INSULATED ARMOURED CABLES TO BS 6622 STRANDED COPPER OR ALUMINIUM CONDUCTORS

10 9 8 7 6 5 4 3 2 1

1. Round stranded compacted conductor
2. Extruded semi-conductive conductor screen
3. XLPE insulation
4. Extruded semi-conductive insulation screen
5. Copper tape overlapped over each core
6. Fillers
7. Plastic tape
8. PVC inner sheath
9. Galvanised steel wires
10. PVC outersheath

CABLE TYPE: XLPE/CTS/PVC/SWA/PVC
NOMINAL VOLTAGE: 12,7/22 kV
SPECIFICATION: BS 6622

The cable can be also produced with CWS or CTS according to IEC 60502-2.

CABLES WITH COPPER CONDUCTOR											
NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.) UNDER ARMOUR	DIAMETER (APPROX.) OVER ARMOUR	DIAMETER (APPROX.) OVERALL	NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
					TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
mm²	mm	mm	mm	kg/km	A	A	A	A	A	A
1X50	25,5	28,7	32,7	1500	220	230	220	220	250	300
1X70	27,0	31,0	35,0	1900	270	280	260	270	310	370
1X95	28,8	32,8	37,0	2200	320	335	305	325	375	460
1X120	30,3	34,3	38,5	2500	360	380	340	370	430	530
1X150	31,6	35,6	40,0	2900	410	430	375	410	490	600
1X185	33,6	37,6	42,0	3300	455	485	410	460	550	690
1X240	35,9	39,9	44,5	4000	520	560	470	540	650	820
1X300	38,4	43,4	48,2	4800	580	640	500	610	740	940
1X400	41,4	46,4	51,4	5800	650	730	530	690	840	1100
1X500	45,1	50,1	55,3	7000	710	830	570	780	930	1280
1X630	48,7	53,7	59,3	8500	760	940	620	890	1040	1480
1X800	53,2	58,2	64,0	10400	810	1060	660	990	1140	1690
1X1000	58,0	63,0	69,0	12600	860	1170	690	1090	1230	1900
3X35	50,9	55,9	61,5	5600	170		150		175	
3X50	53,2	58,2	64,0	6300	210		180		220	
3X70	57,0	62,0	68,0	7200	250		215		270	
3X95	61,1	66,1	72,5	8600	300		255		330	
3X120	63,9	70,2	76,8	10400	340		290		380	
3X150	67,4	73,7	80,5	11600	380		330		430	
3X185	71,1	77,4	84,6	13200	430		370		490	
3X240	76,8	83,1	90,5	15600	500		430		570	
3X300	81,9	88,2	96,0	18000	540		470		650	
3X400	89,0	95,3	103,5	21300	600		530		740	

Single core cables are aluminium wire armoured

CABLES WITH ALUMINIUM CONDUCTOR

NOMINAL AREA OF CONDUCTOR	DIAMETER (APPROX.) UNDER ARMOUR	DIAMETER (APPROX.) OVER ARMOUR	OVERALL	NET WEIGHT (APPROX.)	CONTINUOUS CURRENT RATING IN GROUND		CONTINUOUS CURRENT RATING IN DUCTS		CONTINUOUS CURRENT RATING IN AIR	
					TREFOIL	FLAT	TREFOIL	FLAT	TREFOIL	FLAT
mm^2	mm	mm	mm	kg/km	A	A	A	A	A	A
1X50	21,7	24,9	28,5	1200	170	175	170	170	195	230
1X70	23,0	26,2	30,0	1500	210	215	210	210	240	290
1X95	24,7	27,9	31,7	1600	250	260	245	250	295	355
1X120	26,7	29,9	33,9	1800	280	295	275	285	355	410
1X150	27,5	31,5	35,7	2000	320	330	300	320	380	465
1X185	29,3	33,3	37,5	2200	360	375	335	360	435	530
1X240	31,6	35,6	40,0	2500	415	440	380	420	510	630
1X300	34,6	38,6	43,0	2900	475	495	420	470	580	730
1X400	37,0	41,0	45,8	3400	540	570	455	540	670	860
1X500	40,5	45,5	50,5	3900	610	650	500	620	770	1010
1X630	44,6	49,6	54,8	4600	680	750	550	700	880	1180
1X800	48,8	53,8	59,2	5400	770	860	590	800	980	1370
1X1000	53,5	58,5	64,3	6400	859	960	640	890	1080	1560
3X35	41,6	46,6	51,6	5000	135		115		140	
3X50	44,4	49,4	54,6	5400	160		135		170	
3X70	48,1	53,1	58,5	5900	195		165		210	
3X95	52,0	57,0	62,6	6800	230		200		250	
3X120	55,6	60,6	66,6	8200	265		225		295	
3X150	58,6	63,6	69,8	8800	300		255		330	
3X185	62,7	67,7	74,1	9800	335		290		385	
3X240	68,1	74,4	81,2	11100	380		335		450	
3X300	73,5	79,8	87,0	12400	435		375		510	
3X400	81,1	87,4	95,0	13900	490		430		590	

Single core cables are aluminium wire armoured

Note:

The above ratings are given for 25°C ambient temperature, depth of laying 0,8 m, ground temperature 15°C, thermal resistivity of soil 1,2 Km/W and maximum conductor temperature 90°C. Single core cables are laid either in trefoil formation touching or in flat formation spaced by one cable diameter. For other conditions the correction factors are given below:

Ambient Temperature °C:	25	30	35	40	45	50	55
Correction factor	1,0	0,96	0,92	0,88	0,83	0,78	0,73

Ground Temperature °C:	10	15	20	25	30	35	40
Correction factor	1,03	1,0	0,97	0,93	0,89	0,86	0,82

Ground thermal resistivity:	0,9	1,0	1,2	1,5	2,0	2,5	3,0
Correction factor	1,06	1,04	1,0	0,92	0,82	0,74	0,68

Depth of laying m:	0,8	1,0	1,25	1,5	1,75	2,0	2,5
Correction factor	1,0	0,97	0,95	0,94	0,93	0,91	0,90

MIN. bending radius during installation	Single core cables 20 D	Multicore cables 15 D

D: overall diameter of cable

CORE IDENTIFICATION:

In three core cables each phase is identified by a coloured strip laid longitudinally under the metallic screen.