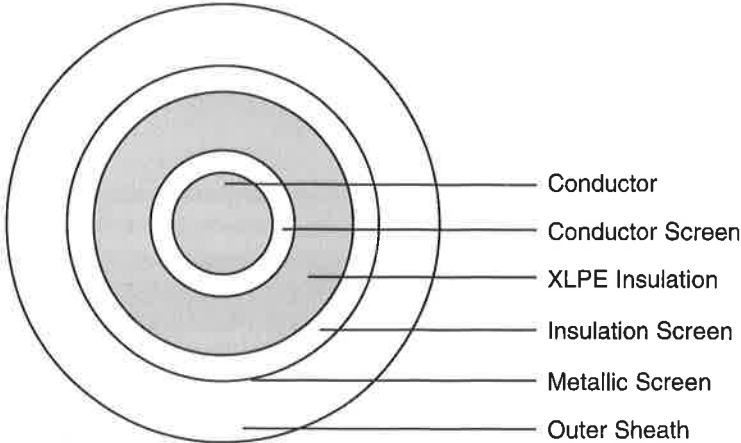
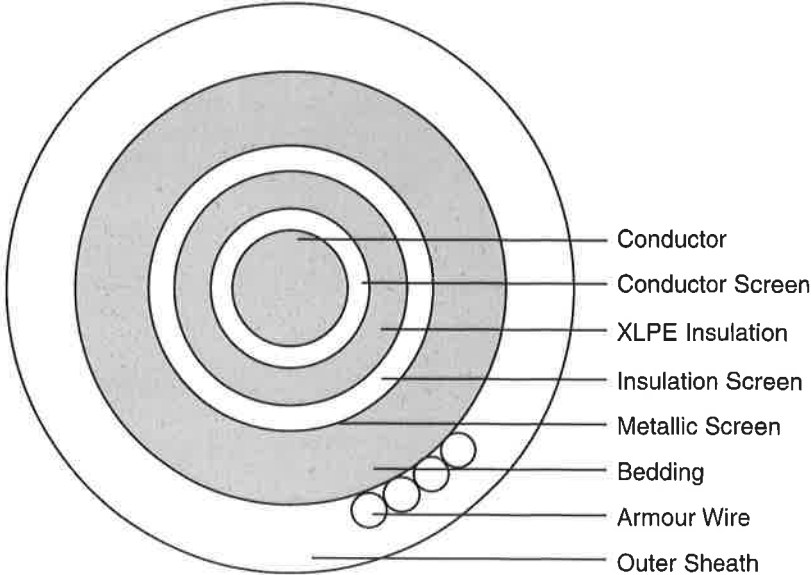


# MEDIUM VOLTAGE SINGLE CORE XLPE INSULATED POWER CABLE

## UNARMoured CABLES



## ARMoured CABLES



# BASIC CONSTRUCTION

- CONDUCTOR MATERIAL - COPPER OR ALUMINIUM
- CONDUCTOR SHAPE - COMPACTED CIRCULAR STRANDED
- INSULATION - XLPE
- BEDDING - PVC OR POLYETHYLENE
- ARMOUR WIRE - ALUMINIUM WIRES
- SHEATH MATERIAL - PVC OR POLYETHYLENE

**TNB  
SPECIFICATION**

**REFERENCE  
TC-6-1-N**

**MEDIUM VOLTAGE XLPE INSULATED POWER CABLES**

**TABLE 5A SINGLE-CORE 6KV UNARMoured CABLES (COPPER CONDUCTOR)**

Nominal Area of Conductors	Thickness of Insulation	Thickness of Outer Sheath	Overall Diameter	Approx. Weight	ELECTRICAL CHARACTERISTICS					
					Current Rating		Conductor Resistance		Reactance at 50Hz	Capacitance
					In Air at 40°C	In Ground at 25°C	dc at 20°C	50Hz at 90°C		
sq. mm	mm	mm	mm	kg/km	amp	amp	Ω/km	Ω/km	Ω/km	μF/km
300	2.8	2.0	35.1	3560	629	540	0.0601	0.0791	0.094	0.64

