

Conduit Fill Tables

Tables that show how many wires can be installed in various types of conduits.

These calculations are based on the 2011 National Electrical Code®

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Maximum number of THHN conductors in Electrical Metallic Tubing EMT

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Wire	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
Size	EMT	EMT	EMT	EMT	EMT	EMT	EMT	EMT	EMT	EMT
14	12	22	35	61	84	138	241	364	476	608
12	9	16	26	45	61	101	176	266	347	443
10	5	10	16	28	38	63	111	167	219	279
8	3	6	9	16	22	36	64	96	126	161
6	2	4	7	12	16	26	46	69	91	116
4	1	2	4	7	10	16	28	43	56	71
3	1	1	3	6	8	13	24	36	47	60
2	1	1	3	5	7	11	20	30	40	51
1	1	1	1	4	5	8	15	22	29	37
1/0	1	1	1	3	4	7	12	19	25	32
2/0		1	1	2	3	6	10	16	20	26
3/0		1	1	1	3	5	8	13	17	22
4/0		1	1	1	2	4	7	11	14	18
250			1	1	1	3	6	9	11	15
300			1	1	1	3	5	7	10	13
350			1	1	1	2	4	6	9	11
400				1	1	1	4	6	8	10
500				1	1	1	3	5	6	8

Maximum number of THHN conductors in Intermediate Metal Conduit IMC

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Wire Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
	IMC	IMC	IMC	IMC	IMC	IMC	IMC	IMC	IMC	IMC
14	14	24	39	68	91	149	211	326	436	562
12	10	17	29	49	67	109	154	238	318	410
10	6	11	18	31	42	68	97	150	200	258
8	3	6	10	18	24	39	56	86	115	149
6	2	4	7	13	17	28	40	62	83	107
4	1	3	4	8	10	17	25	38	51	66
3	1	2	4	6	9	15	21	32	43	56
2	1	1	3	5	7	12	17	27	36	47
1	1	1	2	4	5	9	13	20	27	35
1/0	1	1	1	3	4	8	11	17	23	29
2/0	1	1	1	3	4	6	9	14	19	24
3/0		1	1	2	3	5	7	12	16	20
4/0		1	1	1	2	4	6	9	13	17
250			1	1	1	3	5	8	10	13
300			1	1	1	3	4	7	9	12
350			1	1	1	2	4	6	8	10
400			1	1	1	2	3	5	7	9
500				1	1	1	3	4	6	7

Maximum number of THHN conductors in Rigid Metal Conduit RMC

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Wire Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
	RMC	RMC	RMC	RMC	RMC	RMC	RMC	RMC	RMC	RMC
14	13	22	36	63	85	140	200	309	412	531
12	9	16	26	46	62	102	146	225	301	387
10	6	10	17	29	39	64	92	142	189	244
8	3	6	9	16	22	37	53	82	109	140
6	2	4	7	12	16	27	38	59	79	101
4	1	2	4	7	10	16	23	36	48	62
3	1	1	3	6	8	14	20	31	41	53
2	1	1	3	5	7	11	17	26	34	44
1	1	1	1	4	5	8	12	19	25	33
1/0	1	1	1	3	4	7	10	16	21	27
2/0		1	1	2	3	6	8	13	18	23
3/0		1	1	1	3	5	7	11	15	19
4/0		1	1	1	2	4	6	9	12	16
250			1	1	1	3	5	7	10	13
300			1	1	1	3	4	6	8	11
350			1	1	1	2	3	5	7	10
400			1	1	1	2	3	5	7	8
500				1	1	1	2	4	5	7

Maximum number of THHN conductors in Flexible Metal Conduit FMC

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Wire Size	*3/8"	*3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
	Internal	External	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
18	5	8										
16	4	6										
14	3	4	13	22	33	52	76	134	202	291	396	518
12	2	3	9	16	24	38	56	98	147	212	289	378
10	1	1	6	10	15	24	35	62	93	134	182	238
8			3	6	9	14	20	35	53	77	105	137
6			2	4	6	10	14	25	38	55	76	99
4			1	2	4	6	9	16	24	34	46	61
3			1	1	3	5	7	13	20	29	39	51
2			1	1	3	4	6	11	17	24	33	43
1			1	1	1	3	4	8	12	18	24	32
1/0			1	1	1	2	4	7	10	15	20	27
2/0				1	1	1	3	6	9	12	17	22
3/0				1	1	1	2	5	7	10	14	18
4/0				1	1	1	1	4	6	8	12	15
250					1	1	1	3	5	7	9	12
300					1	1	1	3	4	6	8	11
350					1	1	1	2	3	5	7	9
400						1	1	1	3	5	6	8
500						1	1	1	2	4	5	7

