

STANDARDS TEXT AMENDED
Section II
Small (Fractional) and Medium (Integral) Machines
Part 12
Tests and Performance—AC and DC Motors

12.0 Scope

The Standards in this Part 12 of Section II cover direct-current motors built in frames with continuous dripproof ratings, or equivalent capacities, up to and including 1.25 horsepower per rpm open type.

12.59 Efficiency Levels of Energy Efficient Polyphase Squirrel-Cage Induction Motors Rated 600 Volts or Less At 60 Hz

12.60 Efficiency Levels of Premium Efficiency Electric Motors

Tables 12-11—12-15

Table 12-11
Full-Load Efficiencies of 60 Hz Energy Efficient Motors

Open Motors								
Hp	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
1	...	...	82.5	80.0	80.0	77.0	74.0	70.0
1.5	82.5	80.0	84.0	81.5	84.0	81.5	75.5	72.0
2	84.0	81.5	84.0	81.5	85.5	82.5	85.5	82.5
3	84.0	81.5	86.5	84.0	86.5	84.0	86.5	84.0
5	85.5	82.5	87.5	85.5	87.5	85.5	87.5	85.5
7.5	87.5	85.5	88.5	86.5	88.5	86.5	88.5	86.5
10	88.5	86.5	89.5	87.5	90.2	88.5	89.5	87.5
15	89.5	87.5	91.0	89.5	90.2	88.5	89.5	87.5
20	90.2	88.5	91.0	89.5	91.0	89.5	90.2	88.5
25	91.0	89.5	91.7	90.2	91.7	90.2	90.2	88.5
30	91.0	89.5	92.4	91.0	92.4	91.0	91.0	89.5
40	91.7	90.2	93.0	91.7	93.0	91.7	91.0	89.5
50	92.4	91.0	93.0	91.7	93.0	91.7	91.7	90.2
60	93.0	91.7	93.6	92.4	93.6	92.4	92.4	91.0
75	93.0	91.7	94.1	93.0	93.6	92.4	93.6	92.4
100	93.0	91.7	94.1	93.0	94.1	93.0	93.6	92.4
125	93.6	92.4	94.5	93.6	94.1	93.0	93.6	92.4
150	93.6	92.4	95.0	94.1	94.5	93.6	93.6	92.4
200	94.5	93.6	95.0	94.1	94.5	93.6	93.6	92.4
250	94.5	93.6	95.4	94.5	95.4	94.5	94.5	93.6
300	95.0	94.1	95.4	94.5	95.4	94.5	...	...
350	95.0	94.1	95.4	94.5	95.4	94.5	...	...
400	95.4	94.5	95.4	94.5	...	...	...	...
450	95.8	95.0	95.8	95.0	...	...	...	...
500	95.8	95.0	95.8	95.0	...	...	...	...

Table 12-11 continued on next page.

Table 12-11 continued

Enclosed Motors								
Hp	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
1.0	75.5	72.0	82.5	80.0	80.0	77.0	74.0	70.0
1.5	82.5	80.0	84.0	81.5	85.5	82.5	77.0	74.0
2.0	84.0	81.5	84.0	81.5	86.5	84.0	82.5	80.0
3.0	85.5	82.5	87.5	85.5	87.5	85.5	84.0	81.5
5.0	87.5	85.5	87.5	85.5	87.5	85.5	85.5	82.5
7.5	88.5	86.5	89.5	87.5	89.5	87.5	85.5	82.5
10.0	89.5	87.5	89.5	87.5	89.5	87.5	88.5	86.5
15.0	90.2	88.5	91.0	89.5	90.2	88.5	88.5	86.5
20.0	90.2	88.5	91.0	89.5	90.2	88.5	89.5	87.5
25.0	91.0	89.5	92.4	91.0	91.7	90.2	89.5	87.5
30.0	91.0	89.5	92.4	91.0	91.7	90.2	91.0	89.5
40.0	91.7	90.2	93.0	91.7	93.0	91.7	91.0	89.5
50.0	92.4	91.0	93.0	91.7	93.0	91.7	91.7	90.2
60.0	93.0	91.7	93.6	92.4	93.6	92.4	91.7	90.2
75.0	93.0	91.7	94.1	93.0	93.6	92.4	93.0	91.7
100.0	93.6	92.4	94.5	93.6	94.1	93.0	93.0	91.7
125.0	94.5	93.6	94.5	93.6	94.1	93.0	93.6	92.4
150.0	94.5	93.6	95.0	94.1	95.0	94.1	93.6	92.4
200.0	95.0	94.1	95.0	94.1	95.0	94.1	94.1	93.0
250.0	95.4	94.5	95.0	94.1	95.0	94.1	94.5	93.6
300.0	95.4	94.5	95.4	94.5	95.0	94.1	...	...
350.0	95.4	94.5	95.4	94.5	95.0	94.1	...	...
400.0	95.4	94.5	95.4	94.5	...	...	...	...
450.0	95.4	94.5	95.4	94.5	...	...	...	...
500.0	95.4	94.5	95.8	95.0	...	...	...	...

