

GEMSCAB[®]
CABLES

THE RIGHT CONNECTION

L.V. Power, Control, PVC Wire & Flexible Cables



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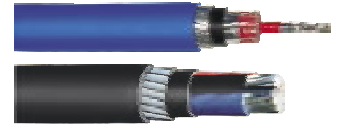
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LV. Power, Control, PVC Wire & Flexible Cables



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LV. Power, Control, PVC Wire & Flexible Cables

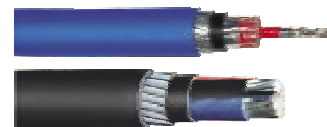


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L.V. Power and Control Cables



SINGLE CORE CABLE - 600/1000-V

Dimensions & Weights

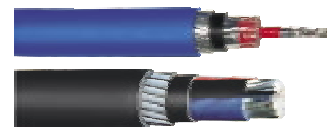
COPPER or ALUMINIUM / XLPE / AWA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, AL-WIRE ARMoured, PVC SHEATHED

TABLE – 1

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
10	0.70	1.00	0.80	1.80	14.0	286	1000	228	1000
16	0.70	1.00	0.80	1.80	14.5	346	1000	255	1000
25	0.90	1.00	0.80	1.80	16.5	463	1000	320	1000
35	0.90	1.00	1.25	1.80	18.5	605	1000	406	1000
50	1.00	1.00	1.25	1.80	19.5	741	1000	472	1000
70	1.10	1.00	1.25	1.80	21.5	965	1000	575	1000
95	1.10	1.00	1.60	1.80	23.0	1261	1000	720	1000
120	1.20	1.00	1.60	1.80	26.0	1521	1000	839	1000
150	1.40	1.00	1.60	1.80	27.5	1809	1000	966	1000
185	1.60	1.00	1.60	1.80	30.0	2199	1000	1146	1000
240	1.70	1.00	1.60	1.90	32.5	2772	500	1387	1000
300	1.80	1.00	2.00	2.00	36.5	3463	500	1723	500
400	2.00	1.20	2.00	2.10	40.5	4541	500	2120	500
500	2.20	1.20	2.00	2.30	44.0	5421	500	2570	500
630	2.40	1.20	2.50	2.40	50.0	6982	250	3291	500
800	2.60	1.40	2.50	2.60	57.0	8850	250	4120	500
1000	2.80	1.40	2.50	2.70	62.0	10858	250	4930	500

L.V. Power and Control Cables



SINGLE CORE CABLE - 600/1000-V

Dimensions & Weights

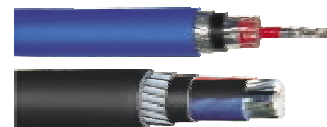
COPPER or ALUMINIUM / XLPE / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 2

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
				Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	kg / km	mtrs	kg / km	mtrs
10	0.70	1.40	9.0	153	1000	95	1000
16	0.70	1.40	10.0	209	1000	116	1000
25	0.90	1.40	11.5	307	1000	161	1000
35	0.90	1.40	12.5	400	1000	196	1000
50	1.00	1.40	14.0	519	1000	244	1000
70	1.10	1.40	16.0	719	1000	321	1000
95	1.10	1.50	18.0	965	1000	413	1000
120	1.20	1.50	19.5	1199	1000	502	1000
150	1.40	1.60	21.5	1473	1000	612	1000
185	1.60	1.60	24.0	1823	1000	747	1000
240	1.70	1.70	26.5	2362	1000	947	1000
300	1.80	1.80	29.5	2947	500	1169	1000
400	2.00	1.90	33.0	3738	500	1469	1000
500	2.20	2.00	37.0	4761	500	1849	500
630	2.40	2.20	41.5	6130	250	2360	500
800	2.60	2.30	48.0	7824	250	2992	500
1000	2.80	2.40	53.0	9760	250	3704	500

L.V. Power and Control Cables



TWO CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / XLPE / SWA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 3

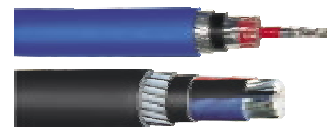
Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
*1.5#	0.70	1.00	0.80	1.80	14.50	348	1000	-	-
*2.5#	0.70	1.00	0.80	1.80	15.50	398	1000	-	-
*4#	0.70	1.00	0.80	1.80	16.5	468	1000	-	-
*6#	0.70	1.00	1.25	1.80	19.0	654	1000	-	-
10#	0.70	1.00	1.25	1.80	20.5	818	1000	698	1000
16#	0.70	1.00	1.25	1.80	22.0	982	1000	799	1000
25	0.90	1.00	1.60	1.80	22.0	1113	1000	825	1000
35	0.90	1.00	1.60	1.80	24.0	1353	1000	952	1000
50	1.00	1.00	1.60	1.90	26.0	1669	1000	1126	1000
70	1.10	1.00	2.00	2.00	30.0	2327	1000	1543	1000
95	1.10	1.20	2.00	2.10	33.0	2954	1000	1865	1000
120	1.20	1.20	2.00	2.20	35.5	3534	500	2160	1000
150	1.40	1.20	2.50	2.40	40.0	4461	500	2763	1000
185	1.60	1.40	2.50	2.60	44.0	5418	500	3297	500
240	1.70	1.40	2.50	2.70	47.0	6623	250	3834	500
300	1.80	1.60	2.50	2.90	52.0	8029	250	4524	500
400	2.00	1.60	2.50	3.10	57.5	9887	250	5415	500
500	2.20	1.60	3.15	3.40	64.0	12748	250	7008	250
630	2.40	1.80	3.15	3.70	71.0	15930	200	8499	250

#Circular conductor

*Copper conductor only

L.V. Power and Control Cables

GEMSCAB®
CABLES
THE RIGHT CONNECTION



TWO CORE CABLE - 600/1000-V

Dimensions & Weights

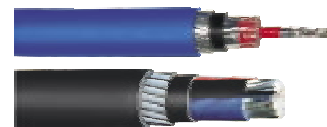
COPPER or ALUMINIUM / XLPE / SFA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, STEEL FLAT WIRE ARMoured, PVC SHEATHED

TABLE – 4

Nominal Area of Conductor mm ²	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Thickness of Flat Wire mm	Thickness of Outer Sheath mm	Approx. Overall Diameter mm	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight kg/km	Packing Length mtrs	Approx. Cable Weight kg/km	Packing Length mtrs
25	0.90	1.00	0.80	1.80	20.5	954	1000	665	1000
35	0.90	1.00	0.80	1.80	22.0	1177	1000	776	1000
50	1.00	1.00	0.80	1.80	24.5	1472	1000	928	1000
70	1.10	1.00	0.80	1.90	27.5	1949	1000	1165	1000
95	1.10	1.20	0.80	2.10	30.5	2527	1000	1437	1000
120	1.20	1.20	0.80	2.20	33.0	3066	1000	1693	1000
150	1.40	1.20	0.80	2.30	36.5	3681	500	1983	1000
185	1.60	1.40	0.80	2.40	40.5	4538	500	2417	500
240	1.70	1.40	0.80	2.60	44.0	5666	500	2876	500
300	1.80	1.60	0.80	2.80	48.5	6970	250	3465	500
400	2.00	1.60	0.80	3.00	54.0	8694	250	4222	500
500	2.20	1.60	0.80	3.20	59.0	10863	250	5124	500
630	2.40	1.80	0.80	3.50	66.0	13806	200	6375	250

L.V. Power and Control Cables



TWO CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / XLPE / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

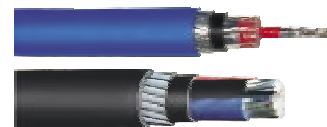
TABLE – 5

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
				Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	kg / km	mtrs	kg / km	mtrs
*1.5#	0.70	1.80	10.5	144	1000	-	-
*2.5#	0.70	1.80	11.5	178	1000	-	-
*4#	0.70	1.80	12.5	227	1000	-	-
*6#	0.70	1.80	13.5	289	1000	-	-
10#	0.70	1.80	15.5	404	1000	284	1000
16#	0.70	1.80	17.0	528	1000	345	1000
25	0.90	1.80	16.5	627	1000	338	1000
35	0.90	1.80	18.0	816	1000	415	1000
50	1.00	1.80	20.0	1057	1000	514	1000
70	1.10	1.80	23.0	1454	1000	670	1000
95	1.10	1.90	26.0	1961	1000	872	1000
120	1.20	2.00	28.0	2437	1000	1064	1000
150	1.40	2.20	31.5	3008	500	1310	1000
185	1.60	2.30	35.0	3733	500	1612	1000
240	1.70	2.50	38.5	4818	500	2029	1000
300	1.80	2.60	42.5	5956	500	2451	1000
400	2.00	2.90	48.0	7595	250	3122	500
500	2.20	3.10	53.0	9644	250	3904	500
630	2.40	3.30	59.5	12363	200	4932	500

Circular conductor

* Copper conductor only

L.V. Power and Control Cables



THREE CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / XLPE / SWA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

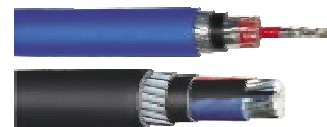
TABLE – 6

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Thickness of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
*1.5#	0.70	1.00	0.80	1.80	15.0	357	1000	-	-
*2.5#	0.70	1.00	0.80	1.80	16.0	411	1000	-	-
*4#	0.70	1.00	0.80	1.80	17.0	488	1000	-	-
*6#	0.70	1.00	1.25	1.80	19.5	690	1000	-	-
10 #	0.70	1.00	1.25	1.80	21.5	874	1000	695	1000
16 #	0.70	1.00	1.25	1.80	23.0	1148	1000	874	1000
25	0.90	1.00	1.60	1.80	25.0	1452	1000	1018	1000
35	0.90	1.00	1.60	1.80	27.0	1795	1000	1193	1000
50	1.00	1.00	1.60	1.90	30.0	2242	1000	1427	1000
70	1.10	1.20	2.00	2.10	35.0	3202	500	2026	1000
95	1.10	1.20	2.00	2.20	38.0	4057	500	2422	1000
120	1.20	1.20	2.00	2.30	41.0	4867	500	2808	1000
150	1.40	1.40	2.50	2.50	47.0	6210	500	3663	500
185	1.60	1.40	2.50	2.70	51.0	7500	250	4318	500
240	1.70	1.60	2.50	2.90	56.0	9346	250	5162	500
300	1.80	1.60	2.50	3.00	61.0	11243	250	5985	500
400	2.00	1.60	3.15	3.30	69.0	14594	200	7885	250
500	2.20	1.80	3.15	3.60	76.0	18074	200	9465	250
630	2.40	1.80	3.15	3.80	84.0	22546	200	11399	250

#Circular conductor

*For Copper conductor only

L.V. Power and Control Cables



THREE CORE CABLE - 600/1000-V

Dimensions & Weights

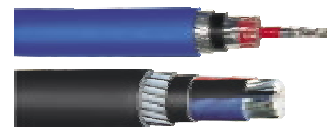
COPPER or ALUMINIUM / XLPE / SFA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, FLAT WIRE (STRIP), PVC SHEATHED

TABLE – 7

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Thickness of Flat Wire Strip	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
25	0.90	1.00	0.80	1.80	23	1266	1000	833	1000
35	0.90	1.00	0.80	1.80	25	1588	1000	986	1000
50	1.00	1.00	0.80	1.90	28	2009	1000	1194	1000
70	1.10	1.20	0.80	2.00	32	2730	500	1554	1000
95	1.10	1.20	0.80	2.10	36	3528	500	1893	1000
120	1.20	1.20	0.80	2.30	39	4307	500	2247	1000
150	1.40	1.40	0.80	2.40	43	5240	500	2693	500
185	1.60	1.40	0.80	2.60	48	6419	250	3238	500
240	1.70	1.60	0.80	2.70	52	8130	250	3946	500
300	1.80	1.60	0.80	2.90	57	9937	250	4679	500
400	2.00	1.60	0.80	3.20	64	12482	200	5773	500
500	2.20	1.80	0.80	3.40	70.5	15702	200	7092	250
630	2.40	1.80	0.80	3.70	79	19926	200	8779	250

L.V. Power and Control Cables



THREE CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / XLPE / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

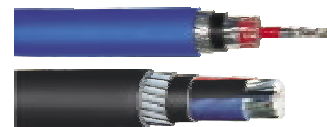
TABLE – 8

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
				Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	kg / km	mtrs	kg / km	mtrs
*1.5#	0.70	1.80	11.0	164	1000	-	-
*2.5#	0.70	1.80	12.0	207	1000	-	-
*4#	0.70	1.80	13.0	270	1000	-	-
*6#	0.70	1.80	14.5	349	1000	-	-
10#	0.70	1.80	16.5	500	1000	321	1000
16#	0.70	1.80	18.5	666	1000	391	1000
25	0.90	1.80	19.0	886	1000	453	1000
35	0.90	1.80	21.0	1165	1000	563	1000
50	1.00	1.80	24.0	1535	1000	720	1000
70	1.10	1.90	27.5	2123	1000	948	1000
95	1.10	2.00	31.0	2872	1000	1237	1000
120	1.20	2.10	34.0	3575	500	1515	1000
150	1.40	2.30	38.0	4410	500	1864	1000
185	1.60	2.40	42.5	5480	500	2299	1000
240	1.70	2.60	47.0	7086	250	2901	500
300	1.80	2.70	51.0	8774	250	3516	500
400	2.00	3.00	58.5	11189	250	4481	500
500	2.20	3.20	64.5	14227	200	5617	500
630	2.40	3.50	72.5	18302	200	7155	250

#Circular conductor

*For Copper conductor only

L.V. Power and Control Cables



FOUR CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / XLPE / SWA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

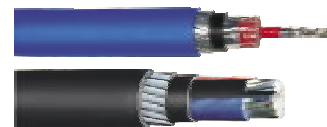
TABLE – 9

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Thickness of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
*1.5#	0.70	1.00	0.80	1.80	16.0	401	1000	-	-
*2.5#	0.70	1.00	0.80	1.80	17.0	468	1000	-	-
*4#	0.70	1.00	1.25	1.80	19.0	669	1000	-	-
*6#	0.70	1.00	1.25	1.80	20.5	798	1000	-	-
10#	0.70	1.00	1.25	1.80	23.0	1029	1000	790	1000
16#	0.70	1.00	1.60	1.80	26.0	1479	1000	1113	1000
25	0.90	1.00	1.60	1.80	27.5	1796	1000	1219	1000
35	0.90	1.00	1.60	1.90	30.5	2257	1000	1455	1000
50	1.00	1.00	2.00	2.10	35.0	3038	1000	1951	1000
70	1.10	1.20	2.00	2.20	40.0	4054	500	2487	1000
95	1.10	1.20	2.00	2.30	44.0	5175	500	2995	500
120	1.20	1.40	2.50	2.50	49.0	6648	250	3902	500
150	1.40	1.40	2.50	2.70	54.0	7956	250	4560	500
185	1.60	1.40	2.50	2.80	59.0	9607	250	5365	500
240	1.70	1.60	2.50	3.10	65.0	12049	200	6470	250
300	1.80	1.60	2.50	3.20	70.0	14543	200	7533	250
400	2.00	1.80	3.15	3.60	81.0	18982	200	10037	250
500	2.20	1.80	3.15	3.90	88.0	23451	200	11972	250
630	2.40	2.00	3.15	4.20	98.0	29531	200	14668	200

#Circular conductor

*For Copper conductor only

L.V. Power and Control Cables



FOUR CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / XLPE / SFA / PVC - AS PER IEC 60502 - 1

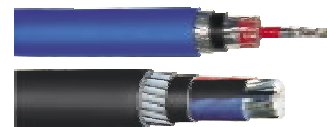
COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, STEEL FLAT WIRE (STRIP) ARMoured, PVC SHEATHED

