



ELECTRICAL CABLES DESIGNED  
FOR THE MINING INDUSTRY

# AUSTRALIAN MINING CABLES





**KEI**

**Wires and Cables**

# KEI PRODUCT CATALOGUE MINING CABLES

Electrical cables : Reeling and trailing-for underground coal mining purposes as per AS/NZS 1802:2018

Electrical cables : Reeling and trailing-for mining and general use as per AS/NZS 2802:2000

Electrical cables : Underground coal mines- other than reeling and trailing as per AS/NZS 1972:2006

## CABLING FROM THE HEART OF KEI

Established in 1968, KEI Industries Ltd. rank amongst the top cable manufacturing companies of the world. Through its customer focused approach and continuous quest for world-class quality, KEI has emerged as an industry leader over a period of five decades. KEI is acclaimed for its strong customer support and an efficient marketing and distribution network. It has an expanding international footprint with clients spread across 35 countries to date.

KEI is known for its premium quality products for mining applications. Mining industry is characterized by processes that are complex, making safety a big concern. KEI wires and cables are specially designed to ensure maximum safety for mining personnel. The company also conforms to occupational health and safety management system standards of OHSAS.

KEI has three manufacturing facilities in India to manufacture cables from 1kV up to 420kV. KEI is proudly accredited by NABL, which forms a part of the NATA (Australia) Mutual Recognition Accreditation Agreement for testing cables from 1kV up to 220kV. KEI first entered the Australian market in 2008 and is now an approved supplier to most large Australian and global mining companies and Australia utilities. It has been part of countless successful projects ranging from 1kV to 220kV.

ISO 9001, 14001, 18001 certifications from DNV of the Netherlands are a testament to stringent quality control measures maintained by the company. Surveillance by a competent team of technocrats and quality enablers, allows KEI to ensure compliance with globally accepted quality standards. Continuous product innovation and cutting-edge R&D at its in-house labs, contributes towards constant evolution in products and services.

Striving to stay ahead of technology curve is a constant endeavor at KEI Industries Ltd. It is committed to powering growth of the mining industry. It has the world-class quality, skilled man-power and most importantly, the technology to ace any challenge that exploring earth's mineral riches may present. Partner the mining wires and cables expert, partner KEI.

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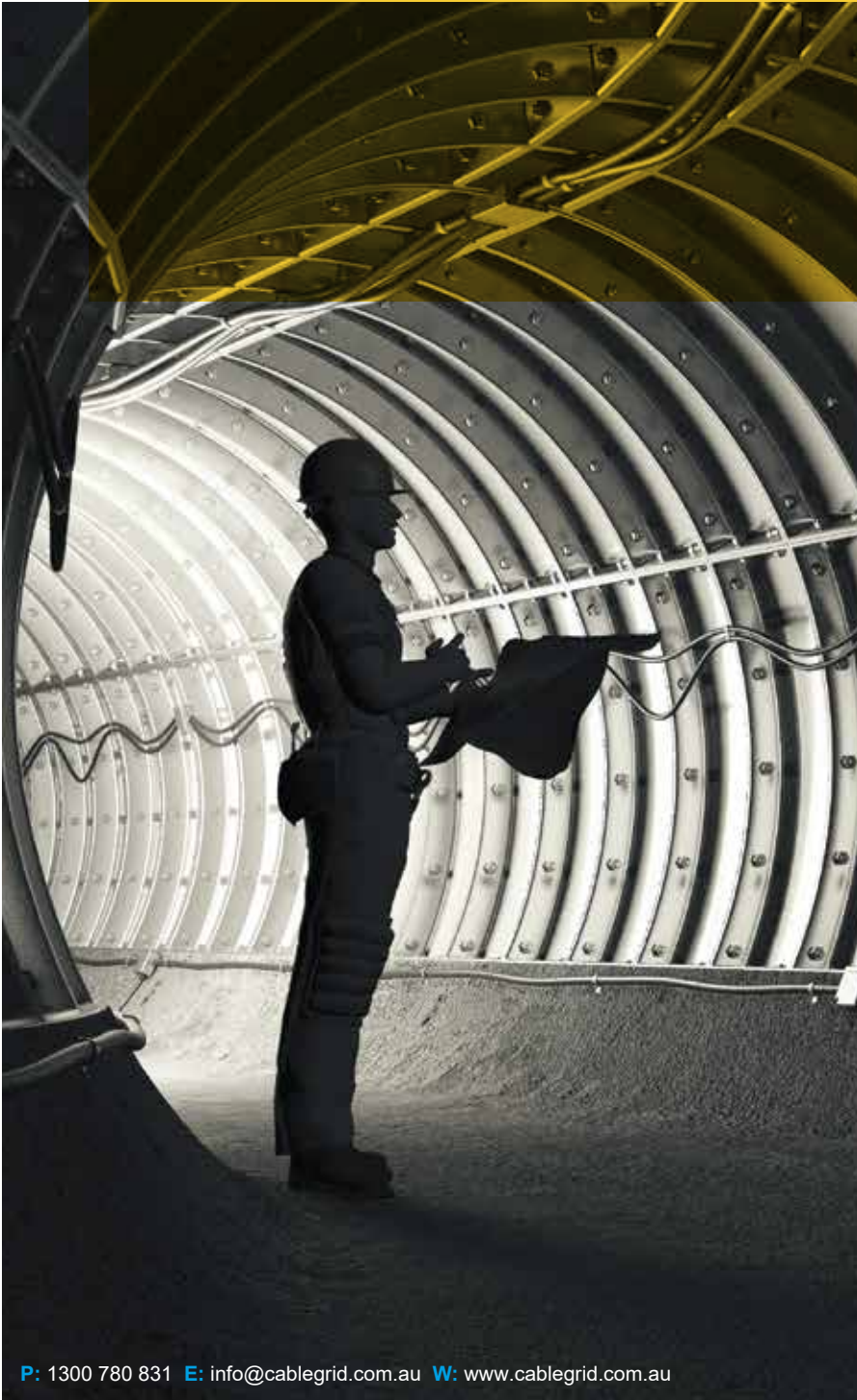
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# KEI-WIRES AND CABLES SPECIALIST



KEI is one of the leading players in electrical cable industry. It provides one stop solutions to its domestic and international customers.

KEI's our goal is to create value for its stakeholders by meeting the stated and implied needs of its customers, employees and communities where it has a presence and does business.

## KEI FACT FILE

Registered Office : New Delhi, India

Organizational Strength : More than 2000

Listed on : NSE, BSE, CSE and Luxembourg Stock Exchange

## FACTORY AREA

Bhiwadi : 63,943 sq.m

Chopanki : 41,356 sq.m

Silvassa : 23,195 sq. m



## A. CONDUCTOR

Flexible conductors complying to AS/NZS 1125 have superior crush resistance, small diameter, suitable lay length and lay direction to limit resistance values and minimize the cable distortion in service.

Special type of conductor designs are used to meet flexibility, strength and electrical properties of mining cables. Usually Tinned Annealed Copper Wires are used, which give superior oxidation resistance to cable conductor and hence improved life to the cable.

## B. CONDUCTOR SCREEN

All cables with a voltage rating of 3.3/3.3 kV and above have a cross-linked semiconductive elastomeric material extruded directly over the power core conductor through a triple extrusion process.

Textile-reinforced semiconductive tape or water barrier (water-proof) tape can be applied on special request or for particular purposes.

## C. INSULATION

Tough EPR insulation with high flexibility, improves thermal, electrical and mechanical characteristics.

The most common type of insulation compounds used are Ethylene-propylene copolymer (EPR) and terpolymer (EPDM) for flexible cables, offering excellent thermal durability, corona resistance and electrical characteristics.

Cross linked polyethylene (XLPE) insulation is rarely used in cables intended for fixed installations.

Insulation materials have good dielectric characteristics and resistance to deterioration due to ageing, heat effects and moisture.

# REELING AND TRAILING CABLE MATERIAL CHARACTERISTICS



## D. INSULATION SCREEN

Semiconductive elastomer screen: The material used for insulation screen is cross-linked semiconductive elastomer which is directly applied over insulation of each power core.

Textile reinforced semiconductive tape screen: As an alternative to an elastomer screen, the textile reinforced semiconductive tape screen may be applied over the insulation of power cores of 3.3/3.3kV Type 450 & 451 (Class 1) and 3.3/3.3kV up to and including 11/11kV Type 409 & 440 (Class 2).

## E. CRADLE SEPARATORS / EARTH COVERING / SCREEN FOR CORE ASSEMBLY

Semiconductive elastomer used in cradle separators, the interstitial earth conductor covering (other than for Type 412) and the screen for core assembly (Types 241, 245, 275 and 441 only) is a compound based on polychloroprene (PCP) which complies with the table below

Test (As per AS/NZS1802 / AS/NZS 2802)		Specified Value
A	Mechanical tests without ageing	
1	Tensile strength (MPa)	≥8.5
2	Elongation at rupture (percent)	≥200
3	Permanent set (percent)	≤ 20
B	Mechanical tests after ageing in air oven	
1	Tensile strength (MPa)	≥ 6.2
2	Elongation at rupture (percent)	≥ 50
C	Volume resistivity at 23°C(Ω.m)	≤1.0

## F. POWER / PILOT CORE INSULATION

R-EP-90: A cross-linked compound based on ethylene propylene copolymer, terpolymer or a blend of the two, suitable for up to 90°C maximum continuous operating temperature.

XR-EP-90: A cross-linked compound based on ethylene-propylene copolymer (EPM), or ethylene propylene terpolymer (EPDM or EPT), having enhanced properties compares with R-EP-90, suitable for up to 90°C maximum continuous operating temperature.

	AS /NZS 1802 reeling and trailing cable	AS /NZS 2802 reeling and trailing cable
Power Core Insulation	R-EP-90	XR-EP-90 (for class 1 cables), R-EP-90 (for class 2 cables)
Pilot Core Insulation	R-EP-90	XR-EP-90/R-EP-90

## G. METALLIC COMPOSITE SCREEN

Composite screen consists of Tinned Annealed Copper interwoven with polyester yarn and each strand consists of seven copper wires with nominal diameter between 0.25mm and 0.5mm to form a braid

## H. PLIABLE STEEL STRAND ARMOUR

Pliable amour comprises galvanised low-carbon (mild) steel strands and each strand consists of seven wires helically over the inner sheath to provide close cover. The wires comply with the requirements of AS/NZS 3863.

## I. SHEATH

Inner sheath (Type 206 and 412 only): GP-85-PCP (Standard), GP-90-CSP or GP-90-CPE to AS/NZS 3803.

## OUTER SHEATH

AS/NZS1802 reeling and trailing cable

HD-85-CSP,HD-90-PCP or HD-90-CPE to AS/NZS 3808

AS/NZS 2802 reeling and trailing cable

HD-85-CSP,HD-90-PCP or HD-90-CPE to AS/NZS 3808  
(for class 2 cable); XHD-85-CSP,XHD-90-PCP or XHD-90-CPE to  
AS/NZS 3808 (for class 1 cable)

GP-85-PCP: General purpose cross-linked compound based on Polychloroprene, suitable for up to 85°C maximum continuous operating temperature.

GP-90-CSP: General purpose cross-linked compound based on chlorinated polyethylene, suitable for up to 90°C maximum continuous operating temperature.

GP-90-CPE: General purpose cross-linked compound based on Chlorosulphonated polyethylene, suitable for up to 90°C maximum continuous operating temperature.

HD-85-PCP, HD-90-CSP or HD-90-CPE is the heavy duty version of GP-85-PCP, GP-90-CSP or GP-90-CPE, and XHD is the extra-heavy duty version, the characteristics are as follows:

Test (except for D and E, As per AS/NZS 1802 or AS/NZS 2802)	GP-85-PCP	HD-85-PCP	XHD-85-PCP
A) Mechanical tests without ageing			
1 Tensile strength (MPa)	≥8.5	≥11.0	≥12.5
2 Elongation at rupture (percent)	≥250	≥250	≥300
3 Tear resistance (N/mm)	-	≥ 5	≥7
B) Mechanical tests after ageing in air oven			
1 Tensile strength (MPa)	≥6.2	≥8.5	≥8.5
2 Elongation at rupture (percent)	≥125	≥125	≥150
C) Oil immersion test			
1 Tensile strength (percentage of values found in unaged specimens)	≥60	≥60	≥ 60
2 Elongation at rupture (% of values found in unaged specimens)	≥60	≥60	≥60
D) Hot set test at 200°C±3 , 200kPa for 15mins			
1 Elongation under load, maximum (percent)	≤175	≤175	≤175
2 Elongation after cooling, maximum (percent)	≤20	≤20	≤20
E) Oxygen index			
	-	-	



SL. NO.	CHARACTERISTICS	FUNCTION	STANDARD	AS/ NZS 1802						AS/ NZS 2802						AS/ NZS 1972							
			CABLE TYPE	209	210	275	240	241	241 Extra Flex	245	260	409	412	440	441.1	441	450	455	Type1 Individual	Type1 Collective	Type2S overall	Type A&B	HT 11& 22 kV
			PAGE NO.	10	11	12	13	14	16	17	18	21	23	24	26	27	28	30	33	34	35	36	37
1	Flexible Conductor	Flexible conductors complying to AS/NZS 1125 having superior crush resistance, small diameter, suitable lay length and lay direction to limit resistance values and minimize cable distortion in service.		√	√	√	√	√			√	√	√	√	√	√	√	√	√	√	√	√	
2	Extra Flexible Conductor	In addition to properties of flexible conductor Extra Flex. Conductor's have more no. of strands with very small diameter giving more flexibility and smaller bending radius to the cable.							√	√													
3	R-EP-90 Insulation	Tough EPR insulation with high flexibility, improved thermal, electrical and mechanical characteristics.	√	√	√	√	√	√	√	√	√	√	√						√	√			
4	XR-EP-90 Insulation	High grade EPR insulation compound with more electrical stress withstanding capacity.									> 11 kV		> 11 kV		√	√	√						
5	V-90 Insulation	High temperature version, suitable for 90°C conductor temperature.															√	√					
6	X-90 Insulation	Tree retardant XLPE insulation compound suitable for 90°C conductor temperature.																				√	
7	"Semi-conductive extruded screens"	Stress distribution layer which provides low resistance path for cable charging current and prevent electrical discharge.						√	√	√				√	√	√	√						
8	Metal braid screen	High conductive braid woven screen provides electrical path for short circuit currents and cable charging current without affecting cable flexibility	√	√		√					√	√	√			√		√	√	√			
9	Copper wire screen	High conductive wire screen provides electrical path for short circuit currents and cable charging currents																			√	√	
10	Earths cores in Interstices	Mechanically strong earths replace braided earth screens in cable that is intended for flexing duty			√			√	√	√		√		√	√	√	√						
11	"Semi - conductive coat over earths"	Low resistance path from one earth core to the next provides higher conductivity earth circuit.			√			√	√	√		√		√	√	√	√						
12	Pilots in Interstices	Insulated pilots are used for controlling purpose. Replaces central pilot and helps to minimize the cable diameter in case of cable w/o cradle.					√			√			√			√	√				√ (A)		
13	Cradle Separator	Helps to improve cable crush resistance without affecting cable flexibility.	√	√	√	√	√	√	√	√	√		√	√	√								
14	Central pilot	Extensible pilot used for tripping the circuit to prevent cable from pulling apart mechanically.	√	√	√		√	√	√	√	√			√	√								
15	Laid up cores	Cables are laid up together with suitable lay length to give robust construction and more flexibility	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	
16	Extrusion over assembly of cores	Provides semiconductive path to earth conductors			√		√	√	√				√	√	√					√	√		
17	Pliable armour	Provides mechanical strength without affecting cable flexibility								√		√											
18	Reinforcement	Yarns of tapes provide mechanical protection against crushing			√		√	√	√					√	√	√	√						

## A. CORE IDENTIFICATION METHOD

1	2	3	4	5
	Voltage Designation, kV			
Type No.	≤1.1/1.1			
	Power Cores	Covered Conductor (S)	Power Cores	Covered Conductor
209	(a) or (b) or (d)	(a)	(a) or (c) or (d)	(a)
210	(a) or (b) or (d)	(a)	-	-
240	(a) or (b) or (d)	(a) and (b)*	(a) or (c) or (d)	(a) and (b)*
241 and 245	(a) or (e)	(a)	(a) or (e)	(a)
260	(a) or (b) or (d)	(a) and (b)*	(a) or (c) or (d)	(a) and (b)*
275	(a)	(a)	-	-
409	(a) or (b) or (d)	(a)	(a) or (c) or (d)	(a)
412	(a) or (b)	(a) or (b)	-	-
440	(a) or (b) or (d)	(a)	z	(a) or (b)
441	(a) or (e)	-	(a) or (e)	(a)
450	-	-	(c) or (d) or (f)	(a)
455	-	-	(e)	(a)

(a) colour-coded insulation or covering.

(b) colour-coded or continuously numbered, proofed tape over the insulation or covering.

(c) colour-coded or continuously numbered, semiconductive tape over the insulation.

(d) colour-coded yarn in composite screen.

(e) Type 441 and 455---colour-coded or numbered semiconductive elastomer insulation screen, identifiable at intervals not greater than 300mm

(f) Type 450---colour-coded or numbered semiconductive tape over the composite screen.

\* Grey or white tape may be used.

## B. IDENTIFICATION AND ROTATIONAL SEQUENCE

Type No.	Rotational sequence of core colours
209*	Red, White, Blue
210*	Red, White, Blue
240	Red, Grey, White, Grey, Blue, Grey
241*	Red, Black, White, Black, Blue, Black**
245***	Red, Black, White, Black, Blue, Black**

Type No.	Rotational sequence of core colours
260	Red, Grey, White, Grey, Blue, Grey
275*	Red, Black, White, Black, Blue, Black**
409	Red, White, Blue. The central pilot core is grey
412	Red, Green/Yellow, White, Green/Yellow, Blue, Green/Yellow
440	Red, Grey, White, Grey, Blue, Grey
441**	Red, Black, White, Black, Blue, Black. The central pilot core is grey
450**	Red, Black, White, Black, Blue, Grey
455	Red, Black, White, Black, Blue, Grey

\*The central pilot conductor insulation in all cases is coloured grey.

\*\*The earth conductors (Type 241, 245, 275, 441 and 450) are covered with semiconductive elastomer which is inherently black; it is not possible to assign the normal (green/yellow) earth colour identification to these conductors.

\*\*\*The central pilot/control conductor insulation are coloured grey and numbered 1, 2 and 3.

