

Wire Sizing Guide

The charts below contain the recommended minimum wire size (AWG) for different voltage, horsepower, and cable length combinations. These charts are only a guide.

SINGLE PHASE (115 VOLT) - WIRE SIZE SELECTION GUIDE*

HP	Cable Length				
	Up to '30	31' – 50'	51' - 75'	'76 – 100'	101' – 150'
1/2	14	14	12	10	8
3/4	14	12	10	10	8
1	14	12	10	8	6
1-1/2	12	10	8	8	6
2	12	10	8	6	6
3	10	8	6	6	4

SINGLE PHASE (230 VOLT) - WIRE SIZE SELECTION GUIDE*

HP	Cable Length				
	Up to '30	31' – 50'	51' - 75'	'76 – 100'	101' – 150'
1/2	14	14	14	14	14
3/4	14	14	14	14	14
1	14	14	14	14	12
1-1/2	14	14	14	14	12
2	14	14	14	12	12
3	14	14	12	12	10

THREE PHASE (208 VOLT) - WIRE SIZE SELECTION GUIDE*

HP	Cable Length				
	Up to '30	31' – 50'	51' - 75'	'76 – 100'	101' – 150'
1/2	14	14	14	14	14
3/4	14	14	14	14	14
1	14	14	14	14	14
1-1/2	14	14	14	14	14
2	14	14	14	14	14
3	14	14	14	14	12
5	14	14	12	12	10
7-1/2	14	12	10	10	8
10	14	12	10	8	6
15	12	10	8	6	6
20	12	8	8	6	4
25	10	8	6	4	4

THREE PHASE (230 VOLT) - WIRE SIZE SELECTION GUIDE*

HP	Cable Length				
	Up to '30	31' – 50'	51' - 75'	'76 – 100'	101' – 150'
1/2	14	14	14	14	14
3/4	14	14	14	14	14
1	14	14	14	14	14
1-1/2	14	14	14	14	14
2	14	14	14	14	14
3	14	14	14	14	12
5	14	14	12	12	10
7-1/2	14	12	10	10	8
10	14	12	10	8	6
15	12	10	8	6	6
20	12	8	8	6	4
25	10	8	6	4	4

THREE PHASE (460 VOLT) - WIRE SIZE SELECTION GUIDE*

HP	Cable Length				
	Up to '30	31' – 50'	51' - 75'	'76 – 100'	101' – 150'
1/2	14	14	14	14	14
3/4	14	14	14	14	14
1	14	14	14	14	14
1-1/2	14	14	14	14	14
2	14	14	14	14	14
3	14	14	14	14	14
5	14	14	14	14	14
7-1/2	14	14	14	14	14
10	14	14	14	14	12
15	14	14	14	12	12
20	14	14	14	12	10
25	14	14	12	10	10

Caution: The information presented in these charts is for illustrative purposes only and should not be construed as exhaustive criteria or prerequisites for determining the appropriate conductor lengths and cable sizes, given that insulation types substantially influence temperature ratings and voltage drops over distance as well. It is imperative to consistently adhere to the guidelines set forth by the National Electric Code (NEC) and any relevant local codes when ascertaining the appropriate wire diameters. This information is for reference purposes only.

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