**BS 6622  
IEC 60502-2**

**REFERENCE  
GC-11-1-N**

**MEDIUM VOLTAGE XLPE INSULATED POWER CABLES**

**TABLE 6A SINGLE-CORE 11KV UNARMoured CABLES (COPPER CONDUCTOR)**

Nominal Area of Conductors	Thickness of Insulation	Thickness of Outer Sheath	Overall Diameter	Approx. Weight	ELECTRICAL CHARACTERISTICS					
					Current Rating		Conductor Resistance		Reactance at 50Hz	Capacitance
					In Air at 40°C	In Ground at 25°C	dc at 20°C	50Hz at 90°C		
sq. mm	mm	mm	mm	kg/km	amp	amp	Ω/km	Ω/km	Ω/km	μF/km
50	3.4	1.7	23.7	950	217	198	0.387	0.493	0.126	0.27
70	3.4	1.7	25.3	1180	242	243	0.268	0.342	0.119	0.31
95	3.4	1.8	27.1	1470	306	288	0.193	0.247	0.112	0.34
120	3.4	1.8	28.6	1740	353	324	0.153	0.196	0.108	0.37
150	3.4	1.9	30.0	2030	400	369	0.124	0.159	0.106	0.40
185	3.4	1.9	31.7	2420	459	414	0.0991	0.128	0.103	0.44
240	3.4	2.0	34.0	3010	544	477	0.0754	0.0980	0.099	0.49
300	3.4	2.1	36.4	3640	629	540	0.0601	0.0790	0.096	0.54
400	3.4	2.2	39.4	4510	714	612	0.0470	0.0633	0.093	0.59
500	3.4	2.3	42.7	5620	799	675	0.0366	0.0511	0.090	0.66
630	3.4	2.4	46.5	7070	944	752	0.0283	0.0416	0.087	0.74

**BS 6622  
IEC 60502-2**

**REFERENCE  
GC-11-1-A**

**MEDIUM VOLTAGE XLPE INSULATED POWER CABLES**

**TABLE 6B SINGLE-CORE 11KV ARMoured CABLES (COPPER CONDUCTOR)**

Nominal Area of Conductors	Thickness of Insulation	Thickness of Extruded Bedding	Nominal of Armour Diameter	Thickness of Outer Sheath	Overall Diameter	Approx. Weight	ELECTRICAL CHARACTERISTICS					
							Current Rating		Conductor Resistance		Reactance at 50Hz	Capacitance
							In Air at 40°C	In Ground at 25°C	dc at 20°C	50Hz at 90°C		
sq. mm	mm	mm	mm	mm	mm	kg/km	amp	amp	Ω/km	Ω/km	Ω/km	μF/km
50	3.4	1.2	1.6	1.8	31.7	1600	217	198	0.387	0.493	0.126	0.27
70	3.4	1.2	1.6	1.9	33.3	1870	242	243	0.268	0.342	0.119	0.31
95	3.4	1.2	1.6	1.9	35.1	2210	306	288	0.193	0.247	0.112	0.34
120	3.4	1.2	1.6	2.0	36.6	2510	353	324	0.153	0.196	0.108	0.37
150	3.4	1.2	2.0	2.1	38.8	2950	400	369	0.124	0.159	0.106	0.40
185	3.4	1.2	2.0	2.1	40.5	3370	459	414	0.0991	0.128	0.103	0.44
240	3.4	1.2	2.0	2.2	42.8	4030	544	477	0.0754	0.0980	0.099	0.49
300	3.4	1.2	2.0	2.2	45.2	4720	629	540	0.0601	0.0790	0.096	0.54
400	3.4	1.2	2.0	2.4	47.9	5630	714	612	0.0470	0.0633	0.093	0.59
500	3.4	1.3	2.5	2.5	52.0	6990	799	675	0.0366	0.0511	0.090	0.66
630	3.4	1.4	2.5	2.6	55.6	8520	944	752	0.0283	0.0416	0.087	0.74