* The 3/8" size conductor count depends on whether the connectors are Internal or External

Maximum number of THHN conductors in Liquidtight Flexible Metal Conduit LFMC

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Wire Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
	LFMC	LFMC	LFMC	LFMC	LFMC	LFMC	LFMC	LFMC	LFMC	LFMC
14	13	22	36	63	81	133	201	308	401	523
12	9	16	26	46	59	97	146	225	292	381
10	6	10	16	29	37	61	92	141	184	240
8	3	6	9	16	21	35	53	81	106	138
6	2	4	7	12	15	25	38	59	76	100
4	1	2	4	7	9	15	23	36	47	61
3	1	1	3	6	8	13	20	30	40	52
2	1	1	3	5	7	11	17	26	33	44
1	1	1	1	4	5	8	12	19	25	32
1/0	1	1	1	3	4	7	10	16	21	27
2/0		1	1	2	3	6	8	13	17	23
3/0		1	1	1	3	5	7	11	14	19
4/0		1	1	1	2	4	6	9	12	15
250			1	1	1	3	5	7	10	12
300			1	1	1	3	4	6	8	11
350			1	1	1	2	3	5	7	9
400				1	1	1	3	5	6	8
500				1	1	1	2	4	5	7

Maximum number of THHN conductors in Liquidtight Flexible Nonmetallic Conduit LFNC

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Wire Size	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
	LFNC	LFNC	LFNC	LFNC	LFNC	LFNC	LFNC
14	8	13	22	36	63	81	133
12	5	9	16	26	46	59	97
10	3	6	10	16	29	37	61
8	1	3	6	9	16	21	35
6	1	2	4	7	12	15	25
4	1	1	2	4	7	9	15
3	1	1	1	3	6	8	13
2	1	1	1	3	5	7	11
1		1	1	1	4	5	8
1/0		1	1	1	3	4	7
2/0			1	1	2	3	6
3/0			1	1	1	3	5
4/0			1	1	1	2	4
250				1	1	1	3
300				1	1	1	3
350				1	1	1	2
400					1	1	1
500					1	1	1

Maximum number of THHN conductors in Rigid Schedule 40 PVC

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Wire Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
	Sch 40	Sch 40	Sch 40	Sch 40	Sch 40	Sch 40	Sch 40	Sch 40	Sch 40	Sch 40
14	11	21	34	60	82	135	193	299	401	517
12	8	15	25	43	59	99	141	218	293	377
10	5	9	15	27	37	62	89	137	184	238
8	3	5	9	16	21	36	51	79	106	137
6	1	4	6	11	15	26	37	57	77	99
4	1	2	4	7	9	16	22	35	47	61
3	1	1	3	6	8	13	19	30	40	51
2	1	1	3	5	7	11	16	25	33	43
1	1	1	1	3	5	8	12	18	25	32
1/0	1	1	1	3	4	7	10	15	21	27
2/0		1	1	2	3	6	8	13	17	22
3/0		1	1	1	3	5	7	11	14	18
4/0		1	1	1	2	4	6	9	12	15
250			1	1	1	3	4	7	10	12
300			1	1	1	3	4	6	8	11
350			1	1	1	2	3	5	7	9
400				1	1	1	3	5	6	8
500				1	1	1	2	4	5	7