TABLE – 10

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Thickness of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
16 [#]	0.70	1.00	0.80	1.80	24.0	1284	1000	918	1000
25	0.90	1.00	0.80	1.80	26.0	1583	1000	1006	1000
35	0.90	1.00	0.80	1.80	29.0	2018	1000	1215	1000
50	1.00	1.00	0.80	2.00	32.0	2582	1000	1495	1000
70	1.10	1.20	0.80	2.10	37.0	3521	500	1953	1000
95	1.10	1.20	0.80	2.30	41.5	4514	500	2394	1000
120	1.20	1.40	0.80	2.50	46.0	5644	500	2858	500
150	1.40	1.40	0.80	2.70	50.5	6838	250	3443	500
185	1.60	1.40	0.80	2.80	56.0	8362	250	4120	500
240	1.70	1.60	0.80	3.10	61.0	10673	250	5093	500
300	1.80	1.60	0.80	3.20	67.0	13032	200	6021	500
400	2.00	1.80	0.80	3.60	76.0	16500	200	7555	250
500	2.20	1.80	0.80	3.90	83.0	20716	200	9237	250
630	2.40	2.00	0.80	4.20	93.5	26445	200	11583	250

[#]Circular conductor

L.V. Power and Control Cables



FOUR CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / XLPE / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 11

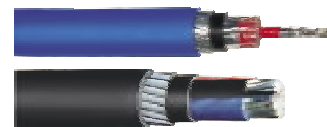
Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
				Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	kg / km	mtrs	kg / km	mtrs
*1.5 [#]	0.70	1.80	12.0	194	1000	-	-
*2.5 [#]	0.70	1.80	13.0	248	1000	-	-
*4 [#]	0.70	1.80	14.5	327	1000	-	-
*6	0.70	1.80	16.0	429	1000	-	-
10 [#]	0.70	1.80	18.0	622	1000	382	1000
16 [#]	0.70	1.80	20.0	836	1000	470	1000
25	0.90	1.80	22.0	1147	1000	570	1000
35	0.90	1.80	25.0	1531	1000	729	1000
50	1.00	1.80	28.0	1986	1000	899	1000
70	1.10	2.00	32.5	2821	500	1253	1000
95	1.10	2.10	37.0	3791	500	1612	1000
120	1.20	2.20	40.0	4723	500	1976	1000
150	1.40	2.40	45.0	5825	500	2429	1000
185	1.60	2.60	50.5	7271	250	3029	500
240	1.70	2.80	55.5	9402	250	3823	500
300	1.80	3.00	61.0	11683	250	4672	500
400	2.00	3.20	70.0	14887	200	5942	500
500	2.20	3.50	77.0	18970	200	7491	250
630	2.40	3.80	87.0	24387	200	9425	250

*Circular conductor

*For Copper conductor only

L.V. Power and Control Cables

GEMSCAB®
CABLES
THE RIGHT CONNECTION



3½ CORE (4 CORE WITH REDUCED NEUTRAL) CABLES - 600/1000-V
Dimensions & Weights

COPPER or ALUMINIUM / XLPE / SWA / PVC - AS PER IEC 60502 - 1

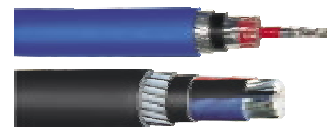
COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 12

Nominal Area of Conductor		Thickness of Insulation Insulation		Thickness of Extruded Bedding	Thickness of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
								Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
Phase	Neutral	Phase	Neutral	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
mm ²		mm		mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
25	16	0.90	0.70	1.00	1.60	1.80	26.5	1677	1000	1153	1000
35	16	0.90	0.70	1.00	1.60	1.80	29.0	2028	1000	1335	1000
50	25	1.00	0.90	1.00	1.60	2.00	32.5	2586	1000	1626	1000
70	35	1.10	0.90	1.20	2.00	2.10	37.5	3634	500	2258	1000
95	50	1.10	1.00	1.20	2.50	2.30	41.0	4625	500	2718	1000
120	70	1.20	1.10	1.20	2.50	2.40	45.5	5963	500	3511	500
150	70	1.40	1.10	1.40	2.50	2.60	50.5	7057	250	4118	500
185	95	1.60	1.10	1.40	2.50	2.70	55.0	8583	250	4856	500
240	120	1.70	1.20	1.60	2.50	2.90	60.5	10672	250	5801	250
300	150	1.80	1.40	1.60	2.50	3.10	66.5	12870	250	6763	250
400	185	2.00	1.60	1.60	3.15	3.40	75.0	16656	200	8887	250
500	240	2.20	1.70	1.80	3.15	3.70	82.0	20691	200	10687	250
630	300	2.40	1.80	1.80	3.15	3.90	90.5	25760	200	12861	250

L.V. Power and Control Cables

GEMSCAB®
CABLES
THE RIGHT CONNECTION



3 1/2 CORE (4 CORE WITH REDUCED NEUTRAL) CABLES - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / XLPE / SFA / PVC - AS PER IEC 60502 - 1

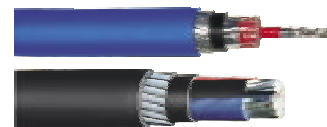
COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, STEEL FLAT WIRE(STRIP) ARMoured, PVC SHEATHED

TABLE – 13

Nominal Area of Conductor		Thickness of Insulation		Thickness of Extruded Bedding	Thickness of Flat Armour Wire (Strip)	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
								Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
Phase	Neutral	Phase	Neutral	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
mm ²		mm		mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
25	16	0.90	0.70	1.00	0.80	1.80	25.0	1473	1000	948	1000
35	16	0.90	0.70	1.00	0.80	1.80	27.5	1801	1000	1107	1000
50	25	1.00	0.90	1.00	0.80	1.90	31.0	2329	1000	1369	1000
70	35	1.10	0.90	1.20	0.80	2.10	35.0	3133	500	1757	1000
95	50	1.10	1.00	1.20	0.80	2.20	39.0	4065	500	2158	1000
120	70	1.20	1.10	1.20	0.80	2.30	42.0	5039	500	2587	500
150	70	1.40	1.10	1.40	0.80	2.50	47.0	6016	500	3078	500
185	95	1.60	1.10	1.40	0.80	2.60	52.0	7422	250	3696	500
240	120	1.70	1.20	1.60	0.80	2.80	57.0	9395	250	4524	500
300	150	1.80	1.40	1.60	0.80	3.00	62.0	11470	250	5364	500
400	185	2.00	1.60	1.60	0.80	3.20	70.0	14380	200	6611	250
500	240	2.20	1.70	1.80	0.80	3.00	77.0	18171	200	8166	250
630	300	2.40	1.80	1.80	0.80	3.90	90.5	22936	200	10037	250

L.V. Power and Control Cables

GEMSCAB®
CABLES
THE RIGHT CONNECTION



3 1/2 CORE (4 CORE WITH REDUCED NEUTRAL) CABLES - 600/1000-V
Dimensions & Weights

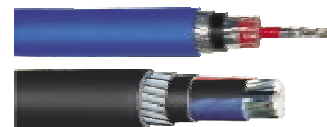
COPPER or ALUMINIUM / XLPE / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, XLPE INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 14

						COPPER CABLE		ALUMINIUM CABLE	
Nominal Area of Conductor		Thickness of Insulation		Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
Phase	Neutral	Phase	Neutral						
mm²		mm		mm	mm	kg/km	mtrs	kg/km	mtrs
25	16	0.90	0.70	1.80	21.0	1054	1000	530	1000
35	16	0.90	0.70	1.80	23.5	1335	1000	647	1000
50	25	1.00	0.90	1.80	26.5	1778	1000	818	1000
70	35	1.10	0.90	1.90	30.0	2469	1000	1093	1000
95	50	1.10	1.00	2.00	34.0	3311	500	1404	1000
120	70	1.20	1.10	2.20	37.5	4222	500	1770	1000
150	70	1.40	1.10	2.30	41.5	5042	500	2104	500
185	95	1.60	1.10	2.50	47.0	6399	500	2673	500
240	120	1.70	1.20	2.60	51.0	8202	250	3331	500
300	150	1.80	1.40	2.80	57.0	10296	250	4189	500
400	185	2.00	1.60	3.10	64.0	12944	200	5175	500
500	240	2.20	1.70	3.30	71.0	16499	200	6495	250
630	300	2.40	1.80	3.60	79.5	21135	200	8235	250

L.V. Power and Control Cables



SINGLE CORE CABLE - 600/1000-V

Dimensions & Weights

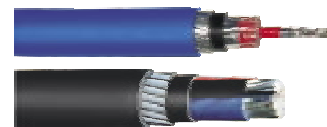
COPPER or ALUMINIUM / PVC / AWA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, AL-WIRE ARMoured, PVC SHEATHED

TABLE – 15

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
10	1.00	1.00	0.80	1.80	14.00	311	1000	253	1000
16	1.00	1.00	0.80	1.80	15.50	375	1000	284	1000
25	1.20	1.00	0.80	1.80	17.00	498	1000	355	1000
35	1.20	1.00	1.25	1.80	19.00	645	1000	446	1000
50	1.40	1.00	1.25	1.80	20.50	796	1000	526	1000
70	1.40	1.00	1.25	1.80	22.00	1018	1000	628	1000
95	1.60	1.00	1.60	1.80	25.00	1343	1000	802	1000
120	1.60	1.00	1.60	1.80	26.50	1601	1000	919	1000
150	1.80	1.00	1.60	1.80	27.50	1908	1000	1065	1000
185	2.00	1.00	1.60	1.90	30.50	2321	1000	1268	1000
240	2.20	1.00	1.60	1.90	33.50	2911	500	1526	1000
300	2.40	1.00	2.00	2.10	37.50	3639	500	1898	1000
400	2.60	1.20	2.00	2.20	41.00	4546	500	2325	500
500	2.80	1.20	2.00	2.30	45.00	5658	500	2808	500
630	2.80	1.20	2.50	2.40	50.50	7197	250	3506	500
800	2.80	1.40	2.50	2.60	57.50	9089	250	4360	500
1000	3.00	1.40	2.50	2.70	62.00	11106	250	5178	500

L.V. Power and Control Cables



SINGLE CORE CABLE - 600/1000-V

Dimensions & Weights

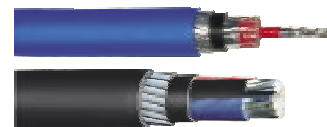
COPPER or ALUMINIUM / PVC/ PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 16

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
				Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	kg / km	mtrs	kg / km	mtrs
10	1.00	1.40	9.50	172	1000	114	1000
16	1.00	1.40	10.50	231	1000	138	1000
25	1.20	1.40	12.00	336	1000	189	1000
35	1.20	1.40	13.00	431	1000	228	1000
50	1.40	1.40	14.50	563	1000	287	1000
70	1.40	1.40	16.50	764	1000	366	1000
95	1.60	1.50	18.50	1033	1000	480	1000
120	1.60	1.50	20.00	1267	1000	571	1000
150	1.80	1.60	22.50	1559	1000	698	1000
185	2.00	1.70	24.50	1931	1000	855	1000
240	2.20	1.80	27.50	2500	1000	1085	1000
300	2.40	1.80	30.00	3089	500	1311	1000
400	2.60	2.00	34.00	3923	500	1654	1000
500	2.80	2.10	38.00	4979	500	2067	500
630	2.80	2.20	41.70	6336	500	2566	500
800	2.80	2.30	48.50	8036	250	3205	500
1000	3.00	2.50	53.00	10009	250	3953	500

L.V. Power and Control Cables



TWO CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / PVC / SWA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, STEEL-WIRE ARMoured, PVC SHEATHED

TABLE – 17

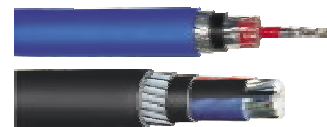
Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
*1.5#	0.80	1.00	0.80	1.80	15.0	373	1000	-	-
*2.5#	0.80	1.00	0.80	1.80	16.0	424	1000	-	-
*4#	1.00	1.00	1.25	1.80	18.5	627	1000	-	-
*6#	1.00	1.00	1.25	1.80	19.5	727	1000	-	-
10#	1.00	1.00	1.25	1.80	21.5	898	1000	778	1000
16#	1.00	1.00	1.25	1.80	23.5	1079	1000	896	1000
25	1.20	1.00	1.60	1.80	23.5	1222	1000	1003	1000
35	1.20	1.00	1.60	1.80	25.0	1457	1000	1056	1000
50	1.40	1.00	1.60	1.90	27.5	1811	1000	1268	1000
70	1.40	1.00	2.00	2.10	31.0	2467	1000	1683	1000
95	1.60	1.20	2.00	2.20	35.0	3174	500	2084	1000
120	1.60	1.20	2.00	2.30	37.0	3739	500	2366	1000
150	1.80	1.20	2.50	2.50	41.3	4745	500	3047	500
185	2.00	1.40	2.50	2.60	45.5	5696	500	3575	500
240	2.20	1.40	2.50	2.80	50.0	7002	250	4212	500
300	2.40	1.60	2.50	3.00	54.0	8472	250	4966	500
400	2.60	1.60	2.50	3.20	60.0	10387	250	5914	500
500	2.80	1.80	3.15	3.50	67.0	13419	200	7679	250
630	2.80	1.80	3.15	3.70	72.0	16417	200	8986	250

#Circular conductor

*Copper conductor

L.V. Power and Control Cables

GEMSCAB®
CABLES
THE RIGHT CONNECTION



TWO CORE CABLE - 600/1000-V

Dimensions & Weights

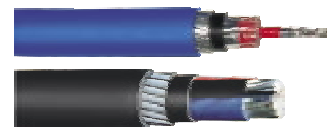
COPPER or ALUMINIUM / PVC / SFA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, STEEL FLAT WIRE (STRIP) ARMoured, PVC SHEATHED

TABLE – 18

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Thickness of Flat Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
25	1.20	1.00	0.80	1.80	22.50	1048	1000	759	1000
35	1.20	1.00	0.80	1.80	23.00	1269	1000	868	1000
50	1.40	1.00	0.80	1.90	26.00	1597	1000	1054	1000
70	1.40	1.00	0.80	2.00	28.50	2068	1000	1284	1000
95	1.60	1.20	0.80	2.10	32.50	2712	500	1623	1000
120	1.60	1.20	0.80	2.20	34.50	3228	500	1855	1000
150	1.80	1.20	0.80	2.40	38.00	3899	500	2201	1000
185	2.00	1.40	0.80	2.50	42.00	4755	500	2634	500
240	2.20	1.40	0.80	2.70	46.00	5970	500	3180	500
300	2.40	1.60	0.80	2.90	51.00	7327	250	3822	500
400	2.60	1.60	0.80	3.10	56.00	9105	250	4633	500
500	2.80	1.80	0.80	3.30	61.50	11403	250	5663	500
630	2.80	1.80	0.80	3.60	67.00	14217	200	6786	250

L.V. Power and Control Cables



TWO CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / PVC / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