BS 6622  
IEC 60502-2

REFERENCE  
GA-11-1-N

**MEDIUM VOLTAGE XLPE INSULATED POWER CABLES**

**TABLE 7A SINGLE-CORE 11KV UNARMoured CABLES (ALUMINIUM CONDUCTOR)**

Nominal Area of Conductors	Thickness of Insulation	Thickness of Outer Sheath	Overall Diameter	Approx. Weight	ELECTRICAL CHARACTERISTICS					
					Current Rating		Conductor Resistance		Reactance at 50Hz	Capacitance
					In Air at 40°C	In Ground at 25°C	dc at 20°C	50Hz at 90°C		
sq. mm	mm	mm	mm	kg/km	amp	amp	Ω/km	Ω/km	Ω/km	μF/km
50	3.4	1.7	23.8	650	153	153	0.641	0.821	0.126	0.27
70	3.4	1.7	25.4	760	191	189	0.443	0.569	0.119	0.31
95	3.4	1.8	27.1	880	238	225	0.320	0.410	0.112	0.34
120	3.4	1.8	28.6	990	272	252	0.253	0.325	0.108	0.37
150	3.4	1.9	30.0	1110	310	288	0.206	0.265	0.106	0.40
185	3.4	1.9	31.7	1260	361	324	0.164	0.211	0.103	0.44
240	3.4	2.0	34.0	1490	425	374	0.125	0.161	0.099	0.49
300	3.4	2.1	36.2	1720	493	428	0.100	0.130	0.096	0.54
400	3.4	2.2	39.2	2060	570	486	0.0778	0.102	0.093	0.59
500	3.4	2.3	42.5	2480	672	549	0.0605	0.0816	0.090	0.66
630	3.4	2.4	46.3	3010	774	612	0.0469	0.0647	0.087	0.74

BS 6622  
IEC 60502-2

REFERENCE  
GA-11-1-A

**MEDIUM VOLTAGE XLPE INSULATED POWER CABLES**

**TABLE 7B SINGLE-CORE 11KV ARMoured CABLES (ALUMINIUM CONDUCTOR)**

Nominal Area of Conductors	Thickness of Insulation	Thickness of Extruded Bedding	Nominal of Armour Diameter	Thickness of Outer Sheath	Overall Diameter	Approx. Weight	ELECTRICAL CHARACTERISTICS					
							Current Rating		Conductor Resistance		Reactance at 50Hz	Capacitance
							In Air at 40°C	In Ground at 25°C	dc at 20°C	50Hz at 90°C		
sq. mm	mm	mm	mm	mm	mm	kg/km	amp	amp	Ω/km	Ω/km	Ω/km	μF/km
50	3.4	1.2	1.6	1.8	31.8	1310	153	153	0.641	0.821	0.126	0.27
70	3.4	1.2	1.6	1.9	33.4	1450	191	189	0.443	0.569	0.119	0.31
95	3.4	1.2	1.6	1.9	35.1	1610	238	225	0.320	0.410	0.112	0.34
120	3.4	1.2	1.6	2.0	36.6	1760	272	252	0.253	0.325	0.108	0.37
150	3.4	1.2	2.0	2.1	38.8	2020	310	288	0.206	0.265	0.106	0.40
185	3.4	1.2	2.0	2.1	40.5	2220	361	324	0.164	0.211	0.103	0.44
240	3.4	1.2	2.0	2.2	42.8	2510	425	374	0.125	0.161	0.099	0.49
300	3.4	1.2	2.0	2.2	45.0	2790	493	428	0.100	0.130	0.096	0.54
400	3.4	1.2	2.0	2.4	47.7	3180	570	486	0.0778	0.102	0.093	0.59
500	3.4	1.3	2.5	2.5	51.8	3840	672	549	0.0605	0.0816	0.090	0.66
630	3.4	1.4	2.5	2.6	55.4	4460	774	612	0.0469	0.0647	0.087	0.74

TNB  
SPECIFICATION

REFERENCE  
TA-11-1-N

**MEDIUM VOLTAGE XLPE INSULATED POWER CABLES**

**TABLE 8 SINGLE-CORE 11KV UNARMoured CABLES (ALUMINIUM CONDUCTOR)**

Nominal Area of Conductors	Thickness of Insulation	Thickness of Outer Sheath	Overall Diameter	Approx. Weight	ELECTRICAL CHARACTERISTICS					
					Current Rating		Conductor Resistance		Reactance at 50Hz	Capacitance
					In Air at 40°C	In Ground at 25°C	dc at 20°C	50Hz at 90°C		
sq. mm	mm	mm	mm	kg/km	amp	amp	Ω/km	Ω/km	Ω/km	μF/km
500	3.4	4.0	46.7	2740	672	549	0.0605	0.0816	0.090	0.66