Installation Design Data

THE FOLLOWING TABLES OF CURRENT RATINGS, VOLT DROP VALUES, RESISTANCES AND CORRECTION FACTORS ARE FOR CABLES EXPOSED TO TOUCH OR PLASTIC COVERED.

In accordance with the IEE Wiring Regulations a cable with an outer covering or in contact with combustible building materials, may be used up to a temperature of 70 , which is achieved using the 'exposed to touch' current ratings in an ambient temperature of 30 .

Bare copper sheathed cables which are not exposed to touch and are not in contact with combustible materials may be operated at their "not exposed to touch" current ratings and will achieve a sheath temperature of 105 in an ambient temperature of 30 .

For current ratings and volt drop values for "not exposed to touch conditions" refer to the current edition of the IEE Wiring Regulations BS 7671.

Bare copper sheathed cables are suitable for continuous operation at temperatures up to 250 or in understood conditions to much higher temperatures.

For single-core cables, the sheaths of the circuit are assumed to be connected together at both ends.

For bare cables exposed to touch, the tabulated current ratings should be multiplied by 0.9.

CURRENT-CARRYING CAPACITIES (AMP) REF. METHOD 1 CLIPPED DIRECT								
AMBIENT TEMPERATURE 30 SHEATH OPERATING TEMPERATURE : 70								
NOMINAL CROSS-SECTION AREA OF CONDUCTOR	2 SINGLE-CORE CABLES OR 1 TWO-CORE CABLE, SINGLE-PHASE AC OR DC	3 SINGLE-CORE CABLES IN TREFOIL OR 1 THREE-CORE CABLE, THREE PHASE AC	3 SINGLE-CORE CABLES IN FLAT FORMATION THREE PHASE AC	1 FOUR-CORE CABLE 3 RORES LOADED THREE PHASE AC	1 FOUR-CORE CABLE ALL CORES LOADED	1SEVEN-CORE CABLE ALL CORES LOADED	1TWELVE-CORE CABLE ALL CORES LOADED	1NINETEEN-CORE CABLE ALL CORES LOADED
LIGHT DUTY 500 V								
mm²	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
1	18.5	15	-	15	13	10	-	-
1.5	23	19	-	19.5	16.5	13	-	-
2.5	31	26	-	26	22	17.5	-	-
4	40	-	-	-	-	-	-	-
HEAVY DUTY 750V								
mm²	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
1.5	25	21	-	21	18	14.5	12	10
2.5	34	28	-	28	25	19.5	16	-
4	45	37	-	37	32	-	-	-
6	57	48	-	47	41	-	-	-
10	77	65	70	64	55	-	-	-
16	102	86	92	85	72	-	-	-
25 25	133	112	120	110	94	-	-	-
35 50	163 202	137 169	147 181	-	-	-	_	-
70	247	207	221	-	-	-	-	_
95	296	249	264	-	-	-	-	-
120	340	286	303	-	-	-	-	-
150	388	327	346	-	-	-	-	-
185	440	371	392	-	-	-	-	-
240	514	434	457	-	-	-	-	-
300	790	630	661	-	-	-	-	-
400	930	750	787	-	-	-	-	-