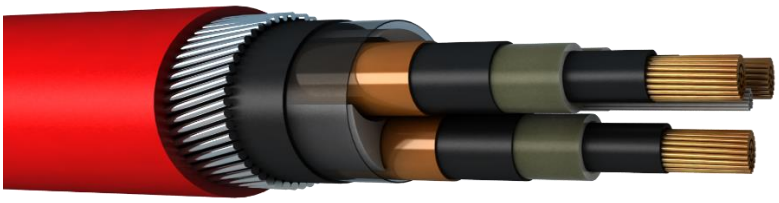
TECHNICAL DATA SHEET

MEDIUM VOLTAGE CABLES

Manufacturing Standard: **BS 6622**

Flame/Fire Performance: **BS EN / IEC 60332-1 Flame Propagation**



Construction

- Class 2 Copper or Aluminium Conductors to BS EN60228
- XLPE Insulation
- Metallic Screen
- PVC or PE Bedding (multicore cables only)
- Galvanised Steel Wire Armour (multicore), Aluminium Wire Armour (single Core)
- PVC or PE Outer Sheath

Voltage Rating 8700/15000 Volt

Operating Temp +90°C

Short Circuit Temp +250°C

Core Colours

1 Core Black
3 Core Brown, Black & Grey

Sheath Colour

Black or Red

BASEC APPROVED

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MEDIUM VOLTAGE CABLE – BS6622 (8.7/15KV)

CABLE CONSTRUCTION

Single Core – Class 2 Copper Conductor, XLPE Insulated, Copper Taped Screen, PVC (PE) Sheathed.

Nominal Area of Conductor	mm²	1 x 50	1 x 70	1 x 95	1 x 120	1 x 150	1 x 185	1 x 240	1 x 300	1 x 400	1 x 500	1 x 630	1 x 800	1 x 1000
Insulation Thickness (Min)	mm	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Outer Sheath Thickness	mm	1.70	1.80	1.90	1.90	2.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70
Overall Diameter (Nom)	mm	25.00	27.00	29.00	31.00	32.00	34.00	37.00	39.00	43.00	46.00	50.00	54.00	58.00
Cable Weight (Nom)	Kg/Km	950	1205	1506	1778	2071	2446	3047	3672	4540	5630	7051	8809	10820
Internal Bending Radius (Min)	mm	500	540	580	620	640	680	740	780	860	920	1000	1080	1160
d.c. Conductor Resistance @ 20°C (Max)	Ω/Km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.047	0.0366	0.0283	0.0221	0.0176
a.c. Conductor Resistance @ 90°C (Max)	Ω/Km	0.494	0.342	0.247	0.196	0.159	0.128	0.098	0.0792	0.0631	0.0509	0.0414	0.0347	0.0304
Inductance	mH/Km	0.422	0.395	0.374	0.359	0.350	0.340	0.329	0.317	0.307	0.295	0.287	0.280	0.272
Reactance @ 50Hz*	Ω/Km	0.1326	0.1241	0.1175	0.1128	0.11	0.1068	0.1034	0.0996	0.0964	0.0927	0.0902	0.088	0.0855
Impedance @ 90°C & 50Hz	Ω/Km	0.51	0.36	0.27	0.23	0.19	0.17	0.14	0.13	0.12	0.11	0.10	0.09	0.09
Capacitance (Max)	µ/Km	0.21	0.24	0.26	0.29	0.31	0.34	0.37	0.41	0.46	0.51	0.56	0.62	0.69
Charging Current	A/Km	0.56	0.66	0.71	0.79	0.85	0.93	1.01	1.12	1.26	1.39	1.53	1.69	1.89
Continuous Current Carrying Capacity (Laid Direct)*	A	220	270	321	364	410	460	530	600	680	750	838	928	1003
Continuous Current Carrying Capacity (Ducts)*	A	225	270	320	360	400	440	505	560	610	680	753	840	913
Continuous Current Carrying Capacity (Air)*	A	250	310	375	430	490	565	660	760	880	1000	1140	1313	1423
Symmetrical Short Circuit Rating (Max)														
90°C - 250°C for 1.0 sec	kA	7.2	10.0	13.6	17.2	21.5	26.5	34.3	42.9	57.2	71.5	90.1	>100	>100
Earth Fault Short Circuit Rating (Max)														
80°C - 200°C for 1.0 sec	kA	1.5	1.6	1.8	1.9	2.0	2.1	2.3	2.4	2.7	2.9	3.2	3.5	3.8