# ELECTRICAL CABLES: REELING AND TRAILING- FOR UNDERGROUND COAL MINING PURPOSES AS PER AS/N-ZS1802:2018

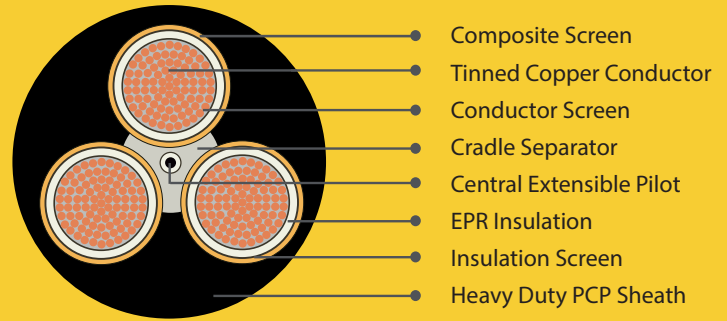


**TYPE: 209 1.1 to 11 kV**

**Standard:  
AS/NZS 1802:2018**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/Insulation EPR/Insulation Screen Semiconductive elastomer/Composite Screen (earth conductor) Tinned annealed copper braiding interweave with polyester yarn/Cradle Separator Semiconductive PCP/Extensible Pilot EPR covered flexible stranded tinned copper conductor/Sheath Heavy duty PCP sheath. Heavy-duty CPE/CSP sheath can be offered as per requirement.



Dimensions Table:

Product Code	Nominal Conductor area (mm <sup>2</sup> )	Power Conductor Strand size no/mm	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Nominal Diameter over Insulation (mm)	Core screen size No/mm	Pilot Conductor Strand size (no/mm)	Thickness of EPR covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass kg/100 m
<b>Type 209.1</b>											
KEI-209.1-06	6	84/0.30	3.4	1.5	6.5	7/0.25	24/0.20	0.8	3.8	28.5	113
KEI-209.1-10	10	77/0.40	4.6	1.5	7.7	7/0.25	24/0.20	0.8	3.8	31.7	138
KEI-209.1-16	16	126/0.40	5.7	1.6	9.0	7/0.25	24/0.20	0.8	4.0	34.9	174
KEI-209.1-25	25	209/0.40	7.2	1.6	10.5	7/0.25	24/0.20	0.8	4.3	38.1	218
KEI-209.1-35	35	285/0.40	8.5	1.6	11.8	7/0.25	24/0.20	0.8	4.6	41.6	270
KEI-209.1-50	50	380/0.40	10.0	1.7	13.5	7/0.25	40/0.20	0.8	5.0	46	345
KEI-209.1-70	70	203/0.67	12.0	1.8	16.0	7/0.25	40/0.20	0.8	5.4	52.2	453
KEI-209.1-95	95	259/0.67	13.2	2.0	17.6	7/0.25	40/0.20	0.8	6.0	56.9	569
KEI-209.1-120	120	336/0.67	15.3	2.1	20.0	7/0.25	40/0.20	0.8	6.4	62.9	697
KEI-209.1-150	150	427/0.67	17.1	2.3	22.2	7/0.25	40/0.20	0.8	6.9	68.6	844
KEI-209.1-185	185	518/0.67	19.2	2.5	24.7	7/0.30	40/0.20	0.8	7.4	75.6	1023
KEI-209.1-240	240	672/0.67	21.8	2.8	27.9	7/0.30	40/0.20	0.8	8.2	84.1	1288
KEI-209.1-300	300	854/0.67	24.4	3.0	30.9	7/0.40	40/0.20	0.8	8.8	92.8	1583
<b>Type 209.3</b>											
KEI-209.3-16	16	126/0.40	5.7	3.0	12.5	7/0.25	24/0.20	0.8	5.3	49.7	342
KEI-209.3-25	25	209/0.40	7.2	3.0	14.0	7/0.25	24/0.20	0.8	5.6	53.5	407
KEI-209.3-35	35	285/0.40	8.5	3.0	15.3	7/0.25	24/0.20	0.8	5.9	56.9	473
KEI-209.3-50	50	380/0.40	10.0	3.0	16.8	7/0.25	40/0.20	0.8	6.3	61.0	563
KEI-209.3-70	70	203/0.67	12.0	3.0	18.8	7/0.25	40/0.20	0.8	6.6	65.9	676
KEI-209.3-95	95	259/0.67	13.2	3.0	20.0	7/0.25	40/0.20	0.8	7.1	69.5	791
KEI-209.3-120	120	336/0.67	15.3	3.0	22.1	7/0.30	40/0.20	0.8	7.4	75.2	933
KEI-209.3-150	150	427/0.67	17.1	3.0	23.9	7/0.40	40/0.20	0.8	7.8	79.9	1080
KEI-209.3-185	185	518/0.67	19.2	3.0	26.0	7/0.40	40/0.20	0.8	8.2	86.3	1275
KEI-209.3-240	240	672/0.67	21.8	3.0	28.6	7/0.40	40/0.20	0.8	8.8	93.1	1530
KEI-209.3-300	300	854/0.67	24.4	3.0	31.2	7/0.50	40/0.20	0.8	9.4	101.0	1826
<b>Type 209.6</b>											
KEI-209.6-16	16	126/0.40	5.7	5.0	16.5	7/0.25	24/0.20	0.8	6.4	60.5	491
KEI-209.6-25	25	209/0.40	7.2	5.0	18.0	7/0.25	24/0.20	0.8	6.7	64.4	568
KEI-209.6-35	35	285/0.40	8.5	5.0	19.3	7/0.25	24/0.20	0.8	7.0	67.8	643
KEI-209.6-50	50	380/0.40	10.0	5.0	20.8	7/0.25	40/0.20	0.8	7.3	71.6	739
KEI-209.6-70	70	203/0.67	12.0	5.0	22.8	7/0.25	40/0.20	0.8	7.7	76.7	869
KEI-209.6-95	95	259/0.67	13.2	5.0	24.0	7/0.30	40/0.20	0.8	8.1	80.1	990
KEI-209.6-120	120	336/0.67	15.3	5.0	26.1	7/0.30	40/0.20	0.8	8.5	86	1158
KEI-209.6-150	150	427/0.67	17.1	5.0	27.9	7/0.40	40/0.20	0.8	8.9	90.7	1310
KEI-209.6-185	185	518/0.67	19.2	5.0	30.0	7/0.40	40/0.20	0.8	9.3	97.1	1521
KEI-209.6-240	240	672/0.67	21.8	5.0	32.6	7/0.40	40/0.20	0.8	9.9	103.9	1796
KEI-209.6-300	300	854/0.67	24.4	5.0	35.2	7/0.50	40/0.20	0.8	10.4	111.6	2106
<b>Type 209.11</b>											
KEI-209.11-25	25	209/0.40	7.2	7.6	23.4	7/0.25	24/0.20	0.8	8.1	78.4	819
KEI-209.11-35	35	285/0.40	8.5	7.6	24.7	7/0.30	24/0.20	0.8	8.4	81.8	905
KEI-209.11-50	50	380/0.40	10.0	7.6	26.2	7/0.30	40/0.20	0.8	8.7	85.7	1016
KEI-209.11-70	70	203/0.67	12.0	7.6	28.2	7/0.30	40/0.20	0.8	9.1	90.8	1165
KEI-209.11-95	95	259/0.67	13.2	7.6	29.4	7/0.40	40/0.20	0.8	9.6	94.4	1302
KEI-209.11-120	120	336/0.67	15.3	7.6	31.5	7/0.40	40/0.20	0.8	9.9	100	1475
KEI-209.11-150	150	427/0.67	17.1	7.6	33.3	7/0.40	40/0.20	0.8	10.3	104.7	1652
KEI-209.11-185	185	518/0.67	19.2	7.6	35.4	7/0.40	40/0.20	0.8	10.7	111.2	1888

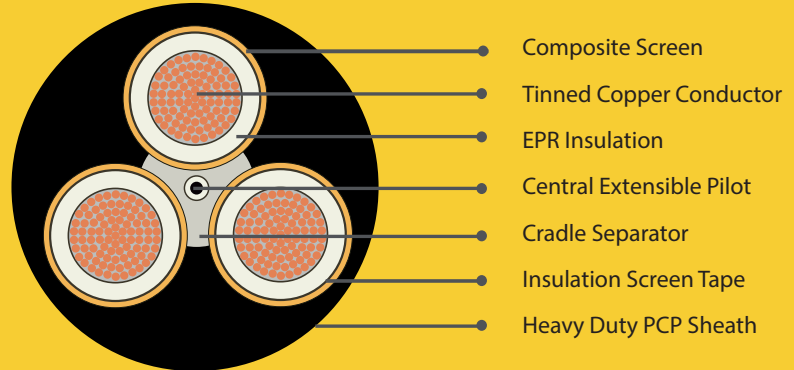
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.



**TYPE: 210 1.1/1.1 kV**  
**Standard:**  
**AS/NZS 1802:2018**

**Construction:**

Flexible Circular Class 5 Annealed Tinned copper conductors/ EPR/ Tape Insulation screen/ composite screen Tinned Annealed Copper braiding interwove with polyester yarn/Cradle Separator/ Pilot EPR covered flexible Stranded Tinned Copper Conductor/ with Heavy duty PCP sheath. Heavy duty CPE/CSP sheath.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
Type 210										
KEI-210.1-1.5	1.5	30/0.25	1.5	1.4	7/0.25	24/0.20	0.8	3.0	23.2	71
KEI-210.1-2.5	2.5	50/0.25	1.9	1.5	7/0.25	24/0.20	0.8	3.0	24.5	81

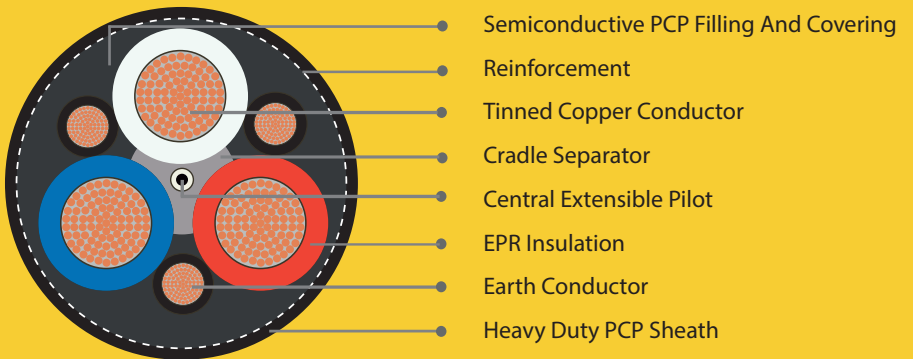


**TYPE: 275 1.1/1.1kV**

**Standard:**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/EPR Insulation/Cradle Separator of Semiconductive PCP filling and covering/3×Interstitial Earth Conductor Semiconductive PCP covered flexible stranded tinned copper conductor/1×Central Extensible Pilot EPR covered flexible stranded tinned copper conductor/ Textile Reinforcement of Open- weave braid reinforcement/ Sheath - Heavy duty PCP sheath. Heavy duty CPE / CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Nominal Diameter over Insulation (mm)	Earth Conductor Strand Size (no/mm)	Nominal Size Conductor Area (mm <sup>2</sup> )	Thickness of SC PCP Covering (mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness Including Covering SC PCP Layer (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 275</b>													
KEI-275.1-16	16	126/0.40	5.7	1.6	9.0	60/0.30	4.2	1.0	24/0.20	0.8	3.8	30.6	149
KEI-275.1-25	25	209/0.40	7.2	1.6	10.5	100/0.30	7.1	1.0	24/0.20	0.8	4.0	34.2	198
KEI-275.1-35	35	285/0.40	8.5	1.6	12.1	140/0.30	9.9	1.0	24/0.20	0.8	4.3	37.6	252
KEI-275.1-50	50	380/0.40	10.0	1.7	13.4	99/0.40	12.4	1.0	40/0.20	0.8	4.7	42.1	328

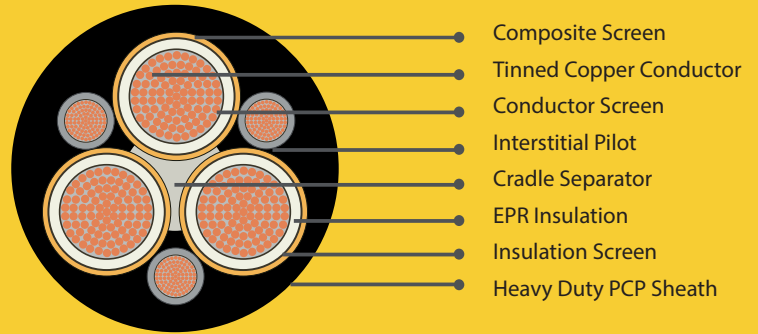
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

**TYPE: 240 1.1 to 11kV**

**Standard:  
AS/NZS 1802:2018**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/Insulation EPR/Insulation Screen Semiconductive elastomer/Composite Screen (earth conductor) Tinned Annealed Copper braiding interwove with polyester yarn/3×Interstitial Pilot EPR covered flexible stranded tinned copper conductor/Cradle Separator Semiconductive PCP/Sheath Heavy-duty PCP sheath. Heavy-duty CPE/CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Nominal Diameter over Insulation (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 240.1</b>											
KEI-240.1-06	6	84/0.30	3.4	1.5	6.5	7/0.25	18/0.30	1.0	3.8	29.3	125
KEI-240.1-10	10	77/0.40	4.6	1.5	7.7	7/0.25	27/0.30	1.0	3.8	31.9	154
KEI-240.1-16	16	126/0.40	5.7	1.6	9.0	7/0.25	42/0.30	1.0	4.0	34.5	190
KEI-240.1-25	25	209/0.40	7.2	1.6	10.5	7/0.25	66/0.30	1.2	4.3	38.4	248
KEI-240.1-35	35	285/0.40	8.5	1.6	11.8	7/0.25	90/0.30	1.2	4.6	41.8	306
KEI-240.1-50	50	380/0.40	10.0	1.7	13.5	7/0.25	120/0.30	1.2	5.0	46.2	389
KEI-240.1-70	70	203/0.67	12.0	1.8	16.0	7/0.25	39/0.67	1.2	5.4	51.8	508
KEI-240.1-95	95	259/0.67	13.2	2.0	17.6	7/0.25	39/0.67	1.2	6.0	56.9	631
KEI-240.1-120	120	336/0.67	15.3	2.1	20.0	7/0.25	42/0.67	1.4	6.4	62.6	764
KEI-240.1-150	150	427/0.67	17.1	2.3	22.2	7/0.25	54/0.67	1.4	6.9	68.4	927
KEI-240.1-185	185	518/0.67	19.2	2.5	24.7	7/0.30	63/0.67	1.4	7.4	75.3	1118
KEI-240.1-240	240	672/0.67	21.8	2.8	27.9	7/0.30	77/0.67	1.6	8.2	83.9	1408
KEI-240.1-300	300	854/0.67	24.4	3.0	30.9	7/0.40	98/0.67	1.6	8.8	92.6	1730
<b>Type 240.3</b>											
KEI-240.3-16	16	126/0.40	5.7	3.0	12.5	7/0.25	42/0.30	1.4	5.3	49.7	357
KEI-240.3-25	25	209/0.40	7.2	3.0	14.0	7/0.25	66/0.30	1.4	5.6	53.5	428
KEI-240.3-35	35	285/0.40	8.5	3.0	15.3	7/0.25	90/0.30	1.4	5.9	56.9	499
KEI-240.3-50	50	380/0.40	10.0	3.0	16.8	7/0.25	120/0.30	1.4	6.3	61	595
KEI-240.3-70	70	203/0.67	12.0	3.0	18.8	7/0.25	39/0.67	1.4	6.6	65.9	724
KEI-240.3-95	95	259/0.67	13.2	3.0	20.0	7/0.25	39/0.67	1.4	7.1	69.5	839
KEI-240.3-120	120	336/0.67	15.3	3.0	22.1	7/0.30	42/0.67	1.6	7.4	75.2	987
KEI-240.3-150	150	427/0.67	17.1	3.0	23.9	7/0.40	54/0.67	1.6	7.8	79.9	1147
KEI-240.3-185	185	518/0.67	19.2	3.0	26.0	7/0.40	63/0.67	1.8	8.2	86.3	1353
KEI-240.3-240	240	672/0.67	21.8	3.0	28.6	7/0.40	77/0.67	1.8	8.8	93.1	1623
KEI-240.3-300	300	854/0.67	24.4	3.0	31.2	7/0.50	98/0.67	1.8	9.4	101	1941
<b>Type 240.6</b>											
KEI-240.6-16	16	126/0.40	5.7	5.0	16.5	7/0.25	42/0.30	1.4	6.4	60.5	495
KEI-240.6-25	25	209/0.40	7.2	5.0	18.0	7/0.25	66/0.30	1.4	6.7	64.4	574
KEI-240.6-35	35	285/0.40	8.5	5.0	19.3	7/0.25	90/0.30	1.6	7.0	67.8	651
KEI-240.6-50	50	380/0.40	10.0	5.0	20.8	7/0.25	120/0.30	1.6	7.3	71.6	748
KEI-240.6-70	70	203/0.67	12.0	5.0	22.8	7/0.25	39/0.67	1.6	7.7	76.7	884
KEI-240.6-95	95	259/0.67	13.2	5.0	24.0	7/0.30	39/0.67	1.6	8.1	80.1	1004
KEI-240.6-120	120	336/0.67	15.3	5.0	26.1	7/0.30	42/0.67	1.8	8.5	86	1174
KEI-240.6-150	150	427/0.67	17.1	5.0	27.9	7/0.40	54/0.67	1.8	8.9	91.8	1345
KEI-240.6-185	185	518/0.67	19.2	5.0	30.0	7/0.40	63/0.67	1.8	9.3	97.1	1546
KEI-240.6-240	240	672/0.67	21.8	5.0	32.6	7/0.40	77/0.67	1.8	9.9	103.9	1825
KEI-240.6-300	300	854/0.67	24.4	5.0	35.2	7/0.50	98/0.67	1.8	10.4	111.6	2143
<b>Type 240.11</b>											
KEI-240.11-25	25	209/0.40	7.2	7.6	23.4	7/0.25	66/0.30	2.0	8.1	78.4	826
KEI-240.11-35	35	285/0.40	8.5	7.6	24.7	7/0.30	90/0.30	2.0	8.4	82.4	922
KEI-240.11-50	50	380/0.40	10.0	7.6	26.2	7/0.30	120/0.30	2.0	8.7	86.2	1033
KEI-240.11-70	70	203/0.67	12.0	7.6	28.2	7/0.30	39/0.67	2.0	9.1	91.3	1188
KEI-240.11-95	95	259/0.67	13.2	7.6	29.4	7/0.40	39/0.67	2.0	9.6	96	1340
KEI-240.11-120	120	336/0.67	15.3	7.6	31.5	7/0.40	42/0.67	2.2	9.9	101.1	1509
KEI-240.11-150	150	427/0.67	17.1	7.6	33.3	7/0.40	54/0.67	2.2	10.3	105.8	1691
KEI-240.11-185	185	518/0.67	19.2	7.6	35.4	7/0.40	63/0.67	2.2	10.7	111.2	1914

