

Raceway Fill Percentages as per NEC

SIZE	40% Fill – Over 2 Wires							60% Fill – Nipple						
	EMT	GRC	IMC	PVC40	PVC80	FLEX	ST	EMT	GRC	IMC	PVC40	PVC80	FLEX	ST
1/2	0.122	0.125	0.137	0.114	0.087	0.127	0.125	.182	.188	.205	.171	.130	.190	.188
3/4	0.213	0.220	0.235	0.203	0.164	0.213	0.216	.320	.329	.352	.305	.246	.320	.325
1	0.346	0.355	0.384	0.333	0.275	0.327	0.349	.519	.532	.575	.499	.413	.490	.524
1 1/4	0.598	0.610	0.659	0.581	0.495	0.511	0.611	.897	.916	.988	.872	.742	.766	.917
1 1/2	0.814	0.829	0.89	0.794	0.684	0.743	0.792	1.221	1.243	1.335	1.191	1.027	1.115	1.188
2	1.342	1.363	1.452	1.316	1.150	1.307	1.298	2.013	2.045	2.178	1.975	1.725	1.961	1.949
2 1/2	2.343	1.946	2.054	1.878	1.647	1.963	1.953	3.515	2.919	3.081	2.817	2.471	2.945	2.929
3	3.538	3.00	3.169	2.907	2.577	2.827	2.99	5.307	4.499	4.753	4.361	3.865	4.241	4.485
3 1/2	4.618	4.004	4.234	3.895		3.848	3.893	6.927	6.006	6.351	5.842		5.773	5.839
4	5.901	5.153	5.452	5.022	4.503	5.027	5.077	8.852	7.729	8.179	7.532	6.755	7.540	7.615
5		8.085		7.904	7.142				12.127		11.856	10.713		
6		11.663		11.427	10.239				17.495		17.140	15.359		

Conductor Square Areas

Conductor Square Area								
AWG / kcmil	THHN	XHHW	AWG / kcmil	THHN	XHHW	AWG / kcmil	THHN	XHHW
14	0.0097	0.0139	2	0.1158	0.1146	300	0.4608	0.4536
12	0.0133	0.0181	1	0.1562	0.1534	350	0.5242	0.5166
10	0.0211	0.0243	1/0	0.1855	0.1825	400	0.5863	0.5782
8	0.0366	0.0437	2/0	0.2223	0.2190	500	0.7073	0.6984
6	0.0507	0.0590	3/0	0.2679	0.2642	600	0.8676	0.8709
4	0.0824	0.0814	4/0	0.3237	0.3197	750	1.0496	1.0532
3	0.0973	0.0962	250	0.3970	0.3904	1000	1.3478	1.3519

Number of Conductors – Total Square Area – THHN															
AWG	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
14	0.0097	.019	.029	.039	.049	.058	.068	.078	.087	.097	.107	.116	.126	.136	.146
12	0.0133	.027	.040	.053	.067	.080	.093	.106	.120	.133	.146	.160	.173	.186	.200
10	0.0211	.042	.063	.084	.106	.127	.148	.169	.190	.211	.232	.253	.274	.295	.317
8	0.0366	.073	.110	.146	.183	.220	.256	.293	.329	.366	.403	.439	.476	.512	.549
6	0.0507	.101	.152	.203	.254	.304	.355	.406	.456	.507	.558	.608	.659	.710	.761
4	0.0824	.165	.247	.330	.412	.494	.577	.659	.742	.824	.906	.989	1.071	1.154	1.236

Number of Conductors – Total Square Area – XHHW															
AWG	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
14	0.0139	.028	.042	.056	.070	.083	.097	.111	.125	.139	.153	.167	.181	.195	.209
12	0.0181	.036	.054	.072	.091	.109	.127	.145	.163	.181	.199	.217	.235	.253	.272
10	0.0243	.049	.073	.097	.122	.146	.170	.194	.219	.243	.267	.292	.316	.340	.365
8	0.0437	.087	.131	.175	.219	.262	.306	.350	.393	.437	.481	.524	.568	.612	.656
6	0.0590	.118	.177	.236	.295	.354	.413	.472	.531	.590	.649	.708	.767	.826	.885
4	0.0814	.163	.244	.326	.407	.488	.570	.651	.733	.814	.895	.977	1.058	1.140	1.221