- Cables in Trefoil arrangement

MEDIUM VOLTAGE CABLE – BS6622 (8.7/15KV)

CABLE CONSTRUCTION

Single Core – Class 2 Copper Conductor, XLPE Insulated, Copper Wire Screen, PVC (PE) Sheathed.

Nominal Area of Conductor	mm²	1 x 50	1 x 70	1 x 95	1 x 120	1 x 150	1 x 185	1 x 240	1 x 300	1 x 400	1 x 500	1 x 630	1 x 800	1 x 1000
Insulation Thickness (Min)	mm	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Outer Sheath Thickness	mm	1.70	1.80	1.90	1.90	2.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70
Overall Diameter (Nom)	mm	25.00	27.00	29.00	31.00	32.00	34.00	37.00	39.00	43.00	46.00	50.00	54.00	58.00
Cable Weight (Nom)	Kg/Km	950	1205	1506	1778	2071	2446	3047	3672	4540	5630	7051	8809	10820
Internal Bending Radius (Min)	mm	500	540	580	620	640	680	740	780	860	920	1000	1080	1160
d.c. Conductor Resistance @ 20°C (Max)	Ω/Km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.047	0.0366	0.0283	0.0221	0.0176
a.c. Conductor Resistance @ 90°C (Max)	Ω/Km	0.494	0.342	0.247	0.196	0.159	0.128	0.0981	0.079	0.0631	0.0509	0.0414	0.0348	0.0301
Inductance	mH/Km	0.422	0.395	0.374	0.359	0.350	0.340	0.329	0.317	0.307	0.295	0.287	0.280	0.272
Reactance @ 50Hz*	Ω/Km	0.1326	0.1241	0.1175	0.1128	0.11	0.1068	0.1034	0.0996	0.0964	0.0927	0.0902	0.088	0.0855
Impedance @ 90°C & 50Hz	Ω/Km	0.51	0.36	0.27	0.23	0.19	0.17	0.14	0.13	0.12	0.11	0.10	0.09	0.09
Capacitance (Max)	µ/Km	0.21	0.24	0.26	0.29	0.31	0.34	0.37	0.41	0.46	0.51	0.56	0.62	0.69
Charging Current	A/Km	0.56	0.66	0.71	0.79	0.85	0.93	1.01	1.12	1.26	1.39	1.53	1.69	1.89
Continuous Current Carrying Capacity (Laid Direct)*	A	220	270	321	364	410	460	530	600	680	750	838	928	1003
Continuous Current Carrying Capacity (Ducts)*	A	225	270	320	360	400	440	505	560	610	680	753	840	913
Continuous Current Carrying Capacity (Air)*	A	250	310	375	430	490	565	660	760	880	1000	1140	1313	1423
Symmetrical Short Circuit Rating (Max)														
90°C - 250°C for 1.0 sec	kA	7.2	10.0	13.6	17.2	21.5	26.5	34.3	42.9	57.2	71.5	90.1	>100	>100
Earth Fault Short Circuit Rating (Max)														
80°C - 200°C for 1.0 sec	kA	1.5	1.6	1.8	1.9	2.0	2.1	2.3	2.4	2.7	2.9	3.2	3.5	3.8

- Cables in Trefoil arrangement

MEDIUM VOLTAGE CABLE – BS6622 (8.7/15KV)

CABLE CONSTRUCTION

Single Core – Class 2 Copper Conductor, XLPE Insulated, Copper Taped Screen, PVC (PE) Bedding, Galvanised Steel Wire Armour, PVC (PE) Sheathed.