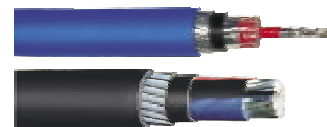
TABLE – 19

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
				Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	kg / km	mtrs	kg / km	mtrs
*1.5#	0.80	1.80	11.0	161	1000	-	-
*2.5#	0.80	1.80	12.0	197	1000	-	-
*4#	1.00	1.80	13.5	267	1000	-	-
*6#	1.00	1.80	14.5	334	1000	-	-
10#	1.00	1.80	16.5	457	1000	337	1000
16#	1.00	1.80	18.5	592	1000	409	1000
25	1.20	1.80	18.0	694	1000	405	1000
35	1.20	1.80	19.0	884	1000	483	1000
50	1.40	1.80	22.0	1151	1000	607	1000
70	1.40	1.90	24.0	1562	1000	778	1000
95	1.60	2.00	28.0	2104	1000	1014	1000
120	1.60	2.10	30.0	2581	1000	1208	1000
150	1.80	2.20	33.0	3188	500	1490	1000
185	2.00	2.30	37.0	3934	500	1813	1000
240	2.20	2.50	41.0	5080	500	2290	500
300	2.40	2.70	45.0	6308	250	2803	500
400	2.60	2.90	50.5	7978	250	3506	500
500	2.80	3.20	55.5	10129	250	4389	500
630	2.80	3.40	61.0	12814	200	5383	500

#Circular conductor

*Copper conductor only

L.V. Power and Control Cables



THREE CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / PVC / SWA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, STEEL ROUND WIRE ARMoured, PVC SHEATHED

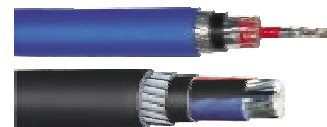
TABLE – 20

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Thickness of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
*1.5#	0.80	1.00	0.80	1.80	15.50	385	1000	-	-
*2.5#	0.80	1.00	0.80	1.80	16.50	442	1000	-	-
*4#	1.00	1.00	1.25	1.80	19.00	656	1000	-	-
*6#	1.00	1.00	1.25	1.80	20.50	766	1000	-	-
10#	1.00	1.00	1.25	1.80	22.50	958	1000	778	1000
16#	1.00	1.00	1.60	1.80	25.00	1374	1000	1100	1000
25	1.20	1.00	1.60	1.80	26.00	1588	1000	1155	1000
35	1.20	1.00	1.60	1.80	28.00	1928	1000	1326	1000
50	1.40	1.00	2.00	1.90	31.00	2586	1000	1771	1000
70	1.40	1.20	2.00	2.10	36.00	3387	500	2211	1000
95	1.60	1.20	2.00	2.20	40.00	4341	500	2706	1000
120	1.60	1.20	2.50	2.30	44.00	5436	500	3376	500
150	1.80	1.40	2.50	2.50	49.00	6560	250	4013	500
185	2.00	1.40	2.50	2.70	53.00	7872	250	4691	500
240	2.20	1.60	2.50	2.90	58.00	9827	250	5642	250
300	2.40	1.60	2.50	3.00	63.00	11836	250	6578	250
400	2.60	1.60	3.15	3.30	71.00	15300	200	8591	250
500	2.80	1.80	3.15	3.60	78.00	18884	200	10274	250
630	2.80	1.80	3.15	3.80	85.00	23233	200	12086	250

#Circular conductor

*Copper conductor only

L.V. Power and Control Cables



THREE CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / PVC / SFA / PVC - AS PER IEC 60502 - 1

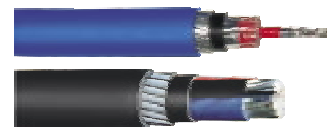
COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, STEEL FLAT WIRE ARMoured, PVC SHEATHED

TABLE – 21

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Thickness of Flat Armour Wire Strip	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
16 [#]	1.00	1.00	0.80	1.80	23.50	1183	1000	909	1000
25	1.20	1.00	0.80	1.80	25.00	1388	1000	955	1000
35	1.20	1.00	0.80	1.80	26.50	1709	1000	1107	1000
50	1.40	1.00	0.80	1.90	29.50	2175	1000	1360	1000
70	1.40	1.20	0.80	2.10	34.00	2907	1000	1732	1000
95	1.60	1.20	0.80	2.20	38.00	3793	500	2158	1000
120	1.60	1.20	0.80	2.30	40.50	4548	500	2489	1000
150	1.80	1.40	0.80	2.50	45.00	5561	500	3014	500
185	2.00	1.40	0.80	2.60	49.50	6747	250	3565	500
240	2.20	1.60	0.80	2.80	54.50	8579	250	4395	500
300	2.40	1.60	0.80	3.00	59.50	10491	250	5233	500
400	2.60	1.60	0.80	3.30	67.00	13124	250	6415	250
500	2.80	1.80	0.80	3.50	78.00	16449	200	7839	250
630	2.80	1.80	0.80	3.80	80.00	20601	200	9454	250

[#]Circular conductor

L.V. Power and Control Cables



THREE CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / PVC / PVC - AS PER IEC 60502 – 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

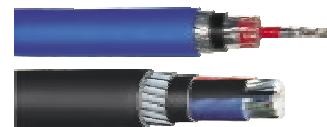
TABLE – 22

Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
				Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	kg / km	mtrs	kg / km	mtrs
*1.5#	0.80	1.80	11.50	186	1000	-	-
*2.5#	0.80	1.80	12.50	232	1000	-	-
*4#	1.00	1.80	14.50	319	1000	-	-
*6#	1.00	1.80	15.50	406	1000	-	-
10#	1.00	1.80	17.50	567	1000	387	1000
16#	1.00	1.80	20.00	745	1000	470	1000
25	1.20	1.80	21.00	978	1000	545	1000
35	1.20	1.80	22.50	1260	1000	659	1000
50	1.40	1.80	26.00	1667	1000	852	1000
70	1.40	1.90	28.50	2258	1000	1083	1000
95	1.60	2.10	33.00	3075	500	1440	1000
120	1.60	2.20	36.00	3781	500	1722	1000
150	1.80	2.30	40.00	4670	500	2123	1000
185	2.00	2.50	44.00	5798	500	2617	500
240	2.20	2.60	49.00	7464	250	3280	500
300	2.40	2.80	54.00	9277	250	4019	500
400	2.60	3.10	61.00	11783	250	5074	500
500	2.80	3.30	67.00	14924	200	6315	250
630	2.80	3.60	74.00	18958	200	7811	250

#Circular conductor

*Copper conductor

L.V. Power and Control Cables



FOUR CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / PVC / SWA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

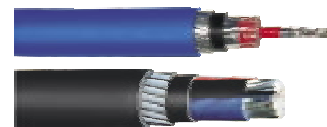
TABLE – 23

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Thickness of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
*1.5#	0.80	1.00	0.80	1.80	16.50	435	1000	-	-
*2.5#	0.80	1.00	1.25	1.80	18.50	605	1000	-	-
*4#	1.00	1.00	1.25	1.80	20.50	754	1000	-	-
*6#	1.00	1.00	1.25	1.80	22.00	891	1000	-	-
10#	1.00	1.00	1.60	1.80	24.50	1244	100	1005	1000
16#	1.00	1.00	1.60	1.80	27.00	1625	1000	1259	1000
25	1.20	1.00	1.60	1.80	29.00	1977	1000	1399	1000
35	1.20	1.00	1.60	1.90	31.50	2423	1000	1620	1000
50	1.40	1.20	2.00	2.10	37.00	3322	500	2235	1000
70	1.40	1.20	2.00	2.30	41.00	4304	500	2736	1000
95	1.60	1.20	2.50	2.50	47.50	5895	500	3715	500
120	1.60	1.40	2.50	2.60	51.00	7030	250	4283	500
150	1.80	1.40	2.50	2.70	55.50	8394	250	4999	500
185	2.00	1.60	2.50	2.90	61.00	10175	250	5933	500
240	2.20	1.60	2.50	3.10	66.50	12657	200	7078	250
300	2.40	1.60	3.15	3.30	73.00	16032	200	9022	250
400	2.60	1.80	3.15	3.70	83.00	19957	200	11012	250
500	2.80	1.80	3.15	4.00	90.50	24567	200	13088	200
630	2.80	1.80	3.15	4.20	99.00	30425	200	15562	200

#Circular conductor

*Copper conductor only

L.V. Power and Control Cables



FOUR CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / PVC / SFA / PVC - AS PER IEC 60502 - 1

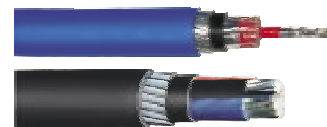
COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, STEEL FLAT WIRE (STRIP) ARMoured, PVC SHEATHED

TABLE – 24

Nominal Area of Conductor	Thickness of Insulation	Thickness of Extruded Bedding	Thickness of Flat Armour Wire (strip)	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
						Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
10 [#]	1.00	1.00	0.80	1.80	24.50	1056	1000	816	1000
16	1.00	1.00	0.80	1.80	25.50	1416	1000	1050	1000
25	1.20	1.00	0.80	1.80	27.00	1734	1000	1157	1000
35	1.20	1.00	0.80	1.90	30.00	2170	1000	1367	1000
50	1.40	1.20	0.80	2.00	34.00	2813	1000	1726	1000
70	1.40	1.20	0.80	2.20	38.00	3710	500	2143	1000
95	1.60	1.20	0.80	2.30	43.00	4868	500	2689	500
120	1.60	1.40	0.80	2.50	47.00	5934	500	3188	500
150	1.80	1.40	0.80	2.60	52.00	7201	250	3805	500
185	2.00	1.60	0.80	2.80	57.50	8845	250	4603	500
240	2.20	1.60	0.80	3.00	63.00	11194	250	5614	500
300	2.40	1.60	0.80	3.20	69.00	13714	200	6703	250
400	2.60	1.80	0.80	3.50	78.00	17262	200	8713	250
500	2.80	1.80	0.80	3.80	85.50	21608	200	10129	250
630	2.80	2.00	0.80	4.10	94.00	27246	200	12383	200

[#]Circular conductor

L.V. Power and Control Cables



FOUR CORE CABLE - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / PVC / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 25

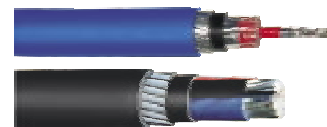
Nominal Area of Conductor	Thickness of Insulation	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
				Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
mm ²	mm	mm	mm	kg / km	mtrs	kg / km	mtrs
*1.5#	0.80	1.80	12.50	222	1000	-	-
*2.5#	0.80	1.80	13.50	279	1000	-	-
*4#	1.00	1.80	15.50	390	1000	-	-
*6#	1.00	1.80	17.00	500	1000	-	-
10#	1.00	1.80	19.00	706	1000	467	1000
16	1.00	1.80	21.50	935	1000	569	1000
25	1.20	1.80	23.50	1266	1000	688	1000
35	1.20	1.80	26.00	1655	1000	852	1000
50	1.40	1.90	29.00	2156	1000	1070	1000
70	1.40	2.00	33.50	2998	500	1430	1000
95	1.60	2.20	38.50	4056	500	1877	1000
120	1.60	2.30	42.00	4993	500	2247	1000
150	1.80	2.50	47.00	6165	500	2769	500
185	2.00	2.60	52.00	7655	250	3414	500
240	2.20	2.80	57.50	9900	250	4321	500
300	2.40	3.10	63.50	12304	250	5293	500
400	2.60	3.30	72.00	15622	200	6677	250
500	2.80	3.60	79.50	19840	200	8360	250
630	2.80	3.90	87.50	25199	200	10337	250

#Circular conductor

*Copper conductor only

L.V. Power and Control Cables

GEMSCAB®
CABLES
THE RIGHT CONNECTION



3½ CORE (4 CORE WITH REDUCED NEUTRAL) CABLES - 600/1000-V

Dimensions & Weights

COPPER or ALUMINIUM / PVC / SWA / PVC - AS PER IEC 60502 - 1

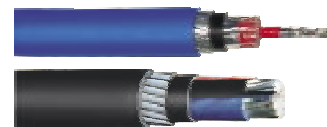
COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 26

Nominal Area of Conductor		Thickness of Insulation		Thickness of Extruded Bedding	Thickness of Armour Wire	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
								Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
Phase	Neutral	Phase	Neutral	mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
mm ²		mm		mm	mm	mm	mm	kg/km	mtrs	kg/km	mtrs
25	16	1.20	1.00	1.00	1.60	1.8	28.50	1851	1000	1326	1000
35	16	1.20	1.00	1.00	1.60	1.90	30.50	2209	1000	1516	1000
50	25	1.40	1.20	1.00	2.00	2.10	35.00	3022	1000	2062	1000
70	35	1.40	1.20	1.20	2.00	2.20	39.00	3883	500	2507	1000
95	50	1.60	1.40	1.20	2.00	2.30	43.50	4981	500	3074	500
120	70	1.60	1.40	1.40	2.50	2.50	48.00	6379	250	3927	500
150	70	1.80	1.40	1.40	2.50	2.60	53.00	7485	250	4547	500
185	95	2.00	1.60	1.40	2.50	2.80	57.50	9074	250	5348	500
240	120	2.20	1.60	1.60	2.50	3.00	63.00	11287	250	6416	250
300	150	2.40	1.80	1.60	2.50	3.20	68.50	13626	200	7519	250
400	185	2.60	2.00	1.80	3.15	3.50	78.00	17639	200	9870	250
500	240	2.80	2.20	1.80	3.15	3.80	85.00	21760	200	11755	200
630	300	2.80	2.40	1.80	3.15	4.00	92.00	26708	200	13808	200

L.V. Power and Control Cables

GEMSCAB®
CABLES
THE RIGHT CONNECTION



3 1/2 CORE (4 CORE WITH REDUCED NEUTRAL) CABLES - 600/1000-V

Dimensions & Weights

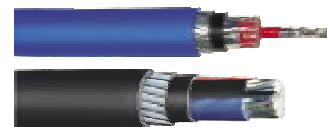
COPPER or ALUMINIUM / PVC / SFA / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, STEEL FLAT WIRE ARMoured, PVC SHEATHED

TABLE – 27

Nominal Area of Conductor		Thickness of Insulation		Thickness of Extruded Bedding	Thickness of Flat Armour Wire (Strip)	Thickness of Outer Sheath	Approx. Overall Diameter	COPPER CABLE		ALUMINIUM CABLE	
								Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
Phase	Neutral	Phase	Neutral					kg/km	mtrs	kg/km	mtrs
mm ²		mm		mm	mm	mm	mm				
25	16	1.20	1.00	1.00	0.80	1.80	27.0	1627	1000	1102	1000
35	16	1.20	1.00	1.00	0.80	1.90	29.0	1965	1000	1271	1000
50	25	1.40	1.20	1.00	0.80	2.00	32.5	2537	1000	1578	1000
70	35	1.40	1.20	1.20	0.80	2.10	36.5	3337	500	1960	1000
95	50	1.60	1.40	1.20	0.80	2.30	41.0	4375	500	2468	500
120	70	1.60	1.40	1.40	0.80	2.40	44.5	5389	500	2937	500
150	70	1.80	1.40	1.40	0.80	2.50	49.0	6359	250	3420	500
185	95	2.00	1.60	1.40	0.80	2.70	54.0	7831	250	4105	500
240	120	2.20	1.60	1.60	0.80	2.90	59.5	9910	250	5039	500
300	150	2.40	1.80	1.60	0.80	3.10	65.0	12110	200	6003	500
400	185	2.60	2.00	1.80	0.80	3.40	73.0	15191	200	7422	250
500	240	2.80	2.20	1.80	0.80	3.60	80.0	19002	200	8998	250
630	300	2.80	2.40	1.80	0.80	3.80	86.5	23738	200	10838	250

L.V. Power and Control Cables



3½ CORE (4 CORE WITH REDUCED NEUTRAL) CABLES - 600/1000-V

Dimensions & Weights

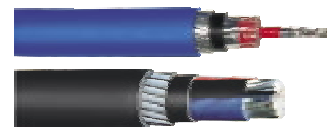
COPPER or ALUMINIUM / PVC / PVC - AS PER IEC 60502 - 1

