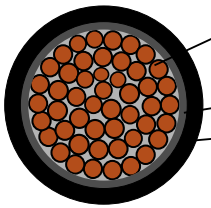


Physical Parameters

SIZE cross-sectional area (Sq MM)	Minimum No of Strand in Conductor		Nominal Thickness of Insulation) (mm)	Nominal Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Weight of cable in kg /km	
	Al	Cu				With Al Conductor A2XY	With Cooper conductor 2XY
4	—	1/7	0.7	1.8	8	70	95
6	1	1/7	0.7	1.8	9	80	120
10	1	6	0.7	1.8	10	100	160
16	6	6	0.7	1.8	11	130	230
25	6	6	0.9	1.8	12	180	335
35	6	6	0.9	1.8	13	230	450
50	6	6	1.0	1.8	15	300	610
70	12	12	1.1	1.8	16	370	800
95	15	15	1.1	1.8	18	460	1050
120	15	18	1.2	1.8	20	550	1300
150	15	18	1.4	2.0	22	620	1550
185	30	30	1.6	2.0	24	820	1950
240	30	34	1.7	2.0	27	1000	2500
300	30	34	1.8	2.0	30	1200	3050
400	53	53	2.0	2.2	33	1550	4000
500	53	53	2.2	2.2	36	1900	5000
630	53	53	2.4	2.2	40	2400	6300
800	53	53	2.6	2.4	47	3000	7950
1000	53	53	2.8	2.6	51	3750	9950

Cross- Sectional View



- 1 → CONDUCTOR : Material - Aluminium /Copper
 *Shape : ~AL . Cond :- 6 & 10 SQMM -Solid circular, 16 sq.mm & above : Stranded compacted circular
 ~Copper. Cond :- 4 & 6 sq. mm-solid/ stranded non compacted circular, 10 sq. mm & above : Stranded compacted circular
- 2 → INSULATION : Crosslinked Polyethylene (XLPE) (Natural colour)
- 3 → OUTER SHEATH : PVC TYPE ST-2 OF IS : 5831 ' — OPTIONS : FR TYPE/ FRLS TYPE
 COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

- Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose..

- Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

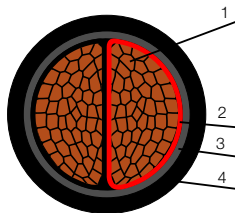
SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App. Reactance at 50HZ in ohms/km	App. Capacitance of cable in microF/KM	Normal* Current Rating in Amps						Short Circuit Current Rating for 1Sec.duration in K. Amps	
	Al	Cu	Al	Cu			With Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
4	—	4.61	—	5.90	0.136	0.29	—	—	—	48	47	45	0.376	0.572
6	4.61	3.08	5.90	3.94	0.128	0.34	48	45	45	60	59	57	0.564	0.858
10	3.08	1.83	3.94	2.34	0.118	0.42	62	62	61	80	78	77	0.940	1.430
16	1.91	1.15	2.44	1.47	0.108	0.50	81	80	83	104	102	106	1.504	2.288
25	1.20	0.727	1.54	0.931	0.102	0.52	99	90	115	130	115	145	2.350	3.575
35	0.868	0.524	1.11	0.671	0.097	0.60	117	110	135	155	140	175	3.290	5.005
50	0.641	0.387	0.820	0.495	0.092	0.63	138	125	170	185	165	215	4.700	7.150
70	0.443	0.268	0.567	0.343	0.088	0.68	168	155	210	225	200	270	6.580	10.01
95	0.320	0.193	0.411	0.248	0.085	0.79	204	185	255	265	235	330	8.930	13.59
120	0.253	0.153	0.325	0.197	0.082	0.79	230	210	300	300	265	380	11.28	17.16
150	0.206	0.1240	0.265	0.159	0.082	0.79	265	230	342	335	300	430	14.10	21.45
185	0.164	0.0991	0.211	0.127	0.082	0.79	295	260	385	380	335	495	17.39	26.46
240	0.125	0.0754	0.162	0.0976	0.079	0.84	340	300	450	435	385	590	22.56	34.32
300	0.100	0.0601	0.130	0.0778	0.078	0.86	390	335	519	490	430	670	28.20	42.90
400	0.0778	0.0470	0.1023	0.0618	0.077	0.88	450	380	605	550	480	780	37.60	57.20
500	0.0605	0.0366	0.0808	0.0489	0.076	0.90	500	430	700	610	530	900	47.00	71.50
630	0.0469	0.0283	0.0648	0.0391	0.075	0.94	555	485	809	680	590	1020	59.22	90.09
800	0.0367	0.0221	0.0530	0.0319	0.075	0.97	625	530	935	740	630	1140	75.20	114.40
1000	0.0291	0.0176	0.0444	0.0268	0.068	1.01	690	570	1065	780	660	1250	94.00	143.00

Note : Normal current ratings are given in standard conditions (as given in page no -40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Physical Parameters

SIZE Cross- sectional area (sqmm)	Minimum No of Strands in Conductor		Nominal Thickness of Insulation) (mm)	Minimum Thickness of inner sheath (mm)	Nominal Thickness of OUTER sheath (mm)	Approx. overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
	Al	Cu					With Al Cond A2XY	With Cu Cond. 2XY
4	—	1/7	0.7	0.30	1.80	13	200	250
6	1	1/7	0.7	0.30	1.80	14	330	400
10	1	6	0.7	0.30	1.80	17	350	470
16	6	6	0.7	0.30	1.80	17	310	500
25	6	6	0.9	0.30	2.00	19	400	700
35	6	6	0.9	0.30	2.00	20	480	900
50	6	6	1.0	0.30	2.00	22	590	1200
70	12	12	1.1	0.30	2.00	25	760	1630
95	15	15	1.1	0.40	2.20	28	1000	2200
120	15	18	1.2	0.40	2.20	31	1200	2700
150	15	18	1.4	0.40	2.20	33	1400	3300
185	30	30	1.6	0.50	2.40	37	1750	4000
240	30	34	1.7	0.50	2.60	41	2000	5000
300	30	34	1.8	0.60	2.80	44	2700	6400
400	53	53	2.0	0.60	3.00	48	3350	8300
500	53	53	2.2	0.70	3.40	54	4200	10400
630	53	53	2.4	0.70	3.60	62	5300	13000

Cross- Sectional View



1 → CONDUCTOR : Material - Aluminium /Copper

*Shape : ~AL . Cond :- 6 & 10 sqmm -Solid circular, 16sqmm & above : Stranded compacted shaped

~Copper . Cond :- 4 & 6 sqmm -solid/ stranded non compacted circular, 10 sqmm : Stranded compacted circular, 16 sqmm & above : Stranded compacted shaped

INSULATION : Crosslinked Polyethylene (XLPE) (Red & Black colour)

2 → INNER SHEATH : PVC as per IS :7098PT-1

3 → OUTER SHEATH : PVC TYPE ST-2 OF IS:5831' -- OPTIONS: FR TYPE/FRLS TYPE

4 → COLOUR OF OUTER SHEATH : BLACK, OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose.

