Installation Design Data

CURRENT-CARRYING CAPACITIES (AMP) REF. METHOD 11												
(ON) PERFORMED CABLE TRAY HORIZONTAL OR VERTICAL) AMBIENT TEMPERATURE 30°C SHEATH OPERATING TEMPERATURE : 70°C												
NOMINAL CROSS-SECTIONAL AREA OF CONDUCTOR	2 SINGLE-CORE CABLES TOUCHING. SINGLE-PHASE AC OR DC	1 TWO-CORE CABLE SINGLE-PHASE AC OR DC	1 THREE-CORE CABLE THREE-PHASE AC	1 FOUR-CORE CABLE 3 CORES LOADED THREE-PHASE AC	1 FOUR-CORE CABLE ALL CORES LOADED	1 SEVEN-CORE CABLE ALL CORES LOADED	1 TWELVE-CORE CABLE ALL CORES LOADED	1 NINETEEN-CORE CABLE ALL CORES LOADED	3 SINGLE-CORE CABLES THREE-PHASE AC			
									VERTICAL SPACED	HORIZONTAL SPACED	TOUCHING	TREFOIL
LIGHT DUTY 500 V												
mm²	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
1	-	19.5	16.5	16	14	11	-	-	-	-	-	-
1.5	-	2.5	21	21	18	14	-	-	-	-	-	-
2.5	-	3.3	28	28	24	19	-	-	-	-	-	-
4	-	4.4	-	-	-	-	-	-	-	-	-	-
HEAVY DUTY 750V												
mm²	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
1.5	-	26	22	23	20	15.5	13	11	-	-	-	-
2.5	-	36	30	30	27	21	17	-	-	-	-	-
4	-	47	40	40	35	-	-	-	-	-	-	-
6	-	60	51	51	44	-	-	-	-	-	-	-
10	78	82	69	68	59	-	-	-	80	90	73	69
16	104	109	92	89	78	-	-	-	105	119	97	92
25	135	142	120	116	101	-	-	-	135	154	125	120
35	165	-	-	-	-	-	-	-	164	187	153	147
50	204	-	-	-	-	-	-	-	202	230	188	182
70	251	-	-	-	-	-	-	-	246	279	229	223
95	301	-	-	-	-	-	-	-	294	333	275	267
120	346	-	-	-	-	-	-	-	335	382	314	308
150	395	-	-	-	-	-	-	-	380	431	358	352
185	448	-	-	-	-	-	-	-	424	482	405	399
240	524	-	-	-	-	-	-	-	472	537	471	466
300	807	-	-	-	-	-	-	-	779	883	778	646
400	950	-	-	-	-	-	-	-	930	1053	929	769

CABLESELECTION

Cables should be selected in accordance with the Wiring Regulations BS 7671.

Select the appropriate method or installation from table 62.

Select a cable having a current rating not less than the calculated (I_t) from the appropriate table.

Calculate the volt drop using the figures given in tables 3 or 4 ensuring that the voltage supplied will not be less than the lower limit in the 3.s. relevant to the equipment, or alternatively, that volt drop from the origin of the supply to the fixed equipment is not greater than 4%.

Check that the maximum earth salt loop impedance (k_s) will be less than the value for the appropriate protective device given in table 41B1 or 41B2 of the regulations.
Values of R_1 & R_2 are given on cables 8 & 9.
[Z_E) may be calculated or obtained from the supply authority.