COPPER / ALUMINIUM, CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 28

						COPPER CABLE		ALUMINIUM CABLE	
Nominal Area of Conductor		Thickness of Insulation		Thickness of Outer Sheath	Approx. Overall Diameter	Approx. Cable Weight	Packing Length	Approx. Cable Weight	Packing Length
Phase	Neutral	Phase	Neutral						
mm²		mm		mm	mm	kg/km	mtrs	kg/km	mtrs
25	16	1.20	1.00	1.80	22.50	1169	1000	644	1000
35	16	1.20	1.00	1.80	25.00	1452	1000	759	1000
50	25	1.40	1.20	1.90	28.50	1956	1000	997	1000
70	35	1.40	1.20	2.00	32.00	2655	1000	1278	1000
95	50	1.60	1.40	2.10	36.50	3580	500	1674	1000
120	70	1.60	1.40	2.30	39.50	4499	500	2047	1000
150	70	1.80	1.40	2.40	43.50	5350	500	2411	500
185	95	2.00	1.60	2.50	49.00	6759	250	3032	500
240	120	2.20	1.60	2.70	54.00	8652	250	3781	500
300	150	2.40	1.80	2.90	57.00	10279	250	4173	500
400	185	2.60	2.00	3.20	67.00	13607	200	5838	250
500	240	2.80	2.20	3.30	74.00	17289	200	7285	250
630	300	2.80	2.40	3.60	81.00	21898	200	8999	250

L.V. Power and Control Cables



CONTROL / AUXILIARY CABLES

- 600/1000-V

Dimensions & Weights - Size 1.5mm²

COPPER / PVC / SWA / PVC - AS PER IEC 60502 - 1

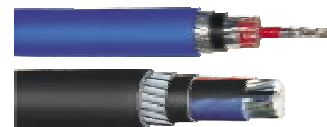
COPPER CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

TABLE – 29

No. of Cores Nos	Thickness of Insulation mm	Thickness of Extruded Bedding mm	Diameter of Armour Wire mm	Thickness of Outer Sheath mm	Approx Overall Diameter mm	Approx. Cable Weight kg/mm	Packing Length mtrs
5	0.80	1.00	1.25	1.80	18.0	572	1000
6	0.80	1.00	1.25	1.80	19.0	633	1000
7	0.80	1.00	1.25	1.80	19.0	656	1000
10	0.80	1.00	1.25	1.80	22.5	850	1000
12	0.80	1.00	1.25	1.80	23.0	917	1000
19	0.80	1.00	1.60	1.80	26.5	1307	1000
27	0.80	1.00	1.60	1.80	30.5	1661	1000
37	0.80	1.00	1.60	1.90	33.5	2033	500
44	0.80	1.00	2.00	2.00	38.0	2570	500
61	0.80	1.20	2.00	2.20	42.0	3209	500

Note: We can also offer screened control cables, dimensions of which can be requested from the factory

L.V. Power and Control Cables



CONTROL / AUXILIARY CABLES

- 600/1000-V

Dimensions & Weights - Size 1.5mm²

COPPER / PVC / PVC - AS PER IEC 60502 - 1

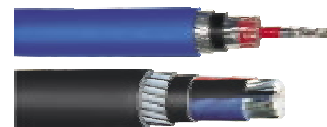
COPPER CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 30

No. of Cores	Diameter of Armour Wire	Thickness of Outer Sheath	Approx Overall Diameter	Approx. Cable Weight	Packing Length
Nos	mm	mm	mm	kg/mm	mtrs
5	0.80	1.80	13.0	249	1000
6	0.80	1.80	14.0	284	1000
7	0.80	1.80	14.0	308	1000
10	0.80	1.80	17.5	418	1000
12	0.80	1.80	18.0	472	1000
19	0.80	1.80	20.5	670	1000
27	0.80	1.80	25.0	904	1000
37	0.80	1.80	27.5	1173	500
44	0.80	1.80	31.0	1378	500
61	0.80	1.90	34.5	1839	500

Note: We can also offer screened control cables, dimensions of which can be requested from the factory.

L.V. Power and Control Cables



CONTROL / AUXILIARY CABLES

- 600/1000-V

Dimensions & Weights - Size 2.5mm²

COPPER / PVC / SWA / PVC - AS PER IEC 60502 - 1

COPPER CONDUCTOR, PVC INSULATED, STEEL WIRE ARMoured, PVC SHEATHED

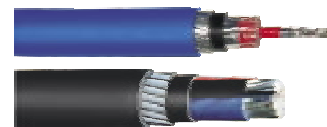
TABLE – 31

No. of Cores	Thickness of Insulation	Thickness of Extruded Bedding	Diameter of Armour Wire	Thickness of Outer Sheath	Approx Overall Diameter	Approx. Cable Weight	Packing Length
Nos	mm	mm	mm	mm	mm	kg/mm	mtrs
5	0.80	0.80	1.25	1.80	18.5	632	1000
6	0.80	0.80	1.25	1.80	19.5	702	1000
7	0.80	0.80	1.25	1.80	19.5	734	1000
10	0.80	0.80	1.60	1.80	24.0	1066	1000
12	0.80	0.80	1.60	1.80	25.0	1153	1000
19	0.80	1.00	1.60	1.80	27.5	1502	1000
27	0.80	1.00	1.60	1.90	32.0	1944	1000
37	0.80	1.00	2.00	2.00	36.0	2604	500
44	0.80	1.20	2.00	2.20	40.5	3089	500
61	0.80	1.20	2.00	2.30	44.5	3854	500

Note: We can also offer screened control cables, dimensions of which can be requested from the factory.

L.V. Power and Control Cables

GEMSCAB®
CABLES
THE RIGHT CONNECTION



CONTROL / AUXILIARY CABLES

- 600/1000-V

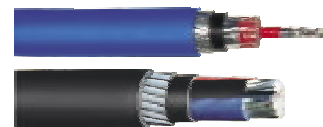
Dimensions & Weights - Size 2.5mm²

COPPER / PVC / PVC - AS PER IEC 60502 - 1

COPPER CONDUCTOR, PVC INSULATED, PVC SHEATHED (UNARMoured)

TABLE – 32

No. of Cores	Thickness of Insulation	Thickness of Outer Sheath	Approx Overall Diameter	Approx. Cable Weight	Packing Length
Nos	mm	mm	mm	kg/mm	mtrs
5	0.80	1.80	14.5	300	1000
6	0.80	1.80	15	345	1000
7	0.80	1.80	15	376	1000
10	0.80	1.80	18.5	515	1000
12	0.80	1.80	19	585	1000
19	0.80	1.80	22	843	1000
27	0.80	1.80	26	1147	1000
37	0.80	1.80	29	1501	500
44	0.80	1.80	33	1786	500
61	0.80	2.10	37	2415	500



CURRENT RATINGS OF THE CABLES - 600/1000-V

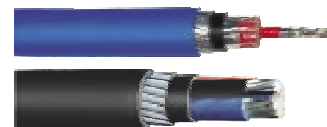
SINGLE CORE COPPER, XLPE INSULATED, ARMoured / UNARMoured CABLES

TABLE – 33

Area	In Air		In Ground	In duct	Volatage drop of 3 Single Core cables Trefoil
	Single Core in Trefoil		Single Core in Trefoil	Single Core in Trefoil	
	Unarmoured	Armoured	Armoured	Armoured	
mm ²	A	A	A	A	V/A/km
1.5	22	22	28	26	26.7
2.5	30	30	38	35	16.4
4	39	39	49	46	10.2
6	49	49	62	59	6.80
10	67	67	82	78	4.00
16	92	92	108	101	2.50
25	123	123	139	134	1.62
35	146	146	165	154	1.17
50	174	180	199	199	0.88
70	222	230	244	239	0.62
95	275	282	292	281	0.46
120	321	328	332	315	0.38
150	371	377	371	341	0.32
185	430	433	417	376	0.28
240	513	510	480	421	0.23
300	594	581	536	459	0.21
400	692	664	594	488	0.20
500	801	751	658	529	0.18
630	925	846	723	571	0.17
800	1051	919	764	595	0.16
1000	1172	997	810	632	0.15

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W



CURRENT RATINGS & VOLTAGE DROP THE CABLES - 600/1000-V

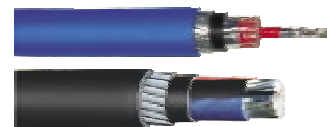
TWO CORE COPPER, XLPE INSULATED, ARMoured / UNARMoured CABLES

TABLE – 34

Area mm ²	In Air (A)		In Ground (A)	In duct (A)	Volatage Drop V/A/Km
	Two Core		Two Core	Two Core	
	Unarmoured	Armoured	Armoured	Armoured	
	A	A	A	A	
1.5	32	24	33	27	30.90
2.5	30	32	42	35	18.90
4	39	43	56	46	11.90
6	50	55	70	58	7.90
10	67	74	94	77	4.70
16	97	98	121	99	2.90
25	122	128	157	127	1.90
35	151	158	188	153	1.35
50	183	190	223	181	1.00
70	232	239	273	224	0.70
95	287	295	328	269	0.52
120	335	341	372	307	0.42
150	383	289	417	345	0.35
185	444	449	470	391	0.30
240	529	530	544	453	0.24
300	611	605	609	509	0.21
400	711	696	687	575	0.20

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying□ 0.50m
4. Thermal resistivity of Soil□ 1.2 Km/W



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

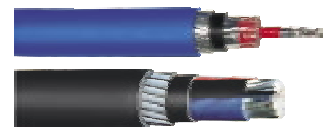
SINGLE CORE ALUMINIUM, XLPE INSULATED, ARMoured / UNARMoured CABLES

TABLE – 35

Area mm ²	In Air		In Ground	In duct	Volatage drop of 3 Single Core cables in Trefoil V/A/km
	Single Core in Trefoil		Single Core in Trefoil	Single Core in Trefoil	
	Unarmoured	Armoured	Armoured	Armoured	
	A	A	A	A	
4	30	30	39	37	16.50
6	39	39	49	45	10.24
10	53	53	65	62	6.84
16	72	72	84	79	4.20
25	94	94	109	103	2.70
35	118	118	127	123	1.93
50	129	135	152	153	1.44
70	165	172	187	186	1.00
95	204	211	224	219	0.73
120	237	245	255	248	0.59
150	274	282	285	271	0.49
185	319	325	322	301	0.40
240	381	385	372	341	0.32
300	442	441	418	377	0.27
400	487	487	473	426	0.25
500	538	538	536	483	0.21
630	610	610	609	549	0.19
800	690	690	689	622	0.18
1000	775	775	772	697	0.17

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

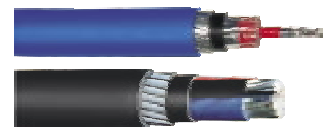
TWO CORE ALUMINIUM, XLPE INSULATED, ARMOURED / UNARMOURED CABLES

TABLE – 36

Area mm ²	In Air Two Core		In Ground Two Core	In duct Two Core	Volatage drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
1.5	18	18	22	19	-
2.5	24	24	31	25	-
4	30	30	39	32	19.00
6	39	39	49	41	11.80
10	53	53	67	54	7.90
16	73	74	93	76	4.80
25	90	95	119	96	3.10
35	111	116	142	116	2.23
50	134	140	169	138	1.65
70	171	177	207	169	1.15
95	211	218	248	204	0.84
120	235	235	266	232	1.72
150	269	269	304	256	0.61
185	308	308	349	293	0.52
240	364	364	406	336	0.42
300	409	409	450	372	0.39
400	470	470	492	425	0.36

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

3 & 4 CORE, COPPER, XLPE INSULATED, ARMoured / UNARMoured CABLES

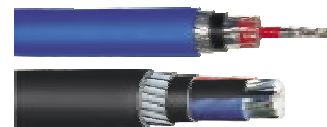
TABLE – 37

Area mm ²	In Air		In Ground	In duct	Volatage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
	A	A	A	A	
1.5	19	20	28	22	26.70
2.5	27	27	36	29	16.40
4	34	37	47	39	10.20
6	44	46	59	48	6.80
10	58	64	79	65	4.00
16	83	83	102	83	2.50
25	105	109	131	107	1.65
35	129	134	157	128	1.15
50	157	163	187	152	0.87
70	200	205	229	187	0.60
95	246	253	274	226	0.45
120	288	293	312	258	0.37
150	330	335	349	291	0.30
185	381	386	394	329	0.26
240	454	456	455	380	0.21
300	524	519	509	427	0.19
400	608	597	574	490	0.17

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W

L.V. Power and Control Cables



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

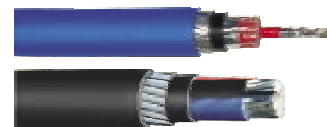
3 & 4 CORE ALUMINIUM, XLPE INSULATED, ARMoured / UNARMoured CABLES

TABLE – 38

Area mm ²	In Air		In Ground	In duct	Volatage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
	A	A	A	A	
1.5	15	15	20	17	-
2.5	20	20	26	22	-
4	26	26	34	28	16.50
6	34	34	43	36	10.24
10	45	45	57	47	6.84
16	63	63	78	64	4.20
25	79	83	100	82	2.70
35	97	101	120	97	2.70
50	118	122	142	116	1.45
70	150	154	175	144	0.97
95	185	190	210	173	0.72
120	216	221	239	198	0.58
150	247	253	267	223	0.47
185	287	293	304	253	0.39
240	342	346	352	294	0.32
300	395	396	396	332	0.26
400	467	461	442	365	0.21

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

SINGLE CORE COPPER, PVC INSULATED, ARMoured / UNARMoured CABLES

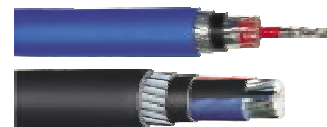
TABLE – 39

Area mm ²	In Air		In Ground	In duct	Volatage drop of 3 Single Core cables in Trefoil V/A/km
	Single Core in Trefoil		Single Core in Trefoil	Single Core in Trefoil	
	Unarmoured	Armoured	Armoured	Armoured	
A	A	A	A	A	
1.5	16	16	23	21	26.30
2.5	22	22	31	29	16.10
4	29	29	41	38	10.00
6	36	36	51	48	6.70
10	49	49	68	64	4.00
16	67	67	89	84	2.40
25	90	90	115	111	1.52
35	107	107	136	127	1.10
50	123	129	162	159	0.83
70	156	163	198	193	0.59
95	194	200	238	226	0.44
120	226	232	270	249	0.37
150	260	265	301	274	0.31
185	302	303	338	300	0.27
240	360	356	388	335	0.23
300	415	407	434	367	0.21
400	484	462	480	391	0.19
500	557	520	528	418	0.18
630	641	582	577	450	0.16
800	726	628	605	470	0.16
1000	808	677	638	497	0.15

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W

L.V. Power and Control Cables



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

TWO CORE COPPER, PVC INSULATED, ARMoured / UNARMoured CABLES

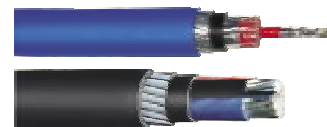
TABLE – 40

Area mm ²	In Air (A) Two Core		In Ground (A) Two Core	In duct (A) Two Core	Voltage drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
1.5	16	16	26	21	30.40
2.5	22	22	33	27	18.60
4	29	29	44	36	11.60
6	37	38	55	46	7.70
10	48	52	74	61	4.60
16	65	68	95	78	2.77
25	87	91	126	103	1.75
35	107	111	152	123	1.26
50	130	135	180	146	0.94
70	163	169	222	180	0.66
95	202	209	266	217	0.49
120	235	241	302	247	0.40
150	269	274	338	277	0.34
185	311	317	382	314	0.28
240	370	374	441	364	0.24
300	426	426	493	408	0.21
400	495	488	554	459	0.19