Maximum number of THHN conductors in Rigid Schedule 80 PVC

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Wire Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
	Sch 80	Sch 80	Sch 80	Sch 80	Sch 80	Sch 80	Sch 80	Sch 80	Sch 80	Sch 80
14	9	17	28	51	70	118	170	265	358	464
12	6	12	20	37	51	86	124	193	261	338
10	4	7	13	23	32	54	78	122	164	213
8	2	4	7	13	18	31	45	70	95	123
6	1	3	5	9	13	22	32	51	68	89
4	1	1	3	6	8	14	20	31	42	54
3	1	1	3	5	7	12	17	26	35	46
2	1	1	2	4	6	10	14	22	30	39
1		1	1	3	4	7	10	16	22	29
1/0		1	1	2	3	6	9	14	18	24
2/0		1	1	1	3	5	7	11	15	20
3/0		1	1	1	2	4	6	9	13	17
4/0			1	1	1	3	5	8	10	14
250			1	1	1	3	4	6	8	11
300				1	1	2	3	5	7	9
350				1	1	1	3	5	6	8
400				1	1	1	3	4	6	7
500				1	1	1	2	3	5	6

Maximum number of THHN conductors in Electrical NonMetallic Tubing ENT

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Wire Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
14	10	18	32	58	80	132
12	7	13	23	42	58	96
10	4	8	15	26	36	60
8	2	5	8	15	21	35
6	1	3	6	11	15	25
4	1	1	4	7	9	15
3	1	1	3	5	8	13
2	1	1	2	5	6	11
1	1	1	1	3	5	8
1/0		1	1	3	4	7
2/0		1	1	2	3	5
3/0		1	1	1	3	4
4/0			1	1	2	4
250			1	1	1	3
300			1	1	1	2
350				1	1	2
400				1	1	1
500				1	1	1

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A condensed version starts on the next page.

Wire	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
14	EMT - 12	EMT - 22	EMT - 35	EMT - 61	EMT - 84	EMT - 138
	PVC - 11	PVC - 21	PVC - 34	PVC - 60	PVC - 82	PVC - 135
	IMC - 14	IMC - 24	IMC - 39	IMC - 68	IMC - 91	IMC - 149
	FMC - 13	FMC - 22	FMC - 33	FMC - 52	FMC - 76	FMC - 134
	LFMC - 13	LFMC - 22	LFMC - 36	LFMC - 52	LFMC - 76	LFMC - 133
	LFNC - 13	LFNC - 22	LFNC - 36	LFNC - 63	LFNC - 81	LFNC - 133
	ENT - 10	ENT - 18	ENT - 32	ENT - 58	ENT - 80	ENT - 132
12	EMT - 9	EMT - 16	EMT - 26	EMT - 45	EMT - 61	EMT - 101
	PVC - 8	PVC - 15	PVC - 25	PVC - 43	PVC - 59	PVC - 99
	IMC - 10	IMC - 17	IMC - 29	IMC - 49	IMC - 67	IMC - 109
	FMC - 9	FMC - 16	FMC - 24	FMC - 38	FMC - 56	FMC - 98
	LFMC - 9	LFMC - 16	LFMC - 26	LFMC - 46	LFMC - 59	LFMC - 97
	LFNC - 9	LFNC - 16	LFNC - 26	LFNC - 46	LFNC - 59	LFNC - 97
	ENT - 7	ENT - 13	ENT - 23	ENT - 42	ENT - 58	ENT - 96
10	EMT - 5	EMT - 10	EMT - 16	EMT - 28	EMT - 38	EMT - 63
	PVC - 5	PVC - 9	PVC - 15	PVC - 27	PVC - 37	PVC - 62
	IMC - 6	IMC - 11	IMC - 18	IMC - 31	IMC - 42	IMC - 68
	FMC - 6	FMC - 10	FMC - 15	FMC - 24	FMC - 35	FMC - 62
	LFMC - 6	LFMC - 10	LFMC - 16	LFMC - 29	LFMC - 37	LFMC - 61
	LFNC - 6	LFNC - 10	LFNC - 16	LFNC - 29	LFNC - 37	LFNC - 61
	ENT - 4	ENT - 8	ENT - 15	ENT - 26	ENT - 36	ENT - 60
8	EMT - 3	EMT - 6	EMT - 9	EMT - 16	EMT - 22	EMT - 36
	PVC - 3	PVC - 5	PVC - 9	PVC - 16	PVC - 21	PVC - 36
	IMC - 3	IMC - 6	IMC - 10	IMC - 18	IMC - 24	IMC - 39
	FMC - 3	FMC - 6	FMC - 9	FMC - 14	FMC - 20	FMC - 35
	LFMC - 3	LFMC - 6	LFMC - 9	LFMC - 16	LFMC - 21	LFMC - 35
	LFNC - 3	LFNC - 6	LFNC - 9	LFNC - 16	LFNC - 21	LFNC - 35
	ENT - 2	ENT - 5	ENT - 8	ENT - 15	ENT - 21	ENT - 35
6	EMT - 2	EMT - 4	EMT - 7	EMT - 12	EMT - 16	EMT - 26
	PVC - 1	PVC - 4	PVC - 6	PVC - 11	PVC - 15	PVC - 26
	IMC - 2	IMC - 4	IMC - 7	IMC - 13	IMC - 17	IMC - 28
	FMC - 2	FMC - 4	FMC - 6	FMC - 10	FMC - 14	FMC - 25
	LFMC - 2	LFMC - 4	LFMC - 7	LFMC - 12	LFMC - 15	LFMC - 25
	LFNC - 2	LFNC - 4	LFNC - 7	LFNC - 12	LFNC - 15	LFNC - 25
	ENT - 1	ENT - 3	ENT - 6	ENT - 11	ENT - 15	ENT - 25
4	EMT - 1	EMT - 2	EMT - 4	EMT - 7	EMT - 10	EMT - 16
	PVC - 1	PVC - 2	PVC - 4	PVC - 7	PVC - 9	PVC - 16
	IMC - 1	IMC - 3	IMC - 4	IMC - 8	IMC - 10	IMC - 17
3	EMT - 1	EMT - 1	EMT - 3	EMT - 6	EMT - 8	EMT - 13
	PVC - 1	PVC - 2	PVC - 4	PVC - 7	PVC - 9	PVC - 16
	IMC - 1	IMC - 3	IMC - 4	IMC - 8	IMC - 10	IMC - 17

