

|                                        |                              |        |            |
|----------------------------------------|------------------------------|--------|------------|
| <b>HICO</b><br>3 PHASE INDUCTION MOTOR | <b>PERFORMANCE DATASHEET</b> | ISSUED | 01/15/2026 |
|                                        |                              | MODEL  | 40HP 2P    |

| NAMEPLATE INFORMATION |             |          |                                     |    |            |                |      |            |        |            |
|-----------------------|-------------|----------|-------------------------------------|----|------------|----------------|------|------------|--------|------------|
| OUTPUT                |             | RPM      | VOLTS                               | Hz | FRAME SIZE | ENCLOSURE TYPE | S.F. | INS. CALSS | RATING | AMB. TEMP. |
| HP                    | KW          |          |                                     |    |            |                |      |            |        |            |
| 40                    | 30          | 3550     | 575                                 | 60 | 324TSC     | 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. |          |          |                  |          |          |
| 91.0                     | 92.4 | 92.4     | 91.4     | 87.7             | 86       | 80.5     |

| CURRENT        |               |               |              |                       |                        |
|----------------|---------------|---------------|--------------|-----------------------|------------------------|
| FULL LOAD AMPS | 3/4 LOAD AMPS | 1/2 LOAD AMPS | NO LOAD AMPS | STARTING CURRENT AMPS | STARTING CURRENT % FLC |
| 37.0           | 28.3          | 20.4          | 10.6         | 247.9                 | 670                    |

| TORQUE            |                    |                  |               | ALLOWABLE STARTS PER HOUR |     |
|-------------------|--------------------|------------------|---------------|---------------------------|-----|
| FULL LOAD (lb-ft) | LOCKED ROTOR % FLT | BREAK DOWN % FLT | PULL UP % FLT | COLD                      | HOT |
| 59.2              | 150                | 200              | 126           | 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> ) |                                     |                  |              |
| 4.082                                       | 40                                              | 90                                                  | 75                                  | 55               | 548          |

| BEARING |         | GREASE                   | MOUNTING             |                     |
|---------|---------|--------------------------|----------------------|---------------------|
| DE      | ODE     |                          | TYPE OF CONSTRUCTION | TERMINAL BOX DESIGN |
| 6212ZC3 | 6212ZC3 | GREASE(MOBIL Polyrex EM) | RIGID MOUNTING       | NEMA                |

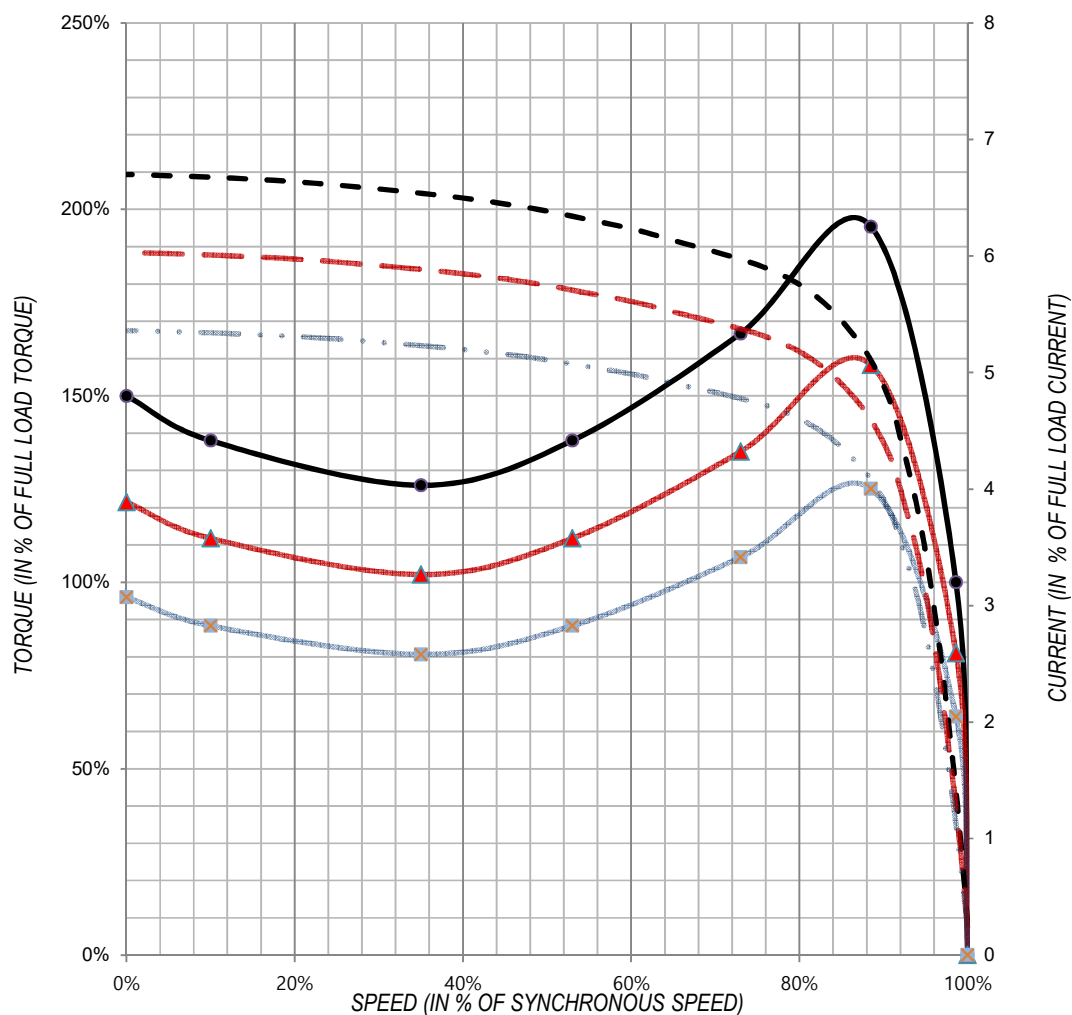
| INVERTER DUTY DATA |       |          |           |               |                                    |
|--------------------|-------|----------|-----------|---------------|------------------------------------|
| TYPE               | HZ    | HP       | RPM       | TORQUE(LB-FT) | NOTE                               |
| VARIABLE TORQUE    | 3~60  | 0.005~40 | 180~3600  | 0.148~59.2    | WITH TEMP. RISE CLASS F & S.F. 1.0 |
| CONSTANT TORQUE    | 6~60  | 4~40     | 360~3600  | 59.2          |                                    |
| CONSTANT HP        | 60~90 | 40       | 3600~5400 | 59.2~39.467   |                                    |

