

3.5 CORE ALUMINIUM XLPE ARMoured POWER CABLES

Type	No. of cores & cross sectional area	Min. No. of Wires	Thickness of insulation		Min. Thickness of inner-sheath (mm)	Nominal Dimensions of Armour Strip Wire (mm)		Min. Thickness of Outersheath Wire Strip Armour (mm)		Overall Diameter (Approx.) Wire Strip Armour (mm)		Approx. Net Wt. of Cable Wire Strip Armour (Kg/Km)		Max. D.C. Resistance at 20°C Ohms/Km	Max. A.C. Resistance at 90°C Ohms/Km	Approx. Reactance at 50 Hz Ohms/Km	Approx. Capacitance mFd/Km	CURRENT RATINGS	
																		Direct in Ground	In Air
			(min)	(nom)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Kg/Km)	(Kg/Km)					Amps	Amps
A2xfy/A2xwy	3.5CX25	6/6	0.9	0.7	0.3	1.60	4X0.8	1.40	1.40	23.8	22.2	999	760	1.2000	1.5400	0.080	0.20	94	96
A2xfy/A2xwy	3.5CX35	6/6	0.9	0.7	0.3	1.60	4X0.8	1.40	1.40	25.5	23.9	1146	885	0.8680	1.1100	0.080	0.23	113	117
A2xfy/A2xwy	3.5CX50	6/6	1.0	0.9	0.3	1.60	4X0.8	1.56	1.40	29.0	27.1	1427	1114	0.6410	0.8200	0.078	0.24	133	142
A2xfy/A2xwy	3.5CX70	12/6	1.1	0.9	0.4	2.00	4X0.8	1.56	1.56	34.0	31.6	2006	1473	0.4430	0.5670	0.077	0.26	164	179
A2xfy/A2xwy	3.5CX95	15/6	1.1	1.0	0.4	2.00	4X0.8	1.56	1.56	37.6	35.2	2436	1834	0.3200	0.4100	0.074	0.29	196	221
A2xfy/A2xwy	3.5CX120	15/12	1.2	1.1	0.4	2.00	4X0.8	1.72	1.72	40.2	37.8	2863	2220	0.2530	0.3250	0.072	0.29	223	257
A2xfy/A2xwy	3.5CX150	15/12	1.4	1.1	0.5	2.00	4X0.8	1.88	1.72	45.2	42.4	3378	2623	0.2060	0.2650	0.072	0.29	249	292
A2xfy/A2xwy	3.5CX185	30/15	1.6	1.1	0.5	2.50	4X0.8	2.04	1.88	49.7	46.0	4339	3179	0.1640	0.2110	0.072	0.29	282	337
A2xfy/A2xwy	3.5CX240	30/15	1.7	1.2	0.6	2.50	4X0.8	2.20	2.04	55.4	51.7	5298	3981	0.1250	0.1620	0.072	0.31	326	399
A2xfy/A2xwy	3.5CX300	30/15	1.8	1.4	0.6	2.50	4X0.8	2.36	2.20	59.3	55.6	6172	4750	0.1000	0.1300	0.071	0.33	367	455
A2xfy/A2xwy	3.5CX400	53/30	2.0	1.6	0.7	3.15	4X0.8	2.68	2.52	69.2	64.1	8341	6030	0.0778	0.1023	0.070	0.33	418	530