Nominal Area of Conductor	mm²	1 x 50	1 x 70	1 x 95	1 x 120	1 x 150	1 x 185	1 x 240	1 x 300	1 x 400	1 x 500	1 x 630	1 x 800	1 x 1000
Insulation Thickness (Min)	mm	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Inner Sheath Thickness	mm	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.30	1.30	1.40	1.50	1.60
Aluminium Wire Armour Diameter	mm	1.60	1.60	2.00	2.00	2.00	2.00	2.00	2.00	2.50	2.50	2.50	2.50	2.50
Outer Sheath Thickness	mm	1.90	1.90	2.00	2.10	2.10	2.20	2.30	2.30	2.50	2.60	2.70	2.80	3.00
Overall Diameter (Nom)	mm	31.00	33.00	36.00	38.00	39.00	41.00	43.00	46.00	50.00	54.00	58.00	62.00	67.00
Cable Weight (Nom)	Kg/Km	1360	1630	2040	2360	2650	3080	3720	4360	5480	6630	8150	10020	12190
Internal Bending Radius (Min)	mm	465	495	540	570	585	615	645	690	750	810	870	930	1005
d.c. Conductor Resistance @ 20°C (Max)	Ω/Km	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.047	0.0366	0.0283	0.0221	0.0176
a.c. Conductor Resistance @ 90°C (Max)	Ω/Km	0.494	0.342	0.247	0.196	0.159	0.127	0.0977	0.0787	0.0626	0.0502	0.0406	0.0337	0.0289
Inductance	mH/Km	0.465	0.435	0.418	0.399	0.389	0.378	0.359	0.350	0.337	0.327	0.317	0.308	0.301
Reactance @ 50Hz*	Ω/Km	0.1461	0.1367	0.1313	0.1253	0.1222	0.1188	0.1128	0.11	0.1059	0.1027	0.0996	0.0968	0.0946
Impedance @ 90°C & 50Hz	Ω/Km	0.52	0.37	0.28	0.23	0.20	0.17	0.15	0.14	0.12	0.11	0.11	0.10	0.10
Capacitance (Max)	µ/Km	0.21	0.24	0.26	0.29	0.31	0.34	0.37	0.41	0.46	0.51	0.56	0.62	0.69
Charging Current	A/Km	0.56	0.66	0.71	0.79	0.85	0.93	1.01	1.12	1.26	1.39	1.53	1.69	1.89
Continuous Current Carrying Capacity (Laid Direct)*	A	221	270	321	363	410	455	520	580	650	710	761	812	868
Continuous Current Carrying Capacity (Ducts)*	A	220	261	306	341	375	410	460	500	531	570	620	670	700
Continuous Current Carrying Capacity (Air)*	A	251	310	376	431	490	562	650	740	840	931	1040	1163	1251
Symmetrical Short Circuit Rating (Max)														
90°C - 250°C for 1.0 sec	kA	7.2	10.0	13.6	17.2	21.5	26.5	34.3	42.9	57.2	71.5	90.1	>100	>100
Earth Fault Short Circuit Rating of Copper Tape (Max)														
80°C - 200°C for 1.0 sec	kA	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.5	1.6	1.7	1.9
Earth Fault Short Circuit Rating of Armour (Max)														
80°C - 200°C for 1.0 sec	kA	7.2	7.7	10.4	10.9	11.2	12.0	12.8	13.6	18.8	20.0	21.7	23.8	25.9

- Cables in Trefoil arrangement

MEDIUM VOLTAGE CABLE – BS6622 (8.7/15KV)

CABLE CONSTRUCTION

Three Core – Class 2 Copper Conductor, XLPE Insulated, Copper Taped Screen, PVC (PE) Bedding, Galvanised Steel Wire Armour, PVC (PE) Sheathed.

