



## Armoured & Unarmoured Cables



- PVC Insulated Heavy Duty Power + Control Cable as per IS 1554 (P-1)
- Heavy Duty Performance
- Offers the best combination safety, efficiency & economy

### Applications:

Heavy Duty Power and Control Cables are used for Underground power supply by utility provider for Street Lights, Industrial Automation with mechanical strength for protection on insulated cores and other industrial applications.

## Specifications Of Armoured & Unarmoured Cables

Construction	IS Specifications
Conductor : ETP Grade Copper	8130
Insulation : PVC Type A or C	5831
Inner Sheath : PVC Type ST1 or ST2	5831
Armour : Galvanised Steel Wire Strip	3975
Outer Sheath : PVC Type ST1 or ST2	5831

The sheath is also provided in with FR and FRLSH PVC

### Core Identification:

For power cable and control cable upto 4 cores, the cores are identified by different colours as per IS 1554: (Part1)

### Single Core :

Red, Yellow, Blue, Black, etc. (only unarmoured).

2 Core : Red and Black.

3 core : Red, Yellow and Blue.

4 Core : Red, Yellow, Blue and Black.

5 Core : Red, Yellow, Blue, Black and Grey.

Duration of short ckt. in sec.	1 cycle = 0.02 s	2 cycle	5 cycle	10 cycle	25 cycle	50 cycle	2 Sec.	3 Sec.	4 Sec.	5 Sec.
Short ckt. Constant per unit area	536	378	239	169	107	75.5	53	43.6	37.8	34.0



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Tables I to III: Copper Conductor, PVC Insulated, PVC Sheathed Cables.

Table I: 1.5 sqmm., Solid Copper Conductor, PVC insulated, PVC Sheathed, Unarmoured (YY) / Armoured (YWY & YFY) Multicore Control Cables - 650/1100 V volts

Size	Nom. Thickness of PVC Insulation mm.	Cores	Unarmoured		Armoured		Max.DC	In Air		In Ground		
			Approx Overall cable Dia mm.	Approx Weight Kg. / km.	Nom. Steel Armour Size mm.	Approx. Overall cable Dia. mm.		Approx Weight Kg. / km.	Conductor Resistance At 20° C Ohm / km	PVC insulation Amps.	HRPVC Insulation Amps.	PVC insulation Amps.
1.5	0.8	2	10.65	154	1.4	12.60	370	12.1	20	24	23	27
	0.8	3	11.15	180	1.4	13.10	418	12.1	17	21	21	24
	0.8	4	11.9	212	1.4	13.85	475	12.1	17	21	21	24
	0.8	5	12.75	249	1.4	14.70	537	12.1	14	17	17	19
	0.8	7	13.75	305	1.4	15.70	630	12.1	13	16	15	18
	0.8	8	14.00	326	1.4	15.95	655	12.1	12	15	14	17
	0.8	12	17.35	497	4 x 0.8	18.40	797	12.1	12	15	14	16
	0.8	14	18.15	555	4 x 0.8	19.20	875	12.1	12	14	14	16
	0.8	16	19.40	634	4 x 0.8	20.00	953	12.1	11	13	13	15
	0.8	18	20.35	703	4 x 0.8	20.90	1033	12.1	10	12	12	14
	0.8	20	20.40	731	4 x 0.8	21.00	1090	12.1	10	12	11	13
	0.8	24	23.50	937	4 x 0.8	24.10	1304	12.1	9	11	11	12
	0.8	27	24.00	1003	4 x 0.8	24.60	1399	12.1	9	11	11	12
	0.8	30	24.80	1086	4 x 0.8	25.40	1502	12.1	9	11	11	12
	0.8	37	26.50	1276	4 x 0.8	27.10	1774	12.1	8	8	9	11
	0.8	44	29.90	1584	4 x 0.8	30.60	2056	12.1	8	10	9	11
	0.8	52	31.15	1774	4 x 0.8	31.85	2302	12.1	8	9	9	10
	0.8	61	32.90	2018	4 x 0.8	33.60	2594	12.1	7	9	9	10

Table II: 2.5 sqmm., Solid Copper Conductor, PVC Insulated, PVC Sheathed, Unarmoured (YY) / Armoured (YWY & YFY) Multicore Cables - 650/1100V volts

