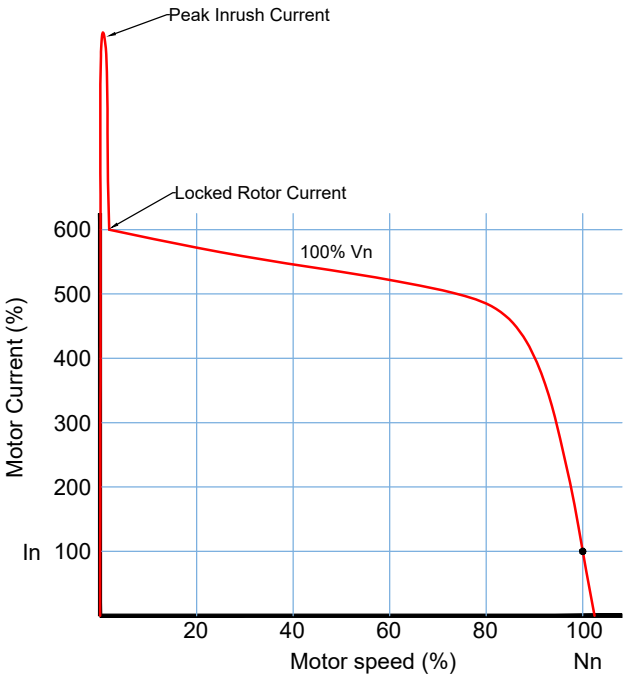
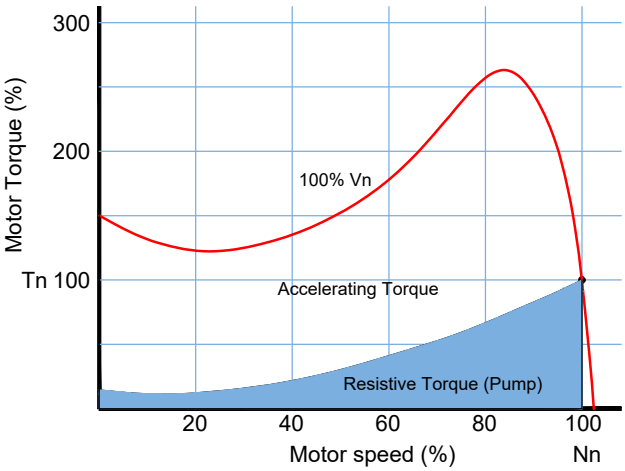
Model GPA

Across-The-Line starting



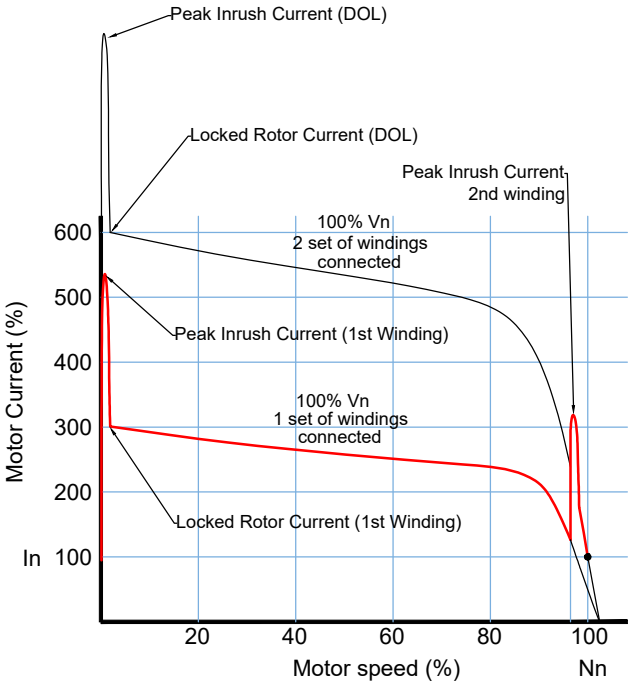
Legend:
FLA : Full Load Amperage / Full Load Current
FLT : Full-Load Torque / Rated Torque at FLA, Vn, and Full-Load Speed
Vn : Nominal Voltage / Rated Voltage