Table 12-12
Full-Load Efficiencies for 60 Hz Premium Efficiency Three-Phase Electric Motors
Rated 600 Volts or Less

Open Motors								
HP	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
1	77.0	74.0	85.5	82.5	82.5	80.0	75.5	72.0
1.5	84.0	81.5	86.5	84.0	86.5	84.0	77.0	74.0
2	85.5	82.5	86.5	84.0	87.5	85.5	86.5	84.0
3	85.5	82.5	89.5	87.5	88.5	86.5	87.5	85.5
5	86.5	84.0	89.5	87.5	89.5	87.5	88.5	86.5
7.5	88.5	86.5	91.0	89.5	90.2	88.5	89.5	87.5
10	89.5	87.5	91.7	90.2	91.7	90.2	90.2	88.5
15	90.2	88.5	93.0	91.7	91.7	90.2	90.2	88.5
20	91.0	89.5	93.0	91.7	92.4	91.0	91.0	89.5
25	91.7	90.2	93.6	92.4	93.0	91.7	91.0	89.5
30	91.7	90.2	94.1	93.0	93.6	92.4	91.7	90.2
40	92.4	91.0	94.1	93.0	94.1	93.0	91.7	90.2
50	93.0	91.7	94.5	93.6	94.1	93.0	92.4	91.0
60	93.6	92.4	95.0	94.1	94.5	93.6	93.0	91.7
75	93.6	92.4	95.0	94.1	94.5	93.6	94.1	93.0
100	93.6	92.4	95.4	94.5	95.0	94.1	94.1	93.0
125	94.1	93.0	95.4	94.5	95.0	94.1	94.1	93.0
150	94.1	93.0	95.8	95.0	95.4	94.5	94.1	93.0
200	95.0	94.1	95.8	95.0	95.4	94.5	94.1	93.0
250	95.0	94.1	95.8	95.0	95.8	95.0	95.0	94.1
300	95.4	94.5	95.8	95.0	95.8	95.0		
350	95.4	94.5	95.8	95.0	95.8	95.0		
400	95.8	95.0	95.8	95.0				
450	96.2	95.4	96.2	95.4				
500	96.2	95.4	96.2	95.4				

Table 12-12 continued

Enclosed Motors								
HP	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
1	77.0	74.0	85.5	82.5	82.5	80.0	75.5	72.0
1.5	84.0	81.5	86.5	84.0	87.5	85.5	78.5	75.5
2	85.5	82.5	86.5	84.0	88.5	86.5	84.0	81.5
3	86.5	84.0	89.5	87.5	89.5	87.5	85.5	82.5
5	88.5	86.5	89.5	87.5	89.5	87.5	86.5	84.0
7.5	89.5	87.5	91.7	90.2	91.0	89.5	86.5	84.0
10	90.2	88.5	91.7	90.2	91.0	89.5	89.5	87.5
15	91.0	89.5	92.4	91.0	91.7	90.2	89.5	87.5
20	91.0	89.5	93.0	91.7	91.7	90.2	90.2	88.5
25	91.7	90.2	93.6	92.4	93.0	91.7	90.2	88.5
30	91.7	90.2	93.6	92.4	93.0	91.7	91.7	90.2
40	92.4	91.0	94.1	93.0	94.1	93.0	91.7	90.2
50	93.0	91.7	94.5	93.6	94.1	93.0	92.4	91.0
60	93.6	92.4	95.0	94.1	94.5	93.6	92.4	91.0
75	93.6	92.4	95.4	94.5	94.5	93.6	93.6	92.4
100	94.1	93.0	95.4	94.5	95.0	94.1	93.6	92.4
125	95.0	94.1	95.4	94.5	95.0	94.1	94.1	93.0
150	95.0	94.1	95.8	95.0	95.8	95.0	94.1	93.0
200	95.4	94.5	96.2	95.4	95.8	95.0	94.5	93.6
250	95.8	95.0	96.2	95.4	95.8	95.0	95.0	94.1
300	95.8	95.0	96.2	95.4	95.8	95.0		
350	95.8	95.0	96.2	95.4	95.8	95.0		
400	95.8	95.0	96.2	95.4				
450	95.8	95.0	96.2	95.4				
500	95.8	95.0	96.2	95.4				