Nominal Area of Conductor	**mm²**	**3 x 25**	**3 x 35**	**3 x 50**	**3 x 70**	**3 x 95**	**3 x 120**	**3 x 150**	**3 x 185**	**3 x 240**	**3 x 300**	**3 x 400**
Insulation Thickness (Min)	mm	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Inner Sheath Thickness	mm	1.40	1.40	1.50	1.50	1.60	1.70	1.70	1.80	1.90	2.00	2.10
Galvanised Steel Wire Armour Diameter	mm	2.50	2.50	2.50	2.50	2.50	2.50	2.50	3.15	3.15	3.15	3.15
Outer Sheath Thickness	mm	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.40	3.60	3.70	4.00
Overall Diameter (Nom)	mm	55.00	58.00	60.00	64.00	68.00	72.00	75.00	80.00	86.00	91.00	99.00
Cable Weight (Nom)	Kg/Km	4700	5290	5830	6860	7990	9180	10160	12620	14890	17190	20560
Internal Bending Radius (Min)	mm	660	696	720	768	816	864	900	960	1032	1092	1188
d.c. Conductor Resistance @ 20°C (Max)	Ω/Km	0.727	0.524	0.387	0.268	0.193	0.153	0.124	0.0991	0.0754	0.0601	0.047
a.c. Conductor Resistance @ 90°C (Max)	Ω/Km	0.927	0.668	0.494	0.342	0.247	0.196	0.159	0.128	0.1	0.82	0.0668
Inductance	mH/Km	0.437	0.402	0.389	0.363	0.343	0.328	0.321	0.311	0.299	0.289	0.279
Reactance @ 50Hz*	Ω/Km	0.1373	0.1263	0.1222	0.114	0.1078	0.103	0.1008	0.0977	0.0939	0.0908	0.0877
Impedance @ 90°C & 50Hz	Ω/Km	0.94	0.68	0.51	0.36	0.27	0.22	0.19	0.16	0.14	0.12	0.11
Capacitance (Max)	µ/Km	0.17	0.19	0.21	0.24	0.26	0.29	0.31	0.34	0.37	0.41	0.46
Charging Current	A/Km	0.46	0.51	0.56	0.66	0.71	0.79	0.85	0.93	1.01	1.12	1.26
Continuous Current Carrying Capacity (Laid Direct)	A	152	181	213	260	309	349	390	436	499	553	619
Continuous Current Carrying Capacity (Ducts)	A	131	156	182	224	263	306	342	379	438	481	552
Continuous Current Carrying Capacity (Air)	A	163	197	236	291	353	402	454	515	600	676	768
Symmetrical Short Circuit Rating (Max)												
90°C - 250°C for 1.0 sec	kA	3.6	5.0	7.2	10.0	13.6	17.2	21.5	26.5	34.3	42.9	57.2
Earth Fault Short Circuit Rating of Copper Tape (Max)												
80°C - 200°C for 1.0 sec	kA	1.3	1.4	1.5	1.6	1.8	1.9	2.0	2.1	2.3	2.4	2.7
Earth Fault Short Circuit Rating of Armour (Max)												
80°C - 200°C for 1.0 sec	kA	3.6	5.0	7.2	10.0	13.6	15.1	15.6	21.2	22.6	24.0	26.5

MEDIUM VOLTAGE CABLE – BS6622 (8.7/15KV)

CABLE CONSTRUCTION

Single Core – Class 2 Aluminium Conductor, XLPE Insulated, Copper Taped Screen, PVC (PE) Sheathed.

