



Minimum Branch Circuit Sizing

MINIMUM BRANCH CIRCUIT SIZING

Based on National Electric Code, ANSI/NFPA 70-1993; Article 422-4(a); Article 240-6(a); Chapter 9, Table 34; and Table 310-16 (based on 75° C type THW wire).

"X" denotes 277v, 3 phase not applicable to Rheem commercial electric water heaters.

KW	Phase	Recommended Over Current Protection Rating				Wire Gauge							
						C=copper wire; A=aluminum wire							
						208 v		240 v		277 v		480 v	
		208 v	240 v	277 v	480 v	C	A	C	A	C	A	C	A
6	1	40	35	30	20	8	8	10	8	10	10	14	12
	3	25	20	X	15	12	10	14	12	X	X	14	12
9	1	60	50	45	25	6	4	8	6	8	6	12	10
	3	35	30	X	15	10	8	10	10	X	X	14	12
12	1	80	70	60	35	4	2	4	3	6	4	10	8
	3	45	40	X	20	8	6	8	8	X	X	14	12
15	1	90	80	70	40	3	2	4	2	4	3	8	8
	3	60	50	X	25	6	4	8	6	X	X	12	10
18	1	110	100	90	50	2	1/0	3	1	3	2	8	6
	3	70	60	X	30	4	3	6	4	X	X	10	10
24	1	150	125	110	70	1/0	3/0	1	2/0	2	1/0	4	3
	3	90	80	X	40	3	2	4	2	X	X	8	8
27	1	175	150	125	80	2/0	4/0	1/0	3/0	1	2/0	4	2
	3	100	90	X	45	3	1	3	2	X	X	8	6
30	1	200	175	150	80	3/0	250	2/0	4/0	1/0	3/0	4	2
	3	100	90	X	45	2	1/0	4	2	X	X	8	6
36	1	225	200	175	100	4/0	300	3/0	250	2/0	4/0	3	1
	3	125	110	X	60	1	2/0	2	1/0	X	X	6	4
45	1	300	250	225	125	350	500	250	350	4/0	300	1	2/0
	3	175	150	X	70	2/0	4/0	1/0	3/0	X	X	4	3
54	1	350	300	250	150	500	700	360	500	250	350	1/0	3/0
	3	200	175	X	90	3/0	250	2/0	4/0	X	X	3	2