| DRAWING NO. | ES1AS180513 | 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                    | 40   | HP                 | POLES                    | 2     | P                  |
| VOLTAGE                   | 575  | V                  | FREQUENCY                | 60    | Hz                 |
| FULL LOAD TORQUE          | 59.2 | lb-ft              | FULL LOAD CURRENT        | 37.0  | A                  |
| LOCKED ROTOR TORQUE       | 150  | %                  | LOCKED-ROTOR CURRENT     | 670   | %                  |
| BREAKDOWN TORQUE          | 200  | %                  | SPEED (at FULL LOAD)     | 3550  | RPM                |
| GD <sup>2</sup> of LOAD : | -    | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 4.082 | lb-ft <sup>2</sup> |

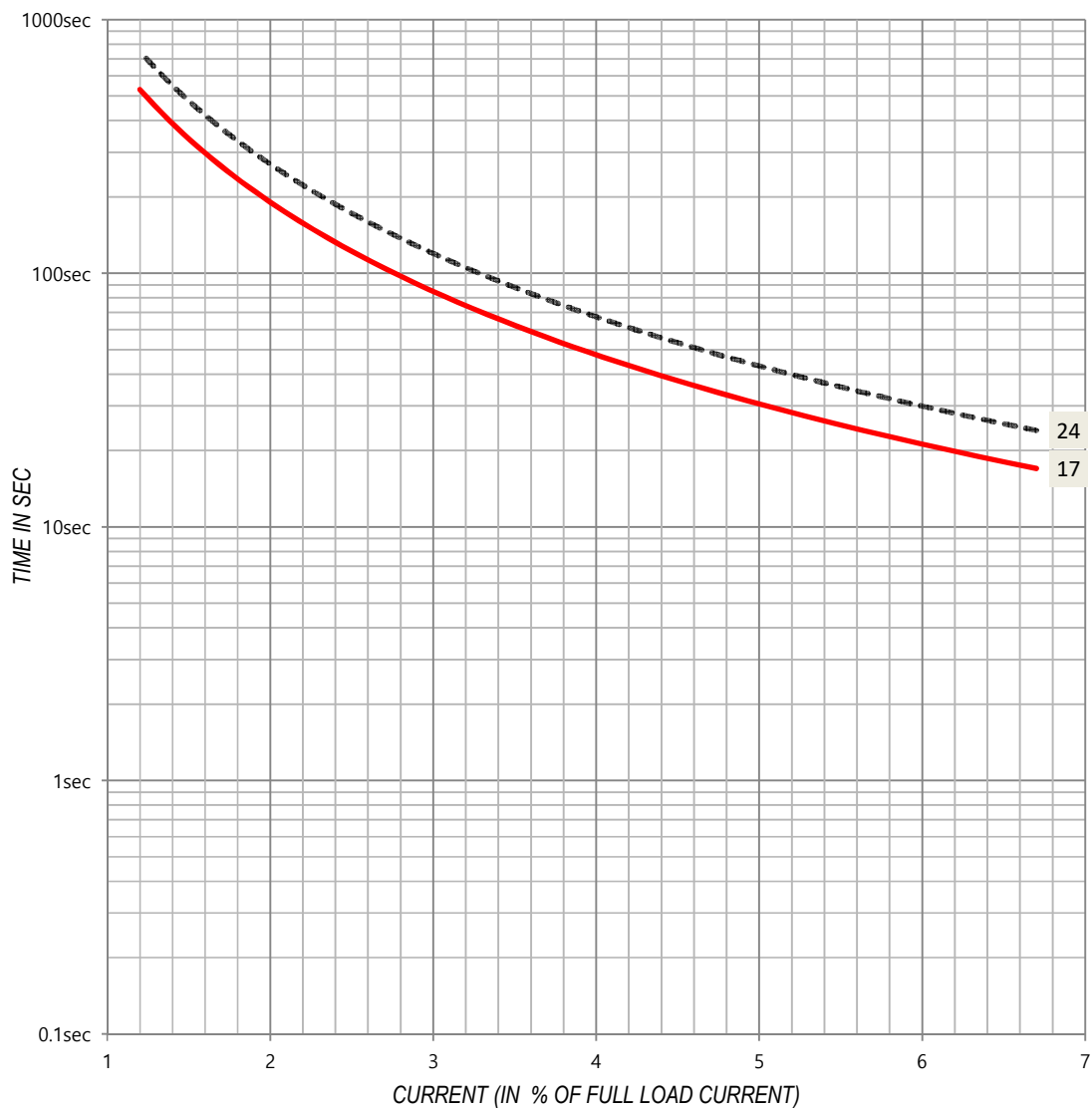


**NOTE**

|  |                            |                    |
|--|----------------------------|--------------------|
|  | 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                    | 40   | HP                 | POLES                    | 2     | P                  |
| VOLTAGE                   | 575  | V                  | FREQUENCY                | 60    | Hz                 |
| FULL LOAD TORQUE          | 59.2 | lb-ft              | FULL LOAD CURRENT        | 37.0  | A                  |
| LOCKED ROTOR TORQUE       | 150  | %                  | LOCKED-ROTOR CURRENT     | 670   | %                  |
| BREAKDOWN TORQUE          | 200  | %                  | SPEED (at FULL LOAD)     | 3550  | RPM                |
| GD <sup>2</sup> of LOAD : | -    | lb·ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 4.082 | lb·ft <sup>2</sup> |

