KINGWIRE INDUSTRIAL

CONVERSION CHART of THHN (Standard Strand Copper Conductor) to XHHW-2 (Compact Strand Aluminum Conductor)

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Type	Size	Amps	Electrical Metalic Tubing (EMT)										Intermediate Metal Conduit (IMC)									
THHN	8	55	3	6	9	16	22	36	64	96	126	161	3	6	10	18	24	39	56	86	115	149
XHHW-2	6	60	1	4	6	11	15	25	44	66	87	11	2	4	7	12	16	27	38	59	80	103
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	6	75	2	4	7	12	16	26	46	69	91	116	2	4	7	13	17	28	40	62	83	107
XHHW-2	4	75	1	3	4	8	11	18	32	48	63	81	1	3	5	9	12	20	28	43	58	74
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	4	95	1	2	4	7	10	16	28	43	56	71	1	3	4	8	10	17	25	38	51	66
XHHW-2	2	100	1	1	3	6	8	13	23	34	45	58	1	1	3	6	8	14	20	31	41	53
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	2	130	1	1	3	5	7	11	20	30	40	51	1	1	3	5	7	12	17	27	36	47
XHHW-2	1/0	135	1	1	1	3	5	8	14	22	29	37	1	1	2	4	5	9	13	20	26	34
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	1	150	1	1	1	4	5	8	15	22	29	37	1	1	2	4	5	9	13	20	27	35
XHHW-2	2/0	150	1	1	1	3	4	7	12	18	24	31	1	1	1	3	4	7	11	17	22	29
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	1/0	170	1	1	1	3	4	7	12	19	25	32	1	1	1	3	4	8	11	17	23	29
XHHW-2	3/0	175	0	1	1	2	3	6	10	15	20	25	0	1	1	3	4	6	9	14	18	24
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	2/0	195	0	1	1	2	3	6	10	16	20	26	1	1	1	3	4	6	9	14	19	24
XHHW-2	4/0	205	0	1	1	1	3	5	8	13	17	21	0	1	1	2	3	5	7	11	15	20
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	3/0	225	0	1	1	1	3	5	8	13	17	22	0	1	1	2	3	5	7	12	16	20
XHHW-2	250	230	0	1	1	1	2	4	7	10	13	17	0	1	1	1	2	4	6	9	12	16
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	4/0	260	0	1	1	1	2	4	7	11	14	18	0	1	1	1	2	4	6	9	13	17
XHHW-2	350	280	0	0	1	1	1	3	5	8	10	13	0	0	1	1	1	3	4	7	9	12
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	250	290	0	0	1	1	1	3	6	9	11	15	0	0	1	1	1	3	5	8	10	13
XHHW-2	400	305	0	0	1	1	1	2	4	7	9	11	0	0	1	1	1	3	4	6	8	11
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	350	350	0	0	1	1	1	2	4	6	9	11	0	0	1	1	1	2	4	6	8	10
XHHW-2	500	350	0	0	0	1	1	1	4	6	7	9	0	0	1	1	1	2	3	5	7	9
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	400	380	0	0	0	1	1	1	4	6	8	10	0	0	1	1	1	2	3	5	7	9
XHHW-2	600	385	0	0	0	1	1	1	3	4	6	8	0	0	0	1	1	1	2	4	5	7
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	500	430	0	0	0	1	1	1	3	5	6	8	0	0	0	1	1	1	3	4	6	7
XHHW-2	750	435	0	0	0	1	1	1	2	3	5	6	0	0	0	1	1	1	1	3	4	6
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	600	475	0	0	0	1	1	1	2	4	5	7	0	0	0	1	1	1	2	3	5	6
XHHW-2	900	480	0	0	0	0	1	1	2	3	4	5	0	0	0	0	1	1	2	3	4	5
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4
THHN	600	475	0	0	0	1	1	1	2	4	5	7	0	0	0	1	1	1	2	3	5	6
XHHW-2	1000	500	0	0	0	0	1	1	1	3	4	5	0	0	0	0	1	1	1	2	3	4
Data from NEC2005		310.16	THHN - Table C.1 & XHHW-2 - Table C.1(A)										THHN - Table C.4 & XHHW-2 - Table C.4(A)									