Table 12-13
Full-Load Efficiencies for 60 Hz Premium Efficiency Electric Motors
Rated 601 to 5000 Volts

Open Motors								
HP	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
250	94.5	93.6	95.0	94.1	95.0	94.1	93.6	92.4
300	94.5	93.6	95.0	94.1	95.0	94.1		
350	94.5	93.6	95.0	94.1	95.0	94.1		
400	94.5	93.6	95.0	94.1				
450	94.5	93.6	95.0	94.1				
500	94.5	93.6	95.0	94.1				
Enclosed Motors								
HP	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
250	95.0	94.1	95.0	94.1	95.0	94.1	94.1	93.0
300	95.0	94.1	95.0	94.1	95.0	94.1		
350	95.0	94.1	95.0	94.1	95.0	94.1		
400	95.0	94.1	95.0	94.1				
450	95.0	94.1	95.0	94.1				
500	95.0	94.1	95.0	94.1				

Table 12-14
Full-Load Efficiencies for 50 Hz Premium Efficiency Electric Motors Rated 600 Volts or Less

Open and Enclosed			
HP	2 Pole	4 Pole	6 Pole
	Efficiency	Efficiency	Efficiency
1	80.7	82.5	78.9
1.5	82.8	84.2	81.1
2	84.2	85.3	82.5
3	85.9	86.7	84.4
5	87.9	88.4	86.5
7.5	89.2	89.6	88.0
10	90.1	90.4	89.0
15	91.2	91.5	90.3
20	91.9	92.1	91.2
25	92.4	92.6	91.8
30	92.8	93.0	92.2
40	93.3	93.5	92.9
50	93.7	93.9	93.4
60	94.0	94.2	93.7
75	94.3	94.6	94.1
100	94.7	95.0	94.6
125	95.0	95.3	94.9
150	95.2	95.5	95.2
200	95.5	95.8	95.5
250	95.7	95.9	95.7
300	95.8	96.0	95.8
350	95.8	96.0	95.8
400	95.8	96.0	95.8
450	95.8	96.0	95.8
500	95.8	96.0	95.8