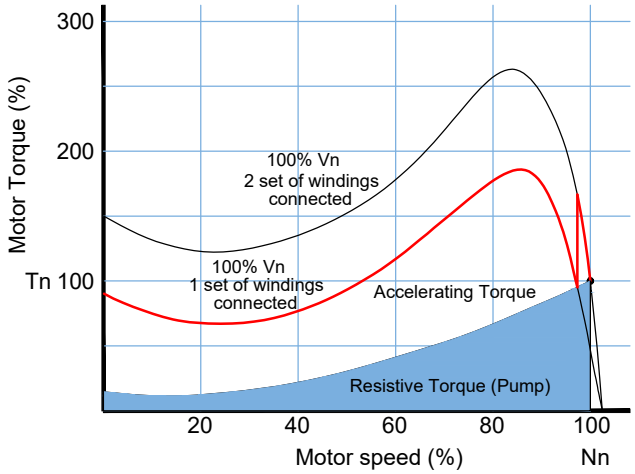
Starting Method: Across the line (Direct on line)
Starting voltage per winding: Full
Typical voltage applied at motor starting (%Vn):100%
Peak inrush current at starting[(1)]: (10 - 28) x FLA
Peak inrush current at transition[(1)]: N/A
Starting current (% FLA)[(2)] : 500% - 1000%
Transition current (% FLA)[(3)]: N/A
Starting Torque (% FLT)[(4)]: 50% - 150%
Motor type: Standard
Number of wire connections: 3 wire

NOTE: There are many electrical and mechanical factors to consider. Please consult an electrical engineer to confirm for your application.

Model GPP



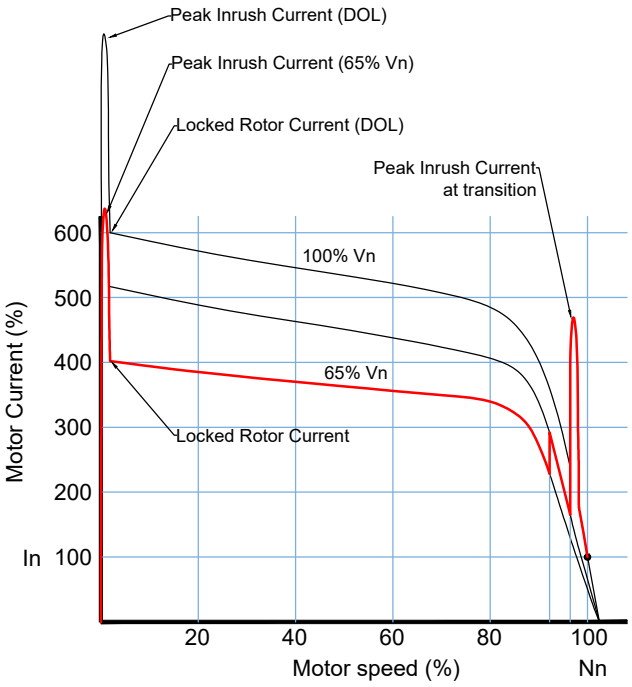
Legend:
FLA : Full Load Amperage / Full Load Current
FLT : Full-Load Torque / Rated Torque at FLA, Vn, and Full-Load Speed
Vn : Nominal Voltage / Rated Voltage



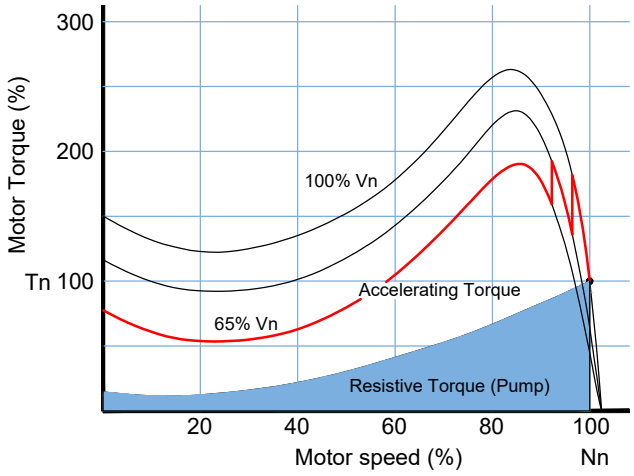
Starting Method: Part winding
Starting voltage per winding: Full
Typical voltage applied at motor starting (%Vn): 100%
Peak inrush current at starting[(1)]: (5 - 14) x FLA
Peak inrush current at transition[(1)]: (2 - 5) x FLA
Starting current (% FLA)[(2)]: 250% - 500%
Transition current (% FLA)[(3)]: 250% - 500%
Starting Torque (% FLT)[(4)]: 25% - 75%
Motor type: 6 windings
Number of wire connections: 6 wire

NOTE: There are many electrical and mechanical factors to consider. Please consult an electrical engineer to confirm for your application.

