

Application

These power cables are used for electricity supply in low voltage installation systems. They are well adapted to underground use in industrial applications with an additional mechanical protection. They are suitable for laying Indoor, tunnel, cable trench, shaft or buried laying. The cable can withstand mechanical external forces and a certain tensile force, it widely used in transformer stations, electric power plants and industrial plants.

Construction

- Conductor: Copper, class 1 or class 2, solid or stranded, circular or circular compacted conductors
- Insulation: Cross-linked polyethylene XLPE
- Filler: Non-hygroscopic material
- Binder: Non-hygroscopic material
- Inner sheath: Polyvinyl chloride PVC
- Armour: Steel wire
- Binder: Non-hygroscopic material
- Outer sheath: Polyvinyl chloride PVC

Chaircteritics

Good electrical and mechanical properties. Cross-linked polyethylene insulation allows greater power capacity under any operating condition, minimum dielectric losses, high insulation resistance. The PVC outer sheath allows an adequate resistance to oil and abrasion.

Specification

IEC 60228 Conductors of Insulate Cables

IEC 60502-1 Power Cables with Extruded Insulation and Their Accessories for Rated Voltages from 1kV(Um=1.2kV) up to 30kV(Um=36kV) - Part 1: Cables for Rated Voltages of 1kV (Um=1.2kV) and 3kV(Um=3.6kV)

Parameter

No. of Cores and Nominal Cross Section	Min. Number of Wires	Nominal Insulation Thickness	Nominal Steel Wire Diameter	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight	Max. D.C. Resistance of Conductor at 20°C
No. × mm ²	No.	mm	mm	mm	mm	kg/km	Ω/km
2×1.5	1	0.7	0.8	1.8	13.3	300	12.1
2×2.5	1	0.7	0.8	1.8	14.1	343	7.41
2×4	1	0.7	0.8	1.8	15.1	404	4.61
2×6	1	0.7	0.8	1.8	16.1	476	3.08
2×10	6	0.7	1.25	1.8	19.5	763	1.83

2×16	6	0.7	1.25	1.8	21.1	942	1.15
2×25	6	0.9	1.6	1.8	25.0	1384	0.727
2×35	6	0.9	1.6	1.8	27.0	1668	0.524
2×50	6	1.0	1.6	1.8	30.0	2061	0.387
2×70	12	1.1	1.6	2.0	33.8	2628	0.268
2×95	15	1.1	2.0	2.1	39.1	3649	0.193
2×120	18	1.2	2.0	2.2	42.5	4334	0.153
2×150	18	1.4	2.0	2.3	46.5	5134	0.124
2×185	30	1.6	2.5	2.5	52.3	6658	0.0991
2×240	34	1.7	2.5	2.7	57.7	8140	0.0754
2×300	34	1.8	2.5	2.8	63.1	9754	0.0601
2×400	53	2.0	2.5	3.1	70.1	12015	0.0470
3×1.5	1	0.7	0.8	1.8	13.8	331	12.1
3×2.5	1	0.7	0.8	1.8	14.6	384	7.41
3×4	1	0.7	0.8	1.8	15.6	460	4.61
3×6	1	0.7	0.8	1.8	16.7	552	3.08

3×10	6	0.7	1.25	1.8	20.4	889	1.83
3×16	6	0.7	1.25	1.8	22.1	1133	1.15
3×25	6	0.9	1.6	1.8	26.2	1680	0.727
3×35	6	0.9	1.6	1.8	28.4	2051	0.524
3×50	6	1.0	1.6	1.9	31.8	2572	0.387
3×70	12	1.1	2.0	2.0	37.2	3637	0.268
No. of Cores and Nominal Cross Section	Min. Number of Wires	Nominal Insulation Thickness	Nominal Steel Wire Diameter	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight	Max. D.C. Resistance of Conductor at 20°C
No. × mm ²	No.	mm	mm	mm	mm	kg/km	Ω/km
3×95	15	1.1	2.0	2.2	41.5	4626	0.193
3×120	18	1.2	2.0	2.3	45.2	5565	0.153
3×150	18	1.4	2.5	2.5	51.1	7121	0.124
3×185	30	1.6	2.5	2.6	55.6	8522	0.0991
3×240	34	1.7	2.5	2.8	61.8	10612	0.0754
3×300	34	1.8	2.5	3.0	67.4	12798	0.0601
3×400	53	2.0	2.5	3.2	74.7	15826	0.0470

