격에서 규정한 전류를 가한다.
굴곡 시험 중 전류의 단전, 도체 사이의 회로 단락, 시험 시료와 pulley(시험장치) 사이의 단락을 조사한다.

Operating conditions

- 이동 거리 : 1meter
- 이동 속도 : 0.33m/sec
- 추의 무게 및 pulley 지름 : 케이블 선심수 및 크기별 규정
- 부하 전류 : 6amp. ~ 25amp. (케이블 크기별 규정)



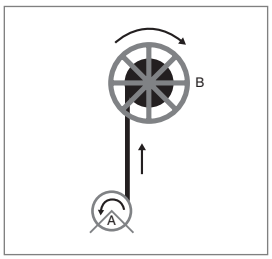
Contents

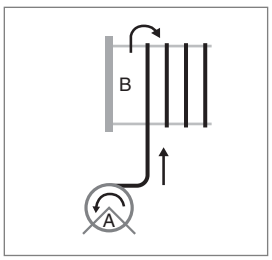
INSTALLATION AND LAYING INSTRUCTIONS
For Handling Cables

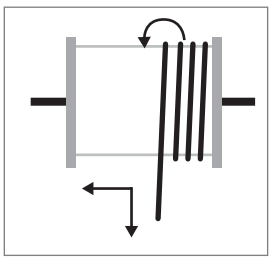
Reeling method

크레인 및 다른 운영 시스템 안에 감기는 케이블의 오랜 수명 기한은 전문적인 방법으로 케이블 설치 및 놓기에 의존한다.
케이블의 오랜 수명을 확보하기 위해서는 아래의 규칙을 고려해야 한다.

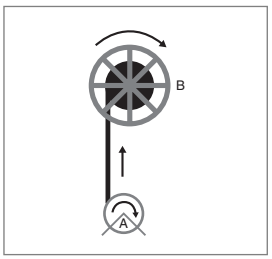
WRONG

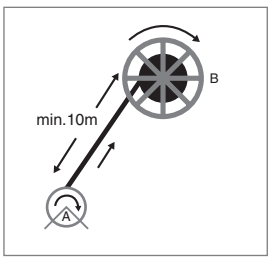


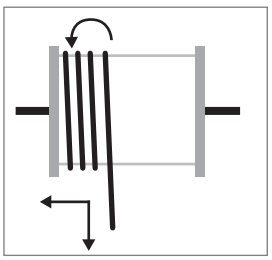




RIGHT





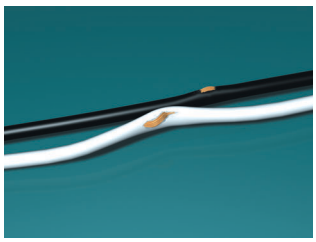
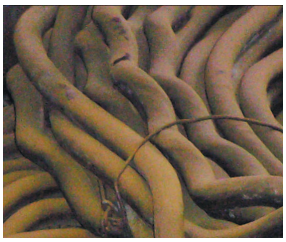


INSTALLATION AND LAYING INSTRUCTIONS
For Handling Cables

Reel 권취시 케이블 취급 주의점

케이블의 비틀림을 완전하게 제거하여 포설한다.

비틀림이 가해진 상태에서 케이블을 굴곡하면 구부림에 의한 선심신축작용의 영향과 복합되어 이완상태의 선심은 케이블내에서 피할 장소를 잃어버려 좌굴 굴절이 생기고 선심이 시스를 위로 올려서 케이블 외관이 요철상태(꾸불꾸불함)가 된다.

이상장력은 가능한 작게 한다.

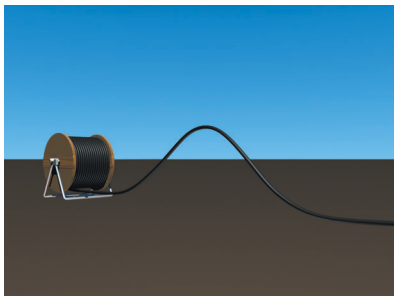
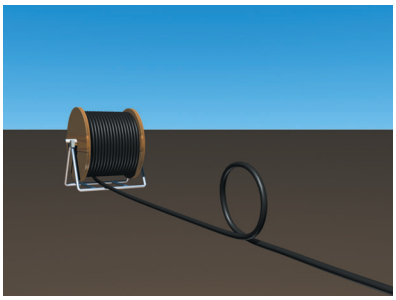
동일한 장력의 경우에도 그 당시의 speed가 변하면 (이상 shock 등) 케이블에 미치는 영향은 큰차가 나므로 작동시의 장력 완화 대책, 권치 릴의 구조(불규칙한 권치방지)등을 고려할 필요가 있다.

Reel 권취기의 내경 또는 Guide roller는 크게 한다.

장력이 일정해도 reel이 작게 되면 측압이 크게되므로 가능한 내경 또는 roller는 크게 한다. (케이블경의 24배가 바람직하다)

케이블의 비틀림 제거 방법

케이블의 TWIST 제거에는 두가지 공통된 방법이 있다.
첫번째 이용 방법은 6~7inch 외경의 원통 roller를 케이블의 굴곡(twist)된 부분의 아랫쪽에 접촉한 다음, 두사람이 roller의 양쪽을 잡고 케이블의 끝쪽으로 굴곡현상이 진행하도록 밀고 간다. 이러한 방법을 케이블의 굴곡현상이 제거될 때까지 반복한다.
두번째로 한사람이 동일한 효과를 낼 수 있는 나선형 방법이 있다. 나선형의 케이블 부위를 굴곡된 방향으로 우연 또는 좌연으로 충분히 회전시키면서 굴곡현상을 제거한다. 이 방법 역시 케이블의 굴곡현상이 제거될 때까지 충분히 반복한다.
상기의 방법으로 케이블의 굴곡현상(drum에서 풀을 때 발생되는 고유현상)이 제거된 케이블을 설치하여 운전하도록 하는 것이 바람직하다.

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