

SAFETY SWITCHES



Selection Table

For Motor Branch Circuits

Cutler-Hammer Catalog Numbers of proper switches for use with motors based on using standard types of fuses as specified by the fusing tables of the National Electrical Code.

The table below is based on the ratings in horsepower of switches with standard types of fuses as covered by N. E. C. fusing tables. For motors larger than 50 Hp switches (non-hp rated switches) may be used in accordance with Article 430—109 d, 1962 N. E. C. and may be selected as follows:

Fusible—Based on maximum fuse values as shown in Table 430—146, 1962 N. E. C. for standard fuses but the switch rating should be at least 25% in excess of the motor load full current. **Non-Fusible**—The switch rating should be at least 115% of the motor full load current.

NEMA recommends the selection of fusible switches rated at least 50% in excess of load, especially for continuous duty.

Motor Hp	Catalog Number 4105			Catalog Number 4131 or 4143		
	Squirrel Cage and Synchronous X-Line resis. and react. starting	Squirrel Cage and Synchronous Autotrans. start. and high react. starting	Wound Rotor	Squirrel Cage and Synchronous X-Line resis. and react. starting	Squirrel Cage and Synchronous Autotrans. start. and high react. starting	Wound Rotor
FUSIBLE SAFETY SWITCHES FOR 220 VOLT, 3 PHASE MOTORS						
½-3	4105H301	4105H301	4105H301	4131H301 4143H301	4131H301 4143H301	4131H301 4143H301
5	4105H302	4105H302	① 4105H302	4131H302 4143H302	4131H302 4143H302	① 4131H302 4143H302
7½	② 4105H302	4105H302	4105H302	② 4131H302 4143H302	4131H302 4143H302	4131H302 4143H302
10	4105H303	4105H303	① 4105H303	4131H303 4143H303	4131H303 4143H303	① 4131H303 4143H303
15	② 4105H303	4105H303	4105H303	② 4131H303 4143H303	4131H303 4143H303	4131H303 4143H303
20	4105H304	4105H304	4105H304	4131H304 4143H304	4131H304 4143H304	4131H304 4143H304
25	4105H304	4105H304	4105H304	4131H304 4143H304	4131H304 4143H304	4131H304 4143H304
30	① 4105H305	① 4105H305	① 4105H305	① 4131H305	① 4131H305	① 4131H305
40	4105H305	① 4105H305	① 4105H305	4131H305	① 4131H305	① 4131H305
50	4105H305	4105H305	① 4105H305	4131H305	4131H305	① 4131H305
60	4105H306	4105H305	4105H305	4131H306	4131H305	4131H305
75	4105H306	4105H305	4105H305	4131H306	4131H305	4131H305
100	.....	4105H306	4105H305	.....	4131H306	4131H305
125	.....	.....	4105H306	.....	.....	4131H306
150	.....	.....	4105H306	.....	.....	4131H306
FUSIBLE SWITCHES FOR 220 VOLT, 3 PHASE MOTORS—ON 3 PHASE LINES WITH 1 PHASE GROUNDED						
½-3	4105H341	4105H341	4105H341	4131H341	4131H341	4131H341
5	4105H342	4105H342	① 4105H342	4131H342	4131H342	① 4131H342
7½	② 4105H342	4105H342	4105H342	② 4131H342	4131H342	4131H342
10	4105H343	4105H343	① 4105H343	4131H343	4131H343	① 4131H343
15	② 4105H343	4105H343	4105H343	② 4131H343	4131H343	4131H343
20	4105H344	4105H344	4105H344	4131H344	4131H344	4131H344
25	4105H344	4105H344	4105H344	4131H344	4131H344	4131H344
30	① 4105H345	4105H345	① 4105H345	① 4131H345	① 4131H345	① 4131H345
40	4105H345	① 4105H345	① 4105H345	4131H345	① 4131H345	① 4131H345
50	4105H345	① 4105H345	① 4105H345	4131H345	4131H345	① 4131H345
60	4105H346	4105H345	4105H345	4131H346	4131H345	4131H345
75	4105H346	4105H345	4105H345	4131H346	4131H345	4131H345
100	.....	4105H346	4105H345	.....	4131H346	4131H345
125	.....	.....	4105H346	.....	.....	4131H346
150	.....	.....	4105H346	.....	.....	4131H346
FUSIBLE SAFETY SWITCHES FOR 440 VOLT, 3 PHASE MOTORS						
½-5	4105H311	4105H311	4105H311	4131H311	4131H311	4131H311
7½	4105H312	4105H312	① 4105H312	4131H312	① 4131H312	① 4131H312
10	4105H312	4105H312	① 4105H312	4131H312	4131H312	① 4131H312
15	4105H312	4105H312	① 4105H312	4131H312	4131H312	① 4131H312
20	4105H313	① 4105H313	① 4105H313	4131H313	① 4131H313	① 4131H313
25	4105H313	4105H313	① 4105H313	4131H313	4131H313	① 4131H313
30	① 4105H314	① 4105H314	① 4105H314	① 4131H314	① 4131H314	① 4131H314
40	4105H314	① 4105H314	① 4105H314	4131H314	① 4131H314	① 4131H314
50	4105H314	4105H314	① 4105H314	4131H314	4131H314	① 4131H314
60	4105H315	4105H314	4105H314	.....	4131H314	4131H314
75	4105H315	4105H314	4105H314	.....	4131H314	4131H314
100	4105H315	4105H315	4105H314	.....	.....	4131H314
125	4105H316	4105H315	4105H315	.....	.....	.....
150	4105H316	4105H315	4105H315	.....	.....	.....
200	.....	4105H316	4105H315	.....	.....	.....

NOTE: Switches above 50 Hp are intended for disconnect service only.

- ① To comply with National Electrical Code requirements on motor branch circuit fusing, fuse reducers may be required with these switches.
 ② For squirrel cage and synchronous motors (full voltage, reactor and resistor starting) the next larger size switch should be used if the maximum permitted fusing is desired.