

18/30KV Power Cables Three Cores Cables to IEC 60502

Three Core 18/30KV (Um=36KV) Dimensional Data

Nom. Cross-Section Area	Nom. Insulation Thickness	Copper Tape Thickness	Copper Wire Screen Area*	Unarmoured Cables				Steel Round-Wire Armoured Cables					
				Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
						CU	AL					CU	AL
mm ²	mm	mm	mm ²	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	8.0	0.1	16	3.2	65	4340	3460	1.8	3.15	3.5	75	8950	8080
70	8.0	0.1	16	3.3	70	5220	3930	1.9	3.15	3.6	80	10150	8860
95	8.0	0.1	16	3.4	74	6240	4440	1.9	3.15	3.7	84	11390	9590
120	8.0	0.1	16	3.5	77	7180	4910	2.0	3.5	3.8	89	13200	10860
150	8.0	0.1	25	3.6	80	8220	5420	2.1	3.5	4.0	92	14520	11720
185	8.0	0.1	25	3.7	84	9540	6040	2.1	4.0	4.1	97	17020	13510
240	8.0	0.1	25	3.9	91	11720	7110	2.2	4.0	4.3	104	19810	15200
300	8.0	0.1	25	4.0	95	13790	8000	2.3	4.5	4.5	108	23310	17470
400	8.0	0.1	35	4.3	103	16820	9430	2.4	4.5	4.7	117	27010	19620
500	8.0	0.1	35	4.5	110	21550	12880	2.5	4.5	4.9	124	31130	22610

*Optional wire screen can be provided in combination of copper tapes. Nominal screen area, as stated in the table, can be supplied as standard.

Nom. Cross-Section Area	Steel Flat Wire Armoured Cables						Double Steel Tape Armoured Cables					
	Nom. Bedding Thickness	Armour Wire Size	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight		Nom. Bedding Thickness	No of Steel tapes x nom tape thickness	Nom. Sheath Thickness	Approx. Overall Diameter	Approx. Weight	
					CU	AL					CU	AL
mm ²	mm	mm	mm	mm	kg/km		mm	mm	mm	mm	kg/km	
50	1.8	0.8	3.1	70.2	7490	6775	1.8	2x0.5	3.3	71.2	7300	6585
70	1.9	0.8	3.2	74.0	8590	7540	1.9	2x0.5	3.4	75.0	8390	7335
95	1.9	0.8	3.4	78.5	9990	8460	1.9	2x0.5	3.5	79.3	9740	8210
120	2.0	0.8	3.5	82.2	11250	9270	2.0	2x0.8	3.6	84.5	11845	9875
150	2.1	0.8	3.6	85.6	12510	10070	2.1	2x0.8	3.7	87.9	13120	10700
185	2.1	0.8	3.7	89.8	14155	11100	2.1	2x0.8	3.9	92.3	14850	11800
240	2.2	0.8	3.8	95.4	16740	12575	2.2	2x0.8	4.0	97.9	17480	13320
300	2.3	0.8	4.0	100.9	19310	14120	2.3	2x0.8	4.2	103.4	20080	14900
400	2.4	0.8	4.2	107.8	22840	16170	2.4	2x0.8	4.4	110.3	23660	17000
500	2.5	0.8	4.4	115.5	27200	18610	2.5	2x0.8	4.6	118.0	28080	19510

Electrical Data

Nom. Cross-Section Area	D C Resistance CU / AL	A C Resistance CU / AL	Short Circuit Rating of Conductor CU / AL 1 sec	Capacitance	Charging Current	Short Circuit Rating of Copper Wire Screen Per Core 1 sec	Short Circuit Rating of Copper Tape Screen Per Core 1 sec	Reactance	Inductance
mm ²	μΩ/m	μΩ/m	kA	pF/m	mA/m	kA	kA	μΩ/m	nH/m
50	387/641	494/822	6.8/4.4	142	0.85	2.6	1.0	134	430
70	268/443	343/568	9.8/6.3	159	0.95	2.6	1.0	127	400
95	193/320	248/410	13.3/8.5	175	1.05	2.6	1.1	121	390
120	153/253	196/325	17.2/11.0	189	1.13	2.6	1.1	117	370
150	124/206	159/265	21.2/13.5	201	1.21	4.3	1.2	113	360
185	99.1/164	128/211	26.6/17.0	217	1.3	4.3	1.2	109	350
240	75.4/125	98/161	34.9/22.3	237	1.42	4.3	1.3	104	330
300	60.1/100	80/130	43.8/28.0	258	1.55	4.3	1.4	101	320
400	47.0/77.8	64/102	57.3/36.6	282	1.69	5.8	1.5	96	290
500	36.6/60.5	51/81	72.3/46.2	302	1.79	5.8	1.6	78	250