

XLPE ARMoured CABLE

3.5 CORE, AL/CU

AS PER IS: 7098 P-1

Technical Detail For 1.1 KV, 3.5 Cores AL/CU Conductor, XLPE Insulated, Galvanized Steel Strip / Wire Armoured Cables Type / Code Of Cable: A2XFY/2XFY, A2XWY/2XWY. As per IS: 7098

Conductor : AL/CU stranded compact shaped conductor as per class-2, IS:8130

Armouring: Single armouring of Galvanized Steel Strip/Wire.

Insulation: Crosslinked Polyethylene (XLPE) (Phase core color - Red, Yellow, Blue) (Neutral core color - Black)

Outer Sheath: PVC Type ST-2 as per IS:5831 (Option: FR Type/ FRLS Type)

Inner Sheath : PVC/ PVC tape as per IS: 7098 (P-1)

Color Of Outer Sheath: Black (Options: Any other colors as per requirement).

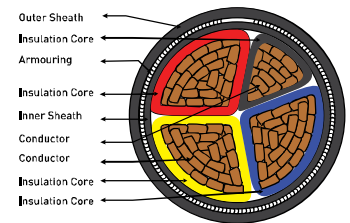
A. Cable Design Parameters

Table: I

Size Cores x Sq.mm Neutral Sq.mm	Minimum No. Of Strands in conductor		Nominal Thickness Of Insu. mm	Minimum Thickness of Inn. Sth. mm	Armouring with flat strip (A2XFY/ 2XFY)				Armouring with round wire (A2XWY/ 2XWY)					
					Nominal Thick. Of Arm. Strip mm	Minimum Thick. Of Out. Sth. mm	Approx. Overall Dia. mm	Approx. Net Wt Of Cable (Kg/Km)		Nominal Diameter Of Wire mm	Minimum Thick. of Out. Sth. mm	Approx. Overall Dia. mm	Approx. Net Wt Of Cable (Kg/Km)	
	AL Cable. A2XFY	Cu Cable. 2XFY						AL Cable. A2XWY	Cu Cable. 2XWY					
3x25+16	6/6	6/6	0.9/0.7	0.3	0.8	1.4	23	900	1400	1.6	1.4	25	1080	1685
3x35+16	6/6	6/6	0.9/0.7	0.3	0.8	1.4	25	1000	1800	1.6	1.4	27	1285	1980
3x50+25	6/6	6/6	1.0/0.9	0.3	0.8	1.4	28	1200	2300	1.6	1.56	30	1580	2685
3x70+35	12/6	12/6	1.1/0.9	0.4	0.8	1.56	32	1600	3200	2.0	1.56	35	2190	3690
3x95+50	15/6	15/6	1.1/1.0	0.4	0.8	1.56	35	2000	4100	2.0	1.56	38	2580	4585
3x120+70	15/12	18/12	1.2/1.1	0.4	0.8	1.72	39	2400	5100	2.0	1.72	42	3085	5680
3x150+70	15/12	18/12	1.4/1.1	0.5	0.8	1.72	43	2800	6000	2.0	1.88	46	3590	6790
3x185+95	30/15	30/15	1.6/1.1	0.5	0.8	1.88	47	3400	7400	2.5	2.04	51	4675	8615
3x240+120	30/15	34/18	1.7/1.2	0.6	0.8	2.04	53	4300	9500	2.5	2.2	56	5680	10485
3x300+150	30/15	34/18	1.8/1.4	0.6	0.8	2.2	57	5000	11500	2.5	2.36	60	6685	12990
3x400+185	53/30	53/30	2.0/1.6	0.7	0.8	2.52	88	6400	14500	3.15	2.68	71	8980	16980
3x500+240	53/30	53/34	2.2/1.7	0.7	0.8	2.68	74	7900	18000	3.15	2.84	79	10985	21485
3x630+300	53/30	53/34	2.4/1.8	0.7	0.8	3.0	82	9900	23000	4.0	3	88	14490	27985

B. Electrical Parameters

Size Cores x Sq.mm Neutral Sq.mm	Max. Cond. D.C. Resistance at 20°C in Ω/km		Max. Cond. A.C. Resistance at 90°C in Ω/km		App. Resistance at 50 hz in Ω/km	App. capacitance of cable in microf/KM	Normal* Current Rating In Amps						Short Circuit Current Rating for 1sec. Duration in K.Amps	
	AL	CU	AL	CU			With AL Cond.			With CU Cond.			AL	CU
							Ground	Duct	Air	Ground	Duct	Air		
3x25+16	1.2	0.727	1.54	0.931	0.08	0.2	95	80	99	120	100	125	2.35	3.58
3x35+16	0.868	0.524	1.11	0.671	0.08	0.23	116	94	117	145	120	155	3.29	5.01
3x50+25	0.641	0.387	0.82	0.495	0.078	0.24	140	110	140	170	145	190	4.7	7.15
3x70+35	0.443	0.268	0.567	0.343	0.077	0.26	170	140	176	210	175	235	6.58	10.01
3x95+50	0.32	0.193	0.411	0.248	0.074	0.29	200	165	221	250	210	290	8.93	13.59
3x120+70	0.253	0.153	0.325	0.197	0.072	0.29	225	185	258	285	240	330	11.28	17.16
3x150+70	0.206	0.124	0.265	0.159	0.072	0.29	255	210	294	315	270	375	14.1	21.45
3x185+95	0.164	0.0991	0.211	0.127	0.072	0.29	285	235	339	355	300	435	17.39	26.46
3x240+120	0.125	0.0754	0.162	0.098	0.072	0.31	325	270	402	410	350	510	22.56	34.32
3x300+150	0.1	0.0601	0.13	0.078	0.071	0.33	370	305	461	460	390	590	28.2	42.9
3x400+185	0.0778	0.047	0.1023	0.0618	0.07	0.33	435	350	542	520	440	670	37.6	57.2
3x500+240	0.0605	0.0366	0.0808	0.0489	0.07	0.34	481	405	624	580	480	750	47.0	71.5
3x630+300	0.0469	0.0283	0.0648	0.0391	0.069	0.36	537	470	723	680	575	875	59.22	90.09



Cross Sectional View



XLPE Armoured Cable:

XLPE Armoured cables has many advantages over paper insulated and PVC insulated cable. They have high electric as well as mechanical strength. These cables are commonly used in railways, lift cables and ship wiring. They are also used in ducts and direct burial in ground as they are subjected to immerse in water all the time.

* The above data is indicative and may be revised without prior information.