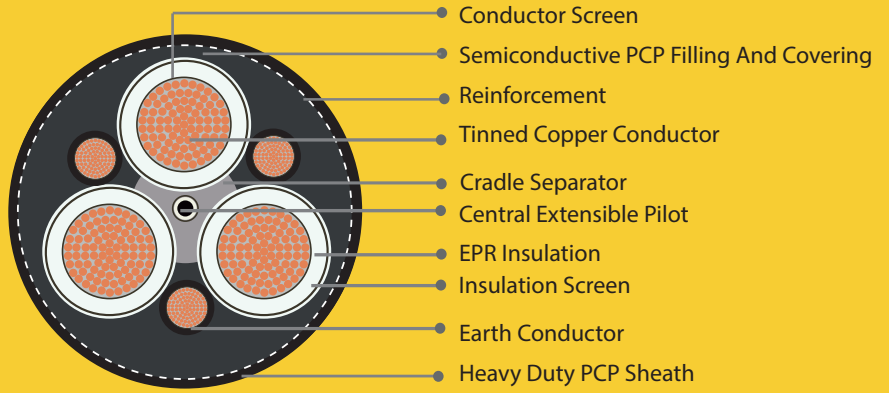
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

**TYPE: 241 1.1 to 11 kV**

**Standard:**  
**AS/NZS 1802:2018**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/ Insulation EPR/Insulation Screen Semiconductive elastomer/Cradle Separator Semiconductive PCP/Overall Core Screen Semiconductive PCP filling and covering/3×Interstitial Earth Conductor Semiconductive PCP covered flexible stranded tinned copper conductor/1×Central Extensible Pilot EPR covered flexible stranded tinned copper conductor/Textile Reinforcement Open-weave braid reinforcement/Sheath Heavy-duty PCP sheath/Heavy-duty CPE/CSP sheath can be offered upon request.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Earth Conductor Strand Size (no/mm)	Nominal Size Conductor Area (mm <sup>2</sup> )	Thickness of SC PCP Covering (mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness Including Covering SC PCP Layer (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 241.1</b>												
KEI-241.1-06	6	84/0.30	3.4	1.5	18/0.30	1.3	1.0	24/0.20	0.8	3.8	25.2	99
KEI-241.1-10	10	77/0.40	4.6	1.5	27/0.30	1.9	1.0	24/0.20	0.8	3.8	27.7	124
KEI-241.1-16	16	126/0.40	5.7	1.6	42/0.30	3.0	1.0	24/0.20	0.8	3.9	30.8	161
KEI-241.1-25	25	209/0.40	7.2	1.6	66/0.30	4.7	1.0	24/0.20	0.8	4.2	34.6	213
KEI-241.1-35	35	285/0.40	8.5	1.6	90/0.30	6.4	1.0	24/0.20	0.8	4.4	37.8	264
KEI-241.1-50	50	380/0.40	10.0	1.7	120/0.30	8.5	1.0	40/0.20	0.8	4.9	42.5	346
KEI-241.1-70	70	203/0.67	12.0	1.8	39/0.67	13.8	1.0	40/0.20	0.8	5.3	48	455
KEI-241.1-95	95	259/0.67	13.2	2.0	39/0.67	13.8	1.0	40/0.20	0.8	5.8	52.9	572
KEI-241.1-120	120	336/0.67	15.3	2.1	42/0.67	14.8	1.2	40/0.20	0.8	6.3	58.9	702
KEI-241.1-150	150	427/0.67	17.1	2.3	54/0.67	19.0	1.2	40/0.20	0.8	6.7	64.4	853
KEI-241.1-185	185	518/0.67	19.2	2.5	63/0.67	22.2	1.4	40/0.20	0.8	7.3	71	1034
KEI-241.1-240	240	672/0.67	21.8	2.8	77/0.67	27.1	1.4	40/0.20	0.8	8.0	79.3	1305
KEI-241.1-300	300	854/0.67	24.4	3.0	98/0.67	34.6	1.4	40/0.20	0.8	8.7	87.2	1606
<b>Type 241.3</b>												
KEI-241.3-16	16	126/0.40	5.7	3.0	42/0.30	3.0	1.0	24/0.20	0.8	5.0	46.4	298
KEI-241.3-25	25	209/0.40	7.2	3.0	66/0.30	4.7	1.0	24/0.20	0.8	5.3	50.2	363
KEI-241.3-35	35	285/0.40	8.5	3.0	90/0.30	6.4	1.0	24/0.20	0.8	5.6	53.6	429
KEI-241.3-50	50	380/0.40	10.0	3.0	120/0.30	8.5	1.2	40/0.20	0.8	6.0	57.7	520
KEI-241.3-70	70	203/0.67	12.0	3.0	39/0.67	13.8	1.2	40/0.20	0.8	6.4	62.8	645
KEI-241.3-95	95	259/0.67	13.2	3.0	48/0.67	16.9	1.2	40/0.20	0.8	6.8	66.2	762
KEI-241.3-120	120	336/0.67	15.3	3.0	60/0.67	21.2	1.2	40/0.20	0.8	7.2	71.5	906
KEI-241.3-150	150	427/0.67	17.1	3.0	77/0.67	27.1	1.2	40/0.20	0.8	7.6	76.2	1065
KEI-241.3-185	185	518/0.67	19.2	3.0	91/0.67	32.1	1.4	40/0.20	0.8	8.0	81.6	1251
KEI-241.3-240	240	672/0.67	21.8	3.0	112/0.67	42.0	1.4	40/0.20	0.8	8.6	88.4	1518
KEI-241.3-300	300	854/0.67	24.4	3.0	156/0.67	55.0	1.4	40/0.20	0.8	9.1	95	1826

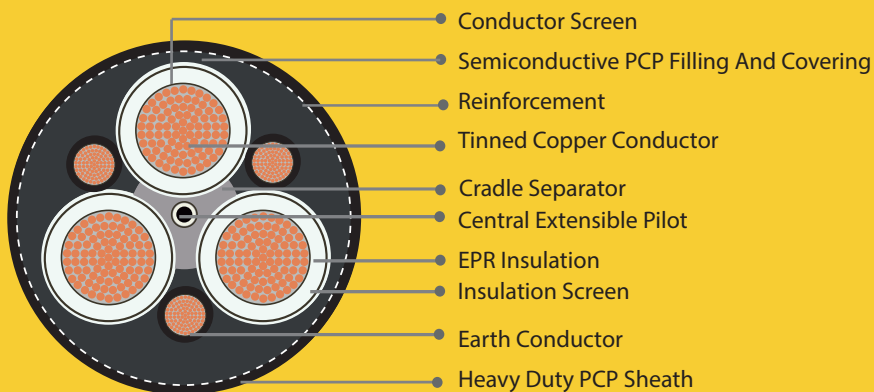


**TYPE: 241 1.1 to 11 kV**

**Standard:  
AS/NZS 1802:2018**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/ Insulation EPR/Insulation Screen Semiconductive elastomer/Cradle Separator Semiconductive PCP/Overall Core Screen Semiconductive PCP filling and covering/3xInterstitial Earth Conductor Semiconductive PCP covered flexible stranded tinned copper conductor/1xCentral ExtensiblePilot EPR covered flexible stranded tinned copper conductor/Textile Reinforcement Open-weave braid reinforcement/Sheath Heavy-duty PCP sheath/ Heavy-duty CPE/CSP sheath can be offered upon request.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Earth Conductor Strand Size (no/mm)	Nominal Size Conductor Area (mm <sup>2</sup> )	Thickness of SC PCP Covering (mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness Including Covering SC PCP Layer (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 241.6</b>												
KEI-241.6-16	16	126/0.40	5.7	5.0	42/0.30	3.0	1.4	24/0.20	0.8	6.1	57	430
KEI-241.6-25	25	209/0.40	7.2	5.0	66/0.30	4.7	1.4	24/0.20	0.8	6.4	60.9	507
KEI-241.6-35	35	285/0.40	8.5	5.0	90/0.30	6.4	1.4	24/0.20	0.8	6.7	64.3	582
KEI-241.6-50	50	380/0.40	10.0	5.0	120/0.30	8.5	1.4	40/0.20	0.8	7.1	68.3	682
KEI-241.6-70	70	203/0.67	12.0	5.0	39/0.67	13.8	1.4	40/0.20	0.8	7.4	73.2	817
KEI-241.6-95	95	259/0.67	13.2	5.0	48/0.67	16.9	1.4	40/0.20	0.8	7.9	76.8	946
KEI-241.6-120	120	336/0.67	15.3	5.0	60/0.67	21.2	1.4	40/0.20	0.8	8.3	82.2	1106
KEI-241.6-150	150	427/0.67	17.1	5.0	77/0.67	27.1	1.4	40/0.20	0.8	8.6	86.7	1273
KEI-241.6-185	185	518/0.67	19.2	5.0	91/0.67	32.1	1.4	40/0.20	0.8	9.0	92	1466
KEI-241.6-240	240	672/0.67	21.8	5.0	119/0.67	42.0	1.4	40/0.20	0.8	9.6	98.8	1749
KEI-241.6-300	300	854/0.67	24.4	5.0	156/0.67	55.0	1.4	40/0.20	0.8	10.2	105.6	2077
<b>Type 241.11</b>												
KEI-241.11-25	25	209/0.40	7.2	7.6	66/0.30	4.7	1.8	24/0.20	0.8	7.8	63.1	536
KEI-241.11-35	35	285/0.40	8.5	7.6	90/0.30	6.4	1.8	24/0.20	0.8	8.1	78.3	826
KEI-241.11-50	50	380/0.40	10.0	7.6	120/0.30	8.5	1.8	40/0.20	0.8	8.5	82.4	942
KEI-241.11-70	70	203/0.67	12.0	7.6	39/0.67	13.8	1.8	40/0.20	0.8	8.9	87.5	1099
KEI-241.11-95	95	259/0.67	13.2	7.6	48/0.67	16.9	1.8	40/0.20	0.8	9.3	90.9	1235
KEI-241.11-120	120	336/0.67	15.3	7.6	60/0.67	21.2	1.8	40/0.20	0.8	9.7	96.2	1411
KEI-241.11-150	150	427/0.67	17.1	7.6	77/0.67	27.1	1.8	40/0.20	0.8	10.0	100.7	1593
KEI-241.11-185	185	518/0.67	19.2	7.6	91/0.67	32.1	1.8	40/0.20	0.8	10.4	106	1808

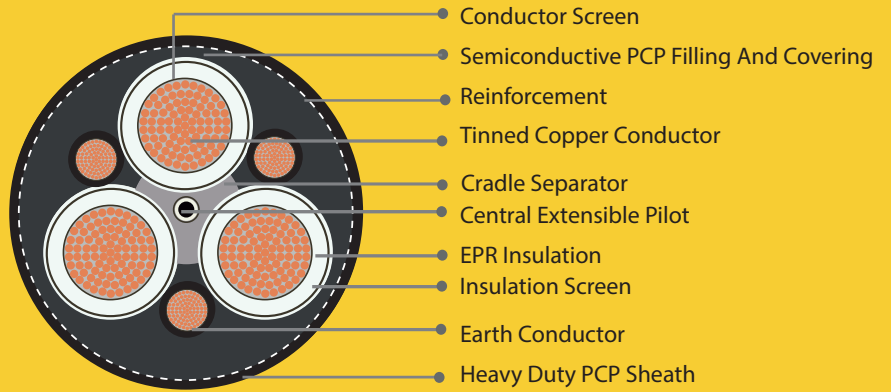
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

**TYPE: 241 1.1 to 11kV Extra Flex**

**Standard:**  
**AS/NZS 1802:2018**

**Construction:**

Flexible Circular Class 5 Annealed Tinned Copper Conductors /Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/ Insulation EPR/Insulation Screen Semiconductive elastomer/Cradle Separator Semiconductive PCP/Overall Core Screen Semiconductive PCP filling and covering/3× Interstitial Earth Conductor Semiconductive PCP covered flexible stranded tinned copper conductor/1×Central Extensible Pilot EPR covered flexible stranded Tinned Copper Conductor/Textile Reinforcement Open-weave braid reinforcement/Sheath Heavy-duty PCP sheath/ Heavy-duty CPE/CSP sheath can be offered upon request.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Nominal Diameter over Insulation (mm)	Earth Conductor Strand Size (no/mm)	Nominal Conductor Area (mm <sup>2</sup> )	Thickness of SC PCP Covering (mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness Including Covering SC PCP Layer (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 241.1</b>													
KEI-241E.1-70	70	361/0.50	12.4	1.8	16.4	110/0.40	13.8	1.0	40/0.20	0.8	5.3	48.5	464
KEI-241E.1-95	95	475/0.50	14.2	2.0	18.6	85/0.40	10.7	1.0	40/0.20	0.8	5.8	53.4	583
KEI-241E.1-120	120	608/0.50	15.2	2.1	19.9	110/0.40	13.8	1.2	40/0.20	0.8	6.3	59.4	716
KEI-241E.1-150	150	740/0.50	16.5	2.3	21.6	135/0.40	17.0	1.2	40/0.20	0.8	6.7	64.9	870
KEI-241E.1-185	185	925/0.50	19.3	2.5	24.8	165/0.40	20.7	1.4	40/0.20	0.8	7.3	71.5	1055
KEI-241E.1-240	240	1221/0.50	22.9	2.8	29.0	216/0.40	27.1	1.4	40/0.20	0.8	8.0	79.8	1331
<b>Type 241.3</b>													
KEI-241E.3-70	70	361/0.50	12.4	3.0	19.2	110/0.40	13.8	1.2	40/0.20	0.8	6.4	63.5	665
KEI-241E.3-95	95	475/0.50	14.2	3.0	21.0	135/0.40	17.0	1.2	40/0.20	0.8	6.8	66.9	785
KEI-241E.3-120	120	608/0.50	15.2	3.0	22.0	165/0.40	20.7	1.2	40/0.20	0.8	7.2	72.2	933
KEI-241E.3-150	150	740/0.50	16.5	3.0	23.3	216/0.40	27.1	1.2	40/0.20	0.8	7.6	76.9	1097
KEI-241E.3-185	185	925/0.50	19.3	3.0	26.1	252/0.40	31.7	1.4	40/0.20	0.8	8.0	82.3	1288
KEI-241E.3-240	240	1221/0.50	22.9	3.0	29.7	324/0.40	40.7	1.4	40/0.20	0.8	8.6	89.1	1564
<b>Type 241.6</b>													
KEI-241E.6-70	70	361/0.50	12.4	5.0	23.2	110/0.40	13.8	1.4	40/0.20	0.8	7.4	73.3	858
KEI-241E.6-95	95	475/0.50	14.2	5.0	25.0	135/0.40	17.0	1.4	40/0.20	0.8	7.9	76.9	993
KEI-241E.6-120	120	608/0.50	15.2	5.0	26.0	165/0.40	20.7	1.4	40/0.20	0.8	8.3	82.3	1162
KEI-241E.6-150	150	740/0.50	16.5	5.0	27.3	216/0.40	27.1	1.4	40/0.20	0.8	8.6	86.8	1337
KEI-241E.6-185	185	925/0.50	19.3	5.0	30.1	252/0.40	31.7	1.4	40/0.20	0.8	9.0	92.1	1539
KEI-241E.6-240	240	1221/0.50	22.9	5.0	33.7	324/0.40	40.7	1.4	40/0.20	0.8	9.6	98.9	1837

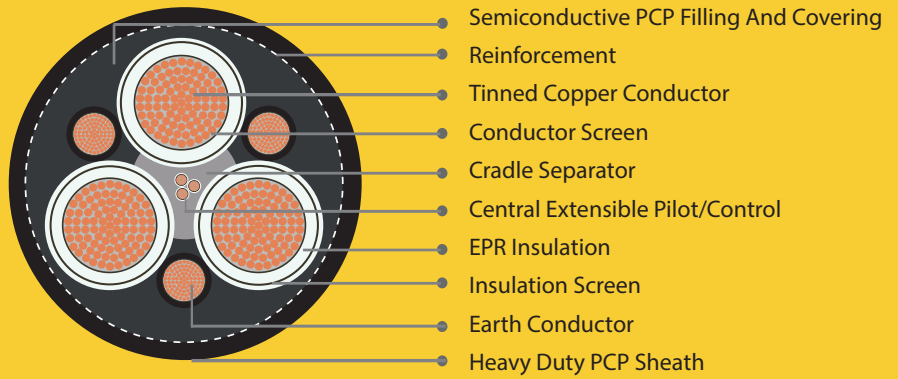
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

**TYPE: 245 1.1 to 6.6 kV**

**Standard:  
AS/NZS 1802:2018**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)Insulation EPR/Insulation Screen Semiconductive elastomer/ Cradle Separator Semiconductive PCP/ Overall Core Screen Semiconductive PCP filling and covering/3×Interstitial Earth Conductor Semiconductive PCP covered flexible stranded tinned copper conductor/1×Central Extensible Pilot EPR covered flexible stranded tinned copper conductor/Textile Reinforcement Open- weave braid reinforcement/ Sheath Heavy-duty PCP sheath/ Heavy-duty CPE/CSP sheath can be offered upon request.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Earth Conductor Strand Size (no/mm)	Nominal Size Conductor Area (mm <sup>2</sup> )	Thickness of SC PCP Covering (mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness Including SC PCP Layer (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 245.1</b>												
KEI-245.1-50	50	703/0.30	9.7	1.7	120/0.30	8.5	1.0	28/0.25	0.8	4.8	44.8	373
KEI-245.1-70	70	988/0.30	11.6	1.8	180/0.30	12.7	1.0	28/0.25	0.8	5.1	50.2	484
KEI-245.1-95	95	1332/0.30	13.9	2.0	150/0.30	10.6	1.0	28/0.25	0.8	5.6	54.6	597
KEI-245.1-120	120	1702/0.30	15.7	2.1	195/0.30	13.8	1.2	28/0.25	0.8	6.0	60.4	726
KEI-245.1-150	150	2146/0.30	17.6	2.3	235/0.30	16.6	1.2	28/0.25	0.8	6.3	65.7	875
<b>Type 245.3</b>												
KEI-241.3-50	50	703/0.30	9.7	3.0	120/0.30	8.5	1.0	28/0.25	0.8	5.7	58.2	524
KEI-241.3-70	70	988/0.30	11.6	3.0	180/0.30	12.7	1.2	28/0.25	0.8	6.0	64.5	647
KEI-241.3-95	95	1332/0.30	13.9	3.0	235/0.30	16.6	1.2	28/0.25	0.8	6.4	67.5	764
KEI-241.3-120	120	1702/0.30	15.7	3.0	300/0.30	21.2	1.2	28/0.25	0.8	6.7	73.1	904
KEI-241.3-150	150	2146/0.30	17.6	3.0	375/0.30	26.5	1.2	28/0.25	0.8	7.0	77.0	1062
<b>Type 245.6</b>												
KEI-241.6-50	50	703/0.30	9.7	5.0	120/0.30	8.5	1.4	28/0.25	0.8	6.7	68.5	688
KEI-241.6-70	70	988/0.30	11.6	5.0	180/0.30	12.7	1.4	28/0.25	0.8	7.0	73.5	826
KEI-241.6-95	95	1332/0.30	13.9	5.0	235/0.30	16.6	1.4	28/0.25	0.8	7.4	76.9	952
KEI-241.6-120	120	1702/0.30	15.7	5.0	300/0.30	21.2	1.4	28/0.25	0.8	7.7	82.0	1107
KEI-241.6-150	150	2146/0.30	17.6	5.0	375/0.30	26.5	1.4	28/0.25	0.8	8.0	86.5	1277

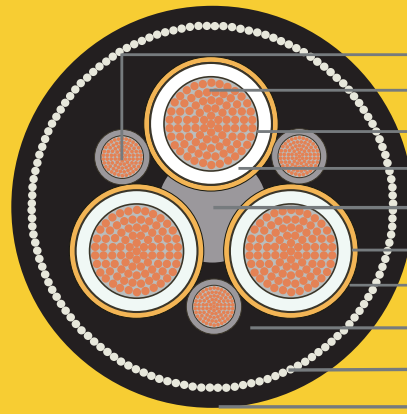
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

**TYPE: 260 1.1 to 11kV**

**Standard:  
AS/NZS 1802:2018**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned Copper Conductor (rope lay)/Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/Insulation EPR/Insulation Screen Semiconductive elastomer/Composite Screen (earth conductor) Tinned Annealed Copper braiding interwove with polyester yarn/Cradle Separator Semiconductive PCP/3xInterstitial Pilot EPR covered flexible stranded tinned copper conductor/Inner Sheath-PCP sheath. CPE/CSP sheath can be offered upon request/ Pliable Armour - Galvanized low carbon (mild) steel strands/Outer Sheath -Heavy duty PCP sheath. Heavy-duty CPE/CSP sheath can be offered upon request.