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W

L.V. Power and Control Cables



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

SINGLE CORE ALUMINIUM, PVC INSULATED, ARMoured / UNARMoured CABLES

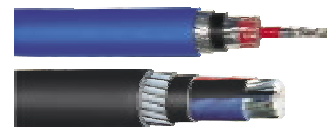
TABLE – 41

Area mm ²	In Air		In Ground	In duct	Volatage drop of 3 Single Core cables in Trefoil V/A/km
	Single Core in Trefoil		Single Core in Trefoil	Single Core in Trefoil	
	Unarmoured	Armoured	Armoured	Armoured	
	A	A	A	A	
16	52	52	69	65	3.97
25	69	69	90	85	2.50
35	86	86	105	102	1.81
50	92	94	123	123	1.35
70	117	119	150	150	0.94
95	144	146	181	178	0.69
120	168	170	206	202	0.56
150	193	194	230	224	0.46
185	224	226	261	245	0.38
240	268	267	302	278	0.31
300	311	307	339	307	0.27
400	357	357	340	347	0.23
500	394	394	361	393	0.20
630	447	447	410	447	0.18
800	505	505	463	506	0.17
1000	568	568	520	567	0.16

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W

L.V. Power and Control Cables



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

TWO CORE ALUMINIUM, PVC INSULATED, ARMoured / UNARMoured CABLES

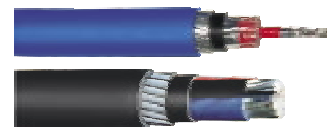
TABLE – 42

Area mm ²	In Air (A) Two Core		In Ground (A) Two Core	In duct (A) Two Core	Voltage drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
16	50	52	73	60	4.60
25	64	66	94	77	2.89
35	78	80	114	92	2.09
50	96	97	134	110	1.55
70	121	124	167	136	1.08
95	149	152	200	163	0.79
120	172	172	219	191	0.63
150	197	197	251	211	0.52
185	226	226	287	242	0.42
240	267	267	334	277	0.34
300	299	299	371	307	0.28
400	344	344	402	351	0.24

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W

L.V. Power and Control Cables



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

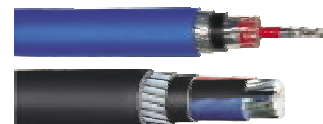
3 & 4 CORE, COPPER, PVC INSULATED, ARMoured / UNARMoured CABLES

TABLE – 43

Area mm ²	In Air		In Ground	In duct	Volatage Drop of 3 Single cor cables
	Unarmoured	Armoured	Armoured	Armoured	Trefoil V/A/km
1.5	14	14	22	18	26.30
2.5	20	19	28	23	16.10
4	25	25	38	30	10.00
6	32	32	47	38	6.70
10	42	44	62	51	4.00
16	56	58	81	66	2.39
25	74	78	106	86	1.51
35	91	95	127	103	1.10
50	111	115	150	122	0.82
70	141	146	186	152	0.57
95	174	180	223	182	0.42
120	202	208	254	208	0.34
150	231	238	284	234	0.29
185	267	273	321	265	0.25
240	318	322	370	306	0.21
300	365	366	414	342	0.18
400	423	420	464	392	0.16

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W



CURRENT RATINGS & VOLTAGE DROP OF THE CABLES - 600/1000-V

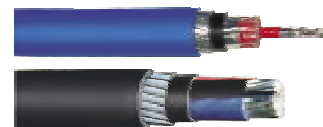
3 & 4 CORE ALUMINIUM, PVC INSULATED, ARMoured / UNARMoured CABLES

TABLE – 44

Area mm ²	In Air		In Ground	In duct	Volatage Drop V/A/km
	Unarmoured	Armoured	Armoured	Armoured	
	A	A	A	A	
1.5	11	11	16	14	-
2.5	15	15	21	18	-
4	19	19	28	23	15.40
6	25	25	35	30	9.60
10	33	33	47	39	6.40
16	42	44	62	50	3.97
25	56	57	80	65	2.50
35	68	70	96	78	1.81
50	83	86	114	93	1.34
70	106	108	141	115	0.93
95	131	134	170	139	0.68
120	151	155	194	159	0.54
150	174	177	218	178	0.45
185	200	205	247	203	0.37
240	239	245	288	238	0.29
300	276	282	326	270	0.25
400	308	308	353	286	0.21

Operating Conditions

1. Ambient air temperature.....□ 50°C
2. Ground temp.□ 35°C
3. Depth of laying.□ 0.50m
4. Thermal resistivity of Soil.....□ 1.2 Km/W



Current Rating Factors

Group Rating Factors for More than one Multicore Armoured or Unarmoured Cables

Laid on Trays, Clipped to the surface, run in Trench etc

Common for Installation in Air, Ground, Duct, Trench etc.

TABLE – 45

No. of load conductors	2	3	4	5	6	8	10	12	14	16	18	20
Correction factor	0.80	0.70	0.65	0.60	0.57	0.52	0.48	0.45	0.43	0.41	0.39	0.38

Where spacing between adjacent cables is more than twice their overall diameters, no correction factor need to be applied

Group Rating Factors for More than Three Single Core Cables

Laid in Conduits buried in Concrete, on surface of Wall, in Trunking, Racks, etc.

Common for Installation in Air, Ground, Duct, Trench etc.

TABLE – 46

No. of load conductors	4	6	8	10	12	16	20	24	28	32	36	40
Correction factor	0.80	0.69	0.62	0.59	0.55	0.51	0.48	0.43	0.41	0.39	0.38	0.36

Rating Factors for variation in Ambient Temperature for Cables

Laid in Air

For Installation in Air only

TABLE – 47

Ambient temperature °C	25	30	35	40	45	50	55
PVC insulated cables	1.49	1.4	1.31	1.22	1.11	1.00	0.86
XLPE insulated cables	1.27	1.22	1.17	1.12	1.06	1.00	0.94

Rating Factors for variation in Ground Temperature for Cables

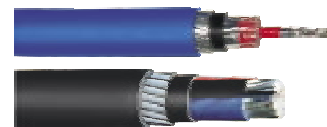
Laid Direct in Ground or in Duct

For Installation in Ground and Duct only

TABLE – 48

Ground temperature °C	15	20	25	30	35	40	45
PVC insulated cables	1.25	1.19	1.12	1.06	1.00	0.92	0.85
XLPE insulated cables	1.16	1.13	1.08	1.03	1.00	0.95	0.90

Common for Ground and Duct



Current Rating Factors

Rating Factors for Depth of Laying for Cables
Laid Direct in Ground or in Ducts
Common for Installation in Ground and Duct only

TABLE – 49

Depth of Lying metre	Cables Laid Direct in Ground			Cables Laid in Ducts	
	Upto 50 mm ²	70 mm ² to 300 mm ²	Above 300 mm ²	Single Core	Multicore
0.50	1.000	1.000	1.000	1.000	1.000
0.60	0.990	0.985	0.971	0.980	0.990
0.75	0.976	0.965	0.952	0.958	0.987
0.80	0.971	0.960	0.945	0.950	0.979
1.00	0.951	0.930	0.924	0.930	0.960
1.25	0.941	0.920	0.894	0.900	0.950
1.50	0.931	0.901	0.874	0.891	0.940
1.75	0.921	0.890	0.864	0.880	0.940
2.00	0.910	0.880	0.854	0.871	0.930
2.50	0.900	0.871	0.844	0.860	0.930
3.0 or more	0.891	0.849	0.824	0.851	0.920

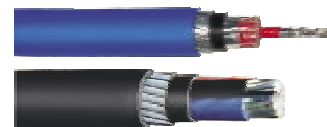
Group Rating Factor for more than One Twin or Multicore Armoured or unarmoured Cables in Horizontal Formation
Laid in Ground Direct

For Installation in ground only

TABLE – 50

No. of cables	2	3	4	5	6	7	8	9	10	11	12
Cables laid touching	0.81	0.70	0.63	0.59	0.55	0.52	0.50	0.48	0.47	0.45	0.44
Cables laid 15 cm apart	0.87	0.78	0.74	0.70	0.68	0.66	0.64	0.63	0.62	0.61	0.60
Cables laid 30 cm apart	0.91	0.84	0.81	0.78	0.77	0.75	0.75	0.74	0.73	0.73	0.72
Cables laid 40 cm apart	0.93	0.88	0.86	0.84	0.83	0.82	0.81	0.81	0.80	0.80	0.80
Cables laid 60 cm apart	0.95	0.90	0.89	0.87	0.87	0.86	0.86	0.85	0.85	0.85	0.84

Rating factors for laying in ground only



Current Rating Factors

Rating Factors for Variation in Thermal Resistivity of Soil for Two or Three Single-Core Cables

Laid Direct in Ground

For Installation in Ground only

TABLE – 51

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.70	0.80	0.90	1.00	1.20	1.50	2.00	2.50	3.00	3.50	4.00
50	1.21	1.16	1.11	1.07	1.00	0.91	0.81	0.73	0.68	0.63	0.59
70	1.22	1.16	1.12	1.07	1.00	0.91	0.81	0.73	0.68	0.63	0.59
95	1.22	1.16	1.12	1.07	1.00	0.91	0.81	0.73	0.68	0.63	0.59
120	1.22	1.16	1.12	1.07	1.00	0.91	0.81	0.73	0.68	0.63	0.59
150	1.22	1.16	1.12	1.07	1.00	0.91	0.81	0.73	0.68	0.63	0.59
185	1.22	1.17	1.12	1.07	1.00	0.91	0.80	0.73	0.68	0.62	0.59
240	1.23	1.17	1.12	1.07	1.00	0.91	0.80	0.73	0.68	0.62	0.59
300	1.23	1.17	1.12	1.07	1.00	0.91	0.80	0.73	0.68	0.62	0.59
400	1.23	1.17	1.12	1.07	1.00	0.91	0.80	0.73	0.67	0.62	0.58
500	1.23	1.17	1.12	1.07	1.00	0.91	0.80	0.73	0.67	0.62	0.58
630	1.23	1.17	1.12	1.07	1.00	0.91	0.80	0.73	0.67	0.61	0.58
800	1.23	1.17	1.12	1.07	1.00	0.91	0.80	0.72	0.66	0.61	0.58
1000	1.25	1.18	1.12	1.07	1.00	0.91	0.80	0.72	0.66	0.61	0.58

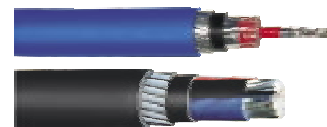
Rating Factors for Variation in Thermal Resistivity of Soil for Twin or Multi-core Cables

Laid Direct in Ground

For Installation in Ground only

TABLE – 52

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.70	0.80	0.90	1.00	1.20	1.50	2.00	2.50	3.00	3.50	4.00
1.5/2.5	1.12	1.09	1.07	1.04	1.00	0.94	0.86	0.8	0.75	0.7	0.66
4	1.13	1.10	1.07	1.05	1.00	0.94	0.85	0.79	0.74	0.69	0.65
6	1.14	1.10	1.07	1.05	1.00	0.93	0.85	0.79	0.74	0.68	0.64
10	1.15	1.11	1.08	1.05	1.00	0.93	0.85	0.78	0.73	0.67	0.63
16	1.16	1.12	1.08	1.05	1.00	0.93	0.84	0.77	0.72	0.66	0.62
25	1.17	1.13	1.09	1.05	1.00	0.93	0.83	0.77	0.71	0.65	0.61
35	1.17	1.13	1.09	1.06	1.00	0.92	0.83	0.76	0.71	0.65	0.61
50	1.17	1.13	1.09	1.06	1.00	0.92	0.83	0.76	0.71	0.65	0.61
70	1.18	1.14	1.09	1.06	1.00	0.92	0.83	0.75	0.70	0.64	0.60
95	1.18	1.14	1.09	1.06	1.00	0.92	0.83	0.75	0.70	0.64	0.60
120	1.19	1.14	1.10	1.06	1.00	0.92	0.82	0.75	0.69	0.63	0.59
150	1.19	1.14	1.10	1.06	1.00	0.92	0.82	0.75	0.69	0.63	0.59
185	1.19	1.14	1.10	1.06	1.00	0.92	0.82	0.74	0.69	0.63	0.59
240	1.20	1.15	1.10	1.07	1.00	0.92	0.81	0.74	0.69	0.63	0.59
300	1.20	1.15	1.10	1.07	1.00	0.92	0.81	0.74	0.69	0.63	0.59
400	1.20	1.15	1.10	1.07	1.00	0.92	0.81	0.74	0.69	0.63	0.59



Current Rating Factors

Rating Factors for Variation in Thermal Resistivity of Soil for Two or Single-core Cables in Ducts

For Installation in Ducts only

TABLE – 53

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.70	0.80	0.90	1.00	1.20	1.50	2.00	2.50	3.00	3.50	4.00
50	1.08	1.06	1.04	1.03	1.00	0.96	0.90	0.85	0.81	0.77	0.74
70	1.08	1.06	1.05	1.03	1.00	0.96	0.90	0.84	0.80	0.76	0.73
95	1.08	1.07	1.05	1.03	1.00	0.95	0.89	0.84	0.8	0.75	0.72
120	1.09	1.07	1.05	1.03	1.00	0.95	0.89	0.83	0.79	0.75	0.71
150	1.09	1.07	1.05	1.03	1.00	0.95	0.88	0.83	0.79	0.74	0.71
185	1.09	1.07	1.05	1.03	1.00	0.95	0.88	0.83	0.78	0.74	0.70
240	1.10	1.08	1.05	1.04	1.00	0.95	0.88	0.82	0.78	0.73	0.70
300	1.10	1.08	1.06	1.04	1.00	0.95	0.87	0.82	0.77	0.72	0.69
400	1.11	1.08	1.06	1.04	1.00	0.94	0.87	0.82	0.77	0.72	0.68
500	1.12	1.08	1.06	1.04	1.00	0.94	0.87	0.81	0.76	0.71	0.68
630	1.12	1.09	1.06	1.04	1.00	0.94	0.87	0.81	0.76	0.71	0.67
800	1.13	1.10	1.07	1.04	1.00	0.94	0.86	0.80	0.75	0.71	0.67
1000	1.13	1.10	1.07	1.04	1.00	0.94	0.86	0.80	0.75	0.70	0.66

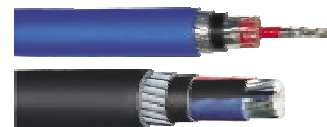
Rating Factors for Variation in Thermal Resistivity of Soil for Three Single-core Cables in Ducts

For Installation in Ducts only

TABLE – 54

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.70	0.80	0.90	1.00	1.20	1.50	2.00	2.50	3.00	3.50	4.00
50	1.11	1.08	1.06	1.04	1.00	0.94	0.87	0.82	0.77	0.73	0.69
70	1.12	1.09	1.06	1.04	1.00	0.94	0.87	0.81	0.76	0.72	0.68
95	1.12	1.09	1.06	1.04	1.00	0.94	0.87	0.81	0.76	0.72	0.68
120	1.13	1.10	1.07	1.04	1.00	0.94	0.86	0.80	0.75	0.72	0.67
150	1.13	1.10	1.07	1.04	1.00	0.94	0.86	0.80	0.75	0.71	0.67
185	1.13	1.10	1.07	1.04	1.00	0.93	0.86	0.79	0.75	0.70	0.67
240	1.14	1.11	1.07	1.04	1.00	0.93	0.86	0.79	0.74	0.70	0.66
300	1.14	1.11	1.08	1.05	1.00	0.93	0.85	0.79	0.74	0.69	0.65
400	1.14	1.11	1.08	1.05	1.00	0.93	0.85	0.78	0.73	0.68	0.65
500	1.15	1.11	1.08	1.05	1.00	0.93	0.85	0.78	0.73	0.68	0.64
630	1.15	1.12	1.09	1.05	1.00	0.93	0.84	0.78	0.72	0.68	0.64
800	1.16	1.12	1.09	1.05	1.00	0.93	0.84	0.77	0.72	0.67	0.64
1000	1.16	1.13	1.09	1.05	1.00	0.92	0.84	0.77	0.71	0.67	0.63

