Per NEMA MG1 1998-1.76, "A Wye Start, Delta Run motor is one arranged for starting by connecting to the supply with the primary winding initially connected in wye, then reconnected in delta for running condition." This is accomplished by a special Wye-Delta starter configuration using six leads from the motor and is intended to limit the inrush current required to start the motor.

Motors designed by US Motors for Wye start, Delta Run may also be used for across the line starting using only the Delta connection. Damage will occur if the motor is operated with load for more than 30 seconds on the Wye without transition to Delta.

To reverse direction of rotation, interchange leads L1 & L2.

Each lead may have one or more cables comprising that lead. In such case, each cable will be marked with the appropriate lead number.