

|                                        |                              |        |            |
|----------------------------------------|------------------------------|--------|------------|
| <b>HICO</b><br>3 PHASE INDUCTION MOTOR | <b>PERFORMANCE DATASHEET</b> | ISSUED | 01/15/2026 |
|                                        |                              | MODEL  | 75HP 4P    |

| NAMEPLATE INFORMATION |             |          |                                     |    |            |                |      |            |        |            |
|-----------------------|-------------|----------|-------------------------------------|----|------------|----------------|------|------------|--------|------------|
| OUTPUT                |             | RPM      | VOLTS                               | Hz | FRAME SIZE | ENCLOSURE TYPE | S.F. | INS. CALSS | RATING | AMB. TEMP. |
| HP                    | KW          |          |                                     |    |            |                |      |            |        |            |
| 75                    | 55          | 1785     | 230/460                             | 60 | 365TD      | TEFC           | 1.25 | F          | CONT.  | 40°C       |
| TEMP. RISE            | NEMA DESIGN | kVA CODE | Class/Division Hazardous Location   |    |            |                |      |            |        |            |
| B                     | B           | G        | Class I, Division 2, Group B, C & D |    |            |                |      |            |        |            |

| TYPICAL PERFORMANCE DATA |      |          |          |                  |          |          |
|--------------------------|------|----------|----------|------------------|----------|----------|
| EFFICIENCY (%)           |      |          |          | POWER FACTOR (%) |          |          |
| FULL LOAD                |      | 3/4 LOAD | 1/2 LOAD | FULL LOAD        | 3/4 LOAD | 1/2 LOAD |
| MIN.                     | NOM. |          |          |                  |          |          |
| 94.5                     | 95.4 | 95.8     | 95.7     | 85.4             | 82.1     | 73.9     |

| CURRENT        |               |               |              |                       |                        |
|----------------|---------------|---------------|--------------|-----------------------|------------------------|
| FULL LOAD AMPS | 3/4 LOAD AMPS | 1/2 LOAD AMPS | NO LOAD AMPS | STARTING CURRENT AMPS | STARTING CURRENT % FLC |
| 172.4/86.2     | 133.9/67.0    | 99.3/49.6     | 88.4/44.2    | 1120.6/560.3          | 650                    |

\* Usable at 75HP 50Hz 380V 100.9A 1480R.P.M. S.F. 1.0 EFF. 94.7% (IE3)

| TORQUE            |                    |                  |               | ALLOWABLE STARTS PER HOUR |     |
|-------------------|--------------------|------------------|---------------|---------------------------|-----|
| FULL LOAD (lb-ft) | LOCKED ROTOR % FLT | BREAK DOWN % FLT | PULL UP % FLT | COLD                      | HOT |
| 220.8             | 170                | 268              | 127           | 2                         | 1   |

| MECHANICAL DATA                             |                                                 |                                                     |                                     |                  |              |
|---------------------------------------------|-------------------------------------------------|-----------------------------------------------------|-------------------------------------|------------------|--------------|
| INERTIA                                     |                                                 |                                                     | SOUND PRESSURE LEVEL @ 3 ft (dB(A)) | PROTECTION GRADE | WEIGHT (Lbs) |
| ROTOR WR <sup>2</sup> (lb-ft <sup>2</sup> ) | NEMA LOAD WK <sup>2</sup> (lb-ft <sup>2</sup> ) | MAX ALLOWABLE WK <sup>2</sup> (lb-ft <sup>2</sup> ) |                                     |                  |              |
| 18.747                                      | 338                                             | 742                                                 | 72                                  | 55               | 893          |

| BEARING |        | GREASE                   | MOUNTING             |                     |
|---------|--------|--------------------------|----------------------|---------------------|
| DE      | ODE    |                          | TYPE OF CONSTRUCTION | TERMINAL BOX DESIGN |
| 6314C3  | 6312C3 | GREASE(MOBIL Polyrex EM) | RIGID MOUNTING       | NEMA                |