Size	Nom. Thickness of PVC Insulation mm.	Cores	Unarmoured		Armoured		Max.DC	In Air		In Ground		
			Approx Overall cable Dia mm.	Approx Weight Kg. / km.	Nom. Steel Armour Size mm.	Approx. Overall cable Dia. mm.		Approx Weight Kg. / km.	Conductor Resistance At 20° C Ohm / km	PVC insulation Amps.	HRPVC Insulation Amps.	PVC insulation Amps.
2.5	0.9	2	11.85	202	1.4	13.80	449	7.41	27	32	32	37
	0.9	3	12.40	238	1.4	14.4	503	7.41	24	29	27	31
	0.9	4	13.35	287	1.4	15.30	577	7.41	24	29	27	31
	0.9	5	14.50	345	1.4	16.45	665	7.41	19	23	23	27
	0.9	7	15.55	423	1.4	17.50	776	7.41	18	21	21	25
	0.9	8	15.75	451	1.4	17.70	811	7.41	17	20	20	23
	0.9	12	20.25	720	4 x 0.8	20.85	1048	7.41	17	20	20	23
	0.9	14	21.45	819	4 x 0.8	22.05	1171	7.41	16	19	19	22
	0.9	16	22.40	909	4 x 0.8	23.1	1284	7.41	15	18	18	20
	0.9	18	23.50	1009	4 x 0.8	24.2	1406	7.41	14	17	17	19
	0.9	20	23.60	1057	4 x 0.8	24.4	1462	7.41	13	16	16	18
	0.9	24	27.10	1343	4 x 0.8	28.00	1826	7.41	12	15	15	17
	0.9	27	27.70	1444	4 x 0.8	29.10	1973	7.41	12	15	15	17
	0.9	30	28.60	1555	4 x 0.8	30.15	2123	7.41	11	13	13	15
	0.9	37	31.10	1894	4 x 0.8	32.20	2457	7.41	11	13	13	15
	0.9	44	34.70	2301	4 x 0.8	35.40	2918	7.41	10	12	12	14
	0.9	52	36.20	2592	4 x 0.8	36.90	3239	7.41	10	12	12	13
	0.9	61	38.30	2981	4 x 0.8	39.20	3669	7.41	9	11	11	12

Table III: 2 core, 3 core & 4 core copper conductor, PVC Sheathed, Unarmoured (YY) / Armoured (YWY & YFY)\* cables - 650 / 1100 Volts.

No. of Cores	Nom. Cross Sectional Area Sq. mm.	Class of conductor	Unarmoured		Armoured		Max.DC	In Air		In Ground			
			Approx Overall Dia. mm.	Approx Overall Weight Kg. / km.	Nom. Steel Armour Size mm.	Approx. Overall Dia. mm.		Approx Weight Kg. / km.	Conductor Resistance At 20° C Ohm / km	PVC insulation Amps.	HRPVC Insulation Amps.	PVC insulation Amps.	HRPVC Insulation Amps.
2	4	1	1.0	13.25	264	1.4	15.2	585	4.61	35	43	41	48
2	4	2	1.0	13.95	292	1.4	15.9	632	4.61	35	43	41	48
2	6	1	1.0	14.25	327	1.4	16.2	682	3.08	45	55	50	58
2	6	2	1.0	15.05	368	1.4	17.0	751	3.08	45	55	50	58
2	10	2	1.0	16.95	524	4 x 0.8	17.7	867	1.83	60	73	70	81
2	16	2	1.0	19.60	747	4 x 0.8	20.2	1102	1.15	78	95	90	105
2	25	2	1.2	23.20	1092	4 x 0.8	23.8	1674	0.727	105	123	115	122
2	35	2	1.2	25.60	1394	4 x 0.8	26.2	1891	0.524	125	147	140	145
3	4	1	1.0	14.05	317	1.4	16.00	659	4.61	30	37	36	42
3	4	2	1.0	14.70	351	1.4	16.65	713	4.61	30	37	36	42
3	6	1	1.0	15.05	401	1.4	17.00	770	3.08	39	48	45	53
3	6	2	1.0	15.90	451	1.4	18.15	860	3.08	39	48	45	53
3	10	2	1.0	17.95	657	4 x 0.8	19.00	1000	1.83	52	63	60	69
3	16	2	1.0	20.75	939	4 x 0.8	21.35	1323	1.15	66	81	77	90
3	25	2	1.2	24.70	1405	4 x 0.8	25.30	1874	0.727	90	106	99	105
3	35	2	1.2	27.20	1810	4 x 0.8	27.80	2336	0.524	110	129	120	125
4	4	1	1.0	15.15	385	1.4	17.10	762	4.61	30	37	36	42
4	4	2	1.0	15.90	430	1.4	18.15	828	4.61	30	37	36	42
4	6	1	1.0	16.70	506	1.4	17.40	878	3.08	39	48	45	53
4	6	2	1.0	17.20	559	4 x 0.8	18.25	901	3.08	39	48	45	53
4	10	2	1.0	20.00	837	4 x 0.8	20.60	1220	1.83	52	63	60	69
4	16	2	1.0	22.70	1180	4 x 0.8	23.35	1621	1.15	66	81	77	90
4	25	2	1.2	27.05	1767	4 x 0.8	27.65	2293	0.727	90	106	99	105
4	35	2	1.2	30.20	2326	4 x 0.8	30.90	2912	0.524	110	129	120	125

\* Y = PVC insulation, W = Steel round wire armour, F = Steel strip armour

Cables with stranded conductors also made on request.

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

\*The size up to 50.0 sqmm core available on request.