4 CORE ALUMINIUM XLPE ARMoured POWER CABLES

Type	No. of cores & cross sectional area	Min. No. of Wires	Thickness of insulation (Nom.) (mm)	Min. Thickness of innersheath (mm)	Nominal Dimensions of Armour Strip Wire (mm)		Min. Thickness of Outersheath Wire Strip Armour (mm)		Overall Diameter (Approx.) Wire Strip Armour (mm)		Approx. Net Wt. of Cable Wire Strip Armour (Kg/Km)		Max. D.C. Resistance at 20°C Ohms/Km	Max. A.C. Resistance at 90°C Ohms/Km	Approx. Reactance at 50 Hz Ohms/Km	Approx. Capacitance mFd/Km	Current Rating	
																	Direct in Ground	In Air
					(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Kg/Km)	(Kg/Km)					Amps	Amps
A2xfy/A2xwy	4CX16	6	0.7	0.3	1.60	4X0.8	1.40	1.40	22.8	21.2	862	640	1.91	2.45			73	70
A2xfy/A2xwy	4CX25	6	0.9	0.3	1.60	4X0.8	1.40	1.40	23.8	23.2	1031	792	1.2	1.54	0.08	0.2	94	96
A2xfy/A2xwy	4CX35	6	0.9	0.3	1.60	4X0.8	1.40	1.40	26.0	24.4	1212	959	0.868	1.11	0.08	0.23	113	117
A2xfy/A2xwy	4CX50	6	1	0.3	1.60	4X0.8	1.56	1.56	29.5	27.9	1515	1214	0.641	0.82	0.078	0.24	133	142
A2xfy/A2xwy	4CX70	12	1.1	0.4	2.00	4X0.8	1.56	1.56	34.1	31.7	2112	1581	0.443	0.567	0.077	0.26	164	179
A2xfy/A2xwy	4CX95	15	1.1	0.4	2.00	4X0.8	1.72	1.56	37.9	35.2	2606	1975	0.32	0.41	0.074	0.29	196	221
A2xfy/A2xwy	4CX120	15	1.2	0.5	2.00	4X0.8	1.88	1.72	41.9	39.1	3102	2422	0.253	0.325	0.072	0.29	223	257
A2xfy/A2xwy	4CX150	15	1.4	0.5	2.50	4X0.8	2.04	1.88	46.3	42.6	3985	2892	0.206	0.265	0.072	0.29	249	292
A2xfy/A2xwy	4CX185	30	1.6	0.5	2.50	4X0.8	2.20	2.04	51.5	47.8	4761	3542	0.164	0.211	0.072	0.29	282	337
A2xfy/A2xwy	4CX240	30	1.7	0.6	2.50	4X0.8	2.36	2.20	57.5	53.8	5824	4453	0.125	0.162	0.072	0.31	326	399
A2xfy/A2xwy	4CX300	30	1.8	0.7	3.15	4X0.8	2.52	2.36	64.5	59.5	7518	5394	0.1	0.13	0.071	0.33	367	455
A2xfy/A2xwy	4CX400	53	2	0.7	3.15	4X0.8	2.84	2.68	72.1	67.1	9179	6779	0.0778	0.1023	0.07	0.33	418	530

3.5 CORE COPPER XLPE ARMoured POWER CABLES

Type	No. of Cores & cross sectional area mm ²	Min. No. of wires	Thickness of XLPE Insulation (Nom) mm	Min. Thickness of PVC inner sheath mm	Nominal Dimensions of Armour		Min. Thickness of PVC Outer Sheath		Overall Diameter (Approx)		Approx. Net Wt. of Cable		Max. DC Resistance at 20°C Ohm/Km	Max. AC Resistance at 90°C Ohm/Km	Approx. Reactance at 50 Hz Ohm/Km	Approx. Capacitance mFd/Km	Current Ratings	
					Strip mm	Wire mm	Wire mm	Strip mm	Wire mm	Strip mm	Wire Kg/Km	Strip Kg/Km					Direct in Ground Amps	In Air Amps
2XWY/2XFY	3.5CX25/16	6/6	0.9/0.7	0.3	4x0.8	1.60	1.40	1.40	23.8	22.2	1556	1316	0.727	0.930	0.080	0.20	119	108
2XWY/2XFY	3.5CX35/16	6/6	0.9/0.7	0.3	4x0.8	1.60	1.40	1.40	25.5	23.9	1887	1626	0.524	0.671	0.080	0.23	144	132
2XWY/2XFY	3.5CX50/25	6/6	1.0/0.9	0.3	4x0.8	1.60	1.56	1.40	29.0	27.1	2651	2137	0.387	0.495	0.078	0.24	174	162
2XWY/2XFY	3.5CX70/35	12/6	1.1/0.9	0.4	4x0.8	2.00	1.56	1.56	34.0	31.6	3479	2946	0.268	0.343	0.077	0.26	210	198
2XWY/2XFY	3.5CX95/50	15/6	1.1/1.0	0.4	4x0.8	2.00	1.56	1.56	37.6	35.2	4476	3874	0.193	0.247	0.074	0.29	252	240
2XWY/2XFY	3.5CX120/70	18/12	1.2/1.1	0.4	4x0.8	2.00	1.72	1.72	40.2	37.8	5487	4844	0.153	0.196	0.072	0.29	288	276
2XWY/2XFY	3.5CX150/70	18/15	1.4/1.1	0.5	4x0.8	2.00	1.88	1.72	45.2	42.4	6523	5768	0.124	0.159	0.072	0.29	324	318
2XWY/2XFY	3.5CX185/95	30/15	1.6/1.1	0.5	4x0.8	2.50	2.04	1.88	49.7	46.0	8325	7164	0.0991	0.127	0.072	0.29	360	366
2XWY/2XFY	3.5CX240/120	34/18	1.7/1.2	0.6	4x0.8	2.50	2.20	2.04	55.4	51.7	10510	9193	0.0754	0.0965	0.072	0.31	414	426
2XWY/2XFY	3.5CX300/150	34/18	1.8/1.4	0.6	4x0.8	2.50	2.36	2.20	59.3	55.6	12705	11282	0.0601	0.0769	0.071	0.33	462	480
2XWY/2XFY	3.5CX400/185	53/30	2.0/1.6	0.7	4x0.8	3.15	2.68	2.52	69.2	64.1	16653	14342	0.0470	0.0602	0.070	0.33	510	546