- Interstitial Pilot
- Tinned Copper Conductor
- Conductor Screen
- EPR Insulation
- Cradle Separator
- Insulation Screen
- Composite Screen
- Inner PCP Sheath
- Pliable Galvanized Steel Armour
- Outer Heavy Duty PCP Sheath



**Dimensions Table:**

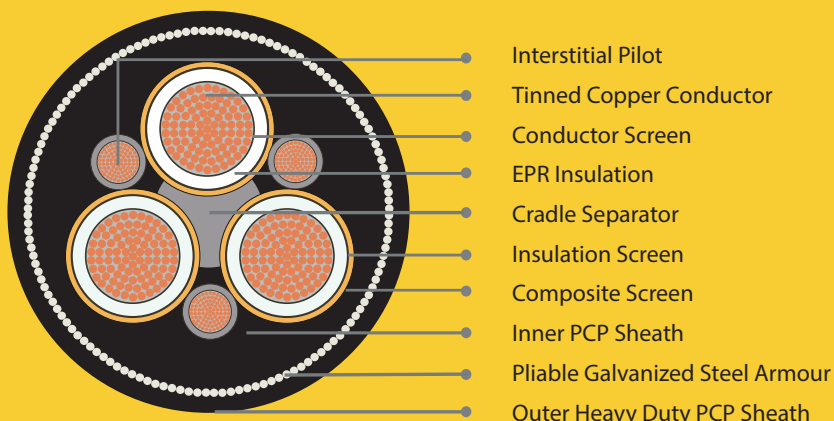
Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Pliable Armour Strand Size (no/mm)	Sheath Thickness Inner Sheath (mm)	Thickness of Outer Sheath (mm)	Nominal Overall Diameter mm	Approx Mass (kg/100m)
<b>Type 260.1</b>												
KEI-260.1-06	6	84/0.30	3.4	1.5	7/0.25	18/0.30	1.0	7/0.45	2.0	3.8	35	191
KEI-260.1-10	10	77/0.40	4.6	1.5	7/0.25	27/0.30	1.0	7/0.45	2.0	3.8	37.5	220
KEI-260.1-16	16	126/0.40	5.7	1.6	7/0.25	42/0.30	1.0	7/0.90	2.5	4.0	44.5	366
KEI-260.1-25	25	209/0.40	7.2	1.6	7/0.25	66/0.30	1.2	7/0.90	2.5	4.3	48.3	433
KEI-260.1-35	35	285/0.40	8.5	1.6	7/0.25	90/0.30	1.2	7/0.90	2.5	4.6	51.7	500
KEI-260.1-50	50	380/0.40	10.0	1.7	7/0.25	120/0.30	1.2	7/0.90	2.5	5.0	56.2	596
KEI-260.1-70	70	203/0.67	12.0	1.8	7/0.25	39/0.67	1.2	7/0.90	2.5	5.4	61.7	727
KEI-260.1-95	95	259/0.67	13.2	2.0	7/0.25	39/0.67	1.2	7/0.90	3.5	6.0	68.8	900
KEI-260.1-120	120	336/0.67	15.3	2.1	7/0.25	42/0.67	1.4	7/0.90	3.5	6.4	74.6	1044
KEI-260.1-150	150	427/0.67	17.1	2.3	7/0.25	54/0.67	1.4	7/0.90	3.5	6.9	80.3	1216
KEI-260.1-185	185	518/0.67	19.2	2.5	7/0.30	63/0.67	1.4	7/0.90	3.5	7.4	87.3	1420
KEI-260.1-240	240	672/0.67	21.8	2.8	7/0.30	77/0.67	1.6	7/1.25	4.5	8.2	99.9	1933
KEI-260.1-300	300	854/0.67	24.4	3.0	7/0.40	98/0.67	1.6	7/1.25	4.5	8.8	108.6	2270
<b>Type 260.3</b>												
KEI-260.3-16	16	126/0.40	5.7	3.0	7/0.25	42/0.30	1.4	7/0.90	2.5	5.3	60.5	785
KEI-260.3-25	25	209/0.40	7.2	3.0	7/0.25	66/0.30	1.4	7/0.90	2.5	5.6	64.3	879
KEI-260.3-35	35	285/0.40	8.5	3.0	7/0.25	90/0.30	1.4	7/0.90	3.5	5.9	69.7	999
KEI-260.3-50	50	380/0.40	10.0	3.0	7/0.25	120/0.30	1.4	7/0.90	3.5	6.3	73.8	1127
KEI-260.3-70	70	203/0.67	12.0	3.0	7/0.25	39/0.67	1.4	7/0.90	3.5	6.6	78.7	1276
KEI-260.3-95	95	259/0.67	13.2	3.0	7/0.25	39/0.67	1.4	7/0.90	3.5	7.1	82.3	1429
KEI-260.3-120	120	336/0.67	15.3	3.0	7/0.30	42/0.67	1.6	7/0.90	3.5	7.4	88	1610
KEI-260.3-150	150	427/0.67	17.1	3.0	7/0.40	54/0.67	1.6	7/1.25	4.5	7.8	97.8	2096
KEI-260.3-185	185	518/0.67	19.2	3.0	7/0.40	63/0.67	1.8	7/1.25	4.5	8.2	103.2	2344
KEI-260.3-240	240	672/0.67	21.8	3.0	7/0.40	77/0.67	1.8	7/1.25	4.5	8.8	110	2681
KEI-260.3-300	300	854/0.67	24.4	3.0	7/0.50	98/0.67	1.8	7/1.25	4.5	9.4	117.9	3053

**TYPE: 260 1.1 to 11kV**

**Standard:  
AS/NZS 1802:2018**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned Copper Conductor (rope lay)/Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/Insulation EPR/Insulation Screen Semiconductive elastomer/ Composite Screen (earth conductor) Tinned Annealed Copper braiding interwove with polyester yarn/Cradle Separator Semiconductive PCP/3×Interstitial Pilot EPR covered flexible stranded tinned copper conductor/Inner Sheath-PCP sheath. CPE/CSP sheath can be offered upon request/ Pliable Armour - Galvanized low carbon (mild) steel strands/Outer Sheath-Heavy duty PCP sheath. Heavy-duty CPE/CSP sheath can be offered upon request.

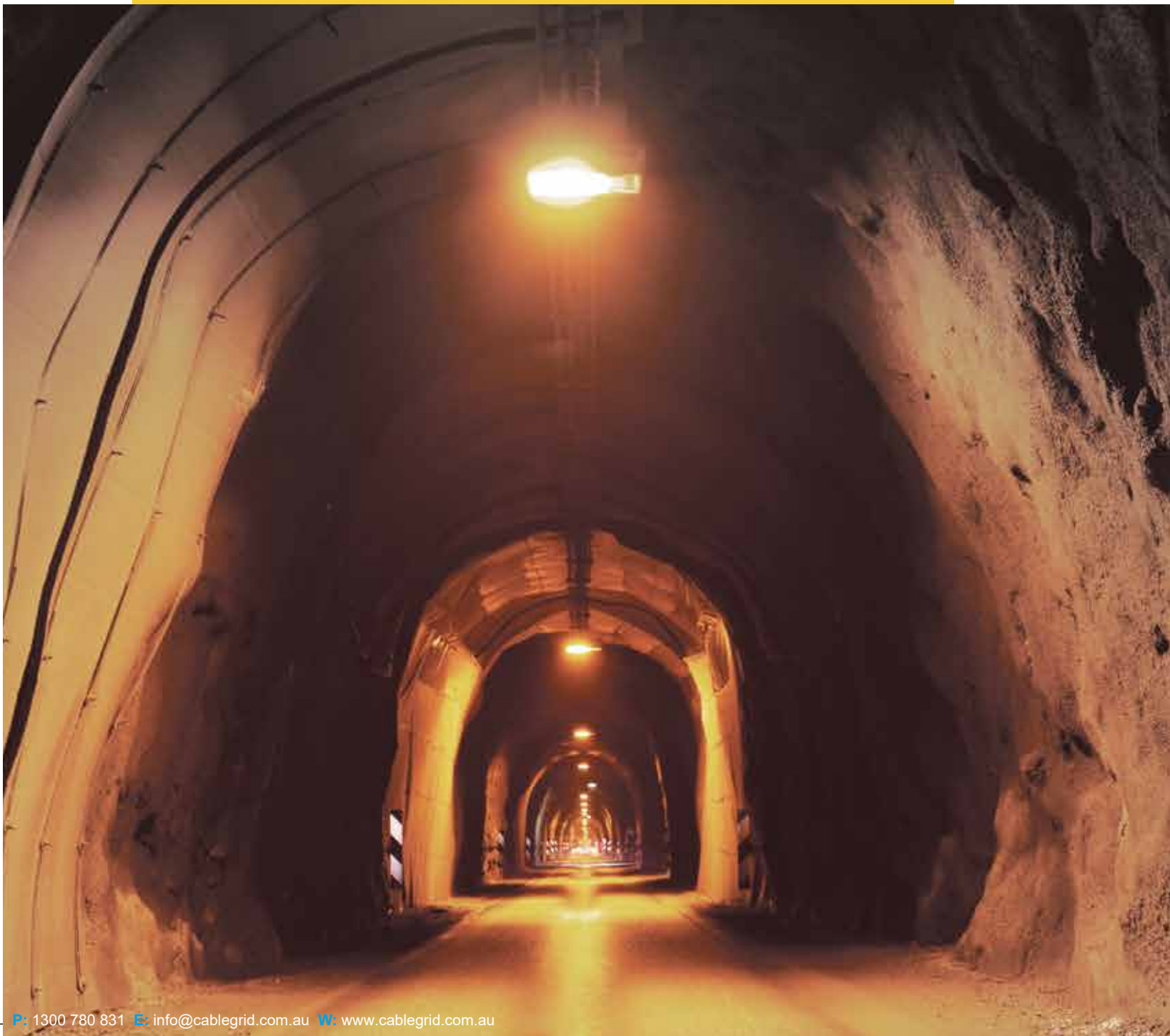


**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Pliable Armour Strand Size (no/mm)	Sheath Thickness Inner Sheath (mm)	Thickness of Outer Sheath (mm)	Nominal Overall Diameter mm	Approx Mass (kg/100m)
<b>Type 260.6</b>												
KEI-260.6-16	16	126/0.40	5.7	5.0	7/0.25	42/0.30	1.4	7/0.90	3.5	6.4	73.3	1053
KEI-260.6-25	25	209/0.40	7.2	5.0	7/0.25	66/0.30	1.4	7/0.90	3.5	6.7	77.2	1164
KEI-260.6-35	35	285/0.40	8.5	5.0	7/0.25	90/0.30	1.6	7/0.90	3.5	7.0	80.6	1268
KEI-260.6-50	50	380/0.40	10.0	5.0	7/0.25	120/0.30	1.6	7/0.90	3.5	7.3	84.4	1394
KEI-260.6-70	70	203/0.67	12.0	5.0	7/0.25	39/0.67	1.6	7/1.25	4.5	7.7	93.6	1836
KEI-260.6-95	95	259/0.67	13.2	5.0	7/0.30	39/0.67	1.6	7/1.25	4.5	8.1	97.6	2006
KEI-260.6-120	120	336/0.67	15.3	5.0	7/0.30	42/0.67	1.8	7/1.25	4.5	8.5	102.9	2223
KEI-260.6-150	150	427/0.67	17.1	5.0	7/0.40	54/0.67	1.8	7/1.25	4.5	8.9	108.7	2451
KEI-260.6-185	185	518/0.67	19.2	5.0	7/0.40	63/0.67	1.8	7/1.25	4.5	9.3	114	2700
KEI-260.6-240	240	672/0.67	21.8	5.0	7/0.40	77/0.67	1.8	7/1.25	4.5	9.9	120.8	3050
KEI-260.6-300	300	854/0.67	24.4	5.0	7/0.50	98/0.67	1.8	7/1.25	4.5	10.4	128.5	3431
<b>Type 260.11</b>												
KEI-260.11-25	25	209/0.40	7.2	7.6	7/0.25	66/0.30	2.0	7/1.25	4.5	8.1	95.3	1817
KEI-260.11-35	35	285/0.40	8.5	7.6	7/0.30	90/0.30	2.0	7/1.25	4.5	8.4	99.3	1950
KEI-260.11-50	50	380/0.40	10.0	7.6	7/0.30	120/0.30	2.0	7/1.25	4.5	8.7	103.1	2100
KEI-260.11-70	70	203/0.67	12.0	7.6	7/0.30	39/0.67	2.0	7/1.25	4.5	9.1	108.2	2312
KEI-260.11-95	95	259/0.67	13.2	7.6	7/0.40	39/0.67	2.0	7/1.25	4.5	9.6	112.9	2525
KEI-260.11-120	120	336/0.67	15.3	7.6	7/0.40	42/0.67	2.2	7/1.25	4.5	9.9	118	2742
KEI-260.11-150	150	427/0.67	17.1	7.6	7/0.40	54/0.67	2.2	7/1.25	4.5	10.3	122.7	2974
KEI-260.11-185	185	518/0.67	19.2	7.6	7/0.40	63/0.67	2.2	7/1.25	4.5	10.7	128.1	3237

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

**ELECTRICAL CABLES:  
REELING AND TRAILING -  
FOR MINING AND GENERAL USE  
AS PER AS/NZS2802:2000**

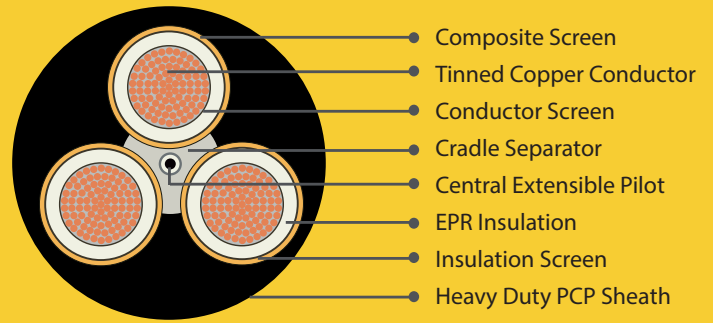


**TYPE: 409 1.1 to 22 kV**

**Standard:**  
**AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/Insulation EPR/Insulation Screen Semiconductive elastomer/Composite Screen (earth conductor) Tinned Annealed Copper braiding interwove with polyester yarn/Cradle Separator Semiconductive PCP/ Pilot EPR covered flexible stranded tinned copper conductor/Sheath Heavy-duty PCP sheath. Heavy-duty CPE/CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 409.1 - Class 2</b>										
KEI-409.1-06	6	84/0.30	3.4	1.5	7/0.25	24/0.20	0.8	3.8	29.8	121
KEI-409.1-10	10	77/0.40	4.6	1.5	7/0.25	24/0.20	0.8	3.8	32.3	147
KEI-409.1-16	16	126/0.40	5.7	1.6	7/0.25	24/0.20	0.8	4.0	35	180
KEI-409.1-25	25	209/0.40	7.2	1.6	7/0.25	24/0.20	0.8	4.3	38.8	231
KEI-409.1-35	35	285/0.40	8.5	1.6	7/0.25	24/0.20	0.8	4.6	42.2	283
KEI-409.1-50	50	380/0.40	10.0	1.7	7/0.25	40/0.20	0.8	5.0	46.7	361
KEI-409.1-70	70	203/0.67	12.0	1.8	7/0.25	40/0.20	0.8	5.4	52.2	464
KEI-409.1-95	95	259/0.67	13.2	2.0	7/0.30	40/0.20	0.8	6.0	57.4	585
KEI-409.1-120	120	336/0.67	15.3	2.1	7/0.30	40/0.20	0.8	6.4	63.2	713
KEI-409.1-150	150	427/0.67	17.1	2.3	7/0.40	40/0.20	0.8	6.9	70	879
KEI-409.1-185	185	518/0.67	19.2	2.5	7/0.40	40/0.20	0.8	7.4	76.4	1057
KEI-409.1-240	240	672/0.67	21.8	2.8	7/0.50	40/0.20	0.8	8.2	86	1351
KEI-409.1-300	300	854/0.67	24.4	3.0	7/0.50	40/0.20	0.8	8.8	93.7	1632
<b>Type 409.3 - Class 2</b>										
KEI-409.3-16	16	126/0.40	5.7	3.0	7/0.25	24/0.20	0.8	5.3	49.7	332
KEI-409.3-25	25	209/0.40	7.2	3.0	7/0.25	24/0.20	0.8	5.6	53.5	396
KEI-409.3-35	35	285/0.40	8.5	3.0	7/0.25	24/0.20	0.8	5.9	56.9	460
KEI-409.3-50	50	380/0.40	10.0	3.0	7/0.25	40/0.20	0.8	6.3	61	549
KEI-409.3-70	70	203/0.67	12.0	3.0	7/0.25	40/0.20	0.8	6.6	65.9	660
KEI-409.3-95	95	259/0.67	13.2	3.0	7/0.25	40/0.20	0.8	7.1	69.5	773
KEI-409.3-120	120	336/0.67	15.3	3.0	7/0.30	40/0.20	0.8	7.4	75.2	912
KEI-409.3-150	150	427/0.67	17.1	3.0	7/0.40	40/0.20	0.8	7.8	79.9	1057
KEI-409.3-185	185	518/0.67	19.2	3.0	7/0.40	40/0.20	0.8	8.2	86.3	1247
KEI-409.3-240	240	672/0.67	21.8	3.0	7/0.40	40/0.20	0.8	8.8	93.1	1499
KEI-409.3-300	300	854/0.67	24.4	3.0	7/0.50	40/0.20	0.8	9.4	101	1795
<b>Type 409.6 - Class 2</b>										
KEI-409.6-16	16	126/0.40	5.7	5.0	7/0.25	24/0.20	0.8	6.4	60.5	477
KEI-409.6-25	25	209/0.40	7.2	5.0	7/0.25	24/0.20	0.8	6.7	64.4	552
KEI-409.6-35	35	285/0.40	8.5	5.0	7/0.25	24/0.20	0.8	7.0	67.8	626
KEI-409.6-50	50	380/0.40	10.0	5.0	7/0.25	40/0.20	0.8	7.3	71.6	719
KEI-409.6-70	70	203/0.67	12.0	5.0	7/0.25	40/0.20	0.8	7.7	76.7	847
KEI-409.6-95	95	259/0.67	13.2	5.0	7/0.30	40/0.20	0.8	8.1	80.1	966
KEI-409.6-120	120	336/0.67	15.3	5.0	7/0.30	40/0.20	0.8	8.5	86	1131
KEI-409.6-150	150	427/0.67	17.1	5.0	7/0.40	40/0.20	0.8	8.9	91.8	1303
KEI-409.6-185	185	518/0.67	19.2	5.0	7/0.40	40/0.20	0.8	9.3	97.1	1487
KEI-409.6-240	240	672/0.67	21.8	5.0	7/0.40	40/0.20	0.8	9.9	103.9	1756
KEI-409.6-300	300	854/0.67	24.4	5.0	7/0.50	40/0.20	0.8	10.4	111.6	2068