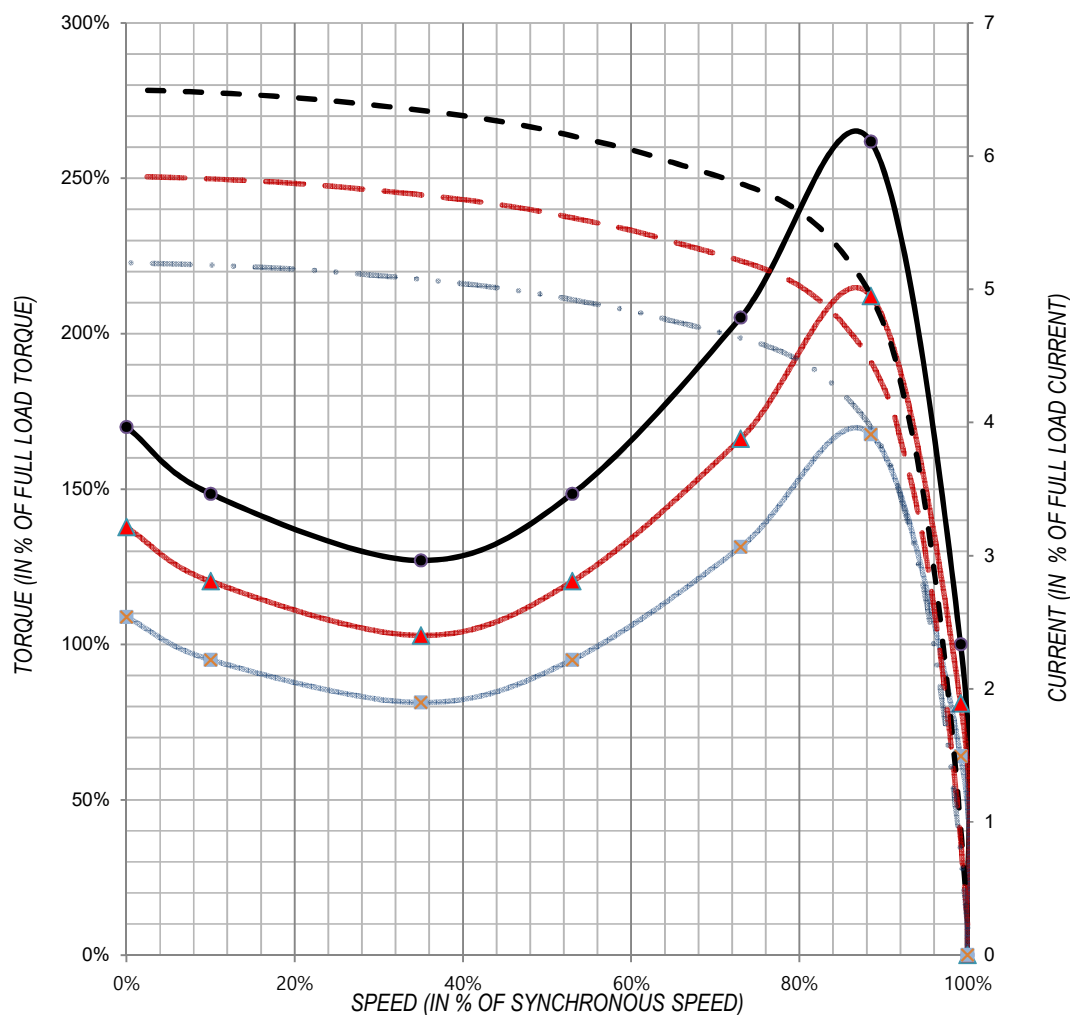
| INVERTER DUTY DATA |       |           |           |               |                                    |
|--------------------|-------|-----------|-----------|---------------|------------------------------------|
| TYPE               | HZ    | HP        | RPM       | TORQUE(LB-FT) | NOTE                               |
| VARIABLE TORQUE    | 3~60  | 0.0094~75 | 90~1800   | 0.552~220.8   | WITH TEMP. RISE CLASS F & S.F. 1.0 |
| CONSTANT TORQUE    | 6~60  | 7.5~75    | 180~1800  | 220.8         |                                    |
| CONSTANT HP        | 60~90 | 75        | 1800~2700 | 220.8~147.2   |                                    |

|             |             |          |     |
|-------------|-------------|----------|-----|
| DRAWING NO. | ES1AS185720 | REVISION | 0.1 |
|-------------|-------------|----------|-----|

ALL DATA ABOVE ARE SUBJECTED TO CHANGE WITHOUT NOTICE.