4 CORE COPPER XLPE ARMoured POWER CABLES

Type	No. of Cores & cross sectional area mm ²	Min. No. of wires	Thickness of XLPE Insulation (Nom) mm	Min. Thickness of PVC inner sheath mm	Nominal Dimensions of Armour		Min. Thickness of PVC Outer Sheath		Overall Diameter (Approx)		Approx. Net Wt. of Cable		Max. DC Resistance at 20°C Ohm/Km	Max. AC Resistance at 90°C Ohm/Km	Approx. Reactance at 50 Hz Ohm/Km	Approx. Capacitance mFd/Km	Current Ratings	
					Strip mm	Wire mm	Wire mm	Strip mm	Wire mm	Strip mm	Wire Kg/Km	Strip Kg/Km					Direct in Ground Amps	In Air Amps
2XWY/2XFY	4C X 16	6	0.70	0.3	4x0.8	1.60	1.40	1.40	22.8	21.2	1249	1026	1.15	1.47	0.080	0.36	92	79
2XWY/2XFY	4C X 25	6	0.90	0.3	4x0.8	1.60	1.40	1.40	23.8	22.2	1645	1406	0.727	0.930	0.080	0.20	119	108
2XWY/2XFY	4C X 35	6	0.90	0.3	4x0.8	1.60	1.40	1.40	26.0	24.4	2070	1816	0.524	0.671	0.080	0.23	144	132
2XWY/2XFY	4C X 50	6	1.00	0.3	4x0.8	1.60	1.56	1.56	29.5	27.9	2676	2375	0.387	0.495	0.078	0.24	174	162
2XWY/2XFY	4C X 70	12	1.10	0.4	4x0.8	2.00	1.56	1.56	34.1	31.7	3791	3259	0.268	0.343	0.077	0.26	210	198
2XWY/2XFY	4C X 95	15	1.10	0.4	4x0.8	2.00	1.72	1.56	37.9	35.2	4938	4308	0.193	0.247	0.074	0.29	252	240
2XWY/2XFY	4C X 120	18	1.20	0.5	4x0.8	2.00	1.88	1.72	41.9	39.1	6042	5362	0.153	0.196	0.072	0.29	288	276
2XWY/2XFY	4C X 150	18	1.40	0.5	4x0.8	2.50	2.04	1.88	46.3	42.6	7611	6517	0.124	0.159	0.072	0.29	324	318
2XWY/2XFY	4C X 185	30	1.60	0.5	4x0.8	2.50	2.20	2.04	51.5	47.8	9298	8079	0.0991	0.127	0.072	0.29	360	366
2XWY/2XFY	4C X 240	34	1.70	0.6	4x0.8	2.50	2.36	2.20	57.5	53.8	11794	10423	0.0754	0.0965	0.072	0.31	414	426
2XWY/2XFY	4C X 300	34	1.80	0.7	4x0.8	3.15	2.52	2.36	64.5	59.5	15019	12895	0.0601	0.0769	0.071	0.33	462	480
2XWY/2XFY	4C X 400	53	2.00	0.7	4x0.8	3.15	2.84	2.68	72.1	67.1	18752	16352	0.0470	0.0602	0.070	0.33	510	546