Nominal Area of Conductor	mm²	1 x 50	1 x 70	1 x 95	1 x 120	1 x 150	1 x 185	1 x 240	1 x 300	1 x 400	1 x 500	1 x 630	1 x 800	1 x 1000
Insulation Thickness (Min)	mm	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Outer Sheath Thickness	mm	1.70	1.80	1.90	1.90	2.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70
Overall Diameter (Nom)	mm	26.00	28.00	30.00	31.00	32.00	35.00	37.00	40.00	43.00	46.00	50.00	57.00	61.00
Cable Weight (Nom)	Kg/Km	1040	1160	1300	1420	1540	1710	1950	2210	2550	2970	3500	4200	4950
Internal Bending Radius (Min)	mm	520	560	600	620	640	700	740	800	860	920	1000	1140	1220
d.c. Conductor Resistance @ 20°C (Max)	Ω/Km	0.641	0.443	0.320	0.253	0.206	0.164	0.125	0.100	0.0778	0.0605	0.0469	0.0367	0.0291
a.c. Conductor Resistance @ 90°C (Max)	Ω/Km	0.822	0.568	0.411	0.325	0.265	0.211	0.161	0.13	0.102	0.0803	0.0637	0.0517	0.0432
Inductance	mH/Km	0.419	0.397	0.376	0.359	0.350	0.340	0.326	0.315	0.305	0.295	0.287	0.276	0.267
Reactance @ 50Hz*	Ω/Km	0.1316	0.1247	0.1181	0.1128	0.11	0.1068	0.1024	0.099	0.0958	0.0927	0.0902	0.0867	0.0839
Impedance @ 90°C & 50Hz	Ω/Km	0.83	0.58	0.43	0.34	0.29	0.24	0.19	0.16	0.14	0.12	0.11	0.10	0.09
Capacitance (Max)	µ/Km	0.21	0.24	0.27	0.29	0.31	0.34	0.38	0.42	0.46	0.51	0.56	0.66	0.73
Charging Current	A/Km	0.57	0.66	0.74	0.79	0.85	0.93	1.04	1.15	1.26	1.39	1.53	1.80	2.00
Continuous Current Carrying Capacity (Laid Direct)*	A	172	210	250	284	320	360	415	475	540	610	686	776	855
Continuous Current Carrying Capacity (Ducts)*	A	175	215	255	285	315	350	405	455	510	570	640	713	792
Continuous Current Carrying Capacity (Air)*	A	195	240	300	335	380	443	512	600	700	810	930	1096	1211
Symmetrical Short Circuit Rating (Max)														
90°C - 250°C for 1.0 sec	kA	4.7	6.6	8.9	11.3	14.1	18.9	22.6	28.2	37.6	47.0	59.2	75.2	94
Earth Fault Short Circuit Rating (Max)														
80°C - 200°C for 1.0 sec	kA	1.5	1.7	1.8	1.9	2.0	2.1	2.3	2.5	2.7	2.9	3.2	3.7	4.0

- Cables in Trefoil arrangement

MEDIUM VOLTAGE CABLE – BS6622 (8.7/15KV)

CABLE CONSTRUCTION

Single Core – Class 2 Aluminium Conductor, XLPE Insulated, Copper Wire Screen, PVC (PE) Sheathed.

Nominal Area of Conductor	mm²	1 x 50	1 x 70	1 x 95	1 x 120	1 x 150	1 x 185	1 x 240	1 x 300	1 x 400	1 x 500	1 x 630	1 x 800	1 x 1000
Insulation Thickness (Min)	mm	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Outer Sheath Thickness	mm	1.70	1.80	1.90	1.90	2.00	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70
Overall Diameter (Nom)	mm	28.00	29.00	31.00	33.00	34.00	36.00	39.00	42.00	45.00	48.00	52.00	58.00	63.00
Cable Weight (Nom)	Kg/Km	970	1090	1220	1330	1450	1610	1850	2100	2440	3840	3360	4100	4850
Internal Bending Radius (Min)	mm	560	580	620	660	680	720	780	840	900	960	1040	1160	1260
d.c. Conductor Resistance @ 20°C (Max)	Ω/Km	0.641	0.443	0.32	0.253	0.206	0.164	0.125	0.1	0.0778	0.0605	0.0469	0.0367	0.0291
a.c. Conductor Resistance @ 90°C (Max)	Ω/Km	0.822	0.568	0.411	0.325	0.265	0.211	0.161	0.13	0.102	0.0801	0.0635	0.0515	0.0429
Inductance	mH/Km	0.427	0.404	0.382	0.368	0.360	0.345	0.333	0.320	0.310	0.301	0.292	0.280	0.272
Reactance @ 50Hz*	Ω/Km	0.1341	0.1269	0.12	0.1156	0.1131	0.1084	0.1046	0.1005	0.0974	0.0946	0.0917	0.088	0.0855
Impedance @ 90°C & 50Hz	Ω/Km	0.83	0.58	0.43	0.34	0.29	0.24	0.19	0.16	0.14	0.12	0.11	0.10	0.10
Capacitance (Max)	µ/Km	0.21	0.24	0.27	0.29	0.31	0.34	0.38	0.42	0.46	0.51	0.56	0.66	0.73
Charging Current	A/Km	0.56	0.66	0.74	0.79	0.85	0.93	1.04	1.15	1.26	1.39	1.53	1.80	2.00
Continuous Current Carrying Capacity (Laid Direct)*	A	172	210	250	284	320	360	415	475	540	610	686	776	855
Continuous Current Carrying Capacity (Ducts)*	A	175	215	255	285	315	350	405	455	510	570	640	713	792
Continuous Current Carrying Capacity (Air)*	A	195	240	300	335	380	443	512	600	700	810	930	1096	1211
Symmetrical Short Circuit Rating (Max)														
90°C - 250°C for 1.0 sec	kA	4.7	6.6	8.9	11.3	14.1	17.4	22.6	28.2	37.6	47.0	59.2	75.2	94
Earth Fault Short Circuit Rating (Max)														
80°C - 200°C for 1.0 sec	kA	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5

