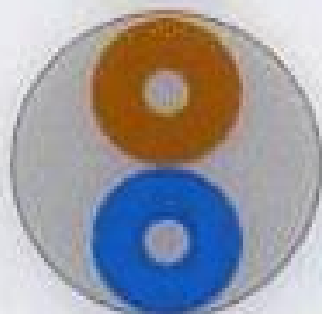


ELECTRIC CABLES USER GUIDE

FLEXIBLE

OLD



NEW



If both new and old colour versions are used together - a warning label **MUST** be affixed at or near the distribution board.

ARMOURED

OLD



NEW



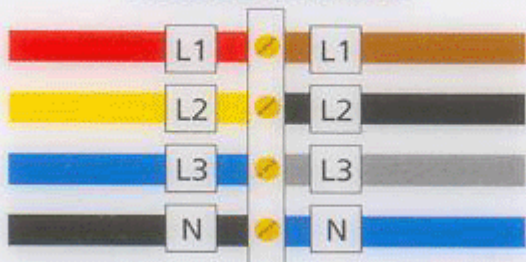
NEW CABLE COLOURS - QUICK GUIDE

OLD NEW

SINGLE PHASE

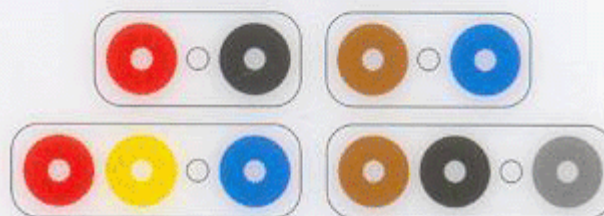


THREE PHASE



OLD NEW

FIXED WIRING



POWER SOFTWARE

Cu/PVC/PVC SINGLE CORE CABLES

VOLTAGE RATING 300/500V

BS 6004 : 2000 / SLS 733 : 1995

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	NO/NOM DIA. (mm)	IMPERIAL SIZE (inches)	CURRENT RATING (A)	VOLTAGE DROP (mV/A/m)	CURRENT RATING (A)	VOLTAGE DROP (mV/A/m)
				2 CABLES SINGLE PHASE a.c.(in conduit)		3or4 CABLES THREE PHASE a.c.(in conduit)	
A - 95	1	1/1.13	1/0.044	13.9	44	12.4	38
A - 96	1.5	1/1.38	-	18.0	29	16.0	25
A - 96sub	1.5	7/0.53	3/0.029	18.0	29	16.0	25
A - 97sub	2.5	7/0.67	7/0.029	24.7	18	21.6	15
A - 98	4	7/0.85	7/0.036	33.0	11	28.8	9.5
A - 99	6	7/1.04	7/0.044	42.2	7.3	37.1	6.4
A - 100	10	7/1.35	7/0.052	58.7	4.4	51.5	3.8
A - 101	16	7/1.70	7/0.064	78.3	2.8	70.0	2.4
A - 102	25	19/1.35	19/0.052	104.0	1.8	91.7	1.55
A - 103	35	19/1.53	19/0.064	128.8	1.3	113.3	1.10

Cu/PVC/PVC TWIN FLAT CABLES

VOLTAGE RATING 300/500V

BS 6004 : 2000 / SLS 733 : 1995

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	NO/NOM DIA. (mm)	IMPERIAL SIZE (inches)	CURRENT RATING (A)	VOLTAGE DROP (mV/A/m)
				I CABLE SINGLE PHASE a.c.OR d.c.(in conduit)	
A - 134	2 X 1.5	7/0.53	3/0.029	17.0	29
A - 135	2 X 2.5	7/0.67	7/0.029	23.7	18
A - 107	2 X 4	7/0.85	7/0.036	30.9	11
A - 108	2 X 6	7/1.04	7/0.044	39.1	7.3
A - 109	2 X 10	7/1.35	7/0.052	53.6	4.4
A - 110	2 X 16	7/1.70	7/0.064	71.1	2.8

EARTH WIRES

VOLTAGE RATING 450/750

BS 6004 : 2000 / SLS 733 ; 1995

Cu/PVC Earth wire

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	NO/NOM DIA. (mm)	IMPER. SIZE (Inches)
A - 4	2.5	7/0.67	7/0.029
Cu/PVC FLEXI Earth wire			
A - 4sub1	2.5	36/0.30	