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

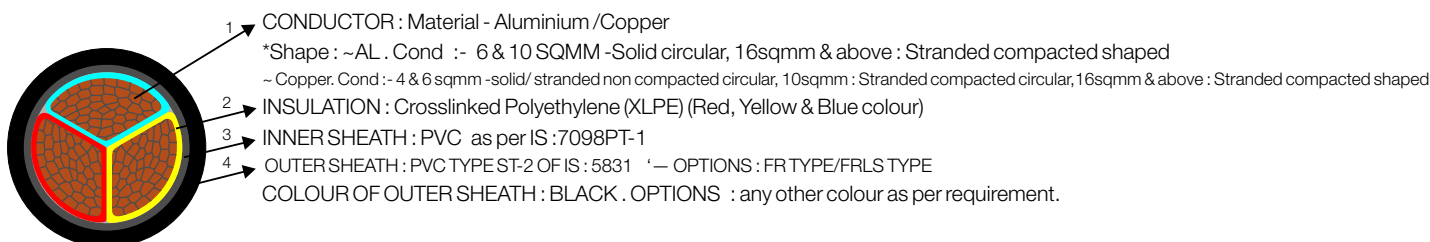
SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App.Reactance at 50HZ in ohms/km	App. Capecitance of cable in microF/KM	Normal* Current Rating in Amps						Short Circuit Current Rating for 1Sec.duration in K. Amps	
	Al	Cu	Al	Cu			With Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
4	—	4.61	—	5.90	0.098	0.11	34	28	30	44	37	39	0.376	0.572
6	4.61	3.08	5.90	3.94	0.090	0.13	43	37	40	55	47	50	0.564	0.858
10	3.08	1.83	3.94	2.34	0.084	0.16	57	48	53	74	61	67	0.940	1.430
16	1.91	1.15	2.44	1.47	0.080	0.18	78	61	70	94	78	85	1.50	2.29
25	1.20	0.727	1.54	0.931	0.080	0.20	95	80	99	120	100	125	2.35	3.58
35	0.868	0.524	1.11	0.671	0.080	0.23	116	94	117	145	120	155	3.29	5.01
50	0.641	0.387	0.820	0.495	0.078	0.24	140	110	140	170	145	190	4.70	7.15
70	0.443	0.268	0.567	0.343	0.077	0.26	170	140	176	210	175	235	6.58	10.01
95	0.320	0.193	0.411	0.248	0.084	0.29	200	165	221	250	210	290	8.93	13.59
120	0.253	0.153	0.325	0.197	0.072	0.29	225	185	258	285	240	330	11.28	17.16
150	0.206	0.1240	0.265	0.159	0.072	0.29	255	210	294	315	270	375	14.10	21.45
185	0.164	0.0991	0.211	0.127	0.072	0.29	285	235	339	355	300	435	17.39	26.46
240	0.125	0.0754	0.162	0.098	0.072	0.31	325	270	402	410	350	510	22.56	34.32
300	0.100	0.0601	0.130	0.078	0.071	0.33	370	305	461	460	390	590	28.20	42.90
400	0.0778	0.0470	0.1023	0.0618	0.070	0.33	435	350	542	520	440	670	37.60	57.20
500	0.0605	0.0366	0.0808	0.0489	0.070	0.34	481	405	624	580	480	750	47.00	71.50
630	0.0469	0.0283	0.0648	0.0391	0.069	0.36	537	470	723	680	575	875	59.22	90.09

Note : Normal current ratings are given in standard conditions (as given in page no -40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Physical Parameters

SIZE Cross-sectional area (sqmm)	Minimum No of Strands in Conductor		Nominal thickness of Insulation) (mm)	Minimum thickness of inner Sh. (mm)	Nominal thick. of outer Sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
	Al	Cu					With Al cond A2XY	With Cu Cond. 2XY
4	—	1/7	0.7	0.30	1.80	14	225	300
6	1	1/7	0.7	0.30	1.80	16	330	440
10	1	6	0.7	0.30	1.80	18	400	580
16	6	6	0.7	0.30	1.80	18	400	700
25	6	6	0.9	0.30	2.00	21	530	1000
35	6	6	0.9	0.30	2.00	22	640	1300
50	6	6	1.0	0.30	2.00	25	800	1700
70	12	12	1.1	0.40	2.20	30	1100	2400
95	15	15	1.1	0.40	2.20	32	1350	3100
120	15	18	1.2	0.40	2.20	35	1650	3800
150	15	18	1.4	0.50	2.40	39	2050	4800
185	30	30	1.6	0.50	2.60	43	2500	5950
240	30	34	1.7	0.60	2.80	49	3150	7600
300	30	34	1.8	0.60	3.00	53	3850	9400
400	53	53	2.0	0.70	3.20	59	4850	12000
500	53	53	2.2	0.70	3.60	66	6100	15000
630	53	53	2.4	0.70	3.80	73	7650	19000

Cross- Sectional View



~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose.