L.V. Power and Control Cables



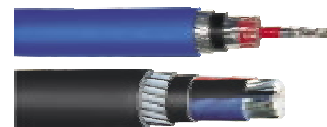
Current Rating Factors

**Rating Factors for Variation in Thermal Resistivity of Soil for Twin or Multi-core Cables
Laid in Single Way Ducts**
For Installation in Ducts only

TABLE – 55

Nominal Area of Conductor mm ²	Thermal Resistivity of Soil in Km/W										
	0.70	0.80	0.90	1.00	1.20	1.50	2.00	2.50	3.00	3.50	4.00
1.5/2.5	1.04	1.03	1.02	1.02	1.00	0.98	0.94	0.91	0.88	0.86	0.83
4	1.04	1.04	1.03	1.02	1.00	0.97	0.94	0.90	0.87	0.85	0.82
6	1.05	1.04	1.03	1.02	1.00	0.97	0.93	0.90	0.86	0.84	0.81
10	1.05	1.04	1.03	1.02	1.00	0.97	0.93	0.89	0.86	0.83	0.80
16	1.06	1.04	1.03	1.02	1.00	0.97	0.92	0.88	0.85	0.82	0.79
25	1.06	1.05	1.03	1.02	1.00	0.96	0.92	0.88	0.84	0.82	0.78
35	1.06	1.05	1.03	1.02	1.00	0.96	0.92	0.87	0.83	0.81	0.77
50	1.07	1.05	1.03	1.02	1.00	0.96	0.91	0.87	0.83	0.80	0.77
70	1.07	1.05	1.04	1.02	1.00	0.96	0.91	0.86	0.82	0.79	0.76
95	1.07	1.05	1.04	1.02	1.00	0.96	0.91	0.86	0.82	0.79	0.76
120	1.08	1.06	1.04	1.03	1.00	0.95	0.90	0.85	0.81	0.78	0.74
150	1.09	1.06	1.04	1.03	1.00	0.95	0.90	0.85	0.80	0.77	0.73
185	1.09	1.07	1.05	1.03	1.00	0.95	0.89	0.84	0.80	0.76	0.72
240	1.09	1.07	1.05	1.03	1.00	0.95	0.88	0.83	0.79	0.85	0.71
300	1.10	1.07	1.05	1.03	1.00	0.95	0.88	0.83	0.78	0.75	0.71
400	1.10	1.07	1.05	1.03	1.00	0.95	0.88	0.83	0.78	0.75	0.71

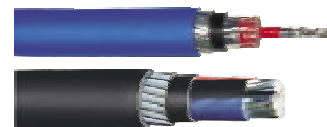
L.V. Power and Control Cables



A.C. Resistance and Reactance Values

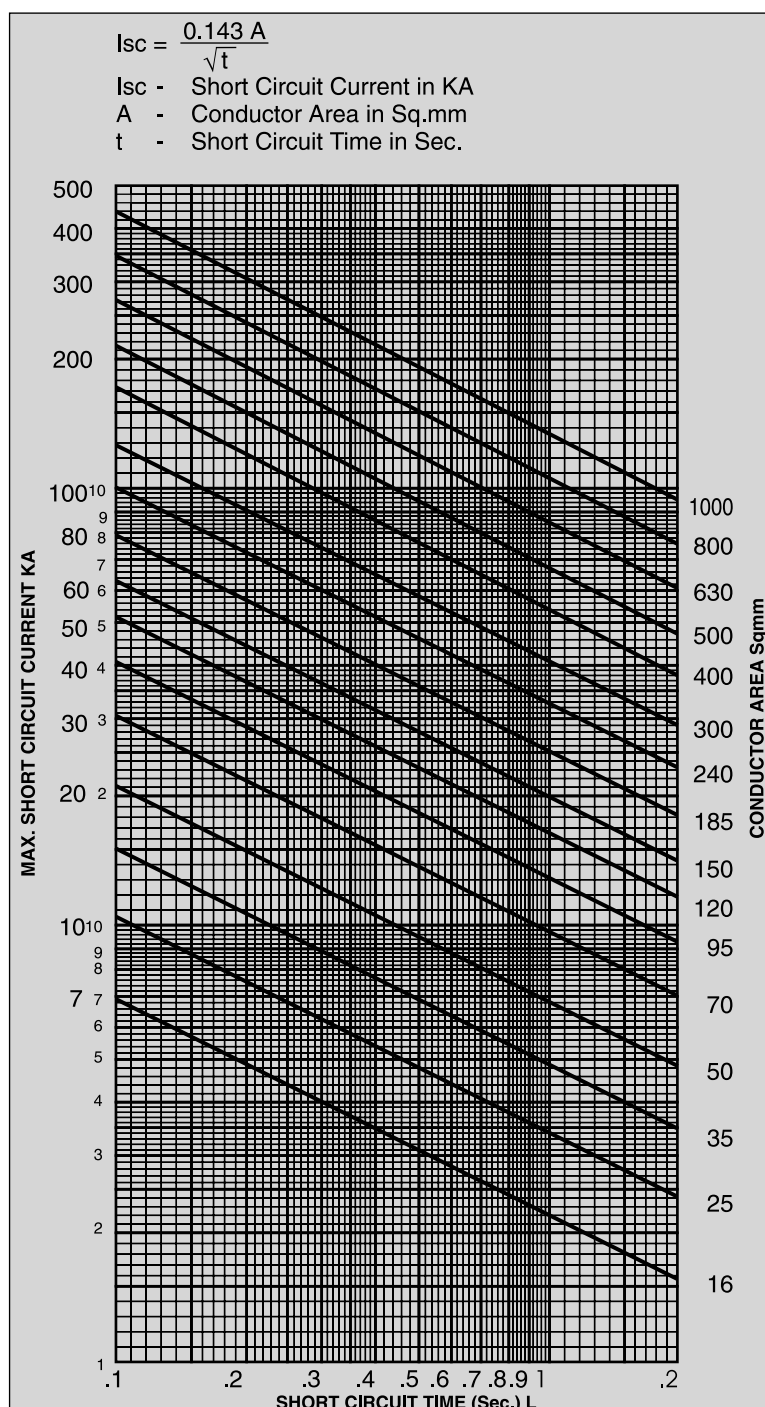
TABLE – 56

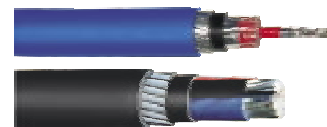
Nominal Area of Conductor	Maximum D. C. Resistance of conductor at 20 °C		PVC Insulated Cables								XLPE Insulated Cables							
			A.C Resistance at 70 °C				Reactance at 50 Hz				A.C Resistance at 90 °C				Reactance at 50 Hz			
			Single Core Cables		Multicore Cables		Single Core Cable		Multicore Cables	Single Core Cables		Multicore Cables		Single Core Cables		Multi-Core Cables		
	Copper	Almn	Copper	Almn	Copper	Almn	Trefoil	Flat			Copper	Almn	Copper	Almn	Trefoil		Flat	
mm²	ohm/km		ohm/km		ohm/km		ohm/km		ohm/km	ohm/km		ohm/km		ohm/km		ohm/km		
1.5	12.1	-	15.91	-	15.91	-	-	-	0.115	15.43	-	15.43	-	-	-	0.115		
2.5	7.41	-	9.3	-	9.3	-	-	-	0.111	9.45	-	9.45	-	-	-	0.100		
4	4.61	7.41	5.79	-	5.79	-	-	-	0.096	5.88	-	5.88	-	-	-	0.093		
6	3.08	4.61	3.87	-	3.87	-	-	-	0.092	3.93	-	3.93	-	-	-	0.089		
10	1.83	3.08	2.3	-	2.30	-	-	-	0.091	2.33	-	2.33	-	-	-	0.084		
16	1.15	1.91	1.38	2.29	1.38	2.29	0.121	0.21	0.086	1.47	2.42	1.47	2.42	0.114	0.172	0.081		
25	0.727	1.20	0.87	1.44	0.87	1.44	0.116	0.202	0.085	0.927	1.54	0.927	1.540	0.113	0.172	0.081		
35	0.524	0.868	0.627	1.04	0.627	1.04	0.115	0.201	0.083	0.668	1.11	0.668	1.110	0.11	0.167	0.079		
50	0.387	0.641	0.464	0.771	0.464	0.77	0.112	0.195	0.08	0.494	0.822	0.494	0.822	0.106	0.161	0.075		
70	0.268	0.443	0.321	0.533	0.321	0.533	0.107	0.188	0.077	0.342	0.568	0.342	0.568	0.103	0.160	0.074		
95	0.193	0.32	0.232	0.385	0.232	0.385	0.103	0.186	0.077	0.247	0.411	0.247	0.411	0.098	0.155	0.073		
120	0.153	0.253	0.185	0.305	0.135	0.305	0.103	0.185	0.075	0.197	0.325	0.197	0.325	0.097	0.153	0.072		
150	0.124	0.206	0.15	0.248	0.150	0.248	0.101	0.185	0.075	0.16	0.265	0.16	0.265	0.097	0.153	0.072		
185	0.0991	0.164	0.12	0.198	0.121	0.198	0.099	0.184	0.074	0.128	0.211	0.128	0.211	0.096	0.153	0.072		
240	0.0754	0.125	0.0926	0.152	0.0929	0.152	0.096	0.181	0.074	0.0986	0.162	0.0989	0.162	0.092	0.147	0.071		
300	0.0601	0.100	0.075	0.122	0.0752	0.122	0.094	0.18	0.073	0.08	0.13	0.0802	0.130	0.09	0.147	0.070		
400	0.047	0.0778	0.060	0.096	0.0604	0.096	0.091	0.178	0.073	0.064	0.102	0.0645	0.102	0.09	0.146	0.070		
500	0.0366	0.0605	0.0484	0.0757	0.0491	0.0757	0.089	0.176	0.072	0.0525	0.081	0.053	0.081	0.089	0.146	0.070		
630	0.0283	0.0469	0.0398	0.0605	-	-	0.086	0.173	-	0.0428	0.0658	-	-	0.086	0.144	-		
800	0.0221	0.0367	0.0334	0.05	-	-	0.086	0.171	-	0.038	0.0541	-	-	0.084	0.143	-		
1000	0.0176	0.0291	0.029	0.0415	-	-	0.084	0.168	-	0.034	0.0457	-	-	0.081	0.14	-		



SHORT CIRCUIT CURVES

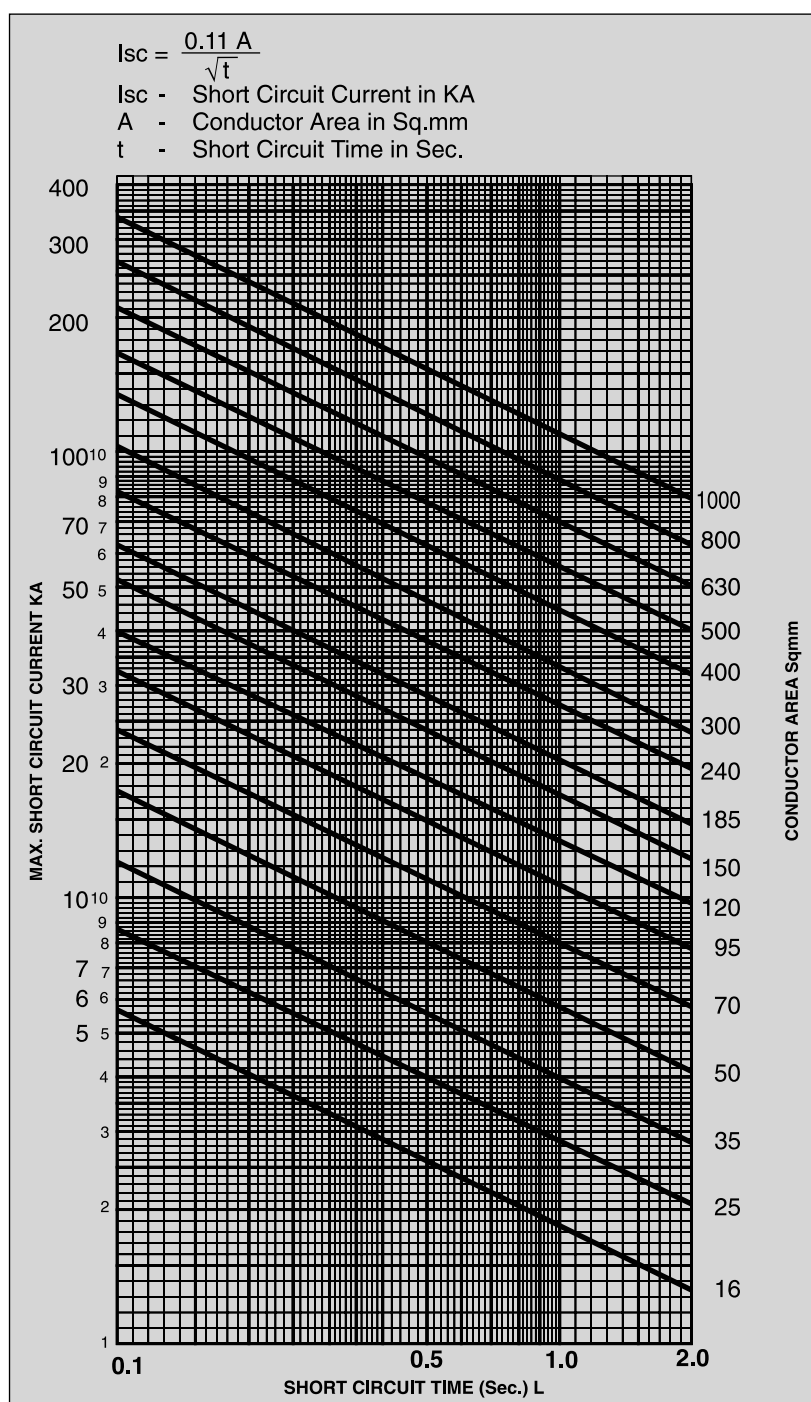
Short Circuit Current Curves for Copper Conductor XLPE Insulated Cables