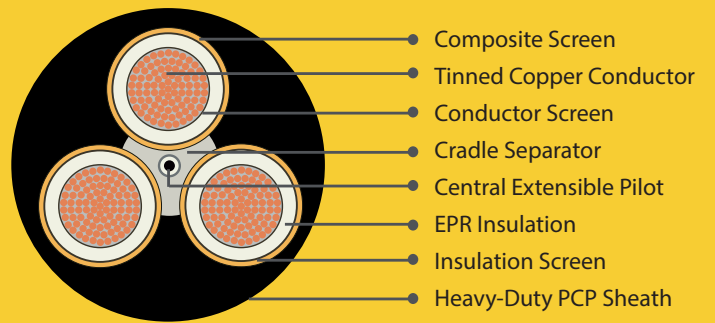


**TYPE: 409 1.1 to 22 kV**

**Standard:**  
**AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/Insulation EPR/Insulation Screen Semiconductive elastomer/Composite Screen (earth conductor) Tinned Annealed Copper braiding interweave with polyester yarn/Cradle Separator Semiconductive PCP/ Pilot EPR covered flexible stranded tinned copper conductor/Sheath Heavy-duty PCP sheath. Heavy-duty CPE/CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 409.11 - Class 2</b>										
KEI-409.11-25	25	209/0.40	7.2	7.6	7/0.25	24/0.20	0.8	8.1	78.4	795
KEI-409.11-35	35	285/0.40	8.5	7.6	7/0.30	24/0.20	0.8	8.4	82.4	887
KEI-409.11-50	50	380/0.40	10.0	7.6	7/0.30	40/0.20	0.8	8.7	86.2	994
KEI-409.11-70	70	203/0.67	12.0	7.6	7/0.30	40/0.20	0.8	9.1	91.3	1140
KEI-409.11-95	95	259/0.67	13.2	7.6	7/0.40	40/0.20	0.8	9.6	96	1299
KEI-409.11-120	120	336/0.67	15.3	7.6	7/0.40	40/0.20	0.8	9.9	101.1	1463
KEI-409.11-150	150	427/0.67	17.1	7.6	7/0.40	40/0.20	0.8	10.3	105.8	1638
KEI-409.11-185	185	518/0.67	19.2	7.6	7/0.40	40/0.20	0.8	10.7	111.2	1855
<b>Type 409.22 - Class 2</b>										
KEI-409.22-35	35	285/0.40	8.5	10.5	7/0.40	24/0.20	0.8	10.0	101.1	1301
KEI-409.22-50	50	380/0.40	10.0	10.5	7/0.40	40/0.20	0.8	10.3	104.9	1425
KEI-409.22-70	70	203/0.67	12.0	10.5	7/0.40	40/0.20	0.8	10.7	110	1593

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.



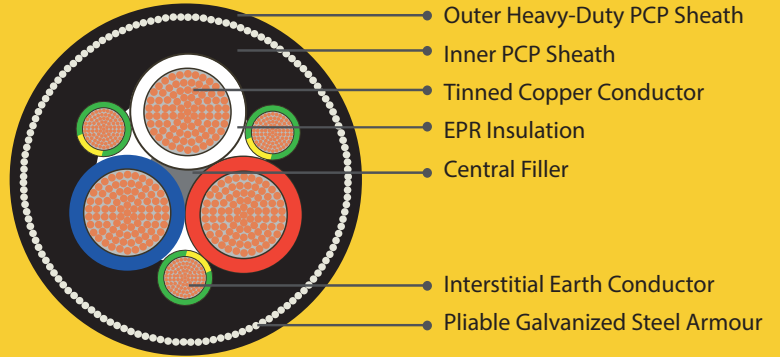


**TYPE: 412 1.1/1.1 kV**

**Standard:  
AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Insulation: EPR/Insulation Screen:Semiconductive elastomer/Elastomer centre filler/ Earth conductor EPR covered flexible stranded tinned copper conductor/PCP Inner Sheath sheath/CPE or CSP sheath can be offered upon request Pliable Armour: Galvanized low carbon (mild) steel strands/Outer Sheath: Heavy-duty PCP sheath. Heavy-duty CPE/CSP sheath can be offered upon request .



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Earth Conductor Strand Size (no/mm)	Nominal Conductor Area (mm <sup>2</sup> )	Thickness of EPR Covering (mm)	Pliable Armour Strand Size (no/mm)	Sheath Thickness Inner Sheath (mm)	Thickness of Outer Sheath (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
KEI-412.1-35	35	285/0.40	8.5	1.6	81/0.30	5.7	0.6	7/0.90	2.5	4.0	45.3	448
KEI-412.1-50	50	380/0.40	10.0	1.7	120/0.30	8.5	0.8	7/0.90	2.5	4.4	49.8	548
KEI-412.1-70	70	203/0.67	12.0	1.8	39/0.67	13.8	0.8	7/0.90	2.5	4.8	55.4	682
KEI-412.1-95	95	259/0.67	13.2	2.0	48/0.67	16.9	0.8	7/0.90	2.5	5.4	60.0	818
KEI-412.1-120	120	336/0.67	15.3	2.1	60/0.67	21.2	1.0	7/0.90	3.5	5.8	67.8	1019
KEI-412.1-150	150	427/0.67	17.1	2.3	77/0.67	27.1	1.0	7/0.90	3.5	6.3	73.5	1207
KEI-412.1-185	185	518/0.67	19.2	2.5	91/0.67	32.1	1.0	7/0.90	3.5	6.8	79.9	1417
KEI-412.1-240	240	672/0.67	21.8	2.8	119/0.67	42.0	1.2	7/0.90	3.5	7.5	88.2	1731
KEI-412.1-300	300	854/0.67	24.4	3.0	156/0.67	55.0	1.2	7/1.25	4.5	8.2	100.2	2286

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

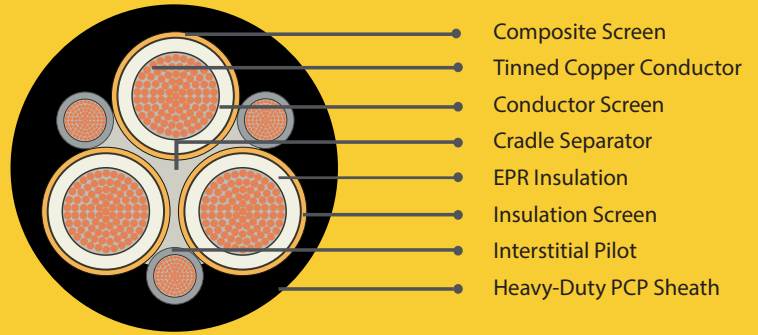
\* we can also supply screened Type 412 for 3.3, 6.6,11 and 22kV applications.

**TYPE: 440 1.1 to 22 kV**

**Standard:**  
**AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen: 1.1/1.1kV- polyester barrier tape, 3.3/3.3kV and above - polyester barrier tape and extruded semiconductive tape/EPR Insulation/ Semiconductive elastomer/Composite Screen (earth conductor):Tinned Annealed Copper braiding interwove with polyester yarn/Cradle Separator of Semiconductive PCP/Pilot of EPR covered flexible stranded Tinned Copper Conductor/Sheath of Heavy-duty PCP sheath. Heavy-duty CPE/CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 440.1 - Class 2</b>										
KEI-440.1-06	6	84/0.30	3.4	1.5	7/0.25	18/0.30	1.0	3.8	29.8	129
KEI-440.1-10	10	77/0.40	4.6	1.5	7/0.25	27/0.30	1.0	3.8	32.3	157
KEI-440.1-16	16	126/0.40	5.7	1.6	7/0.25	42/0.30	1.0	4.0	35	194
KEI-440.1-25	25	209/0.40	7.2	1.6	7/0.25	66/0.30	1.2	4.3	38.8	252
KEI-440.1-35	35	285/0.40	8.5	1.6	7/0.25	90/0.30	1.2	4.6	42.2	310
KEI-440.1-50	50	380/0.40	10.0	1.7	7/0.25	120/0.30	1.2	5.0	46.7	395
KEI-440.1-70	70	203/0.67	12.0	1.8	7/0.25	39/0.67	1.2	5.4	52.2	513
KEI-440.1-95	95	259/0.67	13.2	2.0	7/0.30	39/0.67	1.2	6.0	57.4	635
KEI-440.1-120	120	336/0.67	15.3	2.1	7/0.30	42/0.67	1.4	6.4	63.2	769
KEI-440.1-150	150	427/0.67	17.1	2.3	7/0.40	54/0.67	1.4	6.9	70	949
KEI-440.1-185	185	518/0.67	19.2	2.5	7/0.40	63/0.67	1.4	7.4	76.4	1137
KEI-440.1-240	240	672/0.67	21.8	2.8	7/0.50	77/0.67	1.6	8.2	86	1450
KEI-440.1-300	300	854/0.67	24.4	3.0	7/0.50	98/0.67	1.6	8.8	93.7	1754
<b>Type 440.3 - Class 2</b>										
KEI-440.3-16	16	126/0.40	5.7	3.0	7/0.25	42/0.30	1.4	5.3	49.7	357
KEI-440.3-25	25	209/0.40	7.2	3.0	7/0.25	66/0.30	1.4	5.6	53.5	428
KEI-440.3-35	35	285/0.40	8.5	3.0	7/0.25	90/0.30	1.4	5.9	56.9	499
KEI-440.3-50	50	380/0.40	10.0	3.0	7/0.25	120/0.30	1.4	6.3	61.0	595
KEI-440.3-70	70	203/0.67	12.0	3.0	7/0.25	39/0.67	1.4	6.6	65.9	724
KEI-440.3-95	95	259/0.67	13.2	3.0	7/0.25	39/0.67	1.6	7.1	69.5	839
KEI-440.3-120	120	336/0.67	15.3	3.0	7/0.30	42/0.67	1.6	7.4	75.2	987
KEI-440.3-150	150	427/0.67	17.1	3.0	7/0.40	54/0.67	1.6	7.8	79.9	1147
KEI-440.3-185	185	518/0.67	19.2	3.0	7/0.40	63/0.67	1.6	8.2	86.3	1353
KEI-440.3-240	240	672/0.67	21.8	3.0	7/0.40	77/0.67	1.6	8.8	93.1	1623
KEI-440.3-300	300	854/0.67	24.4	3.0	7/0.50	98/0.67	1.6	9.4	101.0	1946
<b>Type 440.6 - Class 2</b>										
KEI-440.6-16	16	126/0.40	5.7	5.0	7/0.25	42/0.30	1.4	6.4	60.5	495
KEI-440.6-25	25	209/0.40	7.2	5.0	7/0.25	66/0.30	1.6	6.7	64.4	574
KEI-440.6-35	35	285/0.40	8.5	5.0	7/0.25	90/0.30	1.6	7.0	67.8	651
KEI-440.6-50	50	380/0.40	10.0	5.0	7/0.25	120/0.30	1.6	7.3	71.6	748
KEI-440.6-70	70	203/0.67	12.0	5.0	7/0.25	39/0.67	1.6	7.7	76.7	884
KEI-440.6-95	95	259/0.67	13.2	5.0	7/0.30	39/0.67	1.8	8.1	80.1	1004
KEI-440.6-120	120	336/0.67	15.3	5.0	7/0.30	42/0.67	1.8	8.5	86	1174
KEI-440.6-150	150	427/0.67	17.1	5.0	7/0.40	54/0.67	1.8	8.9	91.8	1345
KEI-440.6-185	185	518/0.67	19.2	5.0	7/0.40	63/0.67	1.8	9.3	97.1	1546
KEI-440.6-240	240	672/0.67	21.8	5.0	7/0.40	77/0.67	1.8	9.9	103.9	1825
KEI-440.6-300	300	854/0.67	24.4	5.0	7/0.50	98/0.67	1.8	10.4	111.6	2149

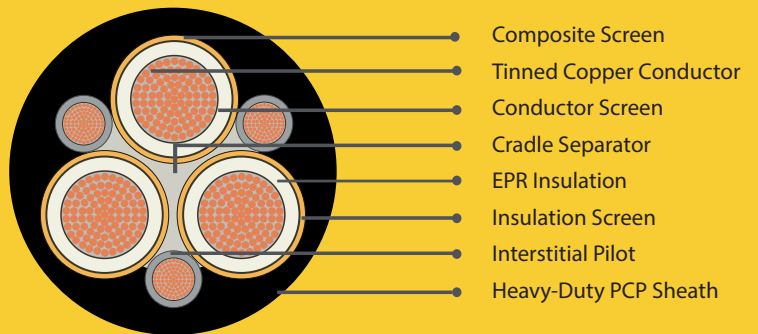


**TYPE: 440 1.1 to 22 kV**

**Standard:**  
**AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen: 1.1/1.1kV - polyester barrier tape, 3.3/3.3kV and above polyester barrier tape and extruded semiconductive tape/EPR Insulation/Semiconductive elastomer/Composite Screen (earth conductor):- Tinned annealed copper braiding inter-wove with polyester yarn/Cradle Separator of Semiconductive PCP/Pilot of EPR covered flexible stranded tinned copper conductor/Sheath of Heavy-duty PCP sheath. Heavy-duty CPE/CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
Type 440.11 - Class 2										
KEI-440.11-25	25	209/0.40	7.2	7.6	7/0.25	66/0.30	2.0	8.1	78.4	826
KEI-440.11-35	35	285/0.40	8.5	7.6	7/0.30	90/0.30	2.0	8.4	82.4	922
KEI-440.11-50	50	380/0.40	10.0	7.6	7/0.30	120/0.30	2.0	8.7	86.2	1033
KEI-440.11-70	70	203/0.67	12.0	7.6	7/0.30	39/0.67	2.0	9.1	91.3	1188
KEI-440.11-95	95	259/0.67	13.2	7.6	7/0.40	39/0.67	2.2	9.6	96	1340
KEI-440.11-120	120	336/0.67	15.3	7.6	7/0.40	42/0.67	2.2	9.9	101.1	1509
KEI-440.11-150	150	427/0.67	17.1	7.6	7/0.40	54/0.67	2.2	10.3	105.8	1691
KEI-440.11-185	185	518/0.67	19.2	7.6	7/0.40	63/0.67	2.2	10.7	111.2	1914
Type 440.22 - Class 2										
KEI-440.22-35	35	285/0.40	8.5	10.5	7/0.40	90/0.30	2.5	10.0	101.1	1351
KEI-440.22-50	50	380/0.40	10.0	10.5	7/0.40	120/0.30	2.5	10.3	104.9	1480

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

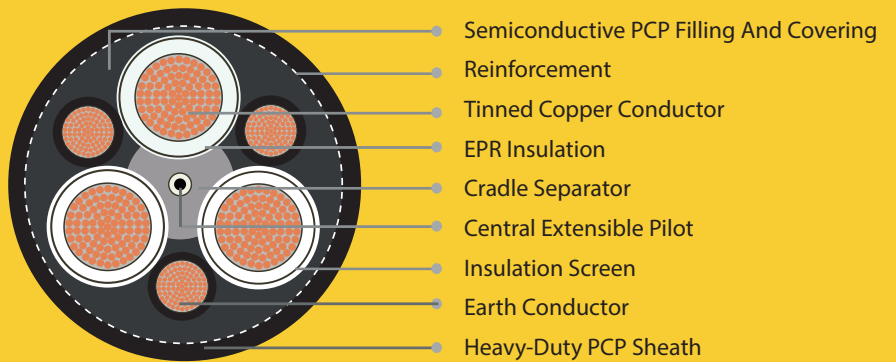


**TYPE: Type 441.1 1.1/1.1 kV**

**Standard:  
AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/EPR Insulation/Insulation Screen of Semi-conductive elastomer/Cradle Separator of Semi-conductive PCP/Overall Core Screen of Semi-conductive PCP filling and covering/Semi-conductive PCP covered flexible stranded tinned copper conductor/Pilot of EPR covered flexible stranded tinned copper conductor/ Textile Reinforcement of Open-weave braid reinforcement/ Sheath of Heavy-duty PCP sheath Heavy-duty CPE/CSP sheath can be offered as required. Cables rated 1.1/1.1kV are Class-2 cables.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Earth Conductor Strand Size (no/mm)	Nominal Conductor Area (mm <sup>2</sup> )	Thickness of SC PCP Covering (mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness SC PCP Covering (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
Type 441.1 Class-2												
KEI-441.1-06	6	84/0.30	3.4	1.5	33/0.30	2.3	0.8	24/0.20	0.8	3.8	27.4	113
KEI-441.1-10	10	77/0.40	4.6	1.5	51/0.30	3.6	0.8	24/0.20	0.8	3.8	30	138
KEI-441.1-16	16	126/0.40	5.7	1.6	81/0.30	5.7	1.0	24/0.20	0.8	3.9	33	173
KEI-441.1-25	25	209/0.40	7.2	1.6	81/0.30	5.7	1.0	24/0.20	0.8	4.2	36.8	227
KEI-441.1-35	35	285/0.40	8.5	1.6	81/0.30	5.7	1.0	24/0.20	0.8	4.4	40	283
KEI-441.1-50	50	380/0.40	10.0	1.7	120/0.30	8.5	1.0	40/0.20	0.8	4.9	44.7	365
KEI-441.1-70	70	203/0.67	12.0	1.8	39/0.67	13.8	1.0	40/0.20	0.8	5.3	50.3	466
KEI-441.1-95	95	259/0.67	13.2	2.0	48/0.67	16.9	1.0	40/0.20	0.8	5.8	54.7	576
KEI-441.1-120	120	336/0.67	15.3	2.1	60/0.67	21.2	1.0	40/0.20	0.8	6.3	60.7	705
KEI-441.1-150	150	427/0.67	17.1	2.3	77/0.67	27.1	1.2	40/0.20	0.8	6.7	66.2	847
KEI-441.1-185	185	518/0.67	19.2	2.5	91/0.67	32.1	1.2	40/0.20	0.8	7.3	72.8	1023
KEI-441.1-240	240	672/0.67	21.8	2.8	119/0.67	42.0	1.2	40/0.20	0.8	8.0	81.1	1283
KEI-441.1-300	300	854/0.67	24.4	3.0	156/0.67	55.0	1.4	40/0.20	0.8	8.7	89	1560