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

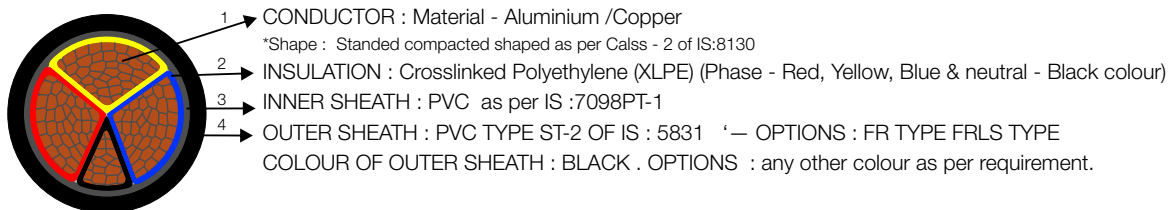
SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App. Reactance of cable at 50HZ in ohms/km	App. Capacitance of cable in microF/KM	Normal* Current Rating in Amps						Short Circuit Current Rating for 1Sec.duration in K. Amps	
	Al	Cu	Al	Cu			With Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
4	—	4.61	—	5.90	0.098	0.11	34	28	30	44	37	39	0.376	0.572
6	4.61	3.08	5.90	3.94	0.090	0.13	43	37	40	55	47	50	0.564	0.858
10	3.08	1.83	3.94	2.34	0.084	0.16	57	48	53	74	61	67	0.940	1.430
16	1.91	1.15	2.44	1.47	0.080	0.18	78	61	70	94	78	85	1.50	2.29
25	1.20	0.727	1.54	0.931	0.080	0.20	95	80	99	120	100	125	2.35	3.58
35	0.868	0.524	1.11	0.671	0.080	0.23	116	94	117	145	120	155	3.29	5.01
50	0.641	0.387	0.820	0.495	0.078	0.24	140	110	140	170	145	190	4.70	7.15
70	0.443	0.268	0.567	0.343	0.077	0.26	170	140	176	210	175	235	6.58	10.01
95	0.320	0.193	0.411	0.248	0.074	0.29	200	165	221	250	210	290	8.93	13.59
120	0.253	0.153	0.325	0.197	0.072	0.29	225	185	258	285	240	330	11.28	17.16
150	0.206	0.1240	0.265	0.159	0.072	0.29	255	210	294	315	270	375	14.10	21.45
185	0.164	0.0991	0.211	0.127	0.072	0.29	285	235	339	355	300	435	17.39	26.46
240	0.125	0.0754	0.162	0.098	0.072	0.31	325	270	402	410	350	510	22.56	34.32
300	0.100	0.0601	0.130	0.078	0.071	0.33	370	305	461	460	390	590	28.20	42.90
400	0.0778	0.0470	0.1023	0.0618	0.070	0.33	435	350	542	520	440	670	37.60	57.20
500	0.0605	0.0366	0.0808	0.0489	0.070	0.34	481	405	624	580	480	750	47.00	71.50
630	0.0469	0.0283	0.0648	0.0391	0.069	0.36	537	470	723	680	575	875	59.22	90.09

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Physical Parameters

SIZE Cross- sectional area (sqmm)	Minimum No of strands in conductor Phase / Neutral		Nominal Thickness of Insulation) Phase / Neutral (mm)	Minimum Thickness of inner sheath (mm)	Nominal thickness of OUTER Sheath (mm)	Approx. overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
							With Al cond	With Cu Cond.
	Al	Cu					A2XY	2XY
3X25+16	6/6	6/6	0.90/0.70	0.30	2.00	22	600	1150
3X35+16	6/6	6/6	0.90/0.70	0.30	2.00	24	700	1450
3X50+25	6/6	6/6	1.00/0.90	0.30	2.00	27	900	2000
3X70+35	12/6	12/6	1.10/0.90	0.40	2.20	31	1200	2700
3X95+50	15/6	15/6	1.10/1.00	0.40	2.20	34	1500	3600
3X120+70	15/12	18/12	1.20/1.10	0.40	2.20	38	1900	4500
3X150+70	15/12	18/12	1.40/1.10	0.50	2.40	43	2300	5500
3X185+95	30/15	30/15	1.60/1.10	0.50	2.60	46	2800	6800
3X240+120	30/15	34/18	1.70/1.20	0.60	2.80	52	3600	8700
3X300+150	30/15	34/18	1.80/1.40	0.60	3.00	57	4400	10800
3X400+185	53/30	53/30	2.00/1.60	0.70	3.40	65	5600	14000
3X500+240	53/30	53/34	2.20/1.70	0.70	3.60	73	7000	17500
3X630+300	53/30	53/34	2.40/1.80	0.70	4.00	82	8900	22000

Cross- Sectional View



~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose.

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App. Reactance of cable at 50HZ in ohms/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 Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
3X25+16	1.20	0.727	1.54	0.931	0.080	0.20	95	80	99	120	100	125	2.35	3.58
3X35+16	0.868	0.524	1.11	0.671	0.080	0.23	116	94	117	145	120	155	3.29	5.01
3X50+25	0.641	0.387	0.820	0.495	0.078	0.24	140	110	140	170	145	190	4.70	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	0.320	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	0.1240	0.265	0.159	0.072	0.29	255	210	294	315	270	375	14.10	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	0.100	0.0601	0.130	0.078	0.071	0.33	370	305	461	460	390	590	28.20	42.90
3X400+185	0.0778	0.0470	0.1023	0.0618	0.070	0.33	435	350	542	520	440	670	37.60	57.20
3X500+240	0.0605	0.0366	0.0808	0.0489	0.070	0.34	481	405	624	580	480	750	47.00	71.50
3X630+300	0.0469	0.0283	0.0648	0.0391	0.069	0.36	537	470	723	680	575	875	59.22	90.09

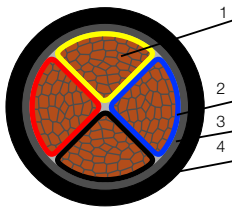
Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Cable Code : A2XY/2XY

Ref. Spec. : IS :7098PART -1

Physical Parameters

SIZE Cross- sectional area (sqmm)	Minimum No of Strands in Conductor		Nominal Thickness of (Insulation) (mm)	Minimum Thickness of inner sheath (mm)	Minimum Thickness of outer sheath (mm)	Approx. over all Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
	Al	Cu					With Al cond	With Cu Cond.
							A2XY	2XY
4	—	1/7	0.7	0.30	1.80	17	250	350
6	1	1/7	0.7	0.30	1.80	18	350	500
10	1	6	0.7	0.30	1.80	20	400	650
16	6	6	0.7	0.30	1.80	20	450	850
25	6	6	0.9	0.30	2.00	24	660	1300
35	6	6	0.9	0.30	2.00	26	800	1700
50	6	6	1.0	0.30	2.00	29	1000	2200
70	12	12	1.1	0.40	2.20	34	1400	3100
95	15	15	1.1	0.40	2.20	37	1700	4000
120	15	18	1.2	0.50	2.40	41	2150	5150
150	15	18	1.4	0.50	2.60	45	2650	6350
185	30	30	1.6	0.50	2.80	50	3250	7850
240	30	34	1.7	0.60	3.00	56	4100	10000
300	30	34	1.8	0.70	3.20	63	5050	12050
400	53	53	2.0	0.70	3.60	70	6400	16000
500	53	53	2.2	0.70	3.80	79	8000	20000
630	53	53	2.4	0.70	4.00	88	10000	26000