|                                        |                                           |  |  |  |           |
|----------------------------------------|-------------------------------------------|--|--|--|-----------|
| <b>HICO</b><br>3 PHASE INDUCTION MOTOR | <b>SPEED - TORQUE &amp; CURRENT CURVE</b> |  |  |  | Curve No. |
|                                        |                                           |  |  |  | 1ST       |

|                           |         |                    |                          |            |                    |
|---------------------------|---------|--------------------|--------------------------|------------|--------------------|
| OUTPUT                    | 75      | HP                 | POLES                    | 4          | P                  |
| VOLTAGE                   | 230/460 | V                  | FREQUENCY                | 60         | Hz                 |
| FULL LOAD TORQUE          | 220.8   | lb-ft              | FULL LOAD CURRENT        | 172.4/86.2 | A                  |
| LOCKED ROTOR TORQUE       | 170     | %                  | LOCKED-ROTOR CURRENT     | 650        | %                  |
| BREAKDOWN TORQUE          | 268     | %                  | SPEED (at FULL LOAD)     | 1785       | RPM                |
| GD <sup>2</sup> of LOAD : | -       | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 18.747     | lb-ft <sup>2</sup> |

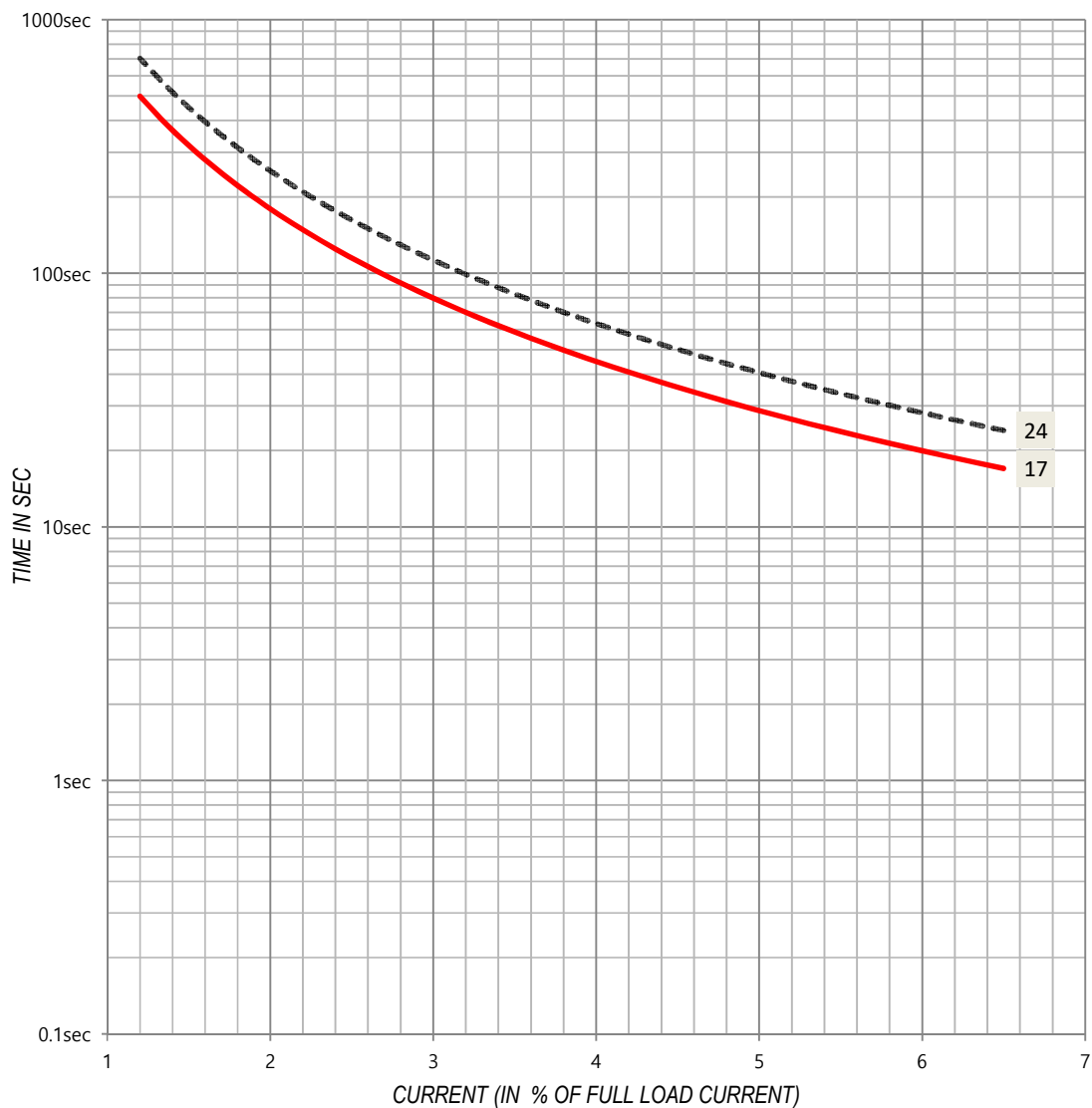


NOTE

|  |                            |                    |
|--|----------------------------|--------------------|
|  | A : SPEED-TORQUE CURVE AT  | 100% RATED VOLTAGE |
|  | B : SPEED-TORQUE CURVE AT  | 90% RATED VOLTAGE  |