**Table 12-15 - KW
 Full-Load Efficiencies of 60Hz Energy Efficient Motors**

Open Motors								
KW	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
0.75	...	...	82.5	80.0	80.0	77.0	74.0	70.0
1.1	82.5	80.0	84.0	81.5	84.0	81.5	75.5	72.0
1.5	84.0	81.5	84.0	81.5	85.5	82.5	85.5	82.5
2.2	84.0	81.5	86.5	84.0	86.5	84.0	86.5	84.0
3	85.5	82.5	87.5	85.5	87.5	85.5	87.5	85.5
3.7	85.5	82.5	87.5	85.5	87.5	85.5	87.5	85.5
4	85.5	82.5	87.5	85.5	87.5	85.5	87.5	85.5
5.5	87.5	85.5	88.5	86.5	88.5	86.5	88.5	86.5
7.5	88.5	86.5	89.5	87.5	90.2	88.5	89.5	87.5
11	89.5	87.5	91.0	89.5	90.2	88.5	89.5	87.5
15	90.2	88.5	91.0	89.5	91.0	89.5	90.2	88.5
18.5	91.0	89.5	91.7	90.2	91.7	90.2	90.2	88.5
22	91.0	89.5	92.4	91.0	92.4	91.0	91.0	89.5
30	91.7	90.2	93.0	91.7	93.0	91.7	91.0	89.5
37	92.4	91.0	93.0	91.7	93.0	91.7	91.7	90.2
45	93.0	91.7	93.6	92.4	93.6	92.4	92.4	91.0
55	93.0	91.7	94.1	93.0	93.6	92.4	93.6	92.4
75	93.0	91.7	94.1	93.0	94.1	93.0	93.6	92.4
90	93.6	92.4	94.5	93.6	94.1	93.0	93.6	92.4
110	93.6	92.4	95.0	94.1	94.5	93.6	93.6	92.4
132	94.5	93.6	95.0	94.1	94.5	93.6	93.6	92.4
150	94.5	93.6	95.0	94.1	94.5	93.6	93.6	92.4
185	94.5	93.6	95.4	94.5	95.4	94.5	94.5	93.6
200	94.5	93.6	95.4	94.5	95.4	94.5	94.5	93.6
220	95.0	94.1	95.4	94.5	95.4	94.5	----	----
250	95.0	94.1	95.4	94.5	95.4	94.5	----	----
280	95.4	94.5	95.4	94.5	----	----	----	----
300	95.4	94.5	95.4	94.5	----	----	----	----
315	95.4	94.5	95.4	94.5	----	----	----	----
335	95.8	95.0	95.8	95.0	----	----	----	----
355	95.8	95.0	95.8	95.0	----	----	----	----
375	95.8	95.0	95.8	95.0	----	----	----	----
400	95.8	95.0	95.8	95.0	----	----	----	----

Table 12-15 - kW continued

Enclosed Motors								
KW	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
0.75	75.5	72.0	82.5	80.0	80.0	77.0	74.0	70.0
1.1	82.5	80.0	84.0	81.5	85.5	82.5	77.0	74.0
1.5	84.0	81.5	84.0	81.5	86.5	84.0	82.5	80.0
2.2	85.5	82.5	87.5	85.5	87.5	85.5	84.0	81.5
3.7	87.5	85.5	87.5	85.5	87.5	85.5	85.5	82.5
5.5	88.5	86.5	89.5	87.5	89.5	87.5	85.5	82.5
7.5	89.5	87.5	89.5	87.5	89.5	87.5	88.5	86.5
11	90.2	88.5	91.0	89.5	90.2	88.5	88.5	86.5
15	90.2	88.5	91.0	89.5	90.2	88.5	89.5	87.5
18.5	91.0	89.5	92.4	91.0	91.7	90.2	89.5	87.5
22	91.0	89.5	92.4	91.0	91.7	90.2	91.0	89.5
30	91.7	90.2	93.0	91.7	93.0	91.7	91.0	89.5
37	92.4	91.0	93.0	91.7	93.0	91.7	91.7	90.2
45	93.0	91.7	93.6	92.4	93.6	92.4	91.7	90.2
55	93.0	91.7	94.1	93.0	93.6	92.4	93.0	91.7
75	93.6	92.4	94.5	93.6	94.1	93.0	93.0	91.7
90	94.5	93.6	94.5	93.6	94.1	93.0	93.6	92.4
110	94.5	93.6	95.0	94.1	95.0	94.1	93.6	92.4
150	95.0	94.1	95.0	94.1	95.0	94.1	94.1	93.0
185	95.4	94.5	95.0	94.1	95.0	94.1	94.5	93.6
200	95.4	94.5	95.0	94.1	95.0	94.1	94.5	93.6
220	95.4	94.5	95.4	94.5	95.0	94.1	----	----
250	95.4	94.5	95.4	94.5	95.0	94.1	----	----
280	95.4	94.5	95.4	94.5	----	----	----	----
300	95.4	94.5	95.4	94.5	----	----	----	----
315	95.4	94.5	95.4	94.5	----	----	----	----
335	95.4	94.5	95.4	94.5	----	----	----	----
355	95.4	94.5	95.8	95.0	----	----	----	----
375	95.4	94.5	95.8	95.0	----	----	----	----
400	95.4	94.5	95.8	95.0	----	----	----	----

