

1.8/3KV Power Cables Three Cores Cables to IEC 60502

Three Core 1.8/3KV (Um=3.6KV) 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	
10	2.0	0.1	16	1.8	23	650	460	1.2	1.6	1.8	28	1480	1290
16	2.0	0.1	16	1.8	24	840	540	1.2	1.6	1.9	29	1720	1410
25	2.0	0.1	16	1.8	26	1160	680	1.2	1.6	1.9	32	2130	1650
35	2.0	0.1	16	1.8	29	1490	820	1.2	2.0	2.1	36	2810	2140
50	2.0	0.1	16	1.9	32	1900	1000	1.2	2.0	2.2	39	3340	2450
70	2.0	0.1	16	2.0	36	2580	1290	1.2	2.0	2.3	42	4200	2910
95	2.0	0.1	16	2.2	40	3440	1640	1.3	2.5	2.4	47	5620	3820
120	2.0	0.1	16	2.3	43	4220	1950	1.3	2.5	2.5	51	6580	4310
150	2.0	0.1	25	2.4	46	5090	2290	1.4	2.5	2.7	54	7680	4870
185	2.0	0.1	25	2.5	50	6240	2730	1.5	2.5	2.8	58	9060	5560
240	2.0	0.1	25	2.7	56	8030	3430	1.6	2.5	3.0	64	11200	6600
300	2.0	0.1	25	2.8	60	9890	4100	1.6	2.5	3.1	69	13590	7500
400	2.0	0.1	35	3.1	68	12530	5150	1.8	3.15	3.4	78	17260	9880
500	2.2	0.1	35	3.3	75.7	16680	7510	1.8	3.15	3.5	84.3	21780	13025

630	2.4	0.1	35	3.5	84.9	21770	10040	1.8	3.15	3.8	94.6	27400	16050
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*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	
10	1.2	0.8	1.8	24.5	1245	1065	1.2	2 x 0.2	1.8	23.6	925	750
16	1.2	0.8	1.8	27.1	1565	1280	1.2	2 x 0.2	1.8	26.2	1205	925
25	1.2	0.8	1.8	29.7	1975	1525	1.2	2 x 0.2	1.9	29.0	1590	1145
35	1.2	0.8	1.9	32.5	2420	1805	1.2	2 x 0.2	1.9	31.6	1985	1370
50	1.2	0.8	2.0	35	2860	2080	1.2	2 x 0.2	2.0	34.1	2400	1605
70	1.2	0.8	2.1	38.7	3685	2525	1.2	2 x 0.5	2.2	39.5	3570	2410
95	1.3	0.8	2.2	42.9	4695	3080	1.3	2 x 0.5	2.3	43.7	4570	2950
120	1.3	0.8	2.3	46.4	5650	3585	1.3	2 x 0.5	2.4	46.1	5510	3440
150	1.4	0.8	2.4	49.6	6630	4085	1.4	2 x 0.5	2.6	50.6	6500	3955
185	1.5	0.8	2.6	54.1	7990	4820	1.5	2 x 0.5	2.7	54.9	7825	4650
240	1.6	0.8	2.7	59.2	10060	5790	1.6	2 x 0.5	2.8	60.0	9825	5600
300	1.6	0.8	2.9	64.6	12230	6865	1.6	2 x 0.5	3.0	65.4	12030	6660
400	1.8	0.8	3.1	71.0	15200	8280	1.8	2 x 0.5	3.2	71.8	14970	8055
500	1.8	0.8	3.3	79.5	19090	10255	1.8	2 x 0.8	3.5	80.5	18880	10035
630	1.8	0.8	3.6	89.8	24400	12920	1.8	2 x 0.8	3.8	92.3	25070	13620

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	Capaci- tance	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
10	1830/3080	2330/3920	1.4/0.9	160	0.25	2.6	0.4	101	390
16	1150/1910	1460/2420	2.2/1.4	180	0.27	2.6	0.4	98	370
25	727/1200	929/1538	3.6/2.3	220	0.29	2.6	0.4	95	350
35	524/868	668/1113	5.0/3.2	250	0.31	2.6	0.5	92	330
50	387/641	494/822	6.8/4.4	270	0.33	2.6	0.5	88	310
70	268/443	343/568	9.8/6.3	310	0.35	2.6	0.6	84	290
95	193/320	248/410	13.3/8.5	350	0.38	2.6	0.6	81	270
120	153/253	196/325	17.2/11.0	380	0.46	2.6	0.7	79	250
150	124/206	159/265	21.2/13.5	420	0.50	2.6	0.7	77	260
185	99.1/164	128/211	26.6/17.0	460	0.56	2.6	0.8	76	250
240	75.4/125	98/161	34.9/22.3	510	0.61	4.3	0.9	74	240
300	60.1/100	80/130	43.8/28.0	570	0.68	4.3	1.0	73	250
400	47.0/77.8	64/102	57.3/36.6	590	0.70	5.8	1.1	71	240
500	36.6/60.5	57/81	72.3/46.2	610	0.72	5.8	1.2	69	230
630	28.3/46.9	42/64	91.2/58.3	630	0.74	5.8	1.3	67	220