|  | C : SPEED-TORQUE CURVE AT  | 80% RATED VOLTAGE  |
|  | D : SPEED-CURRENT CURVE AT | 100% RATED VOLTAGE |
|  | E : SPEED-CURRENT CURVE AT | 90% RATED VOLTAGE  |
|  | F : SPEED-CURRENT CURVE AT | 80% RATED VOLTAGE  |

|                                        |                                                     |  |  |  |           |
|----------------------------------------|-----------------------------------------------------|--|--|--|-----------|
| <b>HICO</b><br>3 PHASE INDUCTION MOTOR | <b>THERMAL LIMIT &amp;<br/>TIME - CURRENT CURVE</b> |  |  |  | Curve No. |
|                                        |                                                     |  |  |  | 1TL       |

|                           |         |                    |                          |            |                    |
|---------------------------|---------|--------------------|--------------------------|------------|--------------------|
| OUTPUT                    | 75      | HP                 | POLES                    | 4          | P                  |
| VOLTAGE                   | 230/460 | V                  | FREQUENCY                | 60         | Hz                 |
| FULL LOAD TORQUE          | 220.8   | lb-ft              | FULL LOAD CURRENT        | 172.4/86.2 | A                  |
| LOCKED ROTOR TORQUE       | 170     | %                  | LOCKED-ROTOR CURRENT     | 650        | %                  |
| BREAKDOWN TORQUE          | 268     | %                  | SPEED (at FULL LOAD)     | 1785       | RPM                |
| GD <sup>2</sup> of LOAD : | -       | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 18.747     | lb-ft <sup>2</sup> |

