

8.7/15KV Power Cables Three Cores Cables to IEC 60502

Three Core 8.7/15KV (Um=17.5KV) 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	
25	4.5	0.1	16	2.4	44	2100	1620	1.4	2.5	2.7	52	4560	4080
35	4.5	0.1	16	2.5	46	2510	1840	1.4	2.5	2.7	54	5080	4410
50	4.5	0.1	16	2.6	49	2980	2080	1.5	2.5	2.9	57	5740	4840
70	4.5	0.1	16	2.7	53	3760	2470	1.6	2.5	3.0	62	6770	5480
95	4.5	0.1	16	2.8	57	4700	2900	1.6	2.5	3.1	65	7890	6100
120	4.5	0.1	16	3.0	60	5590	3320	1.7	2.5	3.2	69	8970	6700
150	4.5	0.1	25	3.1	64	6560	3760	1.8	3.15	3.4	74	11030	8220
185	4.5	0.1	25	3.2	67	7800	4300	1.8	3.15	3.5	78	12490	8980
240	4.5	0.1	25	3.4	74	9820	5220	1.9	3.15	3.7	84	15040	10440
300	4.5	0.1	25	3.5	79	11800	6010	2.0	3.5	3.8	90	17920	12130
400	4.5	0.1	35	3.7	86	14620	7240	2.1	3.5	4.1	98	21360	13970
500	4.5	0.1	35	3.8	93	18160	9355	2.2	3.5	4.3	106	26490	17830

*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	
25	1.4	0.8	2.4	48.0	3915	3495	1.4	2x0.5	2.5	48.8	3770	3345
35	1.4	0.8	2.5	50.8	4510	3890	1.4	2x0.5	2.6	51.6	4350	3735
50	1.5	0.8	2.6	53.3	5020	4270	1.5	2x0.5	2.7	54.1	4855	4105
70	1.6	0.8	2.7	57.0	5990	4870	1.6	2x0.5	2.8	57.8	5815	4690
95	1.6	0.8	2.8	61.2	7170	5600	1.6	2x0.5	3.0	62.2	7010	5435
120	1.7	0.8	2.9	65.1	8340	6320	1.7	2x0.5	3.1	66.1	8170	6145
150	1.8	0.8	3.0	68.3	9440	6955	1.8	2x0.5	3.2	69.3	9260	6770
185	1.8	0.8	3.2	72.8	10990	7880	1.8	2x0.5	3.3	73.6	10760	7650
240	1.9	0.8	3.3	78.3	13370	9155	1.9	2x0.5	3.4	79.1	13120	8900
300	2.0	0.8	3.5	83.7	15760	10460	2.0	2x0.8	3.6	86.0	16360	11070
400	2.1	0.8	3.7	90.5	19050	12260	2.1	2x0.8	3.9	93.0	19750	12960
500	2.2	0.8	3.9	98.2	23160	14430	2.2	2x0.8	4.1	100.7	23900	15190

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
25	727/1200	927/1538	3.6/2.3	176	0.48	2.6	0.6	132	410
35	524/868	668/1113	5.0/3.2	193	0.53	2.6	0.6	123	390
50	387/641	494/822	6.8/4.4	211	0.58	2.6	0.7	116	370
70	268/443	343/568	9.8/6.3	240	0.65	2.6	0.7	110	350
95	193/320	248/410	13.3/8.5	267	0.73	2.6	0.8	105	330
120	153/253	196/325	17.2/11.0	291	0.79	2.6	0.8	102	320
150	124/206	159/265	21.2/13.5	312	0.85	4.3	0.9	98	310
185	99.1/164	128/211	26.6/17.0	340	0.93	4.3	0.9	95	300
240	75.4/125	98/161	34.9/22.3	375	1.02	4.3	1.0	91	290
300	60.1/100	80/130	43.8/28.0	411	1.12	4.3	1.1	89	280
400	47.0/77.8	64/102	57.3/36.6	454	1.24	5.8	1.2	84	270
500	36.6/60.5	51/81	72.3/46.2	504	1.34	5.8	1.3	78	250