ACL FLEXI WIRES

VOLTAGE RATING 300/500V

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	NO/NOM DIA. (mm)	CURRENT RATING (A)	VOLTAGE DROP (mV/A/m)	CURRENT RATING (A)	VOLTAGE DROP (mV/A/m)
			2 CABLES SINGLE PHASE a.c.(in conduit)		3or4 CABLES THREE PHASE a.c.(in conduit)	
A - 95sub1	1	14/0.30	13.9	44	12.4	38
A - 96sub2	1.5	22/0.30	18.0	29	16.0	25
A - 97sub2	2.5	36/0.30	24.7	18	21.6	15
A - 98sub1	4	56/0.30	33.0	11	28.8	9.5
A - 99sub1	6	84/0.30	42.2	7.3	37.1	6.4

FLEXI TWIN FLAT WIRES

VOLTAGE RATING 300/500 V

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	NO/NOM DIA. (mm)	CURRENT RATING (A)	VOLTAGE DROP (mV/A/m)
A - 134sub1	2 x 1.5	2 x 22/0.30	17.0	29
A - 135sub1	2 x 2.5	2 x 36/0.30	23.7	18
A - 107sub1	2 x 4	2 x 56/0.30	30.9	11
A - 108sub1	2 x 6	2 x 84/0.30	39.1	7.3

AUTO CABLES

BS 6862 : 1971(PART 1) / SLS 412:1998

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	NO/NOMI. DIA. (mm)	AVAILABLE COLOURS	VOLTAGE RATING
E - 1	1.20	19/0.30	IGNITION CABLE	LESS THAN 100V
E - 2	0.65	9/0.30	Red, Black, Blue, Yellow, Orange, Brown, Green, Grey, White	
E - 3	1.00	14/0.30		
E - 4	2.00	28/0.30		
E - 5	2.50	35/0.30		
E - 6	3.00	44/0.30		
E - 7	4.50	65/0.30		

TELEPHONE CABLES

ACL ITEM CODE	NUMBER OF PAIRS	NOMINAL DIA. OF STRAND (mm)	AVAILABLE COLOURS
H - 6	1	1/0.5	Blue/White
H - 7	2	1/0.5	Blue/White & Orange/White
H - 10	5	1/0.5	(Blue, Orange, Grey, Green, Brown) paired with White
H - 15	10	1/0.5	(Blue, Orange, Grey, Green, Brown) paired with White & Red

FLEXIBLE CORDS

VOLTAGE RATING 300/500V

BS 6500 : 2000 / SLS : 1143 & BS 6004: 2000

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	NO/NOMINAL DIA. (mm)	CURRENT RATING(A)		VOLTAGE DROP (mV/A/m)	
			SINGLE PHASE a.c.	THREE PHASE a.c.	SINGLE PHASE a.c.	THREE PHASE a.c.
B - 1sub	0.5	16/0.20 TP	3.1	3.1	93	80
B - 6	0.5	16/0.20 TT	3.1	3.1	93	80
B - 23	2 X 0.5	2 X 16/0.20	3.1	3.1	93	80
B - 25	2 X 0.75	2 X 24/0.20	6.2	6.2	62	54
B - 26	2 X 1.0	2 X 32/0.20	10.3	10.3	46	40
B - 19sub	3 X 0.5	3 X 16/0.20	3.1	3.1	93	80
B - 31	3 X 0.75	3 X 24/0.20	6.2	6.2	62	54
B - 32	3 X 1.0	3 X 32/0.20	10.3	10.3	46	40
B - 33	3 X 1.5	3 X 30/0.25	16.5	16.5	32	27
B - 34	3 X 2.5	3 X 50/0.25	25.8	20.6	19	16
B - 35	3 X 4	3 X 56/0.30	33.0	25.8	12	10
B - 36	4 X 0.75	4 X 24/0.20	6.2	6.2	62	54
B - 37	4 X 1.0	4 X 32/0.20	10.3	10.3	46	40
B - 38	4 X 1.5	4 X 30/0.25	16.5	16.5	32	27
B - 39	4 X 2.5	4 X 50/0.25	25.8	20.6	19	16
B - 40	4 X 4	4 X 56/0.30	33.0	25.8	12	10
B - 44	5 X 2.5	5 X 50/0.25	25.8	20.6	19	16
B - 45	5 X 4	5 X 56/0.30	33.0	25.8	12	10