Model GPR



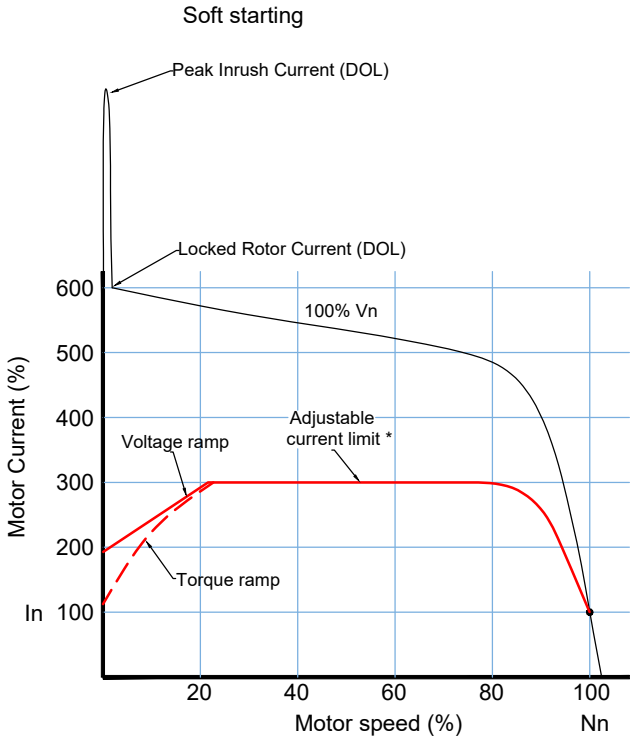
Legend:
FLA : Full Load Amperage / Full Load Current
FLT : Full-Load Torque / Rated Torque at FLA, Vn, and Full-Load Speed
Vn : Nominal Voltage / Rated Voltage



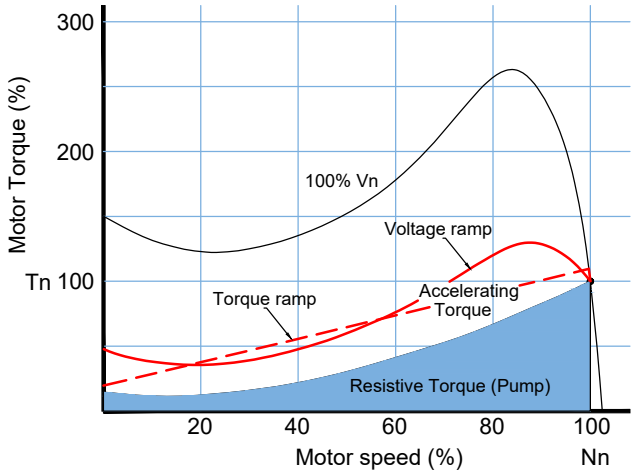
Starting Method: Autotransformer
Starting voltage per winding: Reduced
Typical voltage applied at motor starting (%Vn): 65%
Peak inrush current at starting[(1)]**:** (4 - 11) x FLA
Peak inrush current at transition[(1)]**:** (4 - 11) x FLA
Starting current (% FLA)[(2)] **:** 210% - 420%
Transition current (% FLA)[(3)]**:** 210% - 420%
Starting Torque (% FLT)[(4)]**:** 40% - 85%
Motor type: Standard
Number of wire connections: 3 wire

NOTE: There are many electrical and mechanical factors to consider. Please consult an electrical engineer to confirm for your application.

Model GPS



Legend:
FLA : Full Load Amperage / Full Load Current
FLT : Full-Load Torque / Rated Torque at FLA, Vn, and Full-Load Speed
Vn : Nominal Voltage / Rated Voltage