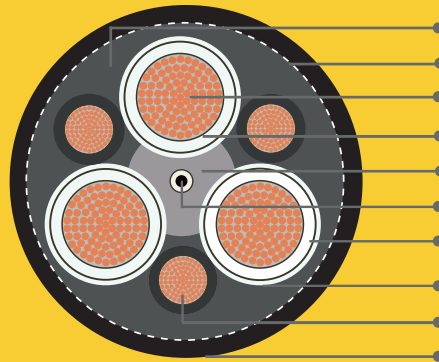
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

## TYPE: Type 441 3.3 kV to 22 kV

**Standard:**  
**AS/NZS 2802:2000**

### Construction:

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/ Conductor Screen: Semi-conductive compound /EPR/Insulation Screen of Semi-conductive elastomer/ Cradle Separator/ 3 no. of Interstitial CSP covered flexible stranded tinned copper earth conductor/single central Pilot of EPR covered flexible stranded tinned copper conductor/Textile Reinforcement of Open-weave braid reinforcement/Sheath of extra heavy-duty PCP sheath. Extra heavy-duty CPE/CSP sheath can be offered as required. Cables rated 3.3 to 22kV are Class-1 cables.



- Semiconductive PCP Filling And Covering
- Reinforcement
- Tinned Copper Conductor
- Conductor Screen
- Cradle Separator
- Central Extensible Pilot
- EPR Insulation
- Insulation Screen
- Earth Conductor
- Heavy-Duty PCP Sheath



### Dimensions Table:

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Earth Conductor Strand Size (no/mm)	Nominal Size Conductor Area (mm <sup>2</sup> )	Thickness of SC PCP Covering (mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness Including SC PCP Covering (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
Type 441.3 Class-1												
KEI-441.3-16	16	126/0.40	5.7	2.2	81/0.3	5.7	1.0	24/0.20	0.8	4.6	43.8	276
KEI-441.3-25	25	209/0.40	7.2	2.2	81/0.3	5.7	1.0	24/0.20	0.8	4.9	47.7	336
KEI-441.3-35	35	285/0.40	8.5	2.2	81/0.3	5.7	1.0	24/0.20	0.8	5.2	51.1	395
KEI-441.3-50	50	380/0.40	10.0	2.4	120/0.3	8.5	1.0	40/0.20	0.8	5.7	56.2	498
KEI-441.3-70	70	203/0.67	12.0	2.4	39/0.67	13.8	1.0	40/0.20	0.8	6.0	61.1	619
KEI-441.3-95	95	259/0.67	13.2	2.4	48/0.67	16.9	1.2	40/0.20	0.8	6.4	64.5	735
KEI-441.3-120	120	336/0.67	15.3	2.4	60/0.67	21.2	1.2	40/0.20	0.8	6.5	69.2	867
KEI-441.3-150	150	427/0.67	17.1	2.4	77/0.67	27.2	1.2	40/0.20	0.8	6.6	73.3	1012
KEI-441.3-185	185	518/0.67	19.2	2.4	91/0.67	32.1	1.4	40/0.20	0.8	6.7	78.0	1180
KEI-441.3-240	240	672/0.67	21.8	2.4	119/0.67	42.0	1.4	40/0.20	0.8	6.9	84.1	1434
KEI-441.3-300	300	854/0.67	24.4	2.4	156/0.67	55.0	1.4	40/0.20	0.8	7.0	89.9	1709
Type 441.6 Class-1												
KEI-441.6-16	16	126/0.40	5.7	3.0	81/0.3	5.7	1.0	24/0.20	0.8	5.0	48.1	324
KEI-441.6-25	25	209/0.40	7.2	3.0	81/0.3	5.7	1.0	24/0.20	0.8	5.3	51.9	387
KEI-441.6-35	35	285/0.40	8.5	3.0	81/0.3	5.7	1.0	24/0.20	0.8	5.6	55.3	450
KEI-441.6-50	50	380/0.40	10.0	3.0	120/0.3	8.5	1.2	40/0.20	0.8	6.0	59.4	544
KEI-441.6-70	70	203/0.67	12.0	3.0	39/0.67	13.8	1.2	40/0.20	0.8	6.3	64.3	669
KEI-441.6-95	95	259/0.67	13.2	3.0	48/0.67	16.9	1.2	40/0.20	0.8	6.4	67.1	777
KEI-441.6-120	120	336/0.67	15.3	3.0	60/0.67	21.2	1.2	40/0.20	0.8	6.6	72.0	915
KEI-441.6-150	150	427/0.67	17.1	3.0	77/0.67	27.2	1.2	40/0.20	0.8	6.7	76.1	1063
KEI-441.6-185	185	518/0.67	19.2	3.0	91/0.67	32.1	1.4	40/0.20	0.8	6.8	80.8	1234
KEI-441.6-240	240	672/0.67	21.8	3.0	119/0.67	42.0	1.4	40/0.20	0.8	7.0	86.9	1493
KEI-441.6-300	300	854/0.67	24.4	3.0	156/0.67	55.0	1.4	40/0.20	0.8	7.1	92.7	1772
Type 441.11 Class-1												
KEI-441.11-25	25	209/0.40	7.2	5.0	81/0.3	5.7	1.2	24/0.20	0.8	6.3	62.6	536
KEI-441.11-35	35	285/0.40	8.5	5.0	81/0.3	5.7	1.4	24/0.20	0.8	6.4	65.6	602
KEI-441.11-50	50	380/0.40	10.0	5.0	120/0.3	8.5	1.4	40/0.20	0.8	6.5	69.0	694
KEI-441.11-70	70	203/0.67	12.0	5.0	39/0.67	13.8	1.4	40/0.20	0.8	6.6	73.5	823
KEI-441.11-95	95	259/0.67	13.2	5.0	48/0.67	16.9	1.4	40/0.20	0.8	6.8	76.5	941
KEI-441.11-120	120	336/0.67	15.3	5.0	60/0.67	21.2	1.4	40/0.20	0.8	6.9	81.3	1088
KEI-441.11-150	150	427/0.67	17.1	5.0	77/0.67	27.2	1.4	40/0.20	0.8	7.0	85.3	1243
KEI-441.11-185	185	518/0.67	19.2	5.0	91/0.67	32.1	1.4	40/0.20	0.8	7.1	90.1	1427
KEI-441.11-240	240	672/0.67	21.8	5.0	119/0.67	42.0	1.4	40/0.20	0.8	7.3	96.1	1697
Type 241.22 Class-1												
KEI-441.22-35	35	285/0.40	8.5	7.6	81/0.3	5.7	1.8	24/0.20	0.8	6.9	77.8	814
KEI-441.22-50	50	380/0.40	10.0	7.6	120/0.3	8.5	1.8	40/0.20	0.8	7.0	81.2	918
KEI-441.22-70	70	203/0.67	12.0	7.6	39/0.67	13.8	1.8	40/0.20	0.8	7.1	85.8	1065
KEI-441.22-95	95	259/0.67	13.2	7.6	48/0.67	16.9	1.8	40/0.20	0.8	7.2	88.5	1186
KEI-441.22-120	120	336/0.67	15.3	7.6	60/0.67	21.2	1.8	40/0.20	0.8	7.3	93.3	1350
KEI-441.22-150	150	427/0.67	17.1	7.6	77/0.67	27.2	1.8	40/0.20	0.8	7.4	97.4	1521
KEI-441.22-185	185	518/0.67	19.2	7.6	91/0.67	32.1	1.8	40/0.20	0.8	7.6	102.3	1720

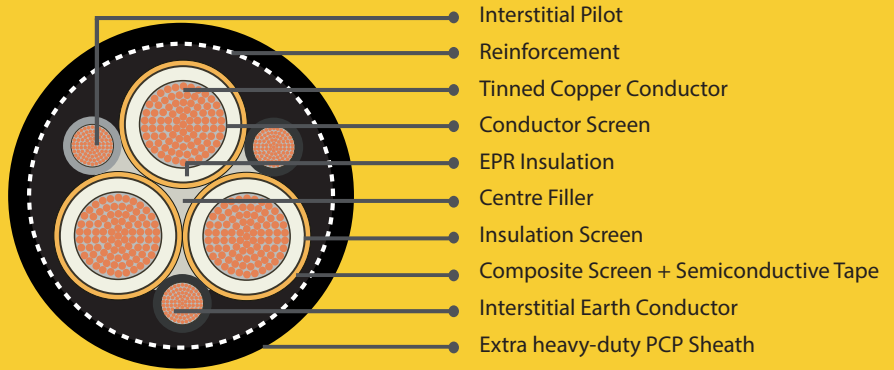
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

**TYPE: 450 3.3 to 33KV**

**Standard:  
AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen:Semi-conductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/EPR/Insulation Screen of Semi-conductive elastomer/Composite Screen:Tinned Annealed Copper braiding interwove with polyester yarn, covered with semiconductive tape/Filler of Elastomer centre filler/ CSP covered flexible stranded tinned copper conductor/Pilot of EPR covered flexible stranded Tinned Copper Conductor/Textile Reinforcement of Open-weave braid reinforcement/Sheath of extra heavy-duty PCP sheath. Extra heavy-duty CPE/CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 450.3 Class-1</b>										
KEI-450.3-16	16	126/0.40	5.7	2.2	128/0.25	120/0.30	1.4	4.5	45	294
KEI-450.3-25	25	209/0.40	7.2	2.2	118/0.30	120/0.30	1.4	4.8	50	358
KEI-450.3-35	35	285/0.40	8.5	2.2	127/0.30	120/0.30	1.4	5.1	53	421
KEI-450.3-50	50	380/0.40	10.0	2.4	141/0.30	183/0.30	1.4	5.6	58	527
KEI-450.3-70	70	203/0.67	12.0	2.4	117/0.40	54/0.67	1.4	6.0	64	671
KEI-450.3-95	95	259/0.67	13.2	2.4	123/0.40	70/0.67	1.6	6.3	68	794
KEI-450.3-120	120	336/0.67	15.3	2.4	135/0.40	84/0.67	1.6	6.4	73	930
KEI-450.3-150	150	427/0.67	17.1	2.4	144/0.40	112/0.67	1.6	6.6	77	1088
KEI-450.3-185	185	518/0.67	19.2	2.4	144/0.40	132/0.67	1.6	6.7	82	1246
KEI-450.3-240	240	672/0.67	21.8	2.4	136/0.50	168/0.67	1.6	6.9	89	1503
KEI-450.3-300	300	854/0.67	24.4	2.4	144/0.50	228/0.67	1.6	7.0	94	1758
<b>Type 450.6 Class-1</b>										
KEI-450.6-16	16	126/0.40	5.7	3.0	118/0.30	120/0.30	1.4	5.0	51	354
KEI-450.6-25	25	209/0.40	7.2	3.0	129/0.30	120/0.30	1.6	5.2	55	422
KEI-450.6-35	35	285/0.40	8.5	3.0	139/0.30	120/0.30	1.6	5.5	58	490
KEI-450.6-50	50	380/0.40	10.0	3.0	149/0.30	183/0.30	1.6	5.9	62	585
KEI-450.6-70	70	203/0.67	12.0	3.0	123/0.40	54/0.67	1.6	6.3	68	735
KEI-450.6-95	95	259/0.67	13.2	3.0	130/0.40	70/0.67	1.8	6.4	71	854
KEI-450.6-120	120	336/0.67	15.3	3.0	141/0.40	84/0.67	1.8	6.5	76	995
KEI-450.6-150	150	427/0.67	17.1	3.0	144/0.40	112/0.67	1.8	6.6	80	1152
KEI-450.6-185	185	518/0.67	19.2	3.0	144/0.40	132/0.67	1.8	6.8	85	1318
KEI-450.6-240	240	672/0.67	21.8	3.0	141/0.50	168/0.67	1.8	7.0	92	1581
KEI-450.6-300	300	854/0.67	24.4	3.0	144/0.50	228/0.67	1.8	7.1	98	1841
<b>Type 450.11 Class-1</b>										
KEI-450.11-25	25	209/0.40	7.2	5.0	120/0.40	120/0.30	2.0	6.3	67	610
KEI-450.11-35	35	285/0.40	8.5	5.0	127/0.40	120/0.30	2.0	6.4	70	681
KEI-450.11-50	50	380/0.40	10.0	5.0	135/0.40	183/0.30	2.0	6.5	74	777
KEI-450.11-70	70	203/0.67	12.0	5.0	144/0.40	54/0.67	2.0	6.6	78	913
KEI-450.11-95	95	259/0.67	13.2	5.0	144/0.40	70/0.67	2.2	6.7	81	1040
KEI-450.11-120	120	336/0.67	15.3	5.0	144/0.40	84/0.67	2.2	6.9	86	1197
KEI-450.11-150	150	427/0.67	17.1	5.0	139/0.50	112/0.67	2.2	7.0	92	1386
KEI-450.11-185	185	518/0.67	19.2	5.0	144/0.50	132/0.67	2.2	7.1	96	1561
KEI-450.11-240	240	627/0.67	21.8	5.0	144/0.50	168/0.67	2.2	7.3	102	1818
KEI-450.11-300	300	854/0.67	24.4	5.0	144/0.50	228/0.67	2.2	7.4	108	2091

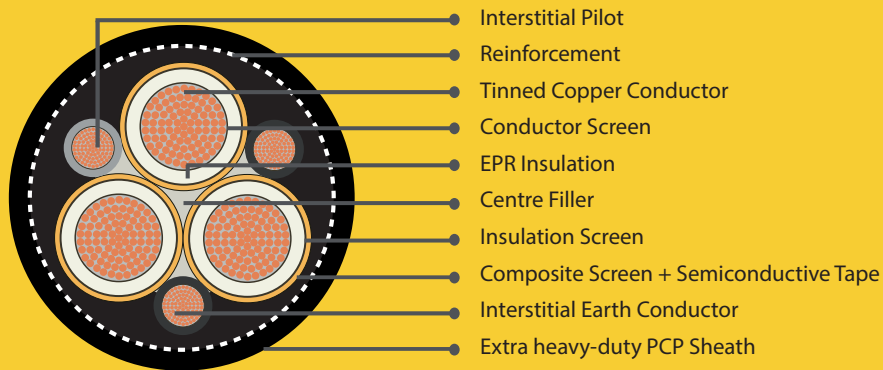
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

**TYPE: 450 3.3 to 33KV**

**Standard:  
AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen:Semi-conductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/EPR/ Insulation Screen of Semi-conductive elastomer/Composite Screen: Tinned Annealed Copper braiding interwove with polyester yarn, covered with semiconductive tape/Filler of Elastomer centre filler/ CSP covered flexible stranded tinned copper conductor/Pilot of EPR covered flexible stranded tinned copper conductor/ Textile Reinforcement of Open-weave braid reinforcement/Sheath of Extra-heavy duty PCP sheath. Extra-heavy duty CPE/CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Size (no/mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 450.22 - Class 1</b>										
KEI-450.22-35	35	285/0.40	8.5	7.6	144/0.40	120/0.30	2.5	6.8	83	929
KEI-450.22-50	50	380/0.40	10.0	7.6	144/0.40	183/0.30	2.5	6.9	87	1036
KEI-450.22-70	70	203/0.67	12.0	7.6	140/0.50	54/0.67	2.5	7.0	92	1204
KEI-450.22-95	95	259/0.67	13.2	7.6	144/0.50	70/0.67	2.5	7.2	95	1337
KEI-450.22-120	120	336/0.67	15.3	7.6	144/0.50	84/0.67	2.5	7.3	100	1505
KEI-450.22-150	150	427/0.67	17.1	7.6	144/0.50	112/0.67	2.5	7.4	104	1685
KEI-450.22-185	185	518/0.67	19.2	7.6	144/0.50	132/0.67	2.5	7.5	109	1875
KEI-450.22-240	240	627/0.67	21.8	7.6	144/0.50	168/0.67	2.5	7.7	115	2150
KEI-450.22-300	300	854/0.67	24.4	7.6	144/0.50	228/0.67	2.5	7.9	121	2447
<b>Type 450.33 - Class 1</b>										
KEI-450.33-50	50	380/0.40	10.0	10.5	144/0.50	183/0.30	2.5	7.4	101.4	1362
KEI-450.33-70	70	203/0.67	12.0	10.5	144/0.50	54/0.67	2.5	7.5	105.9	1529
KEI-450.33-95	95	259/0.67	13.2	10.5	144/0.50	70/0.67	2.5	7.7	108.9	1672
KEI-450.33-120	120	336/0.67	15.3	10.5	144/0.50	84/0.67	2.5	7.8	113.6	1856
KEI-450.33-150	150	427/0.67	17.1	10.5	144/0.50	119/0.67	2.5	7.9	117.7	2050
KEI-450.33-185	185	518/0.67	19.2	10.5	144/0.50	132/0.67	2.5	8.0	122.5	2255
KEI-450.33-240	240	627/0.67	21.8	10.5	144/0.50	168/0.67	2.5	8.2	128.5	2550
KEI-450.33-300	300	854/0.67	24.4	10.5	144/0.50	228/0.67	2.5	8.4	134.5	2867