4×1.5	1	0.7	0.8	1.8	14.5	372	12.1
4×2.5	1	0.7	0.8	1.8	15.4	435	7.41
4×4	1	0.7	0.8	1.8	16.6	531	4.61
4×6	1	0.7	1.25	1.8	18.7	765	3.08
4×10	6	0.7	1.25	1.8	21.8	1049	1.83
4×16	6	0.7	1.6	1.8	24.4	1473	1.15
4×25	6	0.9	1.6	1.8	28.3	2017	0.727
4×35	6	0.9	1.6	1.9	30.9	2495	0.524
4×50	6	1.0	1.6	2.0	34.7	3157	0.387
4×70	12	1.1	2.0	2.2	40.7	4493	0.268
4×95	15	1.1	2.0	2.3	45.3	5742	0.193
4×120	18	1.2	2.5	2.5	51.0	7417	0.153
4×150	18	1.4	2.5	2.6	55.8	8806	0.124
4×185	30	1.6	2.5	2.8	61.4	10739	0.0991
4×240	34	1.7	2.5	3.0	67.9	13321	0.0754
4×300	34	1.8	2.5	3.2	74.1	16097	0.0601

4×400	53	2.0	3.15	3.5	84.1	21074	0.0470
5×1.5	1	0.7	0.8	1.8	15.3	414	12.1
5×2.5	1	0.7	0.8	1.8	16.3	492	7.41
5×4	1	0.7	1.25	1.8	18.5	726	4.61
5×6	1	0.7	1.25	1.8	19.9	874	3.08
5×10	6	0.7	1.25	1.8	23.3	1214	1.83
5×16	6	0.7	1.6	1.8	26.1	1723	1.15
No. of Cores and Nominal Cross Section	Min. Number of Wires	Nominal Insulation Thickness	Nominal Steel Wire Diameter	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight	Max. D.C. Resistance of Conductor at 20°C
No. × mm ²	No.	mm	mm	mm	mm	kg/km	Ω/km
5×25	6	0.9	1.6	1.8	30.5	2362	0.727
5×35	6	0.9	1.6	1.9	33.4	2953	0.524
5×50	6	1.0	2.0	2.1	39.3	4090	0.387
5×70	12	1.1	2.0	2.3	44.3	5352	0.268
5×95	15	1.1	2.5	2.5	51.0	7379	0.193
5×120	18	1.2	2.5	2.6	55.5	8856	0.153

5×150	18	1.4	2.5	2.8	61.4	10690	0.124
5×185	30	1.6	2.5	3.0	67.2	12917	0.0991
5×240	34	1.7	2.5	3.2	74.4	16133	0.0754
5×300	34	1.8	3.15	3.4	82.9	20582	0.0601
5×400	53	2.0	3.15	3.8	92.4	25587	0.0470
3×2.5+1×1.5	1/1	0.7/0.7	0.8	1.8	15.2	418	7.41/12.1
3×4+1×2.5	1/1	0.7/0.7	0.8	1.8	16.3	508	4.61/7.41
3×6+1×4	1/1	0.7/0.7	1.25	1.8	18.4	740	3.08/4.61
3×10+1×6	6/1	0.7/0.7	1.25	1.8	21.0	977	1.83/3.08
3×16+1×10	6/6	0.7/0.7	1.25	1.8	23.2	1268	1.15/1.83
3×25+1×16	6/6	0.9/0.7	1.6	1.8	27.3	1879	0.727/1.15
3×35+1×16	6/6	0.9/0.7	1.6	1.8	29.1	2225	0.524/1.15
3×50+1×25	6/6	1.0/0.9	1.6	1.9	33.0	2856	0.387/0.727
3×70+1×35	12/6	1.1/0.9	2.0	2.1	38.6	4045	0.268/0.524
3×95+1×50	15/6	1.1/1.0	2.0	2.2	43.0	5162	0.193/0.387
3×120+1×70	18/12	1.2/1.1	2.0	2.4	47.3	6325	0.153/0.268