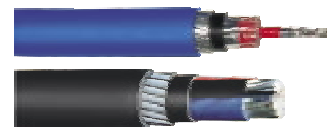




SHORT CIRCUIT CURVES

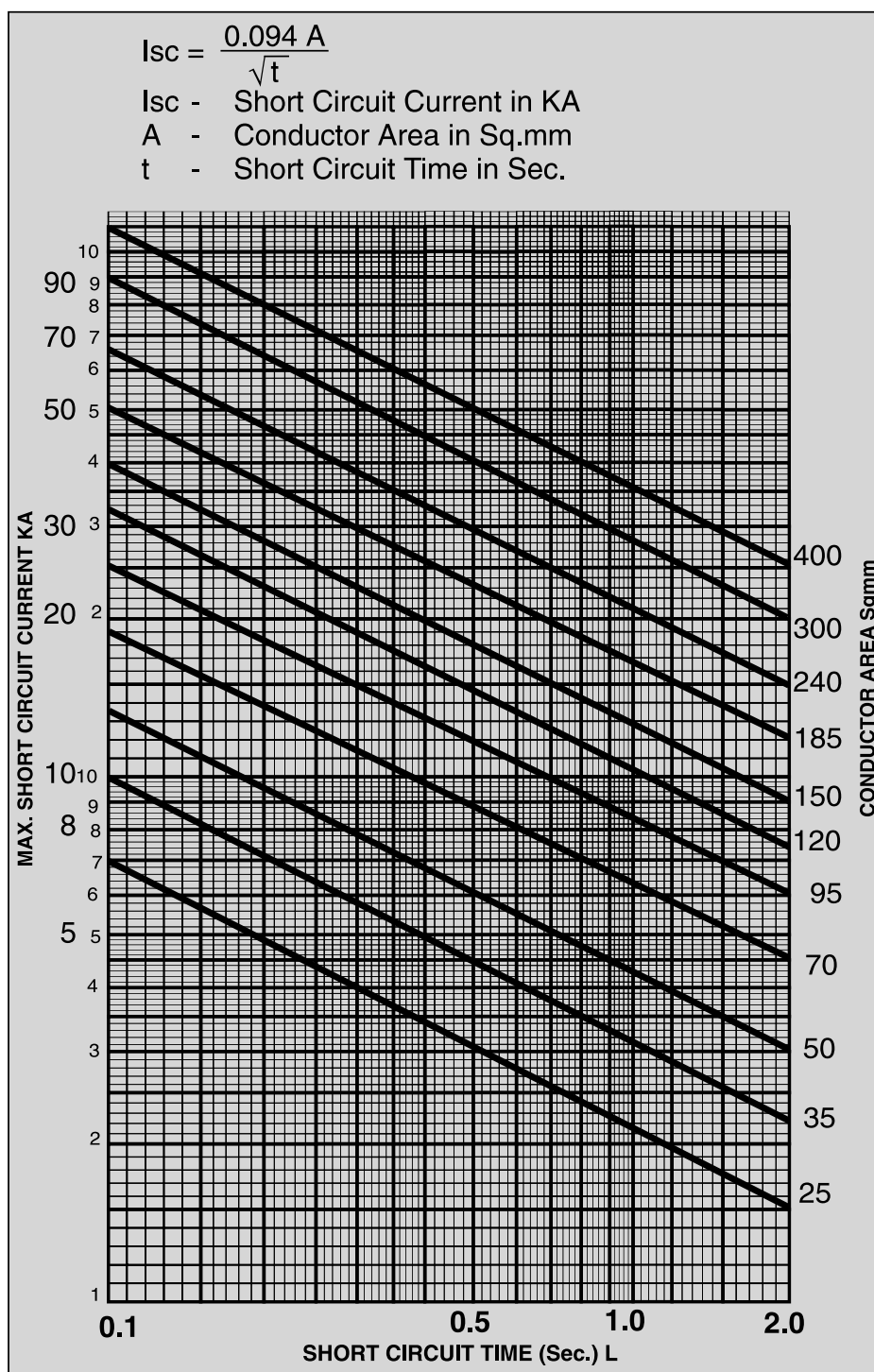
Short Circuit Current Curves for Copper Conductor PVC Insulated Cables

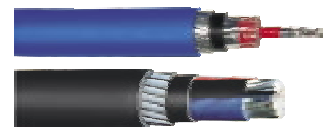




SHORT CIRCUIT CURVES

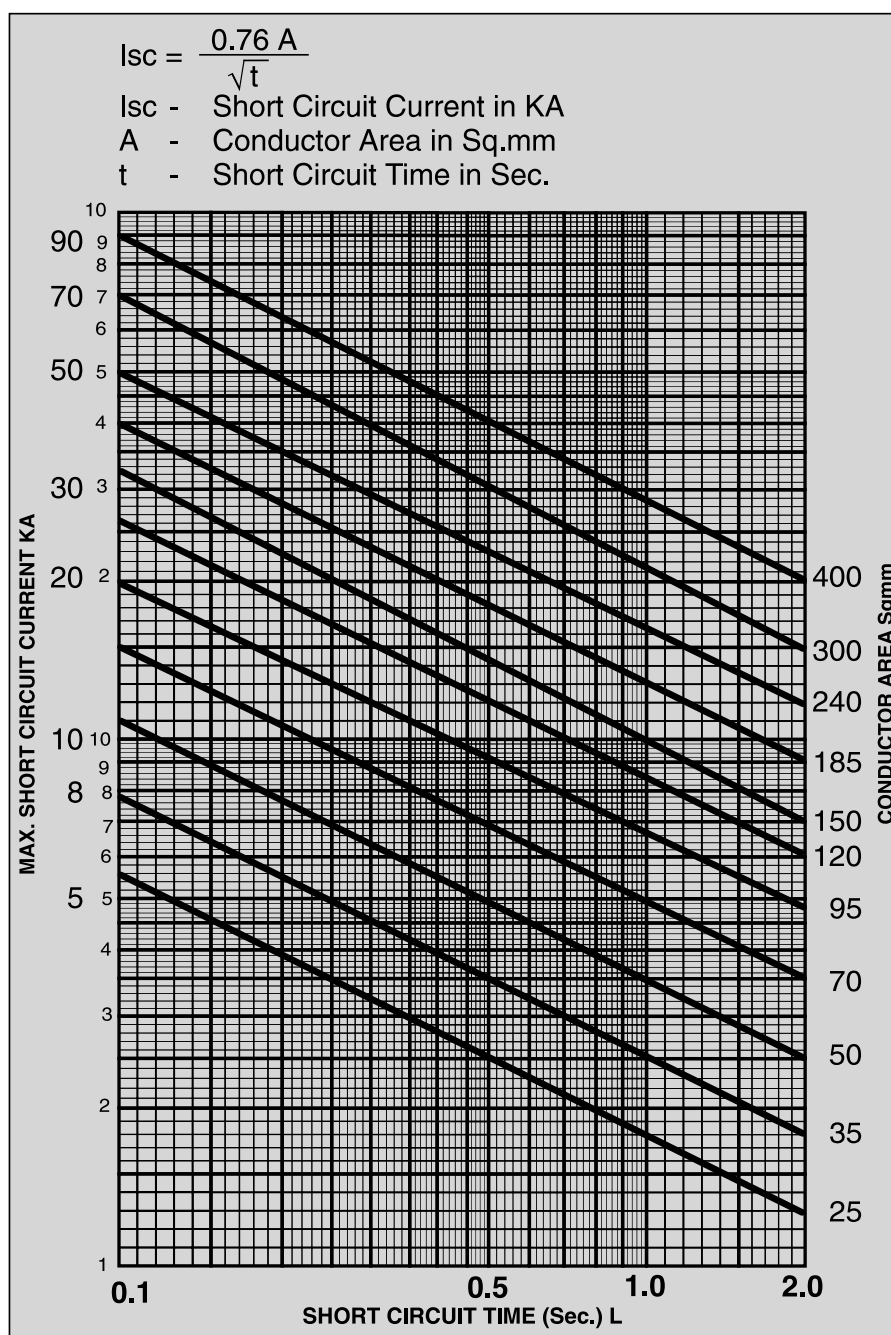
Short Circuit Current Curves for Aluminium Conductor XLPE Insulated Cables

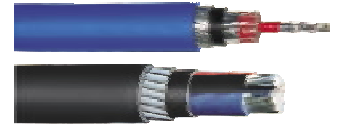




SHORT CIRCUIT CURVES

Short Circuit Current Curves for Aluminium Conductor PVC Insulated Cables





PVC Wire & Flexibe Cables

PVC INSULATED WIRES AND CABLES

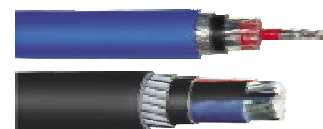
As per BS: 6004 & 6500

450/750 Volts

300/500 Volts



PVC Wire & Flexible Cables



PVC WIRING CABLE

300/500 V, 450/750 V to BS:6004

Voltage Ratings

The non-sheathed general purpose cables are rated at 450/750 V (450 V to earth, 750 V A.C.between conductors). All other types are rated at (300/500 V to earth, 500 V between conductors)

Copper Conductor Construction

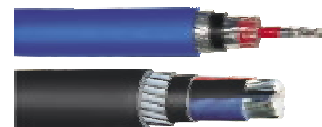
TABLE – 1

Nominal Conductor Area mm ²	Conductor Class	Number and Nominal Diameter of Wires mm	Nominal Diameter of Conductor mm	Maximum DC resistance of Conductor at 20°C per km Plain Annealed Copper Conductor
1	1	1/1.13	1.13	18.1
1.5	2	7/0.53	1.59	12.1
1.5	1	1/1.33	1.38	12.1
2.5	1	1/1.73	1.78	7.41
2.5	2	7/0.67	2.01	7.41
4	2	7/0.85	2.55	4.61
6	2	7/1.05	3.15	3.08
10	2	7/1.35	4.05	1.83
16	2	7/1.72	4.8	1.15
25	2	7/2.20	6.0	0.727
35	2	7/2.60	7.0	0.524
50	2	7/3.02	8.1	0.387
70	2	19/2.20	9.90	0.268
95	2	19/2.60	11.5	0.193
120	2	19/2.90	13.05	0.153
150	2	19/3.25	14.50	0.124
185	2	37/2.60	16.10	0.099
240	2	37/2.90	18.50	0.075
300	2	37/3.25	20.65	0.060
400	2	60/2.92	23.60	0.047
500	2	60/3.26	27.0	0.036
630	2	60/3.68	30.70	0.028

Note:

PI□

PVC Wire & Flexible Cables



SINGLE CORE CABLES

PVC insulated, non-sheathed general purpose cables 450/750V single core (rigid conductors)

Harmonized standard designation

Solid conductor **H07V-U**

Stranded conductor **H07V-R**

TABLE – 2

Nominal Conductor Area mm ²	Class of Conductor	Radial Thickness of Insulation mm ²	Maximum Overall Diameter mm	Approximate Weight kg/km
1.5	1	0.7	3.2	21
1.5	2	0.7	3.3	21
2.5	1	0.8	3.9	32
2.5	2	0.8	4	32
4	2	0.8	4.6	48
6	2	0.8	5.2	67
10	2	1.0	6.7	112
16	2	1.0	7.8	167
25	2	1.2	9.7	260
35	2	1.2	10.9	350
50	2	1.4	12.8	474
70	2	1.4	14.6	664
95	2	1.6	17.1	917
120	2	1.6	18.8	1138
150	2	1.8	20.9	1407
185	2	2.0	23.3	1758
240	2	2.2	26.6	2291
300	2	2.4	29.6	2265
400	2	2.6	33.2	3652
500	2	2.8	36.9	4656
630	2	2.8	41.1	5946

Construction: Plain annealed copper conductor, class 1 solid conductor or class 2 stranded conductor, as Table 1, Insulation Type TI-1

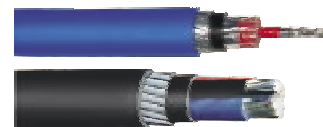
TABLE – 3

PVC insulated non-sheathed cable for internal wiring 300/500 single core

Harmonized standard designation, Class 1 conductor, H05V-U

Nominal Conductor Area mm ²	Nominal Diameter of Wire mm	Radial Thickness of Insulation mm ²	Maximum Overall Diameter mm	Approximate Weight kg/km
0.5	1/0.80	0.6	2.3	8.50
0.75	1/1.00	0.6	2.5	10.80
1.0	1/1.13	0.6	2.7	14.0

PVC Wire & Flexible Cables



SINGLE CORE FLEXIBLES

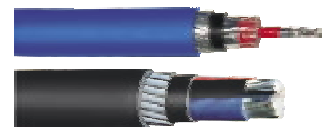
PVC insulated, non-sheathed general purpose cables 450/750V single core flexible conductors

Harmonized standard designation H07V-K

TABLE – 4

Nominal Conductor Area mm ²	Class of Conductor	Radial Thickness of Insulation mm	Maximum Overall Diameter mm	Approximate Weight kg/km
1.5	5	0.7	3.4	21
2.5	5	0.8	4.1	32
4	5	0.8	4.8	48
6	5	0.8	5.3	67
10	5	1.0	6.8	112
16	5	1.0	8.1	167
25	5	1.2	10.2	260
35	5	1.2	11.7	350
50	5	1.4	13.9	474
70	5	1.4	16.0	664
95	5	1.6	18.2	917
120	5	1.6	20.2	1138
150	5	1.8	22.5	1407
185	5	2.0	24.9	1758
240	5	2.2	28.4	2291

PVC Wire & Flexible Cables



SINGLE CORE - PVC/PVC

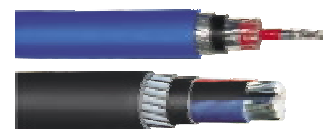
PVC insulated, PVC sheathed cables 300/500 V single core

Conductor as per Table - 1

TABLE – 5

Number & Nominal Area of Conductor mm ²	Class of Conductor	Radial Thickness of Insulation mm	Radial Thickness of Sheath mm	Maximum Overall Diameter mm	Approximate Weight kg/km
1	1	0.6	0.8	4.5	29
1.5	1	0.7	0.8	4.9	37
2.5	1	0.8	0.8	5.8	53
4	2	0.8	0.9	6.8	75
6	2	0.8	0.9	7.4	100
10	2	1.0	0.9	8.8	152
16	2	1.0	1.0	10.5	220
25	2	1.2	1.1	12.5	305
35	2	1.2	1.1	13.5	408

PVC Wire & Flexible Cables



CIRULAR MULTICORE CABLES

(Standard & Solid Conductor)

PVC insulated, PVC sheathed light non-flexible cable 300/500 V - 2, 3, 4 & 5 cores

Conductor as per Table - 1

TWO CORE

TABLE – 6

Number & Nominal Area of Conductor mm ²	Class of Conductor	Radial Thickness of Insulation mm	Thickness of Inner Covering mm	Radial Thickness of Sheath mm	Overall Diameter Maximum mm
2C x 1.5	1	0.70	0.40	1.2	10
2 x 1.5	2	0.7	0.4	1.2	10.5
2 x 2.5	1	0.80	0.40	1.2	11.5
2 x 2.5	2	0.8	0.4	1.2	12.0
2 x 4	1	0.80	0.40	1.20	12.5
2 x 4	2	0.8	0.4	1.2	13.0
2 x 6	1	0.80	0.40	1.20	13.5
2 x 6	2	0.8	0.4	1.2	14.0
2 x 10	1	1.0	0.60	1.40	16.50
2 x 10	2	1.0	0.6	1.4	17.5
2 x 16	2	1.0	0.6	1.4	20.0
2 x 25	2	1.2	0.8	1.4	24.0
2 x 35	2	1.2	1.0	1.6	27.5

PVC insulated, PVC sheathed non-flexible cable 300/500 V

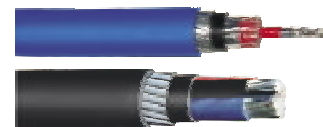
Conductor as per Table - 1

THREE CORE

TABLE – 7

Number & Nominal Area of Conductor mm ²	Class of Conductor	Radial Nominal Insulation mm	Thickness of Covering mm	Radial Thickness of Sheath mm	Overall Diameter Maximum mm
3C x 1.5	1	0.70	0.40	1.2	10.5
3 x 1.5	2	0.7	0.4	1.2	11.0
3C x 2.5	1	0.80	0.40	1.2	12.0
3 x 2.5	2	0.8	0.4	1.2	12.5
3C x 4.0	1	0.80	0.40	1.2	13.0
3 x 4	2	0.8	0.4	1.2	13.5
3C x 6	1	0.80	0.40	1.40	14.5
3 x 6	2	0.8	0.4	1.4	15.5
3C x 10	1	1.0	0.60	1.40	17.50
3 x 10	2	1.0	0.6	1.4	19.0
3 x 16	2	1.0	0.8	1.4	21.5
3 x 25	2	1.2	0.8	1.6	26.0
3 x 35	2	1.2	1.0	1.6	29.0