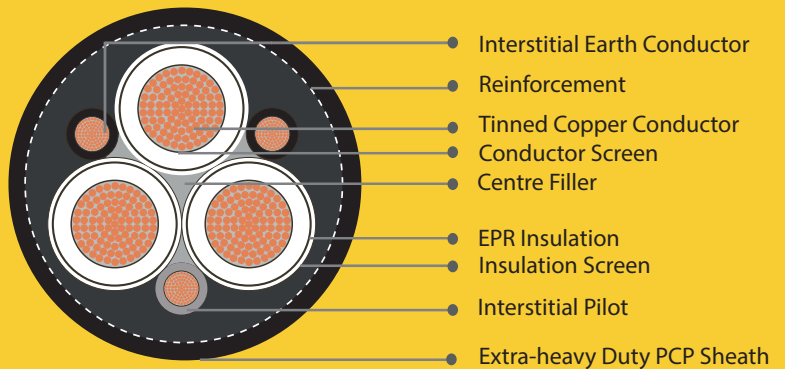
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

**TYPE: 455 11 to 33 kV**

**Standard:  
AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen: Semi-conductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/EPR Insulation/Insulation Screen Semi-conductive elastomer/Filler of Elastomer centre filler/2xInterstitial Earth Conductor - CSP insulated flexible stranded tinned copper conductor/1xInterstitial Pilot-EPR covered flexible stranded tinned copper conductor/Textile Reinforcement of Open-weave braid reinforcement/Sheath of Extra-heavy duty PCP sheath. Extra heavy-duty CPE/CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 455.3 Class -1</b>									
KEI-455.3-16	16	126/0.40	5.7	2.2	120/0.30	1.4	4.2	41.8	258
KEI-455.3-25	25	209/0.40	7.2	2.2	120/0.30	1.4	4.5	45.7	315
KEI-455.3-35	35	285/0.40	8.5	2.2	120/0.30	1.4	4.8	49.1	376
KEI-455.3-50	50	380/0.40	10.0	2.4	183/0.30	1.4	5.3	54.2	477
KEI-455.3-70	70	203/0.67	12.0	2.4	54/0.67	1.4	5.7	59.3	600
KEI-455.3-95	95	259/0.67	13.2	2.4	70/0.67	1.6	6.1	63.1	722
KEI-455.3-120	120	336/0.67	15.3	2.4	84/0.67	1.6	6.4	68.2	861
KEI-455.3-150	150	427/0.67	17.1	2.4	112/0.67	1.6	6.5	72.3	1010
KEI-455.3-185	185	518/0.67	19.2	2.4	132/0.67	1.6	6.6	77.0	1164
KEI-455.3-240	240	672/0.67	21.8	2.4	168/0.67	1.6	6.8	83.1	1393
KEI-455.3-300	300	854/0.67	24.4	2.4	228/0.67	1.6	6.9	88.9	1640
<b>Type 455.6 Class -1</b>									
KEI-455.6-16	16	126/0.40	5.7	3.0	120/0.30	1.4	4.7	43.9	279
KEI-455.6-25	25	209/0.40	7.2	3.0	120/0.30	1.6	5.0	47.9	341
KEI-455.6-35	35	285/0.40	8.5	3.0	120/0.30	1.6	5.3	51.3	403
KEI-455.6-50	50	380/0.40	10.0	3.0	183/0.30	1.6	5.6	55.3	492
KEI-455.6-70	70	203/0.67	12.0	3.0	54/0.67	1.6	6.0	60.5	617
KEI-455.6-95	95	259/0.67	13.2	3.0	70/0.67	1.8	6.3	63.7	730
KEI-455.6-120	120	336/0.67	15.3	3.0	84/0.67	1.8	6.5	68.4	863
KEI-455.6-150	150	427/0.67	17.1	3.0	112/0.67	1.8	6.6	72.5	1012
KEI-455.6-185	185	518/0.67	19.2	3.0	132/0.67	1.8	6.7	77.4	1170
KEI-455.6-240	240	672/0.67	21.8	3.0	168/0.67	1.8	6.9	83.4	1400
KEI-455.6-300	300	854/0.67	24.4	3.0	228/0.67	1.8	7.0	89.2	1647
<b>Type 455.11 Class -1</b>									
KEI-455.11-25	25	209/0.40	7.2	5.0	120/0.30	2.0	6.1	59.5	493
KEI-455.11-35	35	285/0.40	8.5	5.0	120/0.30	2.0	6.3	62.5	559
KEI-455.11-50	50	380/0.40	10.0	5.0	183/0.30	2.0	6.4	66.0	649
KEI-455.11-70	70	203/0.67	12.0	5.0	54/0.67	2.0	6.5	70.5	777
KEI-455.11-95	95	259/0.67	13.2	5.0	70/0.67	2.2	6.7	73.7	898
KEI-455.11-120	120	336/0.67	15.3	5.0	84/0.67	2.2	6.8	78.6	1046
KEI-455.11-150	150	427/0.67	17.1	5.0	112/0.67	2.2	6.9	82.7	1206
KEI-455.11-185	185	518/0.67	19.2	5.0	132/0.67	2.2	7.0	87.5	1371
KEI-455.11-240	240	672/0.67	21.8	5.0	168/0.67	2.2	7.2	93.5	1616

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

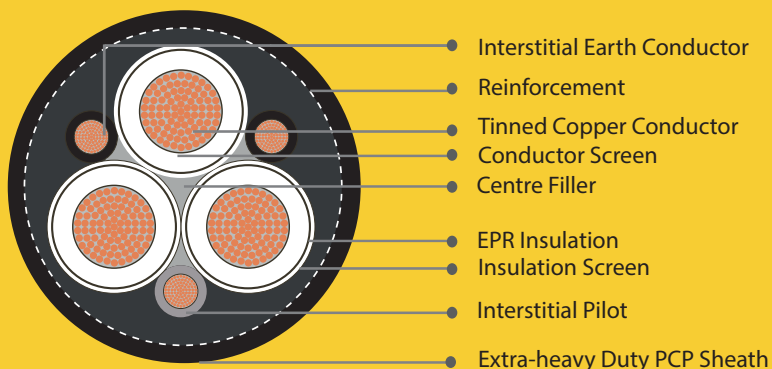




**TYPE: 455 3.3 to 11 kV**  
**Standard:**  
**AS/NZS 2802:2000**

**Construction:**

Multiple-Stranded Circular Flexible Annealed Tinned copper conductor (rope lay)/Conductor Screen : Semiconductive compound (for cables having a voltage rating of 3.3/3.3kV and above)/EPR Insulation/Insulation Screen Semiconductive elastomer/Filler of Elastomer centre filler/2xInterstitial Earth Conductor-CSP insulated flexible stranded tinned copper conductor/1xInterstitial Pilot-EPR covered flexible stranded tinned copper conductor/Textile Reinforcement of Open-weave braid reinforcement/ Sheath of extra heavy-duty PCP sheath. Extra heavy-duty CPE/CSP sheath can be offered as required.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductor Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Pilot Conductor Strand Size (no/mm)	Thickness of EPR Covering (mm)	Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx Mass (kg/100m)
<b>Type 455.22Class 1</b>									
KEI-455.22-35	35	285/0.40	8.5	7.6	120/0.30	2.5	6.7	75.6	779
KEI-455.22-50	50	380/0.40	10.0	7.6	183/0.30	2.5	6.8	79.0	879
KEI-455.22-70	70	203/0.67	12.0	7.6	54/0.67	2.5	7.0	83.5	1022
KEI-455.22-95	95	259/0.67	13.2	7.6	70/0.67	2.5	7.1	86.5	1149
KEI-455.22-120	120	336/0.67	15.3	7.6	84/0.67	2.5	7.2	91.3	1307
KEI-455.22-150	150	427/0.67	17.1	7.6	112/0.67	2.5	7.3	95.4	1479
KEI-455.22-185	185	518/0.67	19.2	7.6	132/0.67	2.5	7.4	100.1	1659
<b>Type 455.33Class 1</b>									
KEI-455.33-50	50	380/0.40	10.0	10.5	183/0.30	2.5	7.3	92.5	1162
KEI-455.33-70	70	203/0.67	12.0	10.5	54/0.67	2.5	7.4	97.1	1319
KEI-455.33-95	95	259/0.67	13.2	10.5	70/0.67	2.5	7.6	100.1	1455
KEI-455.33-120	120	336/0.67	15.3	10.5	84/0.67	2.5	7.7	104.8	1629
KEI-455.33-150	150	427/0.67	17.1	10.5	112/0.67	2.5	7.8	108.9	1815

\* Note :- Cable overall diameter and weights indicated above are for guidance only.

# ELECTRICAL CABLES: UNDERGROUND COAL MINES- OTHER THAN REELING AND TRAILING AS PER AS/NZS 1972:2006



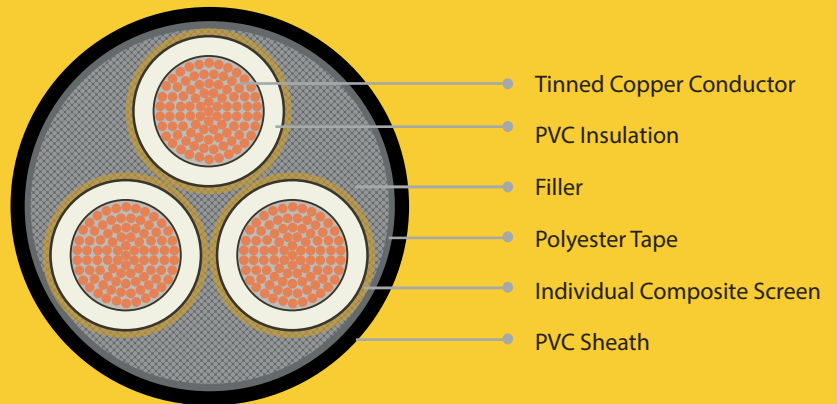


**TYPE: 1, 1.1/1.1 kV Individual Screened**

**Standard:  
AS/NZS 1972:2006**

**Construction:**

Conductors: Flexible Circular Class-5 Annealed Tinned Copper Conductors (up to & including 4mm<sup>2</sup>) or Multiple-Stranded Circular Flexible Annealed Tinned Copper Conductors (rope lay) for conductor sizes greater than 4mm<sup>2</sup> / PVC Insulation/ Individual composite screen of Tinned annealed copper braiding interweave with Polyester Yarn/Polyester Tape/PVC sheath



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Main Conductor Strand Size (no/mm)	Number of Core	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Strand Size (mm)	Total Combined Screen Area (mm <sup>2</sup> )	Thickness (mm)	Cable Diameter Approx (mm)	Approx Mass (kg/100m)
<b>Type 1 - Individually Screened</b>										
KEI-TY1.1IND3x1.5	1.5	30/0.25	3	1.5	0.8	0.20	3.5	0.8	11.3	19
KEI-TY1.1IND-4x1.5	1.5	30/0.25	4	1.5	0.8	0.20	4.6	0.8	12.4	22
KEI-TY1.1IND-3x10	10	77/0.40	3	4.6	1.0	0.20	6.8	1.0	18.0	58
KEI-TY1.1IND-4x10	10	77/0.40	4	4.6	1.0	0.20	9.0	1.0	19.8	71
KEI-TY1.1IND-3x16	16	126/0.40	3	5.7	1.0	0.20	7.9	1.3	20.9	83
KEI-TY1.1IND-4x16	16	126/0.40	4	5.7	1.0	0.20	10.6	1.3	23.1	104

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

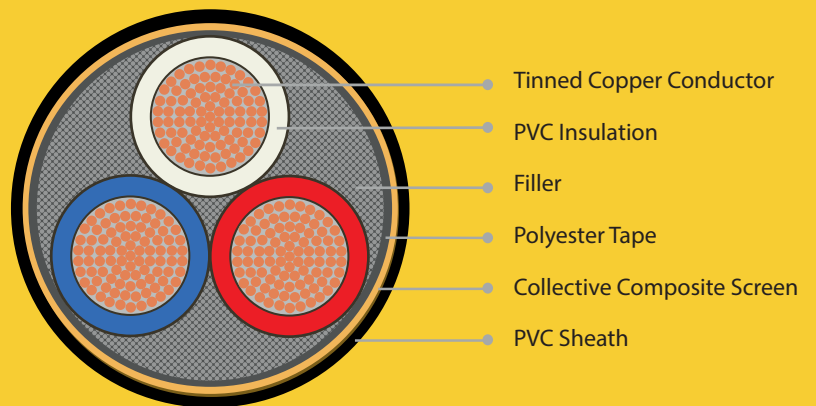


**TYPE: 1, 1.1/1.1 kV Collective Screened**

**Standard:**  
**AS/NZS 1972:2006**

**Construction:**

Flexible Circular Class 5 Annealed Tinned copper conductors/  
Insulation: PVC/Bedding: Polyester tape/Collective Composite Screen  
(earth conductor)/ Tinned annealed copper braiding interwove with  
polyester yarn/Sheath: PVC sheath.



**Dimensions Table:**

Product code	Nominal Conductor Area (mm <sup>2</sup> )	Strand size (no/mm)	Number of cores	Nominal conductor diameter (mm)	Insulation thickness (mm)	Strand size (mm)	Total screen area (mm <sup>2</sup> )	Thickness (mm)	Cable Diameter Approx (mm)	Approx Mass (kg/100m)
Type 1 -Collectively Screened										
KEI-TY1.1OS2x1.5	1.5	30/0.25	2	1.5	0.8	0.20	2.3	0.8	9.6	18
KEI-TY1.1OS3x1.5	1.5	30/0.25	3	1.5	0.8	0.20	2.5	0.8	10.1	20
KEI-TY1.1OS4x1.5	1.5	30/0.25	4	1.5	0.8	0.20	2.6	0.8	11.4	25
KEI-TY1.1OS6x1.5	1.5	30/0.25	6	1.5	0.8	0.20	3.4	0.8	13.3	34

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

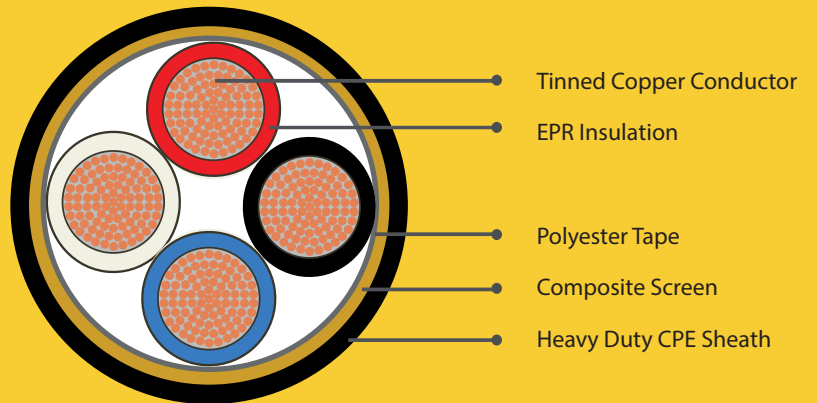


**TYPE: 2S 1.1/1.1 kV Collectively Screened**

**Standards:  
AS/NZS 1972:2006**

**Construction:**

Flexible Circular Class-5 Annealed Tinned copper conductors/  
Insulation: EPR/Filling: Elastomer centre filler/ Bedding: Polyester  
tape/Composite Screen (earth conductor): Tinned Annealed Copper  
braiding interweave with polyester yarn/Sheath: Heavy-duty CPE sheath



**Dimensions Table:**

Product code	Nominal Conductor Area (mm <sup>2</sup> )	Main Conductors Strand Size (no/mm)	Number of Cores (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Nominal Diameter Over Insulation (mm)	Overall Screen Strand Size	Total Screen Area (mm <sup>2</sup> )	Sheath Thickness (mm)	Cable Diameter Approx (mm)	Approx Mass (kg/100m)
Type 2S -1.1/1 kV Collectively screened											
KEI-2S.1-2x1.5	1.5	30/0.25	2	1.5	1.0	3.5	0.20	2.6	1.8	12.5	23
KEI-2S.1-4x1.5	1.5	30/0.25	4	1.5	1.0	3.5	0.20	3.0	1.8	14.1	31
KEI-2S.1-6x1.5	1.5	30/0.25	6	1.5	1.0	3.5	0.20	3.8	1.8	16.2	41

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

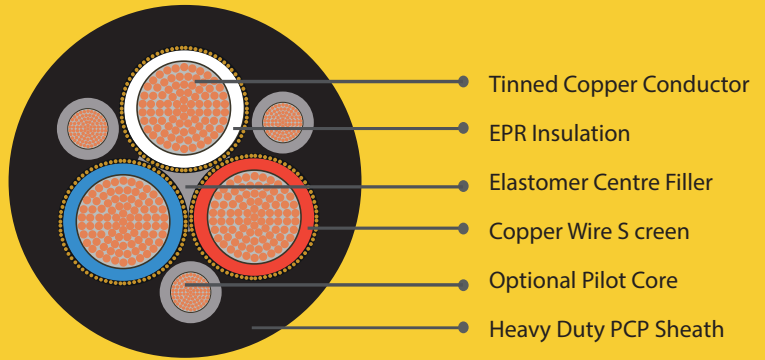


**TYPE: Type A & B 1.1/1.1kV**

**Standard:  
AS/NZS 1972:2006**

**Construction:**

Stranded Circular Class-2 Annealed Tinned Copper Conductors/  
Insulation: EPR/Filling of Elastomer centre filler/Optional Pilot  
Core(Type A only) of CPE composite insulated and covered pilot  
conductor/Screen (earth conductor): Copper wire/Sheath:  
Heavy-duty PCP sheath.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Power Conductors Strand Size (no/mm)	Nominal Conductor Diameter (mm)	Insulation Thickness (mm)	Core Screen Strand S I/O (no/mm)	Pilot Conductor (Type A only) Strand Size (no/mm)	Thickness of CPE Covering (mm)	Sheath Thickness of Sheath (mm)	Approx Overall Diameter (mm)	Approx Mass (kg/100m)
Type A & B										
KEI-A&B1-16	16	7/1.70	4.9	1.4	48/0.40	24/0.20	1.6	2.5	24.4	119
KEI-A&B1-25	25	19/1.35	6.6	1.4	57/0.40	32/0.20	1.8	2.5	27.0	157
KEI-A&B1-35	35	19/1.53	7.4	1.5	63/0.40	30/0.25	1.8	2.5	29.6	198
KEI-A&B1-50	50	19/1.78	8.6	1.7	72/0.40	50/0.25	2.0	3.0	33.8	268
KEI-A&B1-70	70	19/2.14	10.4	1.8	67/0.50	80/0.25	2.0	3.3	38.8	364
KEI-A&B1-95	95	19/2.52	12.2	2.0	77/0.50	80/0.25	2.0	3.8	44.3	476
KEI-A&B1-120	120	37/2.03	13.8	2.2	65/0.67	80/0.25	2.0	3.8	48.9	596
KEI-A&B1-150	150	37/2.25	15.3	2.3	70/0.67	80/0.25	2.0	4.4	53.6	722
KEI-A&B1-185	185	37/2.52	17.1	2.5	78/0.67	80/0.25	2.0	5.1	59.9	886
KEI-A&B1-240	240	61/2.25	19.6	2.7	45/1.35	80/0.25	2.0	5.7	70.1	1231

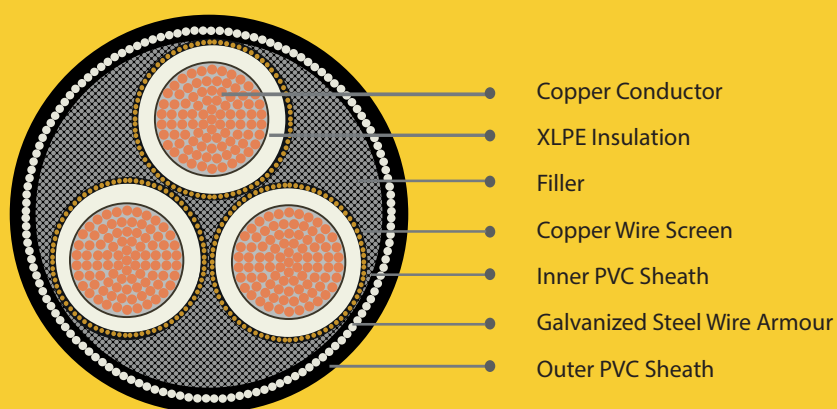
\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

## TYPE: XLPE Insulated 6.35/11kV & 12.7/22kV

**Standards:**  
**AS/NZS 1972:2006**

### Construction:

Stranded Circular Class-2 Compressed Annealed Plain Copper Conductors/Semicon/Insulation: XLPE/Insulation semicon/Copper wire screen/PVC sheath/Galvanised steel round wire Armour/ PVC Sheath.



