

PART VIII
Appendix B
Useful Tables Relating to Conductor Sizes

Table 8.B.1: Number of Single-core Wire of Different Sizes for Various Sizes of Metal Conduits

Conductor Cross-sectional Area (mm ²)	Conduit Diameter					
	19 mm	25.4 mm	31.8 mm	38 mm	51 mm	63.5 mm
1.5	5	10	14	-	-	-
2.5	5	8	12	-	-	-
4.0	3	6	10	-	-	-
6.0	2	5	8	-	-	-
10.0	-	3	5	6	-	-
16.0	-	-	3	6	-	-
25.0	-	-	2	4	6	7
35.0	-	-	-	3	5	6
50.0	-	-	-	-	4	5

Table 8.B.2: Number of Single-core Wires of Different Sizes for Various Sizes of PVC Conduits

Conductor Cross-sectional Area (mm ²)	Conduit Diameter				
	19 mm	25 mm	32 mm	38 mm	51 mm
1.5	6	10	14	-	-
2.5	5	10	14	-	-
4.0	3	6	10	14	-
6.0	2	5	8	11	-
10.0	-	4	7	9	-
16.0	-	2	4	5	12
25.0	-	-	2	2	6
35.0	-	-	2	2	5
50.0	-	-	-	2	3

Table 8.B.3: Cross-sectional Area and Weight of Wire Gauges

Gauge System		Diameter	Cross-sectional Area	Weight of Copper	Weight of Aluminium
AWG	SWG	(mm)	(mm ²)	(kg/km)	(kg/km)
6/0	-	14.73	170.46	1515.4	460.4
5/0	-	13.11	134.92	1199.4	365.0
-	7/0	12.70	126.68	1126.2	342.1
-	6/0	11.79	109.09	969.8	294.6
4/0	-	11.68	107.22	953.2	289.4
-	5/0	10.97	94.56	840.7	255.4
3/0	-	10.41	85.16	757.2	229.6
-	4/0	10.16	81.70	720.7	219.6
-	3/0	9.449	70.12	623.4	189.4
2/0	-	9.271	67.51	600.1	182.1
-	2/0	8.839	61.36	545.5	165.7
0	-	8.255	53.52	475.8	144.4
-	0	8.230	53.19	472.9	143.6
-	1	7.620	45.60	405.4	123.1
1	-	7.341	42.22	376.2	114.5
-	2	7.010	38.60	343.1	104.2
2	-	6.553	33.94	299.8	90.80
-	3	6.401	32.18	286.1	86.89
-	4	5.893	27.27	242.5	73.63
3	-	5.817	26.57	236.2	72.01
4	-	5.182	21.09	187.5	57.11
-	6	4.877	18.68	166.1	50.44
5	-	4.623	16.78	149.2	45.25

Gauge System		Diameter	Cross-sectional Area	Weight of Copper	Weight of Aluminium
AWG	SWG	(mm)	(mm ²)	(kg/km)	(kg/km)
-	7	4.470	15.70	139.5	42.39
6	-	4.115	13.30	118.2	35.91
-	8	4.065	12.97	115.3	35.02
7	9	3.658	10.507	93.41	28.49
8	10	3.251	8.302	73.80	22.59
-	11	2.948	6.818	60.61	18.41
9	-	2.896	6.585	58.54	17.91
-	12	2.642	5.480	48.72	14.80
10	-	2.591	5.272	46.87	14.21
-	13	2.337	4.284	38.08	11.58
11	-	2.311	4.196	37.30	11.26
12	-	2.057	3.325	29.55	8.934
-	14	2.032	3.243	28.83	8.756
13	15	1.828	2.627	23.35	7.093
14	16	1.626	2.075	18.45	5.621
15	-	1.448	1.646	14.64	4.460
-	17	1.422	1.589	14.13	4.290
16	-	1.295	1.318	11.72	3.532
-	18	1.291	1.168	10.38	3.154
17	-	1.143	1.026	9.122	2.808
18	19	1.016	0.8107	7.207	2.223
19	20	0.9144	0.6567	5.838	1.773
20	21	0.8128	0.5189	4.613	1.401
21	-	0.7239	0.4156	3.695	1.111

Gauge System		Diameter	Cross-sectional Area	Weight of Copper	Weight of Aluminium
AWG	SWG	(mm)	(mm ²)	(kg/km)	(kg/km)
-	22	0.7112	0.3973	3.532	1.073
22	-	0.6428	0.3243	2.883	0.8756
-	23	0.6096	0.2919	2.595	0.7881
23	-	0.5733	0.2588	2.301	0.6990
-	24	0.5588	0.2453	2.181	0.6620
24	-	0.5105	0.2047	1.820	0.5527
-	25	0.5086	0.2021	1.797	0.5473

PART VIII
Appendix C

Completion Certificate Form (Electrical Works)

I/we certify that the installation detailed below has been installed by me/us and tested and that to the best of my/our knowledge and belief, it complies with the requirements of Bangladesh National Building Code and the Electricity Act of Bangladesh.

Electrical Installation at : _____

Voltage and system of supply : _____

**PARTICULARS OF
WORKS**

(a) Internal Electrical Installation

	<u>No.</u>	<u>Total load</u>	<u>Type or system of wiring</u>
(i) Light points			
(ii) Fan points			
(iii) Socket points			
2-pin 5 A			
3-pin 13 A Flat pin			
3-pin 15 A Round Pin			

(b) Others

	<u>Description</u>	<u>hp/kW</u>	<u>Type of starting</u>
(1) Motors			
(i)			
(ii)			
(iii)			
(2) Other Plants			

(c) If the work involves installations of overhead line and/or underground cable

- (1) (i) Type and description of overhead line
(ii) Total length and number of spans
(iii) Number of street lights and its description