- Cables in Trefoil arrangement

MEDIUM VOLTAGE CABLE – BS6622 (8.7/15KV)

CABLE CONSTRUCTION

Single Core – Class 2 Aluminium Conductor, XLPE Insulated, Copper Taped Screen, PVC (PE) Bedding, Galvanised Steel Wire Armour, PVC (PE) Sheathed.

Nominal Area of Conductor	mm²	1 x 50	1 x 70	1 x 95	1 x 120	1 x 150	1 x 185	1 x 240	1 x 300	1 x 400	1 x 500	1 x 630	1 x 800	1 x 1000
Insulation Thickness (Min)	mm	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Inner Sheath Thickness	mm	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.30	1.30	1.40	1.50	1.60
Aluminium Wire Armour Diameter	mm	1.60	1.60	2.00	2.00	2.00	2.00	2.00	2.00	2.50	2.50	2.50	2.50	2.50
Outer Sheath Thickness	mm	1.90	1.90	2.00	2.10	2.10	2.20	2.30	2.30	2.50	2.60	2.70	2.80	3.00
Overall Diameter (Nom)	mm	32.00	33.00	36.00	38.00	39.00	41.00	43.00	46.00	51.00	54.00	58.00	65.00	67.00
Cable Weight (Nom)	Kg/Km	1090	1230	1480	1630	1750	1980	2370	2550	3130	3600	4230	5160	6080
Internal Bending Radius (Min)	mm	480	495	540	570	585	615	645	690	765	810	870	975	1050
d.c. Conductor Resistance @ 20°C (Max)	Ω/Km	0.641	0.443	0.32	0.253	0.206	0.164	0.125	0.10	0.0778	0.0605	0.0469	0.0367	0.0291
a.c. Conductor Resistance @ 90°C (Max)	Ω/Km	0.822	0.568	0.411	0.325	0.265	0.211	0.161	0.129	0.101	0.0798	0.0631	0.051	0.0422
Inductance	mH/Km	0.461	0.430	0.412	0.399	0.389	0.372	0.359	0.343	0.339	0.327	0.317	0.302	0.294
Reactance @ 50Hz*	Ω/Km	0.1448	0.1351	0.1294	0.1253	0.1222	0.1169	0.1128	0.1078	0.1065	0.1027	0.0996	0.0949	0.0924
Impedance @ 90°C & 50Hz	Ω/Km	0.83	0.58	0.43	0.35	0.29	0.24	0.20	0.17	0.15	0.13	0.12	0.11	0.10
Capacitance (Max)	µ/Km	0.21	0.24	0.27	0.29	0.31	0.34	0.38	0.42	0.46	0.51	0.56	0.66	0.73
Charging Current	A/Km	0.56	0.66	0.74	0.79	0.85	0.93	1.04	1.15	1.26	1.39	1.53	1.80	2.00
Continuous Current Carrying Capacity (Laid Direct)*	A	172	210	250	284	316	358	412	461	519	577	642	704	767
Continuous Current Carrying Capacity (Ducts)*	A	170	210	245	275	300	335	380	420	455	500	550	600	640
Continuous Current Carrying Capacity (Air)*	A	196	240	295	337	380	442	514	586	679	770	880	1002	1100
Symmetrical Short Circuit Rating (Max)														
90°C - 250°C for 1.0 sec	kA	4.7	6.6	8.9	11.3	14.1	17.4	22.6	28.2	37.6	47.0	59.2	75.2	94
Earth Fault Short Circuit Rating of Copper Tape (Max)														
80°C - 200°C for 1.0 sec	kA	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.5	1.6	1.8	2.0
Earth Fault Short Circuit Rating of Armour (Max)														
80°C - 200°C for 1.0 sec	kA	4.7	6.6	8.9	10.9	11.2	12.0	12.8	13.9	18.8	20.0	21.7	25.0	27.1