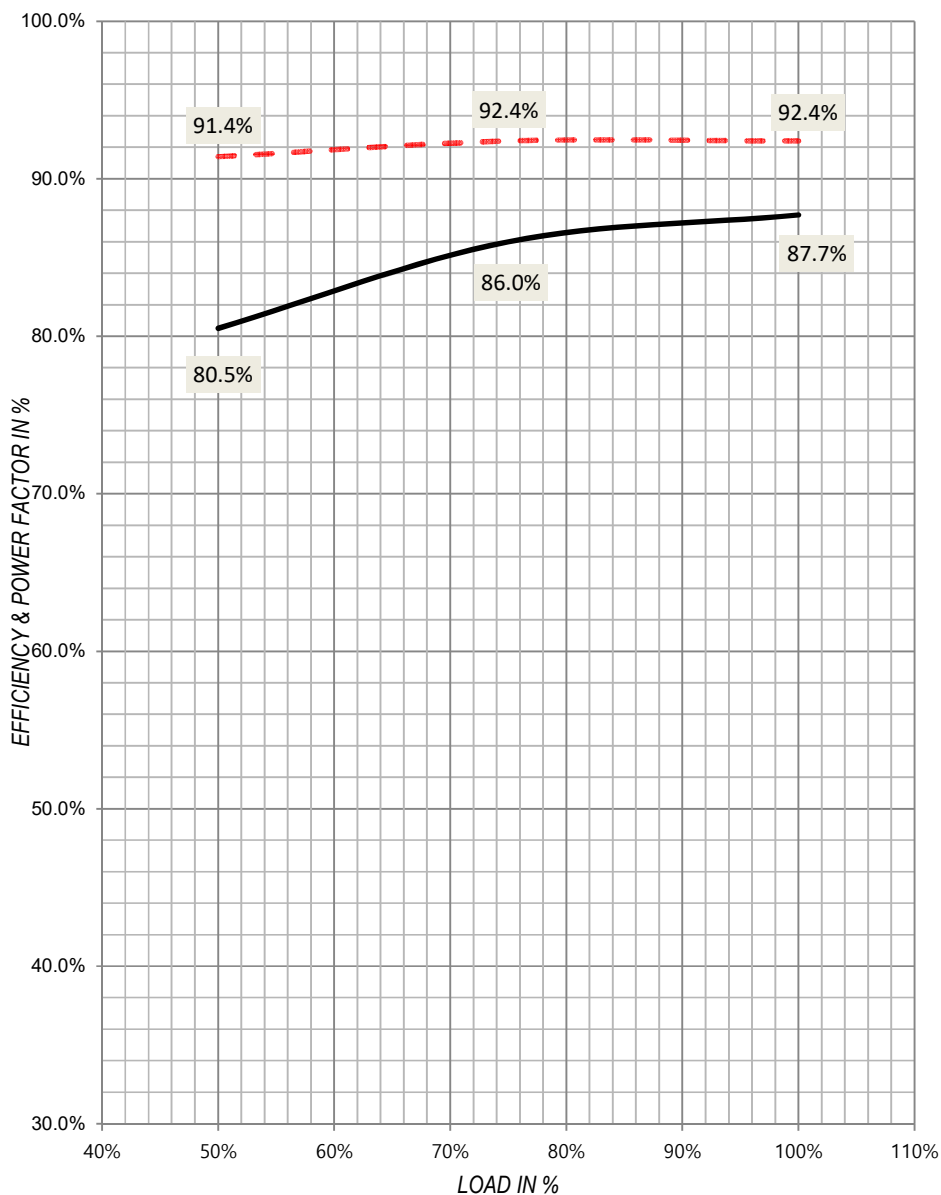


**NOTE**

- 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 GD<sup>2</sup> 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                    | 40   | HP                 | POLES                    | 2     | P                  |
| VOLTAGE                   | 575  | V                  | FREQUENCY                | 60    | Hz                 |
| FULL LOAD TORQUE          | 59.2 | lb-ft              | FULL LOAD CURRENT        | 37.0  | A                  |
| LOCKED ROTOR TORQUE       | 150  | %                  | LOCKED-ROTOR CURRENT     | 670   | %                  |
| BREAKDOWN TORQUE          | 200  | %                  | SPEED (at FULL LOAD)     | 3550  | RPM                |
| GD <sup>2</sup> of LOAD : | -    | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 4.082 | 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

| DOUBLE VOLTAGE<br>DELTA CONNECTION |                 | DOUBLE VOLTAGE<br>STAR CONNECTION |                 | SINGLE VOLTAGE<br>STAR-DELTA CONNECTION |                     | DOUBLE VOTAGE - STAR-DELTA CONNECTION |             |              |             |
|------------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------------|---------------------|---------------------------------------|-------------|--------------|-------------|
| LOW<br>VOLTAGE                     | HIGH<br>VOLTAGE | LOW<br>VOLTAGE                    | HIGH<br>VOLTAGE | STAR<br>CONNECTION                      | DELTA<br>CONNECTION | LOW VOLTAGE                           |             | HIGH VOLTAGE |             |
|                                    |                 |                                   |                 |                                         |                     | STAR CONN.                            | DELTA CONN. | STAR CONN.   | DELTA CONN. |
|                                    |                 |                                   |                 |                                         |                     |                                       |             |              |             |
|                                    |                 |                                   |                 |                                         |                     |                                       |             |              |             |
