TECHNICAL DATA

Motor Currents

Approximate current per phase for AC Motors at full load, assuming average efficiency and power factor.

Three Phase AC Motors (415V AC)

Power (kW)	Horse Power (HP)	Full Load Current (A)
0.75	1.0	1.9
1.1	1.5	2.5
1.5	2.0	3.5
2.2	3.0	5.0
3.0	4.0	6.5
4.0	5.5	8.0
5.5	7.5	11
7.5	10	14
11	15	21
15	20	28
18.5	25	35
22	30	40
30	40	55
37	50	66
45	60	80
55	75	102
75	100	135
90	120	165
110	150	200
132	180	230
150	200	260
160	220	280
185	250	325
200	270	350
220	300	385
250	340	450
315	430	545
355	480	580
400	545	650
450	610	740
500	680	820

Conductor DC Resistance

Approximate current per phase for AC Motors at full load, assuming average efficiency and power factor.

Normal Cross-Sectional Area	Maximum Resistance of Conductor @20°C	
(mm²)	Plain Copper (Ω/km)	Tinned Copper (Ω/km)
0.5	39.0	40.1
0.75	26.0	26.7
1	19.5	20.0
1.5	13.3	13.7
2.5	7.98	8.21
4	4.95	5.09
6	3.30	3.39
10	1.91	1.95
16	1.21	1.24
25	0.78	0.795
35	0.554	0.565
50	0.386	0.393
70	0.272	0.277
95	0.206	0.210
120	0.161	0.164
150	0.129	0.132
185	0.106	0.108
240	0.0801	0.0817
300	0.0641	0.0654
400	0.0486	0.0495
500	0.0384	0.0391
630	0.0287	0.0292

Ambient Temp (°C)	Correction Factor
20	1.000
25	1.020
30	1.039
35	1.059
40	1.079
45	1.098
50	1.118
55	1.138
60	1.157
65	1.177
70	1.196
75	1.216
80	1.236
85	1.235
90	1.275

NOTE

To calculate the DC Resistance of copper conductors for a given temperature (°C), the resistance factor at 20°C, as detailed must be multiplied by the appropriate correction factor above.