Cross- Sectional View

1 → CONDUCTOR : Material - Aluminium /Copper

*Shape : ~AL. Cond :- 6 & 10SQMM -Solid circular, 16sqmm & above : Stranded compacted shaped

~Copper. Cond :- 4 & 6sqmm -solid/ stranded non compacted circular , 10sqmm : Stranded compacted circular, 16sqmm & above : Stranded compacted shaped

2 → INSULATION : Crosslinked Polyethylene (XLPE) (Red, Yellow, Blue & Black colour)

3 → INNER SHEATH : PVC as per IS :7098PT-1

4 → OUTER SHEATH : PVC TYPE ST-2 OF IS : 5831 ' — OPTIONS : FR TYPE/ FRLS TYPE

COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose.

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App. Reactance of cable at 50HZ in ohms/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 Aluminium cond.			With Copper cond.			Al	Cu
							Ground	Duct	Air	Ground	Duct	Air		
4	—	4.61	—	5.90	0.098	0.11	34	28	30	44	37	39	0.376	0.572
6	4.61	3.08	5.90	3.94	0.090	0.13	43	37	40	55	47	50	0.564	0.858
10	3.08	1.83	3.94	2.34	0.084	0.16	57	48	53	74	61	67	0.940	1.430
16	1.91	1.15	2.44	1.47	0.080	0.18	78	61	70	94	78	85	1.50	2.29
25	1.20	0.727	1.54	0.931	0.080	0.20	95	80	99	120	100	125	2.35	3.58
35	0.868	0.524	1.11	0.671	0.080	0.23	116	94	117	145	120	155	3.29	5.01
50	0.641	0.387	0.820	0.495	0.078	0.24	140	110	140	170	145	190	4.70	7.15
70	0.443	0.268	0.567	0.343	0.077	0.26	170	140	176	210	175	235	6.58	10.01
95	0.320	0.193	0.411	0.248	0.074	0.29	200	165	221	250	210	290	8.93	13.59
120	0.253	0.153	0.325	0.197	0.072	0.29	225	185	258	285	240	330	11.28	17.16
150	0.206	0.1240	0.265	0.159	0.072	0.29	255	210	294	315	270	375	14.10	21.45
185	0.164	0.0991	0.211	0.127	0.072	0.29	285	235	339	355	300	435	17.39	26.46
240	0.125	0.0754	0.162	0.098	0.072	0.31	325	270	402	410	350	510	22.56	34.32
300	0.100	0.0601	0.130	0.078	0.071	0.33	370	305	461	460	390	590	28.20	42.90
400	0.0778	0.0470	0.1023	0.0618	0.070	0.33	435	350	542	520	440	670	37.60	57.20
500	0.0605	0.0366	0.0808	0.0489	0.070	0.34	481	405	624	580	480	750	47.00	71.50
630	0.0469	0.0283	0.0648	0.0391	0.069	0.36	537	470	723	680	575	875	59.22	90.09

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

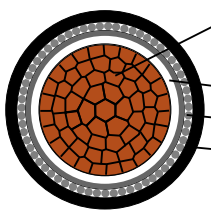
Cable Code : A2XFaY/2XFaY, A2XWaY/2XWaY

Ref. Spec. : IS :7098PART -1

Physical Parameters

SIZE Cross-sectional area (sqmm)	Minimum No of Strands in Conductor Al Cu		Nominal Thickness of Insulation (mm)	ARMOURING WITH FLAT STRIP (A2XFaY/2XFaY)					ARMOURING WITH ROUND WIRES (A2XWaY/2XWaY)				
				Nominal Thickness Strip (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)		Nominal Diameter of wire (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
							With Al cond. A2XFaY	With Cu Cond. 2XFaY				With Al cond. A2XWaY	With Cu Cond. 2XWaY
4	—	1/7	1.0	N/A	N/A	N/A	N/A	N/A	1.40	1.24	10	90	130
6	1	1/7	1.0	N/A	N/A	N/A	N/A	N/A	1.40	1.24	11	130	170
10	1	6	1.0	N/A	N/A	N/A	N/A	N/A	1.40	1.24	12	160	222
16	6	6	1.0	N/A	N/A	N/A	N/A	N/A	1.40	1.24	13	200	300
25	6	6	1.2	N/A	N/A	N/A	N/A	N/A	1.40	1.24	14	300	455
35	6	6	1.2	N/A	N/A	N/A	N/A	N/A	1.40	1.24	15	350	567
50	6	6	1.3	N/A	N/A	N/A	N/A	N/A	1.40	1.24	17	420	730
70	12	12	1.4	N/A	N/A	N/A	N/A	N/A	1.40	1.24	19	520	954
95	15	15	1.4	0.80	1.40	21	600	1195	1.60	1.40	22	650	1235
120	15	18	1.5	0.80	1.40	23	700	1450	1.60	1.40	24	750	1494
150	15	18	1.7	0.80	1.40	24	800	1730	1.60	1.40	25	850	1780
185	30	30	1.9	0.80	1.40	26	950	2100	1.60	1.40	28	1000	2147
240	30	34	2.0	0.80	1.40	30	1200	2690	1.60	1.40	30	1250	2738
300	30	34	2.1	0.80	1.56	32	1400	3270	1.60	1.56	33	1500	3360
400	53	53	2.4	0.80	1.56	36	1750	4230	2.00	1.56	38	1900	4380
500	53	53	2.6	0.80	1.56	39	2150	5250	2.00	1.56	41	2350	5450
630	53	53	2.8	0.80	1.72	44	2700	6610	2.00	1.72	46	2900	6806
800	53	53	3.1	0.80	1.72	48	3350	8320	2.00	1.88	51	3600	8560
1000	53	53	3.3	0.80	1.88	54	4100	10300	2.50	2.04	56	4600	10800

Cross- Sectional View



1 → CONDUCTOR : Material - Aluminium /Copper

*Shape : ~AL . Cond :- 6 & 10SQMM -Solid circular, 16 sqmm & above : Stranded compacted shaped circular

~Copper. Cond :- 4 & 6sqmm -solid/ stranded non compacted circular , 10sqmm : Stranded compacted circular

2 → INSULATION : Crosslinked Polyethylene (XLPE) (Natural colour)

3 → ARMOURING : Single layer of Aluminium Round wires / Flat Strips

4 → OUTER SHEATH : PVC TYPE ST-2 OF IS : 5831 ' — OPTIONS : PVC TYPE

COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose ..