3×150+1×70	18/12	1.4/1.1	2.5	2.5	52.4	7841	0.124/0.268
3×185+1×95	30/15	1.6/1.1	2.5	2.7	57.5	9512	0.0991/0.193
3×240+1×120	34/18	1.7/1.2	2.5	2.9	63.8	11870	0.0754/0.153
3×300+1×150	34/18	1.8/1.4	2.5	3.0	69.5	14254	0.0601/0.124
3×400+1×185	53/30	2.0/1.6	3.15	3.3	78.8	18672	0.0470/0.0991
3×2.5+2×1.5	1/1	0.7/0.7	0.8	1.8	15.9	459	7.41/12.1
3×4+2×2.5	1/1	0.7/0.7	1.25	1.8	18.0	678	4.61/7.41
3×6+2×4	1/1	0.7/0.7	1.25	1.8	19.3	817	3.08/4.61
No. of Cores and Nominal Cross Section	Min. Number of Wires	Nominal Insulation Thickness	Nominal Steel Wire Diameter	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Weight	Max. D.C. Resistance of Conductor at 20°C
No. × mm ²	No.	mm	mm	mm	mm	kg/km	Ω/km
3×10+2×6	6/1	0.7/0.7	1.25	1.8	21.9	1073	1.83/3.08
3×16+2×10	6/6	0.7/0.7	1.6	1.8	25.3	1565	1.15/1.83
3×25+2×16	6/6	0.9/0.7	1.6	1.8	28.7	2106	0.727/1.15
3×35+2×16	6/6	0.9/0.7	1.6	1.8	30.4	2448	0.524/1.15
3×50+2×25	6/6	1.0/0.9	2.0	2.0	36.4	3499	0.387/0.727

3×70+2×35	12/6	1.1/0.9	2.0	2.1	40.4	4487	0.268/0.524
3×95+2×50	15/6	1.1/1.0	2.0	2.3	45.4	5750	0.193/0.387
3×120+2×70	18/12	1.2/1.1	2.5	2.5	51.6	7638	0.153/0.268
3×150+2×70	18/12	1.4/1.1	2.5	2.6	54.9	8637	0.124/0.268
3×185+2×95	30/15	1.6/1.1	2.5	2.8	60.9	10700	0.0991/0.193
3×240+2×120	34/18	1.7/1.2	2.5	3.0	67.0	13208	0.0754/0.153
3×300+2×150	34/18	1.8/1.4	2.5	3.2	73.4	15945	0.0601/0.124
3×400+2×185	53/30	2.0/1.6	3.15	3.5	83.0	20775	0.0470/0.0991
4×2.5+1×1.5	1/1	0.7/0.7	0.8	1.8	16.1	476	7.41/12.1
4×4+1×2.5	1/1	0.7/0.7	1.25	1.8	18.2	697	4.61/7.41
4×6+1×4	1/1	0.7/0.7	1.25	1.8	19.6	850	3.08/4.61
4×10+1×6	6/1	0.7/0.7	1.25	1.8	22.6	1143	1.83/3.08
4×16+1×10	6/6	0.7/0.7	1.6	1.8	25.7	1644	1.15/1.83
4×25+1×16	6/6	0.9/0.7	1.6	1.8	29.6	2226	0.727/1.15
4×35+1×16	6/6	0.9/0.7	1.6	1.9	32.0	2698	0.524/1.15
4×50+1×25	6/6	1.0/0.9	2.0	2.1	38.0	3802	0.387/0.727

4×70+1×35	12/6	1.1/0.9	2.0	2.2	42.4	4931	0.268/0.524
4×95+1×50	15/6	1.1/1.0	2.0	2.4	47.5	6325	0.193/0.387
4×120+1×70	18/12	1.2/1.1	2.5	2.5	53.4	8233	0.153/0.268
4×150+1×70	18/12	1.4/1.1	2.5	2.7	57.9	9632	0.124/0.268
4×185+1×95	30/15	1.6/1.1	2.5	2.9	64.0	11824	0.0991/0.193
4×240+1×120	34/18	1.7/1.2	2.5	3.1	70.7	14645	0.0754/0.153
4×300+1×150	34/18	1.8/1.4	3.15	3.3	79.0	18714	0.0601/0.124
4×400+1×185	53/30	2.0/1.6	3.15	3.6	87.6	23183	0.0470/0.0991