- Cables in Trefoil arrangement

MEDIUM VOLTAGE CABLE – BS6622 (8.7/15KV)

CABLE CONSTRUCTION

Three Core – Class 2 Aluminium Conductor, XLPE Insulated, Copper Taped Screen, PVC (PE) Bedding, Galvanised Steel Wire Armour, PVC (PE) Sheathed.

Nominal Area of Conductor	**mm²**	**3 x 25**	**3 x 35**	**3 x 50**	**3 x 70**	**3 x 95**	**3 x 120**	**3 x 150**	**3 x 185**	**3 x 240**	**3 x 300**	**3 x 400**
Insulation Thickness (Min)	mm	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Inner Sheath Thickness	mm	1.40	1.40	1.50	1.50	1.60	1.70	1.70	1.80	1.90	2.00	2.10
Galvanised Steel Wire Armour Diameter	mm	2.50	2.50	2.50	2.50	2.50	2.50	2.50	3.15	3.15	3.15	3.15
Outer Sheath Thickness	mm	2.60	2.70	2.80	2.90	3.00	3.10	3.20	3.40	3.60	3.70	4.00
Overall Diameter (Nom)	mm	55.00	58.00	61.00	65.00	69.00	72.00	75.00	81.00	87.00	93.00	100.00
Cable Weight (Nom)	Kg/Km	4300	4640	5060	5680	6350	6980	7450	9300	10540	11830	13450
Internal Bending Radius (Min)	mm	660	696	732	780	828	864	900	972	1044	1116	1200
d.c. Conductor Resistance @ 20°C (Max)	Ω/Km	1.20	0.868	0.641	0.443	0.32	0.253	0.206	0.164	0.125	0.10	0.0778
a.c. Conductor Resistance @ 90°C (Max)	Ω/Km	1.54	1.11	0.822	0.568	0.411	0.325	0.265	0.211	0.163	0.132	0.104
Inductance	mH/Km	0.432	0.402	0.382	0.361	0.340	0.328	0.321	0.309	0.298	0.287	0.278
Reactance @ 50Hz*	Ω/Km	0.1357	0.1263	0.12	0.1134	0.1068	0.103	0.1008	0.0971	0.0936	0.0902	0.0873
Impedance @ 90°C & 50Hz	Ω/Km	1.55	1.12	0.83	0.58	0.42	0.34	0.28	0.23	0.19	0.16	0.14
Capacitance (Max)	µ/Km	0.18	0.19	0.21	0.24	0.27	0.29	0.31	0.34	0.38	0.42	0.46
Charging Current	A/Km	0.49	0.52	0.57	0.66	0.74	0.79	0.85	0.93	1.04	1.15	1.26
Continuous Current Carrying Capacity (Laid Direct)	A	118	141	166	202	241	272	304	343	395	440	500
Continuous Current Carrying Capacity (Ducts)	A	101	121	141	174	205	239	267	297	347	383	446
Continuous Current Carrying Capacity (Air)	A	127	153	183	226	274	314	354	404	473	536	618
Symmetrical Short Circuit Rating (Max)												
90°C - 250°C for 1.0 sec	kA	2.4	3.3	4.7	6.6	8.9	11.3	14.1	17.4	22.6	28.2	37.6
Earth Fault Short Circuit Rating of Copper Tape (Max)												
80°C - 200°C for 1.0 sec	kA	1.4	1.4	1.5	1.7	1.8	1.9	2.0	2.1	2.3	2.5	2.7
Earth Fault Short Circuit Rating of Armour (Max)												
80°C - 200°C for 1.0 sec	kA	2.4	3.3	4.7	6.6	8.9	11.3	14.1	17.4	22.6	24.7	26.5