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App. Reactance of cable at 50HZ in ohms/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 Aluminium cond.			With Copper cond.				
	Ground	Duct	Air	Ground			Duct	Air						
4	—	4.61	—	5.90	0.152	0.22	—	—	—	48	47	45	0.376	0.572
6	4.61	3.08	5.90	3.94	0.144	0.26	45	45	40	60	59	57	0.56	0.858
10	3.08	1.83	3.94	2.34	0.133	0.31	59	62	53	80	78	77	0.94	1.43
16	1.91	1.15	2.44	1.47	0.122	0.40	76	80	73	104	102	106	1.50	2.29
25	1.20	0.727	1.54	0.931	0.116	0.40	99	90	115	130	115	145	2.35	3.58
35	0.868	0.524	1.11	0.671	0.110	0.47	117	110	140	155	140	175	3.29	5.01
50	0.641	0.387	0.820	0.495	0.103	0.50	138	125	170	185	165	215	4.70	7.15
70	0.443	0.268	0.567	0.343	0.099	0.55	168	155	210	225	200	270	6.58	10.01
95	0.320	0.193	0.411	0.248	0.097	0.64	204	185	255	265	235	330	8.93	13.59
120	0.253	0.153	0.325	0.197	0.093	0.67	230	210	300	300	265	380	11.28	17.16
150	0.206	0.1240	0.265	0.159	0.091	0.67	265	230	342	335	300	430	14.10	21.45
185	0.164	0.0991	0.211	0.127	0.090	0.67	295	260	385	380	335	495	17.39	26.46
240	0.125	0.0754	0.162	0.0976	0.086	0.72	340	300	450	435	385	590	22.56	34.32
300	0.100	0.0601	0.130	0.0778	0.085	0.75	390	335	519	490	430	670	28.20	42.90
400	0.0778	0.0470	0.1023	0.0618	0.085	0.75	450	380	605	550	480	780	37.60	57.20
500	0.0605	0.0366	0.0808	0.0489	0.083	0.77	500	430	700	610	530	900	47.00	71.50
630	0.0469	0.0283	0.0648	0.0391	0.082	0.81	555	485	809	680	590	1020	59.22	90.09
800	0.0367	0.0221	0.0530	0.0319	0.081	0.88	625	530	935	740	630	1140	75.20	114.40
1000	0.0291	0.0176	0.0444	0.0268	0.081	0.88	690	570	1065	780	660	1250	94.00	143.00

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

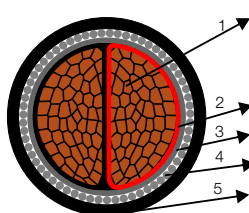
Cable Code : A2xFY/2xFY, A2XWY/ 2XWY

Ref. Spec. : IS :7098 PART -1

Physical Parameters

SIZE Cross-sectional area (sqmm)	Minimum No of Strands in Conductor		Nominal Thickness of Insulation (mm)	Minimum Thickness of inner Sh. (mm)	ARMOURING WITH FLAT STRIP (A2XFY/ 2XFY)					ARMOURING WITH ROUND WIRES (A2XWY/ 2XWY)				
	Al	Cu			Nominal Thickness of armour (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)		Nominal Diameter of wire (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
								With Al cond	With Cu Cond.				With Al cond	With Cu Cond.
							A2XFY	2XFY			A2XWY	2XWY		
4	—	1/7	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	15	500	550
6	1	1/7	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	16	550	600
10	1	6	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	18	650	770
16	6	6	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.40	19	700	900
25	6	6	0.9	0.30	0.80	1.40	20	650	950	1.60	1.40	21	850	1150
35	6	6	0.9	0.30	0.80	1.40	21	750	1200	1.60	1.40	23	950	1400
50	6	6	1.0	0.30	0.80	1.40	23	900	1500	1.60	1.40	25	1100	1700
70	12	12	1.1	0.30	0.80	1.56	26	1100	1950	1.60	1.56	28	1400	2250
95	15	15	1.1	0.40	0.80	1.56	29	1350	2500	2.00	1.56	31	1850	3000
120	15	18	1.2	0.40	0.80	1.56	31	1600	3100	2.00	1.56	34	2150	3600
150	15	18	1.4	0.40	0.80	1.72	34	1900	3750	2.00	1.72	37	2450	4300
185	30	30	1.6	0.50	0.80	1.72	37	2250	4500	2.00	1.88	40	2900	5200
240	30	34	1.7	0.50	0.80	1.88	42	2800	5800	2.50	2.04	45	3850	6800
300	30	34	1.8	0.60	0.80	2.04	45	3300	7000	2.50	2.20	49	4450	8200
400	53	53	2.0	0.60	0.80	2.36	50	4100	9050	2.50	2.36	52	5350	10300
500	53	53	2.2	0.70	0.80	2.52	55	5000	11000	3.15	2.68	60	7100	13300
630	53	53	2.4	0.70	0.80	2.68	63	6100	14000	3.15	2.84	66	8500	16300

Cross- Sectional View



CONDUCTOR : Material - Aluminium /Copper

*Shape : ~AL . Cond :- 6 & 10SQMM -Solid circular, 16sqmm & above : Stranded compacted shaped

~Copper. Cond :- 4 & 6 sqmm -solid/ stranded non compacted circular, 10 sqmm : Stranded compacted circular, 16sqmm & above : Stranded compacted shaped

INSULATION : Crosslinked Polyethylene (XLPE) (Red & Black colour)

INNER SHEATH : PVC as per IS : 7098PT-1

ARMOURING : Single layer of galvanized steel round wires / flat strips

OUTER SHEATH : PVC TYPE ST-2 OF IS : 5831 ' — OPTIONS : FR TYPE/ FRLS TYPE

COLOUR OF OUTER SHEATH : BLACK. OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose.

