

What are the recommended maximum Start/Stops per hour of a standard electric motor?

Why Frequent Starts and Stops Matter

Frequent cycling (starting and stopping) of electric motors can lead to:

- **Increased thermal stress** on windings and insulation
- **Accelerated wear** on mechanical components (splines, bearings, etc.)
- **Overloading** of control elements like pressure switches, relays, and capacitors

Motors require a **cool-down period** between starts to dissipate heat generated by inrush current. Without it, premature failure can occur.

Can I Increase Start Frequency?

Yes — but only under certain conditions. Using a motor with a properly configured **Inverter or Variable Frequency Drive (VFD)** or **Soft Starter** can mitigate thermal and mechanical stress, allowing for **more frequent starts**.

If your application requires high cycling, contact our engineering team for a custom recommendation.

Power (kW)	2 Pole		4 Pole		6 Pole	
	Starts/hr	Min Off Time (s)	Starts/hr	Min Off Time (s)	Starts/hr	Min Off Time (s)
0.12	25	75	45	75	45	75
0.18	25	75	45	75	45	75
0.25	25	75	40	75	45	75
0.37	20	75	40	75	40	75
0.55	20	75	30	75	40	75
0.75	15	75	30	75	34	75
1.1	12	76	25	76	29	76
1.5	11	77	23	77	26	77

Power(kW)	2 Pole		4 Pole		6 Pole	
2.2	10	80	19	80	22	80
3	8	80	16	80	18	80
4	8	83	15	83	18	83
5.5	7	88	14	88	15	88
7.5	6	92	12	92	14	92
9.2	5	92	11	92		
11	5	100	10	100	12	100
15	4	110	9	110	11	110
18.5	4	115	8	115	10	115
22	4	120	8	120	9	120
30	3	130	7	130	8	130
37	3	145	6	145	7	145
45	3	170	6	170	7	170
55	3	180	5	180	6	180
75	2	220	5	220	6	220
90	2	275	4	275	5	275
110	2	320	4	320	5	320
132	2	600	4	600	4	600
160	1	600	4	600	4	600
200	1	1000	3	1000	3	1000
220					2	1000
250	1	1000	2	1000	2	1000
315	1	1000	2	1000		

Power(kW)	2 Pole		4 Pole		6 Pole	
355			2	1000		

Notes

- **Values** are based on internal testing and application experience.
- **Off time values** are derived from empirical test data assuming variable torque loads.
- Always ensure your system design (including control panels and switching components) is rated for your chosen duty cycle.