Armoured PVC Control Cable IS : 1554 (Pt - I) - 1988

No. of Cores & Cross Sectional Area NO x mm ²	Thickness of PVC Insulation (Nom.) mm	Thickness of Innersheath (min.) Extruded mm	STRIP ARMoured CABLE				WIRE ARMoured CABLE				Standard Delivery Length in Mtrs.	Current Rating	
			Strip Size mm	Thickness of PVC Outer sheath (Min) mm	Approx. OD mm	Approx. Net weight of Cable Kg / km	Round Wire Dia mm	Thickness of PVC Outer sheath (Min) mm	Approx. OD mm	Approx. Net Weight of Cable Kg / Km		Direct in Ground Amps	In Air/ Duct. Amps
2 x 1.5	0.8	0.3	—	—	—	—	1.4	1.24	13.6	415	1000	23	20
3 x 1.5	0.8	0.3	—	—	—	—	1.4	1.24	14.1	430	1000	21	17
4 x 1.5	0.8	0.3	—	—	—	—	1.4	1.24	15.0	490	1000	21	17
5 x 1.5	0.8	0.3	—	—	—	—	1.4	1.24	15.9	545	1000	16	14
6 x 1.5	0.8	0.3	—	—	—	—	1.4	1.24	16.9	605	1000	15	13
7 x 1.5	0.8	0.3	—	—	—	—	1.4	1.24	16.9	630	1000	14	13
10 x 1.5	0.8	0.3	—	—	—	—	1.4	1.40	20.6	835	1000	13	11
12 x 1.5	0.8	0.3	4 x 0.8	1.24	19.5	760	1.6	1.40	21.5	950	1000	12	10
14 x 1.5	0.8	0.3	4 x 0.8	1.40	20.8	830	1.6	1.40	22.4	1040	1000	11	10
16 x 1.5	0.8	0.3	4 x 0.8	1.40	21.7	920	1.6	1.40	23.3	1130	1000	11	9
19 x 1.5	0.8	0.3	4 x 0.8	1.40	23.1	1040	1.6	1.40	24.7	1265	1000	10	9
24 x 1.5	0.8	0.3	4 x 0.8	1.40	26.4	1250	1.6	1.40	28.0	1510	1000	9	8
27 x 1.5	0.8	0.3	4 x 0.8	1.40	26.9	1355	1.6	1.40	28.5	1610	1000	9	8
30 x 1.5	0.8	0.3	4 x 0.8	1.40	27.8	1430	1.6	1.40	29.4	1700	1000	9	7
37 x 1.5	0.8	0.3	4 x 0.8	1.40	29.7	1670	1.6	1.40	31.3	1960	1000	8	7
2 x 2.5	0.9	0.3	—	—	—	—	1.4	1.24	14.8	500	1000	32	27
3 x 2.5	0.9	0.3	—	—	—	—	1.4	1.24	15.4	520	1000	27	24
4 x 2.5	0.9	0.3	—	—	—	—	1.4	1.24	16.4	590	1000	27	24
5 x 2.5	0.9	0.3	—	—	—	—	1.4	1.24	17.5	660	1000	23	19
6 x 2.5	0.9	0.3	—	—	—	—	1.4	1.24	18.7	745	1000	21	18
7 x 2.5	0.9	0.3	—	—	—	—	1.4	1.24	18.7	780	1000	20	17
10 x 2.5	0.9	0.3	4 x 0.8	1.40	21.8	900	1.6	1.40	23.4	1110	1000	18	15
12 x 2.5	0.9	0.3	4 x 0.8	1.40	22.8	1020	1.6	1.40	24.4	1240	1000	17	14
14 x 2.5	0.9	0.3	4 x 0.8	1.40	23.8	1130	1.6	1.40	25.4	1340	1000	16	13
16 x 2.5	0.9	0.3	4 x 0.8	1.40	24.9	1210	1.6	1.40	26.5	1455	1000	15	13
19 x 2.5	0.9	0.3	4 x 0.8	1.40	26.1	1355	1.6	1.40	27.7	1605	1000	14	12
24 x 2.5	0.9	0.3	4 x 0.8	1.40	30.0	1655	1.6	1.56	32.0	1970	1000	13	11
27 x 2.5	0.9	0.3	4 x 0.8	1.40	30.6	1770	1.6	1.56	32.6	2100	1000	12	10
30 x 2.5	0.9	0.3	4 x 0.8	1.56	32.0	1940	1.6	1.56	33.6	2250	1000	12	10
37 x 2.5	0.9	0.4	4 x 0.8	1.56	34.7	2300	2.0	1.56	37.1	2900	1000	11	9

Construction

1. Solid / Stranded annealed copper conductor & Tinned / Bare
2. General Purpose / HR PVC insulation
3. Cores laid up (filled if needed)
4. FRLS / General Purpose PVC inner sheath
5. Armouring round Galvanised Steel wires / strips
6. FRLS / General purpose PVC Outersheath

Max. Conductor D.C. Resistance at 20 Deg C - Conductor Size :

- 1.5 sq.mm - 12.1 Ohm / km (Bare), 12.2 W / km (Tinned)
 2.5 sq.mm - 7.41 Ohm / km (Bare), 7.56 W / km (Tinned)

* Dimensions specified are with stranded conductor.