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

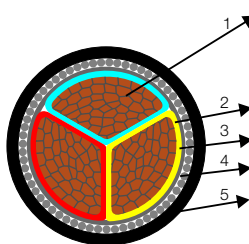
SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App.Reactance at 50HZ in ohms/km	App. Capacitance of cable in microF/KM	Normal* Current Rating in Amps						Short Circuit Current Rating for 1Sec. duration in K. Amps	
	Al	Cu	Al	Cu			With Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
4	---	4.61	---	5.90	0.098	0.11	34	28	30	44	37	39	0.376	0.572
6	4.61	3.08	5.90	3.94	0.090	0.13	43	37	40	55	47	50	0.564	0.858
10	3.08	1.83	3.94	2.34	0.084	0.16	57	48	53	74	61	67	0.940	1.430
16	1.91	1.15	2.44	1.47	0.080	0.18	78	61	70	94	78	85	1.50	2.29
25	1.20	0.727	1.54	0.931	0.080	0.20	95	80	99	120	100	125	2.35	3.58
35	0.868	0.524	1.11	0.671	0.080	0.23	116	94	117	145	120	155	3.29	5.01
50	0.641	0.387	0.820	0.495	0.078	0.24	140	110	140	170	145	190	4.70	7.15
70	0.443	0.268	0.567	0.343	0.077	0.26	170	140	176	210	175	235	6.58	10.1
95	0.320	0.193	0.411	0.248	0.074	0.29	200	165	221	250	210	290	8.93	13.59
120	0.253	0.153	0.325	0.197	0.072	0.29	225	185	258	285	240	330	11.28	17.16
150	0.206	0.1240	0.265	0.159	0.072	0.29	255	210	294	315	270	375	14.10	21.45
185	0.164	0.0991	0.211	0.127	0.072	0.29	285	235	339	355	300	435	17.39	26.46
240	0.125	0.0754	0.162	0.0976	0.072	0.31	325	270	402	410	350	510	22.56	34.32
300	0.100	0.0601	0.130	0.0778	0.071	0.33	370	305	461	460	390	590	28.20	42.90
400	0.0778	0.0470	0.1023	0.0618	0.070	0.33	435	350	542	520	440	670	37.60	57.20
500	0.0605	0.0366	0.0808	0.0489	0.070	0.34	481	405	624	580	480	750	47.00	71.50
630	0.0469	0.0283	0.0648	0.0391	0.069	0.36	537	470	723	680	575	875	59.22	90.09

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

Physical Parameters

SIZE Cross- sectional area (sqmm)	Minimum No of Strands in Conductor		Nominal Thickness of Insulation) (mm)	Minimum Thickness of inner Sh. (mm)	ARMOURING WITH FLAT STRIP (A2XFY/2XFY)					ARMOURING WITH ROUND WIRES (A2XWY/2XWY)				
	Al	Cu			Nominal Thickness of armour strip (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)		Nominal Diameter of wire (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
								With Al cond.	With Cu Cond.				With Al cond.	With Cu Cond.
							A2XFY	2XFY				A2XWY	2XWY	
4	—	1/7	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	18	600	670
6	1	1/7	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	19	650	770
10	1	6	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	20	750	930
16	6	6	0.7	0.30	0.8	1.24	19	600	900	1.60	1.40	20	800	1100
25	6	6	0.9	0.30	0.8	1.40	21	800	1200	1.60	1.40	23	1000	1450
35	6	6	0.9	0.30	0.8	1.40	23	950	1500	1.60	1.40	25	1200	1850
50	6	6	1.0	0.30	0.8	1.40	26	1100	2000	1.60	1.56	29	1450	2300
70	12	12	1.1	0.40	0.8	1.56	29	1450	2700	2.00	1.56	32	2000	3300
95	15	15	1.1	0.40	0.8	1.56	32	1750	3500	2.00	1.56	35	2350	4100
120	15	18	1.2	0.40	0.8	1.56	35	2100	4200	2.00	1.72	39	2750	4900
150	15	18	1.4	0.50	0.8	1.72	42	2500	5200	2.00	1.88	43	3250	6000
185	30	30	1.6	0.50	0.8	1.88	44	3000	6300	2.50	2.04	48	4200	7500
240	30	34	1.7	0.60	0.8	2.04	49	3750	8200	2.50	2.20	53	5100	9500
300	30	34	1.8	0.60	0.8	2.20	54	4500	10000	2.50	2.36	58	6000	11300
400	53	53	2.0	0.70	0.8	2.52	60	5600	13000	3.15	2.68	65	7950	15200
500	53	53	2.2	0.70	0.8	2.68	66	6900	16000	3.15	2.84	72	9500	18500
630	53	53	2.4	0.70	0.8	2.84	74	8550	20000	4.00	3.00	81	12600	23700

Cross- Sectional View



1 CONDUCTOR : Material - Aluminium /Copper

*Shape : ~AL . Cond :- 6 & 10 SQMM -Solid circular, 16 sqmm & above : Stranded compacted shaped

~Copper. Cond :- 4 & 6 sqmm -solid/ stranded non compacted circular, 10 sqmm : Stranded compacted circular, 16 sqmm & above : Stranded compacted shaped

2 INSULATION : Crosslinked Polyethylene (XLPE) Red, Yellow, Blue)

3 INNER SHEATH : PVC as per IS :7098PT-1

4 ARMOURING : Single layer of Galvanized steel Round wires / Flat Strips

5 OUTER SHEATH : PVC TYPE ST-2 OF IS : 5831 '— OPTIONS : FR TYPE/ FRLS TYPE

COLOUR OF OUTER SHEATH : BLACK. OPTIONS : any other colour as per requirement.

- Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose.

- Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App. Reactance at 50HZ in ohms/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 Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
4	---	4.61	---	5.90	0.098	0.11	34	28	30	44	37	39	0.376	0.572
6	4.61	3.08	5.90	3.94	0.090	0.13	43	37	40	55	47	50	0.564	0.858
10	3.08	1.83	3.94	2.34	0.084	0.16	57	48	53	74	61	67	0.940	1.430
16	1.91	1.15	2.44	1.47	0.080	0.18	78	61	70	94	78	85	1.50	2.29
25	1.20	0.727	1.54	0.931	0.080	0.20	95	80	99	120	100	125	2.35	3.58
35	0.868	0.524	1.11	0.671	0.080	0.23	116	94	117	145	120	155	3.29	5.01
50	0.641	0.387	0.820	0.495	0.078	0.24	140	110	140	170	145	190	4.70	7.15
70	0.443	0.268	0.567	0.343	0.077	0.26	170	140	176	210	175	235	6.58	10.01
95	0.320	0.193	0.411	0.248	0.074	0.29	200	165	221	250	210	290	8.93	13.59
120	0.253	0.153	0.325	0.197	0.072	0.29	225	185	258	285	240	330	11.28	17.16
150	0.206	0.1240	0.265	0.159	0.072	0.29	255	210	294	315	270	375	14.10	21.45
185	0.164	0.0991	0.211	0.127	0.072	0.29	285	235	339	355	300	435	17.39	26.46
240	0.125	0.0754	0.162	0.0976	0.072	0.31	325	270	402	410	350	510	22.56	34.32
300	0.100	0.0601	0.130	0.0778	0.071	0.33	370	305	460	460	390	590	28.20	42.90
400	0.0778	0.0470	0.1023	0.0618	0.070	0.33	435	350	542	520	440	670	37.60	57.20
500	0.0605	0.0366	0.0808	0.0489	0.070	0.34	481	405	624	580	480	750	47.00	71.50
630	0.0469	0.0283	0.0648	0.0391	0.069	0.36	537	470	723	680	575	875	59.22	90.09

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

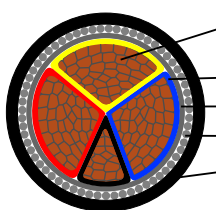
**TECHNICAL DETAIL FOR HAVELLS 1.1 KV THREE AND HALF CORES,
AL/CUCOPPER COND.,
XPLE INSULATED, GALVANIZED STEEL WIRE/STRIP ARMoured CABLES**

Cable Code : 3.5 Core - A2XFY / 2XFY, A2XWY / 2XWY

Ref. Spec. : IS :7098PART -1

Physical Parameters

SIZE Cross- sectional area (sqmm)	Minimum No of Strands in Conductor		Nominal Thickness of Insulation) (mm)	Minimum Thickness of inner Sh. (mm)	ARMOURING WITH FLAT STRIP (A2XFY/2XFY) ARMOURING WITH ROUND WIRES (A2XWY/2XWY)									
					Nominal Thickness of Armr. Strip (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)		Nominal Diameter of wire (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
	With Al cond A2XFY	With Cu Cond. 2XFY						With Al cond A2XWY	With Cu Cond. 2XWY					
3X25+16	6/6	6/6	0.90/0.70	0.30	0.80	1.40	23	900	1400	1.60	1.40	25	1100	1700
3X35+16	6/6	6/6	0.90/0.70	0.30	0.80	1.40	25	1000	1800	1.60	1.40	27	1300	2000
3X50+25	6/6	6/6	1.00/0.90	0.30	0.80	1.40	28	1200	2300	1.60	1.56	30	1600	2700
3X70+35	12/6	12/6	1.10/0.90	0.40	0.80	1.56	32	1600	3200	2.00	1.56	35	2200	3700
3X95+50	15/6	15/6	1.10/1.00	0.40	0.80	1.56	35	2000	4100	2.00	1.56	38	2600	4600
3X120+70	15/12	18/12	1.20/1.10	0.40	0.80	1.72	39	2400	5100	2.00	1.72	42	3100	5700
3X150+70	15/12	18/12	1.40/1.10	0.50	0.80	1.72	43	2800	6000	2.00	1.88	46	3600	6800
3X185+95	30/15	30/15	1.60/1.10	0.50	0.80	1.88	47	3400	7400	2.50	2.04	51	4700	8700
3X240+120	30/15	34/18	1.70/1.20	0.60	0.80	2.04	53	4300	9500	2.50	2.20	56	5700	10500
3X300+150	30/15	34/18	1.80/1.40	0.60	0.80	2.20	57	5000	11500	2.50	2.36	60	6700	13000
3X400+185	53/30	53/30	2.00/1.60	0.70	0.80	2.52	66	6400	14500	3.15	2.68	71	9000	17000
3X500+240	53/30	53/34	2.20/1.70	0.70	0.80	2.68	74	7900	18000	3.15	2.84	79	11000	21500
3X630+300	53/30	53/34	2.40/1.80	0.70	0.80	3.00	82	9900	23000	4.00	3.00	88	14500	28000

Cross- Sectional View

CONDUCTOR : Material - Aluminium /Copper

*Shape : Stranded compacted shaped as per class-2 of IS:8130

INSULATION : Crosslinked Polyethylene (XLPE) (Phase, Red, Yellow, Blue & Neutral - Black Colour

INNER SHEATH : PVC as per IS :7098PT-1

ARMOURING : Single layer of Galvanized steel Round wires / Flat Strips

OUTER SHEATH : PVC TYPE ST-2 OF IS : 5831 ' - OPTIONS : FR TYPE/ FRLS TYPE

COLOUR OF OUTER SHEATH : BLACK . OPTIONS : any other colour as per requirement.

~ Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose.

~ Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App..Reactance at 50HZ in ohms/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 Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
3X25+16	1.20	0.727	1.54	0.931	0.080	0.20	95	80	99	120	100	125	2.35	3.58
3X35+16	0.868	0.524	1.11	0.671	0.080	0.23	116	94	117	145	120	155	3.29	5.01
3X50+25	0.641	0.387	0.820	0.495	0.078	0.24	140	110	140	170	145	190	4.70	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	0.320	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	0.1240	0.265	0.159	0.072	0.29	255	210	294	315	270	375	14.10	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	0.100	0.0601	0.130	0.078	0.071	0.33	370	305	461	460	390	590	28.20	42.90
3X400+185	0.0778	0.0470	0.1023	0.0618	0.070	0.33	435	350	542	520	440	670	37.60	57.20
3X500+240	0.0605	0.0366	0.0808	0.0489	0.070	0.34	481	405	624	580	480	750	47.00	71.50
3X630+300	0.0469	0.0283	0.0648	0.0391	0.069	0.36	537	470	723	680	575	875	59.22	90.09

Note : Normal current ratings are given in standard conditions (as given in page no -40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42

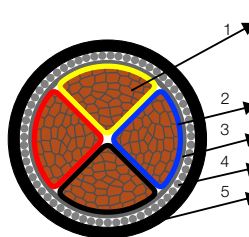
**TECHNICAL DETAIL FOR HAVELLS 1.1 KV FOUR CORES,
AL/COPPER COND.,
XLPE INSULATED, GALVANIZED STEEL WIRE/STRIP ARMoured CABLES**