| DIRECT-ON-LINE<br>STARTING         |                 | DIRECT-ON-LINE<br>STARTING        |                 | WYE-DELTA<br>STARTING                   |                     | WYE-DELTA<br>STARTING                 |             |              |             |

| SINGLE VOLTAGE PART-<br>WINDING CONNECTION |     | DOUBLE VOLTAGE<br>PART WINDING CONNECTION                                       |     |                 | DOUBLE VOTAGE - STAR-DELTA AND<br>PART WINDING (ot LOW VOLTAGE) CONNECTION                 |                        |     |                        |     |
|--------------------------------------------|-----|---------------------------------------------------------------------------------|-----|-----------------|--------------------------------------------------------------------------------------------|------------------------|-----|------------------------|-----|
| PART<br>WINDING<br>CONNECTION              | RUN | LOW VOLTAGE                                                                     |     | HIGH<br>VOLTAGE | LOW VOLTAGE                                                                                |                        |     | HIGH VOLTAGE           |     |
|                                            |     | STARTING                                                                        | RUN |                 | PART-WINDING<br>STARTING                                                                   | STAR-DELTA<br>STARTING | RUN | STAR-DELTA<br>STARTING | RUN |
|                                            |     |                                                                                 |     |                 |                                                                                            |                        |     |                        |     |
|                                            |     |                                                                                 |     |                 |                                                                                            |                        |     |                        |     |
| PART-WINDING<br>STARTING                   |     | LOW VOLTAGE<br>PART-WINDING STARTING<br>HIGH VOLTAGE<br>DIRECT-ON-LINE STARTING |     |                 | LOW VOLTAGE<br>PART-WINDING/STAR-DELTA STARTING<br>HIGH VOLTAGE<br>DIRECT-ON-LINE STARTING |                        |     |                        |     |

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