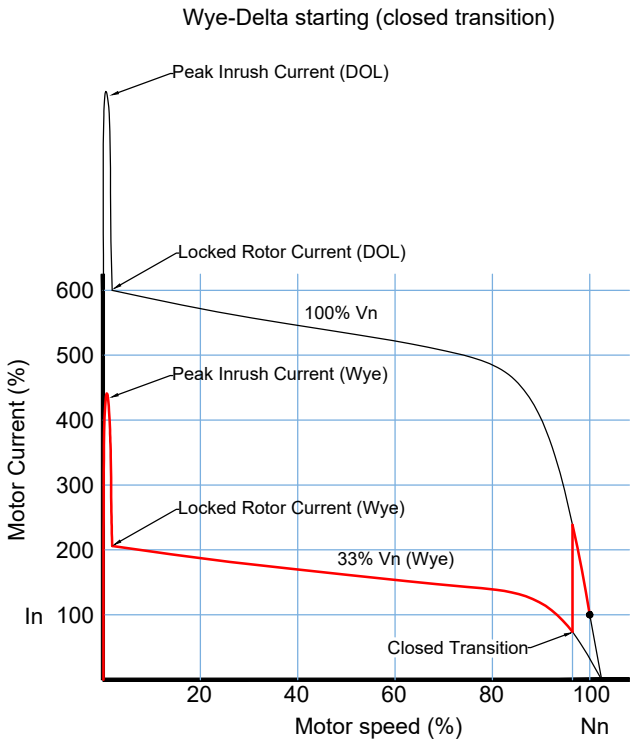


*Low current limit may cause the motor to not accelerate or even stall; not respecting the 10 seconds ramp code requirement.

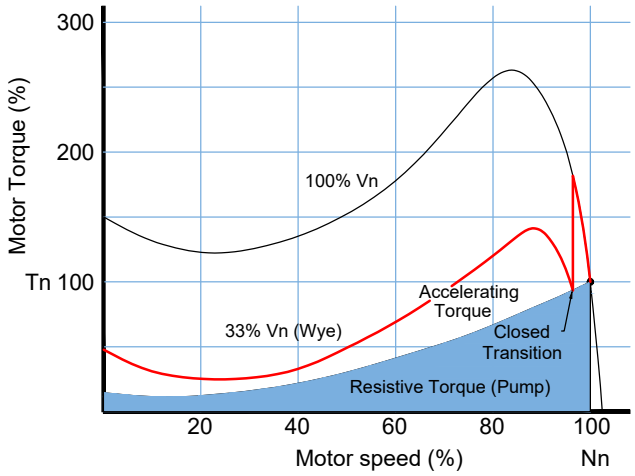
Starting Method: Soft Start /Soft Stop
Starting voltage per winding: Reduced
Typical voltage applied at motor starting (%Vn): 30% - 50% (adjustable)
Peak inrush current at starting[1]: Neglibible
Peak inrush current at transition[1]: Negligible
Starting current (% FLA)[2] : 250% - 450%
Transition current (% FLA)[3]: N/A
Starting Torque (% FLT)[4]: 10% - 100% (adjustable on Torque Ramp mode)
Motor type: Standard
Number of wire connections: 3 wire

NOTE: There are many electrical and mechanical factors to consider. Please consult an electrical engineer to confirm for your application.

Model GPW



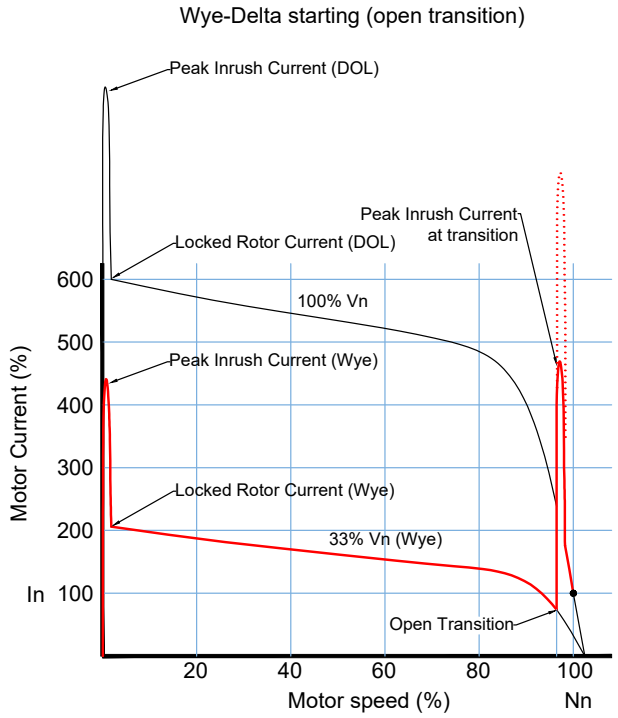
Legend:
FLA : Full Load Amperage / Full Load Current
FLT : Full-Load Torque / Rated Torque at FLA, Vn, and Full-Load Speed
Vn : Nominal Voltage / Rated Voltage