**Table 12-16 - KW
 Full-Load Efficiencies for 60 Hz Premium Efficiency Three-Phase Electric Motors Rated 600
 Volts or Less**

Open Motors								
KW	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
0.75	77.0	74.0	85.5	82.5	82.5	80.0	75.5	72.0
1.1	84.0	81.5	86.5	84.0	86.5	84.0	77.0	74.0
1.5	85.5	82.5	86.5	84.0	87.5	85.5	86.5	84.0
2.2	85.5	82.5	89.5	87.5	88.5	86.5	87.5	85.5
3.7	86.5	84.0	89.5	87.5	89.5	87.5	88.5	86.5
5.5	88.5	86.5	91.0	89.5	90.2	88.5	89.5	87.5
7.5	89.5	87.5	91.7	90.2	91.7	90.2	90.2	88.5
11	90.2	88.5	93.0	91.7	91.7	90.2	90.2	88.5
15	91.0	89.5	93.0	91.7	92.4	91.0	91.0	89.5
18.5	91.7	90.2	93.6	92.4	93.0	91.7	91.0	89.5
22	91.7	90.2	94.1	93.0	93.6	92.4	91.7	90.2
30	92.4	91.0	94.1	93.0	94.1	93.0	91.7	90.2
37	93.0	91.7	94.5	93.6	94.1	93.0	92.4	91.0
45	93.6	92.4	95.0	94.1	94.5	93.6	93.0	91.7
55	93.6	92.4	95.0	94.1	94.5	93.6	94.1	93.0
75	93.6	92.4	95.4	94.5	95.0	94.1	94.1	93.0
90	94.1	93.0	95.4	94.5	95.0	94.1	94.1	93.0
110	94.1	93.0	95.8	95.0	95.4	94.5	94.1	93.0
150	95.0	94.1	95.8	95.0	95.4	94.5	94.1	93.0
185	95.0	94.1	95.8	95.0	95.8	95.0	95.0	94.1
200	95.0	94.1	95.8	95.0	95.8	95.0	95.0	94.1
220	95.4	94.5	95.8	95.0	95.8	95.0	----	----
250	95.4	94.5	95.8	95.0	95.8	95.0	----	----
280	95.8	95.0	95.8	95.0	----	----	----	----
300	95.8	95.0	95.8	95.0	----	----	----	----
315	95.8	95.0	95.8	95.0	----	----	----	----
335	96.2	95.4	96.2	95.4	----	----	----	----
355	96.2	95.4	96.2	95.4	----	----	----	----
375	96.2	95.4	96.2	95.4	----	----	----	----
400	96.2	95.4	96.2	95.4	----	----	----	----

Table 12-16 - kW continued

Enclosed Motors								
KW	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
0.75	77.0	74.0	85.5	82.5	82.5	80.0	75.5	72.0
1.1	84.0	81.5	86.5	84.0	87.5	85.5	78.5	75.5
1.5	85.5	82.5	86.5	84.0	88.5	86.5	84.0	81.5
2.2	86.5	84.0	89.5	87.5	89.5	87.5	85.5	82.5
3.7	88.5	86.5	89.5	87.5	89.5	87.5	86.5	84.0
5.5	89.5	87.5	91.7	90.2	91.0	89.5	86.5	84.0
7.5	90.2	88.5	91.7	90.2	91.0	89.5	89.5	87.5
11	91.0	89.5	92.4	91.0	91.7	90.2	89.5	87.5
15	91.0	89.5	93.0	91.7	91.7	90.2	90.2	88.5
18.5	91.7	90.2	93.6	92.4	93.0	91.7	90.2	88.5
22	91.7	90.2	93.6	92.4	93.0	91.7	91.7	90.2
30	92.4	91.0	94.1	93.0	94.1	93.0	91.7	90.2
37	93.0	91.7	94.5	93.6	94.1	93.0	92.4	91.0
45	93.6	92.4	95.0	94.1	94.5	93.6	92.4	91.0
55	93.6	92.4	95.4	94.5	94.5	93.6	93.6	92.4
75	94.1	93.0	95.4	94.5	95.0	94.1	93.6	92.4
90	95.0	94.1	95.4	94.5	95.0	94.1	94.1	93.0
110	95.0	94.1	95.8	95.0	95.8	95.0	94.1	93.0
150	95.4	94.5	96.2	95.4	95.8	95.0	94.5	93.6
185	95.8	95.0	96.2	95.4	95.8	95.0	95.0	94.1
200	95.8	95.0	96.2	95.4	95.8	95.0	95.0	94.1
220	95.8	95.0	96.2	95.4	95.8	95.0	----	----
250	95.8	95.0	96.2	95.4	95.8	95.0	----	----
280	95.8	95.0	96.2	95.4	----	----	----	----
300	95.8	95.0	96.2	95.4	----	----	----	----
315	95.8	95.0	96.2	95.4	----	----	----	----
335	95.8	95.0	96.2	95.4	----	----	----	----
355	95.8	95.0	96.2	95.0	----	----	----	----
375	95.8	95.0	96.2	95.0	----	----	----	----
400	95.8	95.0	96.2	95.0	----	----	----	----