SWITCH GEAR & CONTROL GEAR WIRES
VOLTAGE RATING 600/1000V
BS 6231 : 1998

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	NO/NOM DIA. (mm)	OVERALL DIA. MAX (mm)
P - 1	1 X 0.5	16/0.20	3.0
P - 2	1 X 0.75	24/0.20	3.2
P - 3	1 X 1.0	32/0.20	3.4
P - 4	1 X 1.5	30/0.25	3.7
P - 5	1 X 2.5	50/0.25	4.2
P - 6	1 X 4.0	56/0.30	4.8
P - 7	1 X 6.0	84/0.30	6.3
P - 8	1 X 10	142/0.30	7.8
P - 9	1 X 16	226/0.30	9.0
P - 10	1 X 25	354/0.30	11.5
P - 11	1 X 35	495/0.30	13.0
P - 12	1 X 50	396/0.40	15.0
P - 13	1 X 70	360/0.50	17.5
P - 14	1 X 95	475/0.50	19.5
P - 15	1 X 120	608/0.50	21.5
P - 16	1 X 150	756/0.50	24.0
P - 17	1 X 185	925/0.50	26.5
P - 18	1 X 240	1221/0.50	30.0

Cu/XLPE/AWA/PVC SINGLE CORE ARMoured CABLES

VOLTAGE RATING 600/1000V

BS 5467 : 1997

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	OVERA LL DIA. (mm)	VOLTAGE DROP (mV/A/m)	CURRENT RATING (A)				MAX. ACCEPT. LENGTH for 2 cables in ground (m)
				2 CABLES		3 CABLES		
				IN GROUND SPACED a.c.	IN AIR HORIZON. SPACED a.c.	IN GROUND SPACED a.c.	IN AIR HORIZON. SPACED a.c.	
X - 1	1 X 50	18	0.873	279	297	242	296	68
X - 2	1 X 70	20	0.617	342	376	295	373	79
X - 3	1 X 95	23	0.459	408	459	350	452	89
X - 4	1 X 120	24	0.376	461	530	395	519	96
X - 5	1 X 150	28	0.320	508	596	434	577	102
X - 6	1 X 185	30	0.274	566	677	482	649	107
X - 7	1 X 240	33	0.230	643	788	545	745	112
X - 8	1 X 300	36	0.204	709	886	597	825	115
X - 9	1 X 400	41	0.187	761	978	637	887	117
X - 10	1 X 500	44	0.175	825	1086	688	968	115
X - 11	1 X 630	49	0.163	887	1199	737	1049	115

Cu/XLPE/PVC SINGLE CORE UN-ARMoured CABLES
VOLTAGE RATING 600/1000V
BS 7889 : 1997

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	OVERA LL DIA. (mm)	VOLTAGE DROP (mV/A/m)	CURRENT RATING (A)		MAX. ACCEPT. LENGTH for 2 cables in ground (m)
				2 CABLES IN AIR HORIZON. SPACED a.c.	3 CABLES IN AIR HORIZON. SPACED a.c.	
X - 82	1 X 50	14	0.869	289	289	66
X - 83	1 X 70	16	0.610	366	366	74
X - 84	1 X 95	18	0.452	452	452	81
X - 85	1 X 120	20	0.369	527	527	85
X - 86	1 X 150	22	0.310	604	604	89
X - 87	1 X 185	25	0.263	699	699	90
X - 88	1 X 240	28	0.220	835	834	90
X - 89	1 X 300	30	0.196	966	965	88
X - 90	1 X 400	34	0.177	1129	1127	83
X - 91	1 X 500	38	0.171	1315	1312	74
X - 92	1 x 630	43	0.152	1533	1529	71