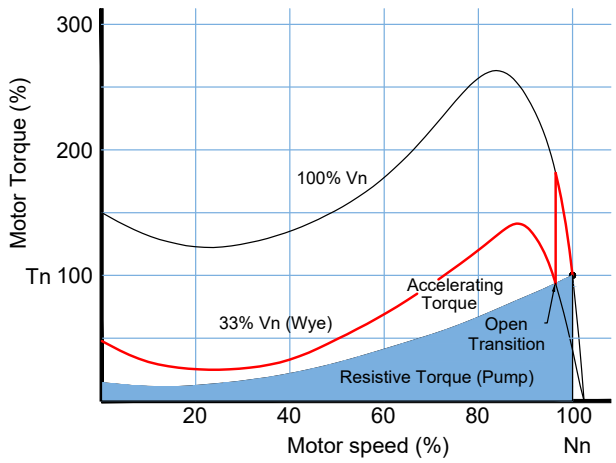
Starting Method: Wye-Delta closed transition
Starting voltage per winding: Reduced
Typical voltage applied at motor starting (%Vn): 100%
Peak inrush current at starting[(1)]: (3.5 - 9) x FLA
Peak inrush current at transition[(1)]: Negligible
Starting current (% FLA)[(2)]: 165% - 330%
Transition current (% FLA)[(3)]: 165% - 330%
Starting Torque (% FLT)[(4)]: 20% - 50%
Motor type: Standard Wye-Delta
Number of wire connections: 6 wire

NOTE: There are many electrical and mechanical factors to consider. Please consult an electrical engineer to confirm for your application.

Model GPY [5]



Legend:
FLA : Full Load Amperage / Full Load Current
FLT : Full-Load Torque / Rated Torque at FLA, Vn, and Full-Load Speed
Vn : Nominal Voltage / Rated Voltage



Starting Method: Wye-Delta open transition
Starting voltage per winding: Reduced
Typical voltage applied at motor starting (%Vn): 100%
Peak inrush current at starting[1]: (3.5 - 9) x FLA
Peak inrush current at transition[1]: (3.5 - 9) x FLA
Starting current (% FLA)[2]: 165% - 330%
Transition current (% FLA)[3]: 165% - 330%
Starting Torque (% FLT)[4]: 20% - 50%
Motor type: Standard Wye-Delta
Number of wire connections: 6 wire

NOTE: There are many electrical and mechanical factors to consider. Please consult an electrical engineer to confirm for your application.

The information provides general numbers for a wide amount of cases. More accurate numbers will depend on the final installation, motor type and motor efficiency and other technical considerations. The information is based in part on NEMA design B motors.

IE3, IE4 and NEMA Premium Efficiency motors have been considered for the higher range of Peak Inrush Currents.

(1) A transient peak occurs when starting the motor while at rest or when disconnecting and reconnecting the motor during a transition. This transient last no more than 1/2 cycle.

(2) The starting current, also known as locked rotor current, is the rms (root mean square) current value the motor takes from the power source at the very first moment and it fades while the motor is accelerating to full speed. The bigger the load on the motor, the less rpm and the higher the current.

(3) The transition current depends on the moment the transition occurs and the speed of the motor. A too early change over will lead to an increased transition current as the motor has not achived full speed for the applied load and voltage. A too late change over implies that the motor will be running with reduced voltage during a period of time when the load is almost the same as full load. The motor will be under magnetised and the efficiency will drop. This leads to a temperature rise in the stator windings. The motor will, after some running time, be over heated and its life cycle shortened. The motor can however withstand this for a short time period, but the motor should not be run for more than 5 seconds with reduced voltage.

(4) Generally speaking, the torque developed by the induction motor at any speed is approximately proportional to the square of
the voltage and inversely proportional to the square of the frequency. The locked-rotor torque and breakdown torque are decreased when the voltage is unbalanced. If the voltage unbalance is extremely severe, the torques might not be adequate for the application.

(5) Induction motors are inherently capable of developing transient current and torque considerably in excess of rated current and torque when exposed to an out-of-phase bus transfer or momentary voltage interruption and reclosing on the same power supply. The magnitude of this transient torque may range from 2 to 20 times rated torque and is related to the motor design, operating conditions, switching time, rotating system inertias and torsional spring constants, number of motors on the bus, etc.

NOTE: There are many electrical and mechanical factors to consider. Please consult an electrical engineer to confirm for your application.