Type	Size	Amps	Ridged Metal Conduit (RMC)												Rigid PVC Conduit, Schedule 40 & HDPE Conduit											
THHN	8	55	3	6	9	16	22	37	53	82	109	140	221	318	3	5	9	16	21	36	51	79	106	137	216	312
XHHW-2	6	60	2	4	6	11	15	25	36	56	75	97	152	220	1	4	6	11	15	25	35	55	73	94	149	215
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	6	75	2	4	7	12	16	27	38	59	79	101	159	230	1	4	6	11	15	26	37	57	77	99	156	225
XHHW-2	4	75	1	3	5	8	11	18	26	41	55	70	110	159	1	2	4	8	11	18	25	40	53	68	108	156
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	4	95	1	2	4	7	10	16	23	36	48	62	98	141	1	2	4	7	9	16	22	35	47	61	96	138
XHHW-2	2	100	1	1	3	6	8	13	19	29	39	50	79	114	1	1	3	5	8	13	18	28	38	49	77	112
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	2	130	1	1	3	5	7	11	17	26	34	44	70	100	1	1	3	5	7	11	16	25	33	43	68	98
XHHW-2	1/0	135	1	1	1	4	5	8	12	19	25	32	51	73	1	1	1	3	5	8	12	18	24	31	49	72
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	1	150	1	1	1	4	5	8	12	19	25	33	51	74	1	1	1	3	5	8	12	18	25	32	50	73
XHHW-2	2/0	150	1	1	1	3	4	7	10	16	21	27	43	62	1	1	1	3	4	7	10	15	20	26	42	60
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	1/0	170	1	1	1	3	4	7	10	16	21	27	43	63	1	1	1	3	4	7	10	15	21	27	42	61
XHHW-2	3/0	175	0	1	1	2	3	6	8	13	17	22	35	51	0	1	1	2	3	5	8	12	17	22	34	50
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	2/0	195	0	1	1	2	3	6	8	13	18	23	36	52	0	1	1	2	3	6	8	13	17	22	35	51
XHHW-2	4/0	205	0	1	1	1	3	5	7	11	14	19	29	42	0	1	1	1	3	5	7	10	14	18	29	42
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	3/0	225	0	1	1	1	3	5	7	11	15	19	30	43	0	1	1	1	3	5	7	11	14	18	29	42
XHHW-2	250	230	0	1	1	1	2	4	5	8	11	15	23	34	0	0	1	1	1	4	5	8	11	14	23	33
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	4/0	260	0	1	1	1	2	4	6	9	12	16	25	36	0	1	1	1	2	4	6	9	12	15	24	35
XHHW-2	350	280	0	0	1	1	1	3	4	6	9	11	18	25	0	0	1	1	1	3	4	6	8	11	17	25
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	250	290	0	0	1	1	1	3	5	7	10	13	20	29	0	0	1	1	1	3	4	7	10	12	20	28
XHHW-2	400	305	0	0	1	1	1	2	4	6	8	10	16	23	0	0	1	1	1	2	3	5	7	10	15	22
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	350	350	0	0	1	1	1	2	3	5	7	10	15	22	0	0	1	1	1	2	3	5	7	9	15	21
XHHW-2	500	350	0	0	0	1	1	1	3	5	6	8	13	19	0	0	0	1	1	1	3	4	6	8	13	18
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	400	380	0	0	1	1	1	2	3	5	7	8	13	20	0	0	0	1	1	1	3	5	6	8	13	19
XHHW-2	600	385	0	0	0	1	1	1	2	4	5	7	10	15	0	0	0	1	1	1	2	4	5	6	10	15
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	500	430	0	0	0	1	1	1	2	4	5	7	11	16	0	0	0	1	1	1	2	4	5	7	11	16
XHHW-2	750	435	0	0	0	1	1	1	1	3	4	5	8	12	0	0	0	1	1	1	1	3	4	5	8	12
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	600	475	0	0	0	1	1	1	1	3	4	6	9	13	0	0	0	1	1	1	1	3	4	5	9	13
XHHW-2	900	480	0	0	0	0	1	1	2	2	3	5	7	10	0	0	0	0	1	1	1	2	3	4	6	9
			1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	5	6
THHN	600	475	0	0	0	1	1	1	1	3	4	6	9	13	0	0	0	1	1	1	1	3	4	5	9	13
XHHW-2	1000	500	0	0	0	0	1	1	1	2	3	4	7	10	0	0	0	0	1	1	1	2	3	4	6	9
THHN - Table C.8 & XHHW-2 - Table C.8(A)															THHN - Table C.10 & XHHW-2 - TableC.10(A)											

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