### Dimensions Table:

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Nominal Conductor Diameter	Insulated Thickness (mm)	Number & Diameter of Screen Wires (no/mm)	Wire Diameter (mm)	Thickness (mm)	Approx Overall Diameter (mm)	Approx Max (kg/100m)	Max DC Mass Resist @20°C (ohm/km)	Max AC Mass Resist @90°C (ohm/km)	Cont Current Carrying Capacity Unenclosed Spaced Touching Amperes
Type XLPE 6.35/11 kV											
KEI-6.35/11 kV-3x35	35	6.8	3.4	11/0.85	2.50	2.6	53	484	0.524	0.668	175
KEI-6.35/11 kV-3x50	50	8.0	3.4	15/0.85	2.50	2.7	55.6	549	0.387	0.494	210
KEI-6.35/11 kV-3x70	70	9.6	3.4	21/0.85	2.50	2.8	59.4	639	0.268	0.342	260
KEI-6.35/11 kV-3x95	95	11.5	3.4	29/0.85	2.50	2.9	63.5	745	0.193	0.247	310
KEI-6.35/11 kV-3x120	120	13.1	3.4	36/0.85	2.50	3.1	66.9	882	0.153	0.196	360
KEI-6.35/11 kV-3x150	150	14.5	3.4	44/0.85	2.50	3.2	70.3	998	0.124	0.161	405
KEI-6.35/11 kV-3x185	185	16.1	3.4	22/1.35	3.15	3.3	75.9	1208	0.0991	0.129	465
KEI-6.35/11 kV-3x240	240	18.5	3.4	29/1.35	3.15	3.5	81.7	1423	0.0754	0.0988	535
KEI-6.35/11 kV-3x300	300	20.7	3.4	37/1.35	3.15	3.7	86.9	1648	0.0601	0.0798	600
Type XLPE 12.7/22 kV											
KEI-12.7/22 kV-3x70	70	9.6	5.5	21/0.85	2.5	3.1	69.5	768	0.268	0.344	260
KEI-12.7/22 kV-3x95	95	11.5	5.5	29/0.85	2.5	3.3	73.6	879	0.193	0.248	315
KEI-12.7/22 kV-3x120	120	13.1	5.5	36/0.85	3.15	3.4	77	1021	0.153	0.197	365
KEI-12.7/22 kV-3x150	150	14.5	5.5	44/0.85	3.15	3.5	80.4	1139	0.124	0.160	410
KEI-12.7/22 kV-3x185	185	16.1	5.5	22/1.35	3.15	3.7	86.2	1375	0.0991	0.128	465
KEI-12.7/22 kV-3x240	240	18.5	5.5	29/1.35	3.15	3.9	92	1597	0.0754	0.0985	540
KEI-12.7/22 kV-3x300	300	20.7	5.5	37/1.35	3.15	4.1	97.1	1823	0.0601	0.0795	600

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.

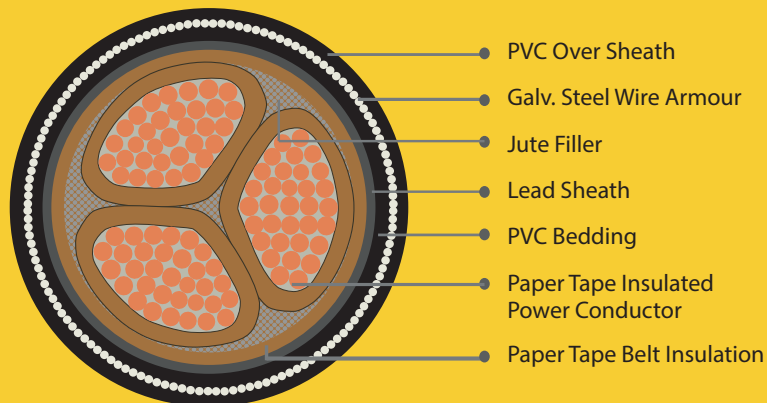


**TYPE: Paper Insulated 11/11 kV**

**Standards:**  
**AS/NZS 1972:2006**

**Construction:**

Annealed plain stranded sector shaped Copper conductors/ paper insulated and belted, lead sheathed, PVC bedding, Galvanised steel round wire Armour and PVC outer Sheath to AS/NZS 1026.



**Dimensions Table:**

Product Code	Nominal Conductor Area (mm <sup>2</sup> )	Min. Insulation Thickness between Conductor (mm)	Min. Insulation Thickness between Conductor & Lead Sheath (mm)	Lead Sheath Thickness (mm)	Diameter Over Lead Sheath (mm)	Diameter Over PVC Bedding (mm)	Nominal Armour Wire Diameter (mm)	Diameter Over Armour (mm)	PVC Sheath Thickness (mm)	Nominal Overall Diameter (mm)	Approx. Mass (kg/100m)	Max DC Resist. @20°C (ohm/km)	Max AC Resist. @65°C (ohm/km)	Cont current carrying capacity Unenclosed Spaced Amperes	Cont current carrying capacity Unenclosed Touching Amperes
Type	PILC, 11/11 kV														
KEI-11/11 kV-3x50	50	5.6	5.4	1.8	37.5	40.4	2.50	45.4	2.5	50.6	776	0.3870	0.4560	110	105
KEI-11/11 kV-3x70	70	5.6	5.4	1.9	40.7	43.6	2.50	48.6	2.6	54.0	915	0.3160	0.3160	135	125
KEI-11/11 kV-3x95	95	5.6	5.4	2.0	44	47.3	2.50	52.3	2.6	57.7	1070	0.1930	0.2280	155	150
KEI-11/11 kV-3x120	120	5.6	5.4	2.0	46.7	50	2.50	55.0	2.7	60.6	1198	0.1530	0.1820	175	165
KEI-11/11 kV-3x150	150	5.6	5.4	2.1	49.4	52.7	2.50	57.7	2.8	63.5	1348	0.1240	0.1480	210	200
KEI-11/11 kV-3x185	185	5.6	5.4	2.3	52.9	56.2	3.15	62.5	2.9	68.5	1648	0.0991	0.1190	240	230
KEI-11/11 kV-3x240	240	5.6	5.4	2.4	57.4	61.1	3.15	67.4	3.0	73.6	1947	0.0754	0.0919	290	275
KEI-11/11 kV-3x300	300	5.6	5.4	2.6	61.8	65.5	3.15	71.8	3.2	78.4	2268	0.0601	0.0748	320	300
KEI-11/11 kV-3x400	400	5.6	5.4	2.7	66.9	70.6	3.15	76.9	3.4	84.0	2675	0.0470	0.0606	365	345

\* Note :- Cable overall diameter and weights indicated above are for guidance only and are subject to tolerance.



# CORRECTION FACTORS FOR CABLE CURRENT RATING

Cable current rating given are based on following standard conditions of cable installation. To obtain the maximum current carrying capacity of a cable operating at different conditions from the standard, various rating factors are to be multiplied.

## A. FOR AIR TEMPERATURE

Ambient Air temperature in °C	25°C	30°C	35°C	40°C	45°C	50°C	55°C
Rating Factors	1.15	1.1	1.05	1	0.94	0.88	0.81

## B. FOR SOIL/GROUND TEMPERATURE

Ground temperature in °C	10°C	15°C	20°C	25°C	30°C	35°C	40°C
Rating Factors	1.11	1.07	1.03	1	0.97	0.93	0.89

C. WHERE CABLE IS WOUND ON A DRUM, THE CURRENT CARRYING CAPACITY GIVEN IN THE TABLE SHALL BE REDUCED BY MULTIPLYING WITH THE FOLLOWING FACTORS:

### (a) Cylindrical drum

Number of layers of cable on drum	1	2	3	4
Rating Factors	0.85	0.65	0.45	0.35

### (b) Radial drum

Type of drum	Ventilated	Unventilated
Rating Factors	0.85	0.75

# BENDING RADII

Type of service	Cables 1.1/1.1 kV	Cables 3.3/3.3 kV and above
Fixed installation	4	6
Free flexing (not under tension)	6	10
Permanently repeating reeling	10	12
At rotating deflection sheaves or rollers	15	20
Energy chain	10	12

# MAXIMUM INSTALLATION TENSION/PULLING FORCE

Maximum allowable tension of cables during installation shall be based on the following formula, when pulled by pulling eye.

$$\text{Maximum safe pulling force (N)} = 50 \times \text{No. of cores} \times \text{conductor cross sectional area}$$

Maximum tension must not exceed 20,000 N (kg = N/9.81)

# CONTINUOUS CURRENT CARRYING RATINGS FOR REELING AND TRAILING CABLES IN AMPERES

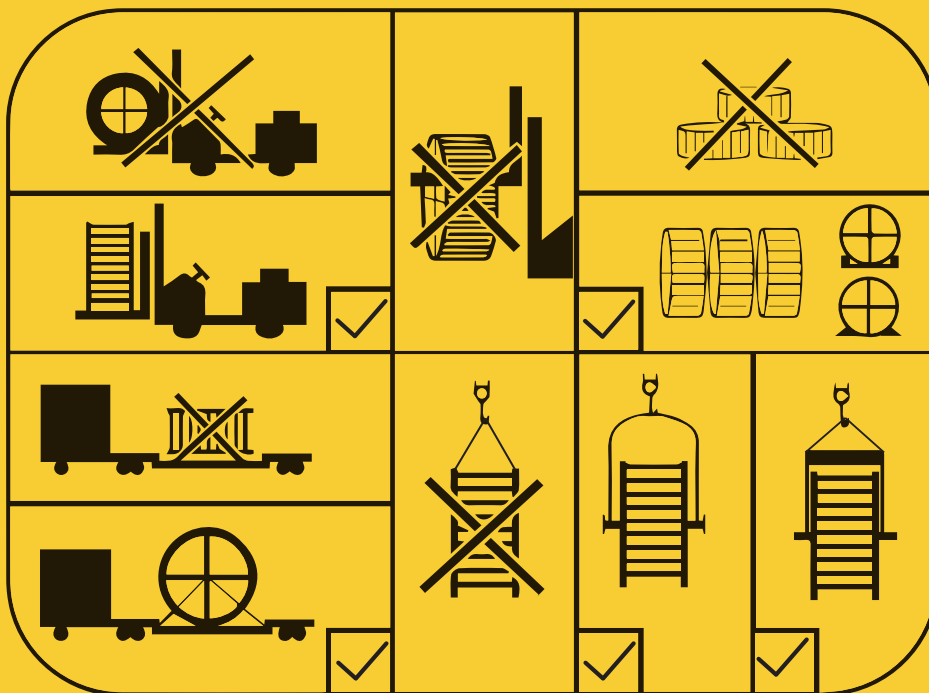
At ambient Air temperature of 40°C  
At sunlight intensity of 1000 W/m<sup>2</sup>

Cable Size (mm <sup>2</sup> )	1.5	2.5	6	10	16	25	35	50	70	95	120	150	185	240	300
Cables protected from Direct Sunlight	1.1/1.1 kV	23	30	49	66	88	120	145	170	220	250	295	340	385	455
	3.3/3.3 kV - 33/33 kV	–	–	–	–	89	120	145	170	220	250	295	340	385	450
Cables exposed to Direct Sunlight	1.1/1.1 kV	18	23	38	51	67	90	110	125	160	185	210	245	270	315
	3.3/3.3 kV - 33/33 kV	–	–	–	–	66	89	105	125	155	180	210	240	265	310

# TRANSPORTATION HANDLING INSTRUCTIONS

During transportation the following basic rules must be observed under all circumstances to avoid any damages to the drum and the cable. The pictogram shown below, which is also to be found at the cable drum, indicates the main rules accordingly.

- Don't drop the drum, not even from small heights.
- Securely protect the drum against movement
- Always use axle-spreader when lifting the drum with a crane
- Use lifting equipment with appropriate lifting capacity
- Avoid mechanical stress of the wooden protection
- Place rubber mats underneath the drum when loaded onto a trailer
- Observe high centre of gravity when loaded on a trailer
- Do not remove the fastening support of the drum until cable pulling begins



It's the duty on the freight forwarder to ensure a safe transport and to use intact equipment only. Especially the following issues need to be carefully taken into account:

- Height and width clearance of all roads, tunnels and bridges to be passed
- Width of the roads and sufficient load capacity
- Curve radii, inclinations, bumps, holes, tilt angles of the roads
- Sufficient loading capacity and breaking force of the trailer and towing vehicle
- For ship transport: proper fixing of the drums to avoid falling from deck or being harmed by a storm

# CABLE STORAGE INSTRUCTIONS

All reels/ ferrous parts of wooden drums (studs and plates etc.) to be painted to avoid corrosion.

Reels should be stored on a smooth, hard and dry, concrete/firm surface which will not cause the drums to sink and thus lead to flange rot and extreme difficulty in moving the drums.

The area should be readily accessible to forklifts, but away from chemical, oil or grease spills, welding operations, open flames, and excessive heat.

If hard surface is not available, reels should be supported off the ground by a suitable means to prevent the flanges from becoming embedded in soil.

The cables should be stored at a temperature of 55°F (13°C) or higher.

A suitable weather-proof material (Tarpaulin or thick black polythene sheet) should be used to cover the reels, to protect the cable insulation from solar degradation and wooden reels from moisture.

Always turn a drum using turn-table. Never use crow-bar if turn-table is not available. Two well greased plates can be used instead.

All drums should be stored in such a manner as to leave sufficient space between them for air circulation. It is desirable for the drums to stand on battens placed directly under the flanges.

Each reel should be choked from both sides.

Align reels flange to flange.

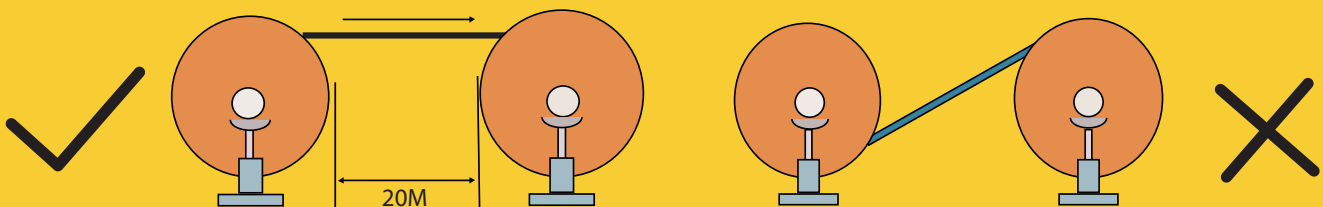
Store reels in an orderly manner to allow easy access for moving and lifting.

After cutting a length, the cable end should be resealed with weatherproof tape to prevent the entrance of moisture. Ends should be secured to prevent becoming unwound during movements.

## REMOVAL OF CABLE FROM REEL

Cable may be unwound from the bottom or top of the reel; however, if cable is to be re-reeled from one reel to another, position the reels to allow the cable to follow the natural cast in the cable. The reels should be supported on jacks or stands with a suitable bar through the arbor holes, which will allow the reels to be easily turned. A minimum of twenty (20) feet between the reel flanges is recommended. This will allow the cable to straighten before it is wound on the take-up reel. Reverse bending and twisting can cause difficulty and possible internal damage, which can affect the performance of the cable. Barrel diameter of take up drum should be same or more than that of pay-off drums.

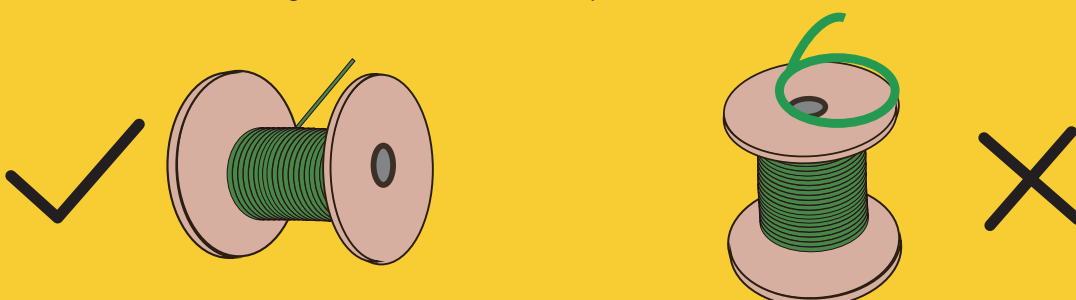
### REEL-TO-REEL REWINDING



Coils of cable can be handled in a similar fashion. Position the coil upright in a vertical orientation. Rotate and unwrap the desired length by hand.



Never pull the cable over the reel flange or the side of a coil. This can produce undesirable kinks and twists in the cable.





#### REGISTERED CORPORATE OFFICE:

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Website: [www.kei-ind.com](http://www.kei-ind.com) Cin No: L74899dl1992plc051527

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