EMT = Electrical Metallic Tubing (Thinwall Conduit)
PVC = Poly Vinyl Chloride (Schedule 40)
IMC = Intermediate Metal Conduit
FMC = Flexible Metal Conduit (Greenfield)
LFMC = Liquidtight Flexible Metal Conduit
LFNC = Liquidtight Flexible Nonmetallic Conduit
ENT = Electrical Nonmetallic Conduit

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2	EMT - 1	EMT - 1	EMT - 3	EMT - 5	EMT - 7	EMT - 11
	PVC - 1	PVC - 1	PVC - 3	PVC - 5	PVC - 7	PVC - 11
	IMC - 1	IMC - 1	IMC - 3	IMC - 5	IMC - 7	IMC - 12
1	EMT - 1	EMT - 1	EMT - 1	EMT - 4	EMT - 5	EMT - 8
	PVC - 1	PVC - 1	PVC - 1	PVC - 3	PVC - 5	PVC - 8
	IMC - 1	IMC - 1	IMC - 2	IMC - 4	IMC - 5	IMC - 9
1/0	EMT - 1	EMT - 1	EMT - 1	EMT - 3	EMT - 4	EMT - 7
	PVC - 1	PVC - 1	PVC - 1	PVC - 3	PVC - 4	PVC - 7
	IMC - 1	IMC - 1	IMC - 1	IMC - 3	IMC - 4	IMC - 8
2/0		EMT - 1	EMT - 1	EMT - 2	EMT - 3	EMT - 6
		PVC - 1	PVC - 1	PVC - 2	PVC - 3	PVC - 6
	IMC - 1	IMC - 1	IMC - 1	IMC - 3	IMC - 4	IMC - 6
3/0		EMT - 1	EMT - 1	EMT - 1	EMT - 3	EMT - 5
		PVC - 1	PVC - 1	PVC - 1	PVC - 3	PVC - 5
		IMC - 1	IMC - 1	IMC - 2	IMC - 3	IMC - 5
4/0		EMT - 1	EMT - 1	EMT - 1	EMT - 2	EMT - 4
		PVC - 1	PVC - 1	PVC - 1	PVC - 2	PVC - 4
		IMC - 1	IMC - 1	IMC - 1	IMC - 2	IMC - 4

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