**Table 12-17 - KW
 Full-Load Efficiencies for 60 Hz Premium Efficiency Electric Motors Rated 601 to 5000 Volts**

Open Motors								
KW	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
185	94.5	93.6	95	94.1	95	94.1	93.6	92.4
200	94.5	93.6	95	94.1	95	94.1	----	----
220	94.5	93.6	95	94.1	95	94.1	----	----
250	94.5	93.6	95	94.1	95	94.1	----	----
280	94.5	93.6	95	94.1	----	----	----	----
300	94.5	93.6	95	94.1	----	----	----	----
315	94.5	93.6	95	94.1	----	----	----	----
335	94.5	93.6	95	94.1	----	----	----	----
355	94.5	93.6	95	94.1	----	----	----	----
375	94.5	93.6	95	94.1	----	----	----	----
400	94.5	93.6	95	94.1	----	----	----	----
Enclosed Motors								
KW Rating	2 Pole		4 Pole		6 Pole		8 Pole	
	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency	Nominal Efficiency	Minimum Efficiency
185	95.0	94.1	95.0	94.1	95.0	94.1	94.1	93.0
200	95.0	94.1	95.0	94.1	95.0	94.1	94.1	93.0
220	95.0	94.1	95.0	94.1	95.0	94.1	----	----
250	95.0	94.1	95.0	94.1	95.0	94.1	----	----
280	95.0	94.1	95.0	94.1	----	----	----	----
300	95.0	94.1	95.0	94.1	----	----	----	----
315	95.0	94.1	95.0	94.1	----	----	----	----
335	95.0	94.1	95.0	94.1	----	----	----	----
355	95.0	94.1	95.0	94.1	----	----	----	----
375	95.0	94.1	95.0	94.1	----	----	----	----
400	95.0	94.1	95.0	94.1	----	----	----	----

Table 12-18 - KW

**Full-Load Efficiencies for 50 Hz Premium Efficiency Electric Motors Rated 600 Volts or Less
(Random Wound)**

KW	2 Pole	4 Pole	6 Pole
	Efficiency	Efficiency	Efficiency
0.75	80.7	82.5	78.9
1.1	82.7	84.1	81.0
1.5	84.2	85.3	82.5
2.2	85.9	86.7	84.3
3	87.1	87.7	85.6
3.7	87.8	88.4	86.5
4	88.1	88.6	86.8
5.5	89.2	89.6	88.0
7.5	90.1	90.4	89.1
11	91.2	91.4	90.3
15	91.9	92.1	91.2
18.5	92.4	92.6	91.7
22	92.7	93.0	92.2
30	93.3	93.6	92.9
37	93.7	93.9	93.3
45	94.0	94.2	93.7
55	94.3	94.6	94.1
75	94.7	95.0	94.6
90	95.0	95.2	94.9
110	95.2	95.4	95.1
132	95.4	95.6	95.4
150	95.5	95.8	95.5
160	95.6	95.8	95.6
185	95.7	95.9	95.7
200 up to 375	95.8	96.0	95.8

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