Cu/XLPE/SWA/PVC MULTI CORE ARMoured CABLES

VOLTAGE RATING 600/1000V

BS 5467 : 1997

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	OVERA LL DIA. (mm)	VOLTAGE DROP (mV/A/m)	CURRENT RATING (A)			MAXIMUM ACCEP. LENGTH in ground (m)
				IN GROUND a.c.	IN DUCT a.c.	IN AIR a.c.	
X - 20	2 X 25	24	1.86	183	148	164	49
X - 21	2 X 35	28	1.35	219	178	202	56
X - 28	3 X 25	27	1.61	152	124	140	68
X - 29	3 X 35	30	1.17	182	149	172	78
X - 49	4 X 25	28	1.61	152	124	140	68
X - 50	4 X 35	30	1.17	182	149	172	78
X - 51	4 X 50	34	0.866	217	177	209	88
X - 52	4 X 70	40	0.608	266	218	263	103
X - 53	4 X 95	44	0.457	319	263	324	114
X - 54	4 X 120	49	0.364	363	300	376	126
X - 55	4 X 150	54	0.305	406	338	430	134
X - 56	4 X 185	57	0.256	458	382	495	142
X - 57	4 X 240	63	0.213	529	442	584	147
X - 58	4 X 300	69	0.187	592	496	666	150
X - 59	4 X 400	78	0.175	667	570	766	142

Cu/XLPE/PVC MULTI CORE UN-ARMoured CABLES

VOLTAGE RATING 600/1000

BS 5467 : 1989

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	OVERAL L DIA: (mm)	VOLTAGE DROP (mV/A/m)	CURRENT RATING IN AIR a.c. (A)	MAX. ACCEP. LENGTH (m)
X - 96	2 X 25	20.0	1.86	156	57
X - 97	2 X 35	22.3	1.35	193	64
X - 99	3 X 25	21.3	1.61	134	77
X - 100	3 X 35	23.8	1.17	165	86
X - 115	4 X 25	22.4	1.61	134	77
X - 116	4 X 35	24.8	1.17	165	86
X - 117	4 X 50	28.3	0.866	201	95
X - 118	4 X 70	32.7	0.608	256	107
X - 119	4 X 95	36.5	0.457	316	115
X - 120	4 X 120	40.4	0.364	369	124
X - 121	4 X 150	45.3	0.305	423	129
X - 122	4 X 185	50.2	0.256	489	133
X - 123	4 X 240	56.2	0.213	582	134
X - 124	4 X 300	61.9	0.187	672	132
X - 125	4 X 400	70.4	0.175	780	122

Cu/PVC/PVC SINGLE CORE CABLES

VOLTAGE RATING 600/1000V

BS 6346 : 1989

ACL ITEM CODE	CROSS SEC. AREA (mm ²)	NO/NOM DIA. (mm)	IMPERIAL SIZE (inches)	CURRENT RATING (A)	VOLTAGE DROP (mV/A/m)	CURRENT RATING (A)	VOLTAGE DROP (mV/A/m)
				2 CABLES SINGLE PHASE a.c.(in conduit)		3or4 CABLES THREE PHASE a.c.(in conduit)	
C - 82	50	19/1.78	19/0.073	156	1.0	138	0.85
C - 83	70	19/2.14	19/0.083	198	0.72	176	0.61
C - 84	95	37/1.78	37/0.072	239	0.56	213	0.48
C - 85	120	37/2.03	37/0.083	277	0.47	246	0.41
C - 86	150	37/2.25	37/0.093	309	0.41	270	0.36
C - 87	185	37/2.52	37/0.103	351	0.37	305	0.32
C - 88	240	61/2.25	61/0.093	412	0.33	356	0.29
C - 89	300	61/2.52	61/0.103	472	0.31	406	0.27
C - 90	400	61/2.85	91/0.093	562	0.29	481	0.25
C - 91	500	61/3.20	91/0.103	645	0.28	549	0.25
C - 92	630	91/3.00	127/0.103	742	0.27	629	0.24

CURRENT RATINGS OF a.c. INDUCTION MOTORS

CAPACITY kW	CAPACITY hp	SINGLE PHASE 220V	THREE PHASE 415V
0.09	1/8	1.0	0.3
0.19	1/4	1.8	0.7
0.37	1/2	3.9	1.2
0.55	3/4	5.2	1.7
0.75	1	6.6	2.0
1.1	1 1/2	9.6	2.5
1.5	2	12.7	3.5
2.2	3	18.6	5.0
3	4	24.3	6.5
4	5 1/2	29.6	8.4
5.5	7 1/2	42.2	11.0
7.5	10	54.4	14.0
9	12	-	17.0
11	15	-	21.0
15	20	-	28.0
25	35	-	47.0
30	40	-	55.0
37	50	-	66.0
45	60	-	80.0

Data given in this table can be slightly varied according to the efficiency of the selected motor.