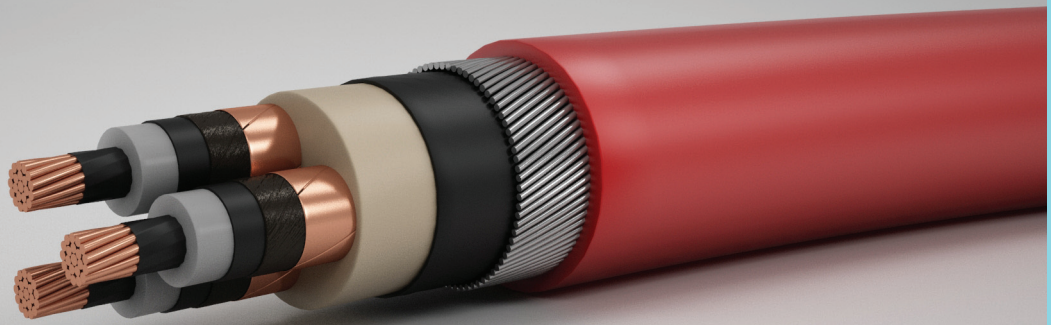


# Three core medium voltage cable

Medium voltage multi core cable 3,8/6,6 kV, 6,35/11 kV, 8,7/15 kV, 12,7/22 kV, 19/33 kV, XLPE insulated, PVC sheathed, SWA armoured, with screens of Cu tape



## Technical data

### Temperature range:

- during installation and application with bending: -5 °C up to 70 °C
- maximal operating temperature: +90 °C

Nominal voltage $U_0/U$	3,8/6,6 kV	6,35/11 kV	8,7/15 kV	12,7/22 kV	19/33 kV
Max. operating voltage in three-phase systems	7,2 kV	12 kV	17,5 kV	24 kV	36 kV
Test voltage (5 min)	13,3 kV AC	22,22 kV AC	30,45 kV AC	44,45 kV AC	66,5 kV AC

**Minimal inner bending radius:** 12D (D = external cable diameter)

## Construction

1. **Conductor:** Cu round conductor, multi wire stranded compacted (RM), class 2 acc. to BS EN 60228:2005 / IEC 60228 / HD 383 / DIN VDE 0295
2. **Inner screen:** extruded semi-conductive skin on conductor
3. **Insulation:** XLPE type TM1 acc. to BS7655
4. **External screen:** extruded semi-conductive skin on insulation
5. **Concentric conductor:** individual copper tape acc. to BS6622
6. **Filler:** PETP (Polyethylene Terephthalate) fibres
7. **Separator:** binding tape
8. **Bedding:** PVC type TM1 acc. to BS7655
9. **Armour:** SWA (Steel Wire Armoured)
10. **Sheath:** PVC type TM1 acc. to BS7655
  - **sheath colour:** red or black

## Application

Armoured medium voltage power cable for static application in ground, within and outside facilities, outdoor, in cable canals, in water. Due to its very low factor of dielectric loss, which remains constant over its entire operating lifetime, and owing to excellent insulation property of XLPE-material, firmly longitudinally spliced with inner and external screen of semi-conductive material (extruded in one process), the cable has a high operating reliability.

Used in transformer stations, switching blocks, in electric power plants and industrial plants. To avoid the effects of external impact, the adhering semi-conductive layer extruded between conductor and insulation, along with copper tape, secures restriction of electric field and resistance to partial discharges.

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BS type cables and conductors