PVC Wire & Flexible Cables



CIRULAR MULTICORE CABLES

PVC insulated, PVC sheathed non-flexible cable 300/500 V
Conductor as per Table - 1

FOUR CORE

TABLE – 8

Number & Nominal Area of Conductor mm ²	Class of Conductor	Radial Nominal of Insulation mm	Thickness of Inner Covering mm	Radial Thickness of Sheath mm	Overall Diameter Maximum mm
4 x 1.5	1	0.70	0.40	1.2	11.5
4 x 1.5	2	0.7	0.4	1.2	12.0
4 x 2.5	1	0.80	0.40	1.2	13.0
4 x 2.5	2	0.8	0.4	1.2	13.5
4 x 4	1	0.80	0.40	1.4	14.50
4 x 4	2	0.8	0.4	1.4	15.0
4 x 6	1	0.80	0.60	1.4	16.0
4 x 6	2	0.8	0.6	1.4	17.0
4 x 10	1	1.0	0.60	1.4	19.0
4 x 10	2	1.0	0.6	1.4	20.5
4 x 16	2	1.0	0.8	1.4	23.5
4 x 25	2	1.2	1.0	1.6	28.5
4 x 35	2	1.2	1.0	1.6	32.0

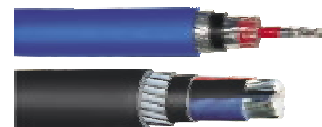
PVC insulated, PVC sheathed non-flexible cable 300/500 V
Conductor as per Table - 1

FIVE CORE

TABLE - 9

Number & Nominal Area of Conductor mm ²	Class of Conductor	Radial Thickness of Insulation mm	Thickness of Inner Covering mm	Radial Thickness of Sheath mm	Overall Diameter Maximum mm
5 x 1.5	1	0.70	0.40	1.2	12.0
5 x 1.5	2	0.7	0.40	1.2	12.5
5 x 2.5	1	0.80	0.40	1.2	14.0
5 x 2.5	2	0.8	0.40	1.2	14.5
5 x 4	1	0.80	0.60	1.40	16.0
5 x 4	2	0.8	0.60	1.4	17.0
5 x 6	1	0.80	0.60	1.40	17.50
5 x 6	2	0.8	0.60	1.4	18.50
5 x 10	1	1.0	0.60	1.40	21.0
5 x 10	2	1.0	0.6	1.4	22.0
5 x 16	2	1.0	0.8	1.6	26.0
5 x 25	2	1.2	1.0	1.6	31.5
5 x 35	2	1.2	1.2	1.6	35.0

PVC Wire & Flexible Cables



TWIN FLAT WITHOUT ECC (Earth Continuity Conductor)

PVC insulated, PVC sheathed cables without earth continuity conductor 300/500 V

Conductor as per Table - 1

TABLE – 10

Number & Nominal Area of Conductor mm ²	Class of Conductor	Radial Thickness of Insulation mm	Radial Thickness of Sheath mm	Overall Diameter		Approximate Weight kg/km
				Minimum mm	Maximum mm	
2 x 1.0	1	0.6	0.9	4.0 x 6.2	4.7 x 7.4	53
2 x 1.5	1	0.7	0.9	4.4 x 7.0	5.4 x 8.4	70
2 x 2.5	1	0.8	1.0	5.2 x 8.4	6.2 x 9.8	98
2 x 4	2	0.8	1.0	5.6 x 9.6	7.2 x 11.5	150
2 x 6	2	0.8	1.1	6.4 x 10.5	8.0 x 13.0	200
2 x 10	2	1.0	1.2	7.8 x 13.0	9.6 x 16.0	295
2 x 16	2	1.0	1.3	9.0 x 15.5	11.0 x 18.5	450

TWIN FLAT WITH ECC

PVC insulated, PVC sheathed cables with earth continuity conductor 300/500 V

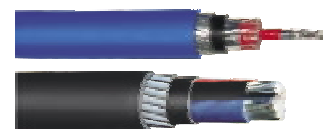
Conductor as per Table - 1

TABLE – 11

Number & Nominal Area of Conductor mm ²	Class of Conductor	Radial Thickness of Insulation mm	Radial Thickness of Sheath mm	Overall diameter		ECC Area mm ²	Approximate Weight kg/km
				Minimum mm	Maximum mm		
2 x 1.0	1	0.6	0.9	4.0 x 7.2	4.7 x 8.6	1.0	70
2 x 1.5	1	0.7	0.9	4.4 x 8.2	5.4 x 9.6	1.0	90
2 x 2.5	1	0.8	1.0	5.2 x 9.8	6.2 x 11.5	1.5	116
2 x 4	2	0.8	1.0	5.6 x 10.5	7.2 x 13.0	1.5	175
2 x 6	2	0.8	1.1	6.4 x 12.5	8.0 x 15.0	2.5	235
2 x 10	2	1.0	1.2	7.8 x 15.5	9.6 x 19.0	4*	400
2 x 16	2	1.0	1.3	9.6 x 18.0	11.0 x 22.5	6*	555

*Class 2 conductor only

PVC Wire & Flexible Cables



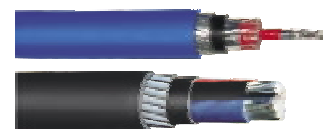
SINGLE CORE PVC INSULATED CABLES, UN-URMOURED, WITH OR WITHOUT SHEATH (COPPER CONDUCTORS)

TABLE – 12

Current-carrying capacity (Amperes):

Ambient temperature : 30 °C
Max. Conductor operating temperature : 70 °C

Conductor Cross Sectional Area mm ²	Enclosed in conduit on wall or in trunking etc		Clipped direct		In air	
					Vertical flat spaced	Trefoil
	2 cables single phase A.C or D.C.	3 or 4 cables three phase A.C.	2 cables single phase A.C. or D.C. flat and touching	3 or 4 cables three phase A.C. flat and touching or trefoil	2 cables single phase A.C. or D.C. or 3 cables three phase A.C.	3 cables trefoil three phase A.C.
1	13.5	12	15.5	14	-	-
1.5	17.5	15.5	20	18	-	-
2.5	24	21	27	25	-	-
4	32	28	37	33	-	-
6	41	36	47	43	-	-
10	57	50	65	59	-	-
16	76	68	87	79	-	-
25	101	89	114	104	130	110
35	125	110	141	129	162	137
50	151	134	182	167	197	167
70	192	171	234	214	254	216
95	232	207	284	261	311	264
120	269	239	380	303	362	308
150	300	262	381	349	419	356
185	341	296	486	400	480	409
240	400	346	515	472	569	485
300	458	394	594	545	659	561
400	546	467	694	634	795	656
500	262	533	792	723	920	749
630	720	611	904	826	1070	855



MULTICORE PVC INSULATED CABLES, NON-ARMoured

TABLE – 13

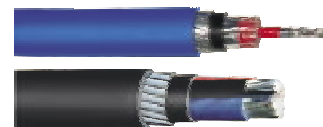
Current-carrying capacity (Amperes):

Ambient temperature : 30 °C
Max. Conductor operating temperature : 70 °C

Conductor cross sectional area mm ²	Enclosed in conduit on a wall or ceiling or in trunking		Clipped direct		On a perforated cable tray or (free air)	
	1 two core cable* single phase A.C. or D.C.	1 three core cable* or 1 four core cable three phase A.C.	1 two core cable* single phase A.C. or D.C.	1 three core cable* or 1 four-core cable three phase A.C.	1 two core cable* single phase A.C. or D.C.	1 three core cable* or 1 four-core cable three phase A.C.
1	13	11.5	15	13.5	17	14.5
1.5	16.5	15	19.5	17.5	22	18.5
2.5	23	20	27	24	30	25
4	30	27	36	32	40	34
6	38	34	46	41	51	43
10	52	46	63	57	70	60
16	69	62	85	76	94	80
25	90	80	112	96	119	101
35	111	99	138	119	148	126

* With or without protective conductor

PVC Wire & Flexible Cables

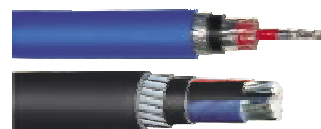


RATING FACTORS

Correction factors for ambient temperature

Type of Insulation	Operating Temperature	Ambient Temperature °C									
		25	30	35	40	45	50	55	60	65	
General Purpose PVC	70°C	1.03	1.00	0.94	0.87	0.79	0.71	0.61	0.50	0.35	

PVC Wire & Flexible Cables



2 CORE FLEXIBLE CABLE

Generally Conform to BS : 6500

APPLICATION

Gemscab Flexible Cable 300/300 V grade cables and cords are used in domestic premises, kitchens and offices for light duties like light portable appliances. These are not suitable for cooking, heating, outdoor industrial use, agricultural buildings or for supply to portable hand tools.

Gemscab flexible cable 300/500 V grade cables and cords can be used in offices, domestic premises, kitchens for household appliances including damp situations for medium duties. e.g. for computers, washing machines, spin extractors, refrigerators etc.

These are also suitable for cooking and heating appliances and for all kinds of hand tools.

Harmonized code designation:

Parallel cords : H03VVH2-F

Circular cords : H03VV-F

TABLE – 14

Parallel & Circular 300/300 Volts Cable

Size in mm ²	Conductor		Max. D.C. Resistance at 20°C ohms/km	Insulation Thickness mm	Sheath Thickness mm	Max. Overall Dia/Dim. of Cable mm	Minimum IR at 70°C M.ohmes/km	Current Carrying Capacity A	Packing Length Yards
	No. of Wires	Dia of Wire (max.) mm							
TWIN PARALLEL									
0.5	16	0.2	39	0.5	0.6	3.7 x 5.9	0.011	3	100
0.75	24	0.2	26	0.5	0.6	3.8 x 6.3	0.010	6	100
CIRCULAR									
0.5	16	0.2	39	0.5	0.6	5.9	0.011	3	100
0.75	24	0.2	26	0.5	0.6	6.3	0.010	6	100

Harmonized code designation:

Parallel cords : H05VVH2-F

Circular cords : H05VV-F

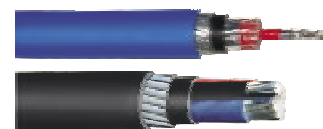
Parallel & Circular 300/500 Volts Cable

Size in mm ²	Conductor		Max. D.C. Resistance at 20°C ohms/km	Insulation Thickness mm	Sheath Thickness mm	Max. Overall Dia/Dim. of Cable mm	Minimum IR at 70°C M.ohmes/km	Current Carrying Capacity A	Packing Length Yards
	No. of Wires	Dia of Wire (max.) mm							
TWIN PARALLEL									
0.75	24	0.20	26.00	0.60	0.80	4.5 x 7.2	0.011	6.00	100
1.00	32	0.20	19.50	0.60	0.80	4.7 x 7.5	0.010	10.00	100
CIRCULAR									
0.50	16	0.20	39.00	0.60	0.80	6.8	0.013	3.00	100
0.75	24	0.20	26.00	0.60	0.80	7.2	0.011	6.00	100
1.00	32	0.20	19.50	0.60	0.80	7.5	0.010	10.00	100
1.50	30	0.25	13.30	0.70	0.80	8.6	0.010	16.00	100
2.50	50	0.25	7.98	0.80	1.00	10.6	0.009	25.00	100

Type of Insulation - Type T12

Type of Sheath - Type TM2

PVC Wire & Flexible Cables



3 CORE FLEXIBLE CABLE

Generally Conform to BS : 6500

APPLICATION

Gemscab Flexible Cable 300/300 V grade cables and cords are used in domestic premises, kitchens and offices for light duties like light portable appliances. These are not suitable for cooking, heating, outdoor industrial use, agricultural buildings or for supply to portable hand tools.

Gemscab Flexible Cable 300/500 V grade cables and cords can be used in offices, domestic premises, kitchens for household appliances including damp situations for medium duties. e.g. for computers, washing machines, spin extractors, refrigerators etc.

These are also suitable for cooking and heating appliances and for all kinds of outdoor Industrial use and supply to portable hand tools.

Harmonized code designation:

Parallel cords : H03VVH2-F

Circular cords : H03VV-F

TABLE – 15

CIRCULAR 300/300 VOLTS CABLES

Size mm ²	Conductor No. of Wires	Dia of Wire (max.) mm	Max. DC Resistance at 20°C ohms/km	Insulation Thickness mm	Sheath Thickness mm	Max. Overall Dia of Cable mm	Minumum IR at 70°C M.ohms/km	Current Carrying Capacity A	Packing Length Yards
CIRCULAR									
0.50	16	0.20	39.00	0.50	0.60	6.3	0.011	3.00	100
0.75	24	0.20	26.00	0.50	0.60	6.7	0.010	6.00	100

Harmonized code designation:

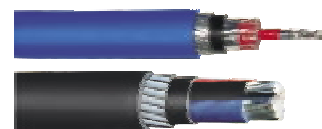
Parallel cords : H05VVH2-F

Circular cords : H05VV-F

CIRCULAR 300/500 VOLTS CABLES

Size mm ²	Conductor No. of Wires	Dia of Wire (max.) mm	Max. DC Resistance at 20°C ohms/km	Insulation Thickness mm	Sheath Thickness mm	Max. Overall Dia of Cable mm	Minumum IR at 70°C M.ohms/km	Current Carrying Capacity A	Packing Length Yards
CIRCULAR									
0.75	24	0.20	26.00	0.60	0.80	7.6	0.011	6.00	100
1.00	32	0.20	19.50	0.60	0.80	8.0	0.010	10.00	100
1.50	30	0.25	13.30	0.70	0.90	9.4	0.010	16.00	100
2.50	50	0.25	7.98	0.80	1.00	11.4	0.010	20.00	100

PVC Wire & Flexible Cables



4 CORE FLEXIBLE CABLE

Generally Conform to BS : 6500

APPLICATION

Gemscab Flexible Cable 300/300 V grade cables and cords are used in domestic premises, kitchens and offices for light duties like light portable appliances. These are not suitable for cooking, heating, outdoor industrial use, agricultural buildings or for supply to portable hand tools.

Gemscab Flexible Cable 300/500 V grade cables and cords can be used in offices, domestic premises, kitchens for household appliances including damp situations for medium duties. e.g. for computers, washing machines, spin extractors, refrigerators etc.

These are also suitable for cooking and heating appliances and for all kinds of outdoor Industrial use and supply to portable hand tools.

Harmonized code designation:

Circular cords : H03VV-F

TABLE – 16
CIRCULAR 300/300 VOLTS CABLES

Size mm ²	Conductor No. of Wires	Dia of Wire mm	Max. DC Resistance at 20°C ohms/km	Insulation Thickness mm	Sheath Thickness mm	Max. Overall Dia / Dim of Cable mm	Minumum IR at 70°C M.ohms/km	Current Carrying Capacity A	Packing Length Yards
CIRCULAR									
0.50	16	0.20	39.00	0.50	0.60	6.9	0.011	3.00	100
0.75	24	0.20	26.00	0.50	0.60	7.3	0.010	6.00	100

Harmonized code designation:

Circular cords : H05VV-F

CIRCULAR 300/500 VOLTS CABLES

Size mm ²	Conductor		Max. DC Resistance at 20°C ohms/km	Insulation Thickness mm	Sheath Thickness mm	Max. Overall Dia / Dim of Cable mm	Minumum IR at 70°C M.ohms/km	Current Carrying Capacity A	Packing Length Yards
	No. of Wires	Dia of Wire mm							
CIRCULAR									
0.75	24	0.20	26.00	0.60	0.80	8.3	0.011	6.00	100
1.00	32	0.20	19.50	0.60	0.90	9.0	0.010	10.00	100
1.50	30	0.25	13.30	0.70	1.00	10.5	0.010	16.00	100
2.50	50	0.25	7.98	0.80	1.10	12.5	0.010	20.00	100



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