Cable Code : A2XFY/2XFY, A2XWY/ 2XWY

Ref. Spec. : IS :7098 PART -1

Physical Parameters

SIZE Cross- sectional area (sqmm)	Minimum No of Strands in Conductor		Nominal Thickness of Insulation) (mm)	Minimum Thickness of inner Sh. (mm)	ARMOURING WITH FLAT STRIP (A2XFY/2XFY)					ARMOURING WITH ROUND WIRES (A2XWY/ 2XWY)				
					Nominal Thickness of armour strip (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)		Nominal Diameter of wire (mm)	Minimum Thickness of outer sheath (mm)	Approx. Overall Diameter (mm)	Approx. Net Wt of cable (Kg/KM)	
	With Al cond A2XFY	With Cu Cond. 2XFY						With Al cond A2XWY	With Cu Cond. 2XWY					
4	—	1/7	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	18	550	650
6	1	1/7	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.24	19	600	750
10	1	6	0.7	0.30	N/A	N/A	N/A	N/A	N/A	1.40	1.40	21	670	950
16	6	6	0.7	0.30	0.80	1.40	20	700	1100	1.60	1.40	22	925	1300
25	6	6	0.9	0.30	0.80	1.40	24	900	1500	1.60	1.40	26	1200	1770
35	6	6	0.9	0.30	0.80	1.40	27	1100	2000	1.60	1.40	28	1450	2200
50	6	6	1.0	0.30	0.80	1.56	30	1400	2500	1.60	1.56	32	1750	2850
70	12	12	1.1	0.40	0.80	1.56	34	1800	3400	2.00	1.56	37	2400	4000
95	15	15	1.1	0.40	0.80	1.56	37	2200	4400	2.00	1.72	40	2900	5150
120	15	18	1.2	0.50	0.80	1.72	41	2700	5600	2.00	1.88	44	3500	6300
150	15	18	1.4	0.50	0.80	1.88	46	3200	6800	2.50	2.04	49	4500	8000
185	30	30	1.6	0.50	0.80	2.04	51	3900	8300	2.50	2.20	54	5200	9700
240	30	34	1.7	0.60	0.80	2.20	57	4850	10500	2.50	2.36	65	6400	12000
300	30	34	1.8	0.70	0.80	2.36	63	5850	13000	3.15	2.52	68	8300	15400
400	53	53	2.0	0.70	0.80	2.68	71	7320	17000	3.15	2.84	76	10000	19500
500	53	53	2.2	0.70	0.80	2.84	79	9000	21000	4.00	3.00	86	13500	25000
630	53	53	2.4	0.70	0.80	3.00	88	11000	27000	4.00	3.00	94	16000	30500

Cross- Sectional View

CONDUCTOR : Material - Aluminium /Copper

*Shape : -AL . Cond :- 6 & 10 SQMM -Solid circular, 16 sqmm & above : Stranded compacted shaped

-Copper. Cond :- 4 & 6 sqmm -solid/ stranded non compacted circular, 10 sqmm : Stranded compacted circular, 16 sqmm & above : Stranded compacted shaped

INSULATION : Crosslinked Polyethylene (XLPE) (Red, Yellow, Blue & Black)

INNER SHEATH : PVC as per IS :7098PT-1

ARMOURING : Single layer of Galvanized steel Round wires / Flat Strips

OUTER SHEATH : PVC TYPE ST-2 OF IS : 5831 ' — OPTIONS : FR TYPE/ FRLS TYPE

COLOUR OF OUTER SHEATH : BLACK. OPTIONS : any other colour as per requirement.

- Tabulated approx. net wt. of cables are only guidelines for transportation, loading & unloading purpose.

- Please ref page no 43 for normal delivery lengths & packing details.

Electrical Parameters

SIZE cross-sectional area (Sq MM)	Max. Cond. D.C. Resistance at 20°C in Ohm/km		Approx. Cond. A.C. Resistance at 90°C in Ohm/km		App.Reactance at 50HZ in ohms/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 Aluminium cond.			With Copper cond.				
							Ground	Duct	Air	Ground	Duct	Air		
4	—	4.61	—	5.90	0.098	0.11	34	28	30	44	37	39	0.376	0.572
6	4.61	3.08	5.90	3.94	0.090	0.13	43	37	40	55	47	50	0.564	0.858
10	3.08	1.83	3.94	2.34	0.084	0.16	57	48	53	74	61	67	0.940	1.430
16	1.91	1.15	2.44	1.47	0.080	0.18	78	61	70	94	78	85	1.50	2.29
25	1.20	0.727	1.54	0.931	0.080	0.20	95	80	99	120	100	125	2.35	3.58
35	0.868	0.524	1.11	0.671	0.080	0.23	116	94	117	145	120	155	3.29	5.01
50	0.641	0.387	0.820	0.495	0.078	0.24	140	110	140	170	145	190	4.70	7.15
70	0.443	0.268	0.567	0.343	0.077	0.26	170	140	176	210	175	235	6.58	10.01
95	0.320	0.193	0.411	0.248	0.074	0.29	200	165	221	250	210	290	8.93	13.59
120	0.253	0.153	0.325	0.197	0.072	0.29	225	185	258	285	240	330	11.28	17.16
150	0.206	0.1240	0.265	0.159	0.072	0.29	255	210	294	315	270	375	14.10	21.45
185	0.164	0.0991	0.211	0.127	0.072	0.29	285	235	339	355	300	435	17.39	26.46
240	0.125	0.0754	0.162	0.0976	0.072	0.31	325	270	402	410	350	510	22.56	34.32
300	0.100	0.0601	0.130	0.0778	0.071	0.33	370	305	460	460	390	590	28.20	42.90
400	0.0778	0.0470	0.1023	0.0618	0.070	0.33	435	350	542	520	440	670	37.60	57.20
500	0.0605	0.0366	0.0808	0.0489	0.070	0.34	481	405	624	580	480	750	47.00	71.50
630	0.0469	0.0283	0.0648	0.0391	0.069	0.36	537	470	723	680	575	875	59.22	90.09

Note : Normal current ratings are given in standard conditions (as given in page no - 40,41), if site conditions are different, current rating should be multiplied by rating factor as given in page no. 42