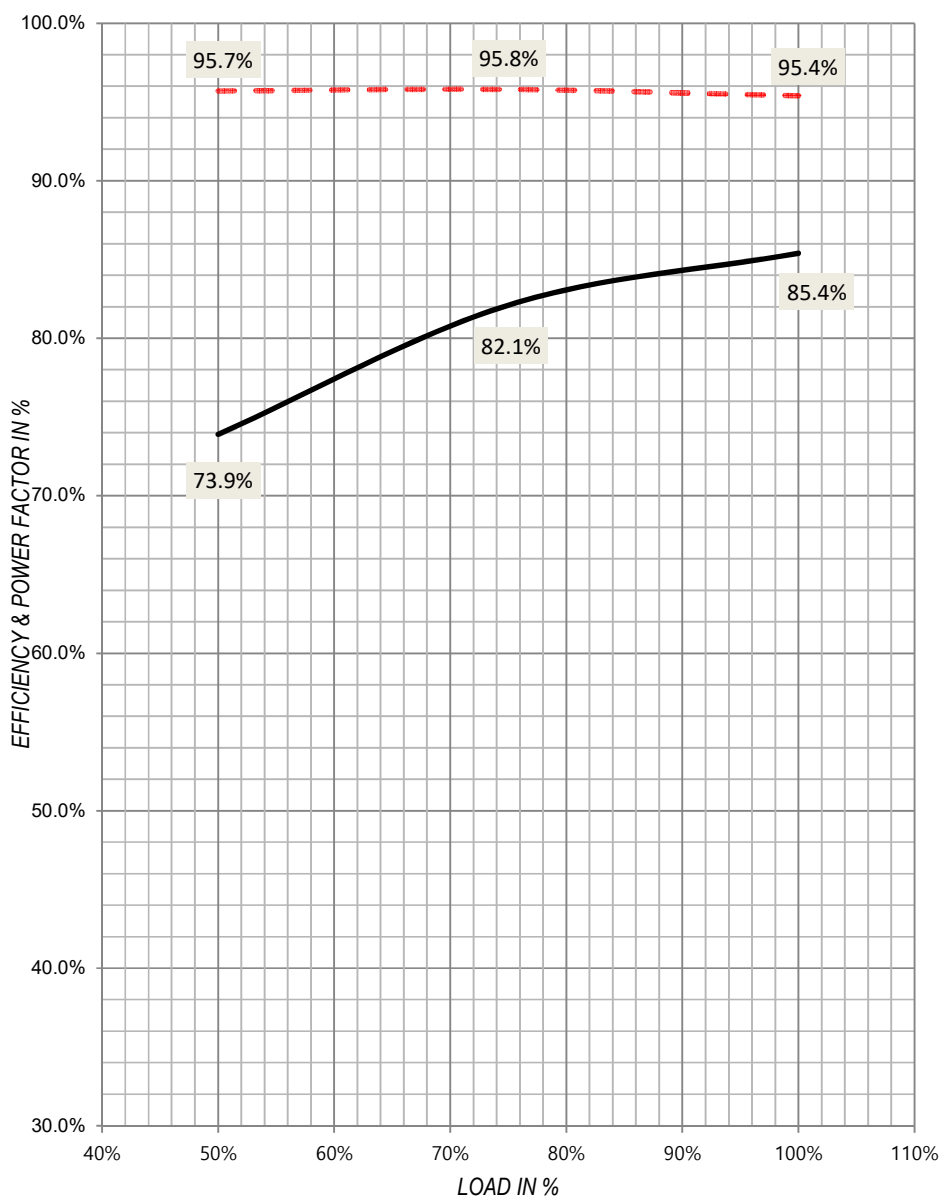


**NOTE**

- A : THERMAL LIMIT CURVE AT HOT CONDITION
- B : THERMAL LIMIT CURVE AT COLD CONDITION
- - - C : ※TIME-CURRENT CURVES(C,D,E) NEED BELOW DATA TO BE DRAWN
- ~~~~~ D : \* LOAD GD2 AT MOTOR SHAFT
- ~~~~~ E : \* SPEED-TORQUE CURVE OF LOAD

|                                        |                                                       |  |  |  |           |
|----------------------------------------|-------------------------------------------------------|--|--|--|-----------|
| <b>HICO</b><br>3 PHASE INDUCTION MOTOR | <b>LOAD - POWER FACTOR<br/>&amp; EFFICIENCY CURVE</b> |  |  |  | Curve No. |
|                                        |                                                       |  |  |  | 1PE       |

|                           |         |                    |                          |            |                    |
|---------------------------|---------|--------------------|--------------------------|------------|--------------------|
| OUTPUT                    | 75      | HP                 | POLES                    | 4          | P                  |
| VOLTAGE                   | 230/460 | V                  | FREQUENCY                | 60         | Hz                 |
| FULL LOAD TORQUE          | 220.8   | lb-ft              | FULL LOAD CURRENT        | 172.4/86.2 | A                  |
| LOCKED ROTOR TORQUE       | 170     | %                  | LOCKED-ROTOR CURRENT     | 650        | %                  |
| BREAKDOWN TORQUE          | 268     | %                  | SPEED (at FULL LOAD)     | 1785       | RPM                |
| GD <sup>2</sup> of LOAD : | -       | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 18.747     | lb-ft <sup>2</sup> |