Cross-sectional area	Minimum average thickness of insulation	Nominal diameter over insulation	Nominal number and diameter of armoured wires	Nominal thickness of PVC/LSOH over-sheath	Nominal overall diameter of cable	Approximate cable weight	Maximum DC resistance of conductor at 20°C"	Reactance at 50Hz"	Current Ratings			One second short circuit ratings of conductor	Packing*
									Laid in ground	Drawn into ducts	Laid in air		
mm <sup>2</sup>	mm	mm <sup>2</sup>	no./mm	mm	mm	kg/km	μOhms/m	μOhms/m	Amps	Amps	Amps	kA	
<b>6,6kV</b>													
70	2,5	16,8	49/2,5	2,6	52,4	5800	268	102	255	215	270	9,8	CUT
95	2,5	18,5	54/2,5	2,7	56,5	6900	193	96,2	300	255	330	13,3	CUT
120	2,5	20	57/2,5	2,8	60,1	7900	153	93,1	340	290	375	17,2	CUT
150	2,5	21,3	60/2,5	2,9	63,1	8900	124	90,8	380	330	430	21,2	CUT
185	2,5	23,1	65/2,5	3	67,4	10400	99,1	88,1	430	370	490	26,6	CUT
240	2,6	25,5	71/2,5	3,2	73,2	12700	75,4	85,9	490	425	570	34,9	CUT
300	2,8	28,3	62/3,15	3,5	81,3	16000	60,1	84,7	540	470	650	43,8	CUT
400	3	31,4	69/3,15	3,7	88,8	19400	47	83,2	590	520	700	57,3	CUT
<b>11kV</b>													
70	3,4	18,8	54/2,5	2,7	57,1	6400	268	108	255	215	270	9,8	CUT
95	3,4	20,5	59/2,5	2,8	61,2	7500	193	102	300	255	330	13,3	CUT
120	3,4	22	62/2,5	3	65	8600	153	98,8	340	290	375	17,2	CUT
150	3,4	23,3	65/2,5	3,1	68	9600	124	96,2	380	330	430	21,2	CUT
185	3,4	25,1	70/2,5	3,2	72,3	11200	99,1	93,1	430	370	490	26,6	CUT
240	3,4	27,3	61/3,15	3,4	79	14200	75,4	90	490	425	570	34,9	CUT
300	3,4	29,6	65/3,15	3,6	84,5	16500	60,1	87,4	540	470	650	43,8	CUT
400	3,4	32,3	70/3,15	3,8	90,9	19700	47	84,9	590	520	700	57,3	CUT
<b>15kV</b>													
70	4,5	21,2	60/2,5	2,9	62,9	7100	268	115	255	215	270	9,8	CUT
95	4,5	22,9	65/2,5	3	67	8300	193	109	300	255	330	13,3	CUT
120	4,5	24,4	68/2,5	3,1	70,6	9400	153	105	340	290	375	17,2	CUT
150	4,5	25,7	71/2,5	3,2	73,6	10500	124	102	380	330	430	21,2	CUT
185	4,5	27,5	61/3,15	3,4	79,4	12900	99,1	98,6	430	370	490	26,6	CUT
240	4,5	29,7	65/3,15	3,6	84,7	15200	75,4	95,2	490	425	570	34,9	CUT
300	4,5	32	70/3,15	3,7	90,1	17600	60,1	92,2	540	470	650	43,8	CUT
400	4,5	34,7	75/3,15	4	96,7	20800	47	89,3	590	520	700	57,3	CUT
<b>22kV</b>													
70	5,5	23,4	66/2,5	3	68,1	7800	268	121	255	225	275	9,8	CUT
95	5,5	25,1	70/2,5	3,2	72,3	9100	193	114	295	260	330	13,3	CUT
120	5,5	26,6	59/3,15	3,3	77,1	11000	153	110	335	300	380	17,2	CUT
150	5,5	27,9	62/3,15	3,4	80,3	12100	124	107	375	335	430	21,2	CUT
185	5,5	29,7	65/3,15	3,6	84,7	13800	99,1	103	420	380	490	26,6	CUT
240	5,5	31,9	70/3,15	3,7	89,9	16100	75,4	99,5	480	430	570	34,9	CUT
300	5,5	34,2	74/3,15	3,9	95,2	18400	60,1	94,4	530	480	650	43,8	CUT
400	5,5	36,9	79/3,15	4,1	101,9	21700	47	91,2	580	530	720	57,3	CUT
<b>33kV</b>													
70	8	28,9	64/3,15	3,5	82,6	10700	268	134	255	225	275	9,8	CUT
95	8	30,6	67/3,15	3,6	86,7	12000	193	127	295	260	330	13,3	CUT
120	8	32,1	70/3,15	3,7	90,3	13300	153	122	335	300	380	17,2	CUT
150	8	33,4	72/3,15	3,8	93,3	14400	124	118	375	335	430	21,2	CUT
185	8	35,2	76/3,15	3,9	97,6	16100	99,1	114	420	380	490	26,6	CUT
240	8	37,4	80/3,15	4,1	102,9	18400	75,4	109	480	430	570	34,9	CUT
300	8	39,7	85/3,15	4,3	108,5	21000	60,1	105	530	480	650	43,8	CUT
400	8	42,4	90/3,15	4,5	114,9	24200	47	102	580	530	720	57,3	CUT

\*) Packing: CUT = cable in different lengths on drum or reel, possible cutting at required length