**NOTE**

— A : LOAD - POWER FACTOR CURVE  
- - - B : LOAD - EFFICIENCY CURVE

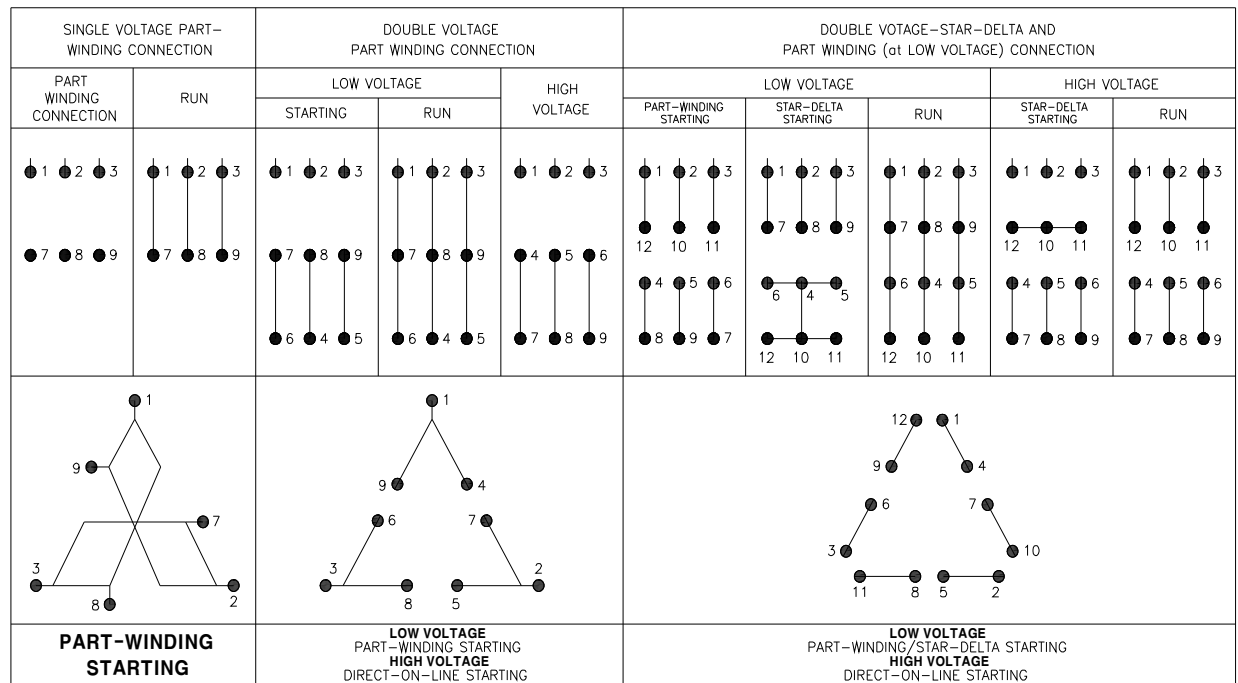
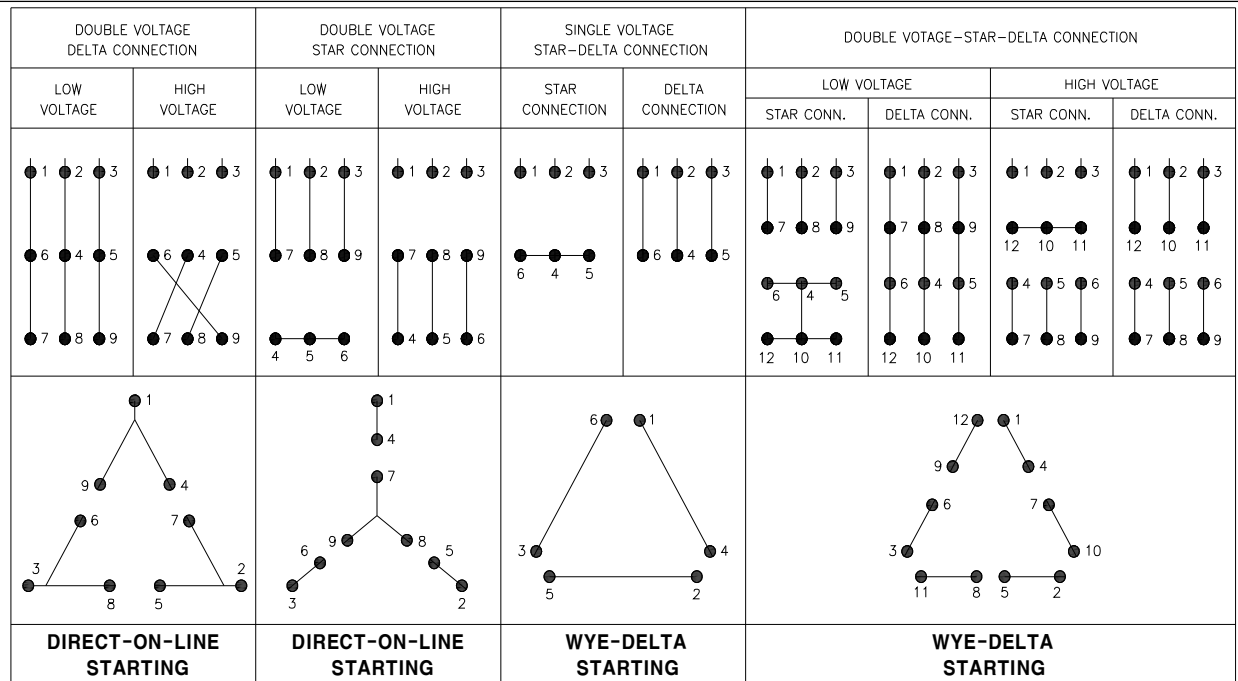
# HICO

3 PHASE INDUCTION MOTOR

## CONNECTION DIAGRAM

ISSUED

12/01/2024



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