

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

| NAMEPLATE INFORMATION |             |          |                                     |    |            |                |      |            |        |            |
|-----------------------|-------------|----------|-------------------------------------|----|------------|----------------|------|------------|--------|------------|
| OUTPUT                |             | RPM      | VOLTS                               | Hz | FRAME SIZE | ENCLOSURE TYPE | S.F. | INS. CALSS | RATING | AMB. TEMP. |
| HP                    | kW          |          |                                     |    |            |                |      |            |        |            |
| 15                    | 11          | 1775     | 575                                 | 60 | 254T       | 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 | 93.1     | 92.5     | 80.2             | 75.6     | 65.2     |

| CURRENT        |               |               |              |                       |                        |
|----------------|---------------|---------------|--------------|-----------------------|------------------------|
| FULL LOAD AMPS | 3/4 LOAD AMPS | 1/2 LOAD AMPS | NO LOAD AMPS | STARTING CURRENT AMPS | STARTING CURRENT % FLC |
| 15.2           | 12.0          | 9.3           | 6.3          | 94.2                  | 620                    |

| TORQUE            |                    |                  |               | ALLOWABLE STARTS PER HOUR |     |
|-------------------|--------------------|------------------|---------------|---------------------------|-----|
| FULL LOAD (lb-ft) | LOCKED ROTOR % FLT | BREAK DOWN % FLT | PULL UP % FLT | COLD                      | HOT |
| 44.4              | 200                | 230              | 160           | 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> ) |                                     |                  |              |
| 2.486                                       | 75                                              | 208                                                 | 69                                  | 55               | 283          |

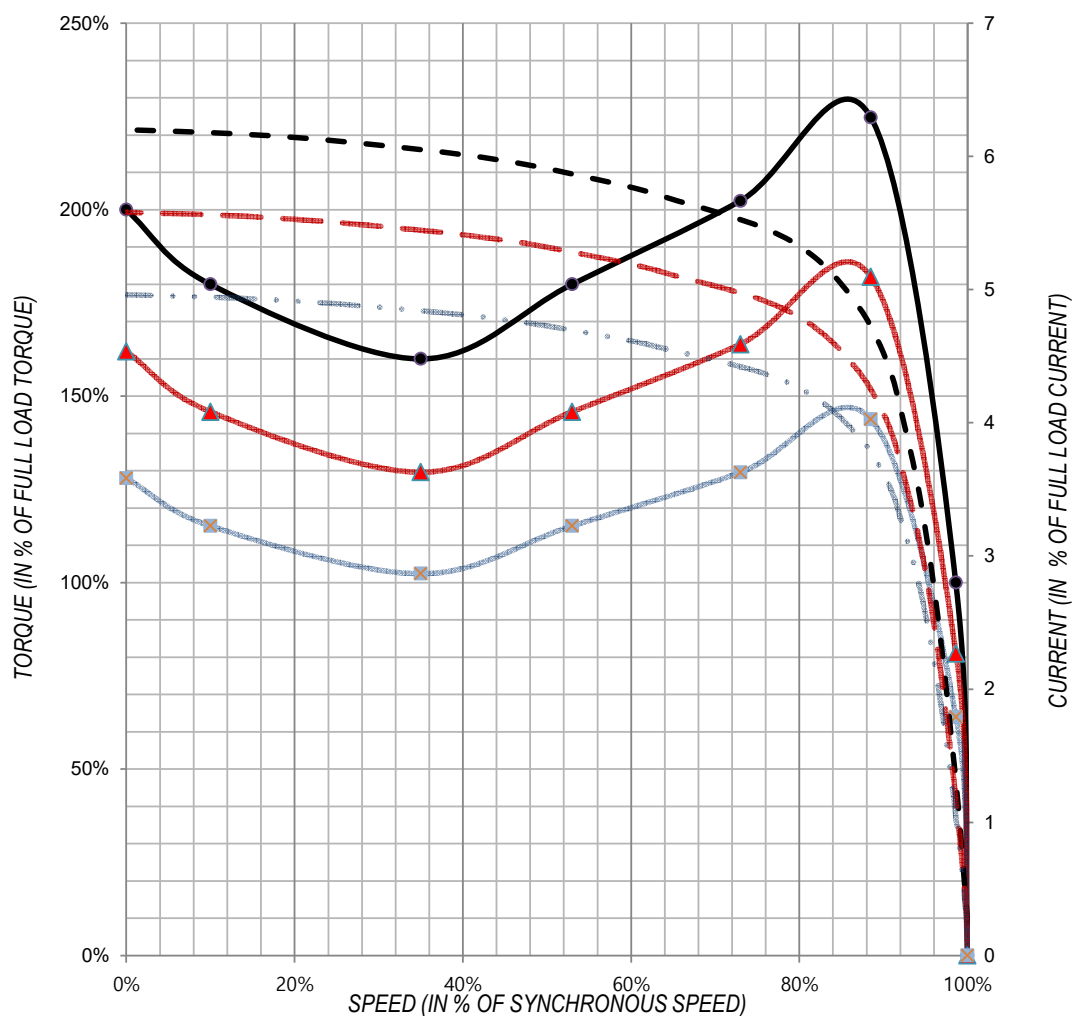
| BEARING |        | GREASE | MOUNTING             |                     |
|---------|--------|--------|----------------------|---------------------|
| DE      | ODE    |        | TYPE OF CONSTRUCTION | TERMINAL BOX DESIGN |
| 6309ZZ  | 6309ZZ | N/A    | RIGID MOUNTING       | NEMA                |

| INVERTER DUTY DATA |       |           |           |               |                                    |
|--------------------|-------|-----------|-----------|---------------|------------------------------------|
| TYPE               | HZ    | HP        | RPM       | TORQUE(LB-FT) | NOTE                               |
| VARIABLE TORQUE    | 3~60  | 0.0019~15 | 90~1800   | 0.111~44.4    | WITH TEMP. RISE CLASS F & S.F. 1.0 |
| CONSTANT TORQUE    | 6~60  | 1.5~15    | 180~1800  | 44.4          |                                    |
| CONSTANT HP        | 60~90 | 15        | 1800~2700 | 44.4~29.6     |                                    |

|                    |             |                 |     |
|--------------------|-------------|-----------------|-----|
| <b>DRAWING NO.</b> | ES1AS180407 | <b>REVISION</b> | 0.1 |
|--------------------|-------------|-----------------|-----|

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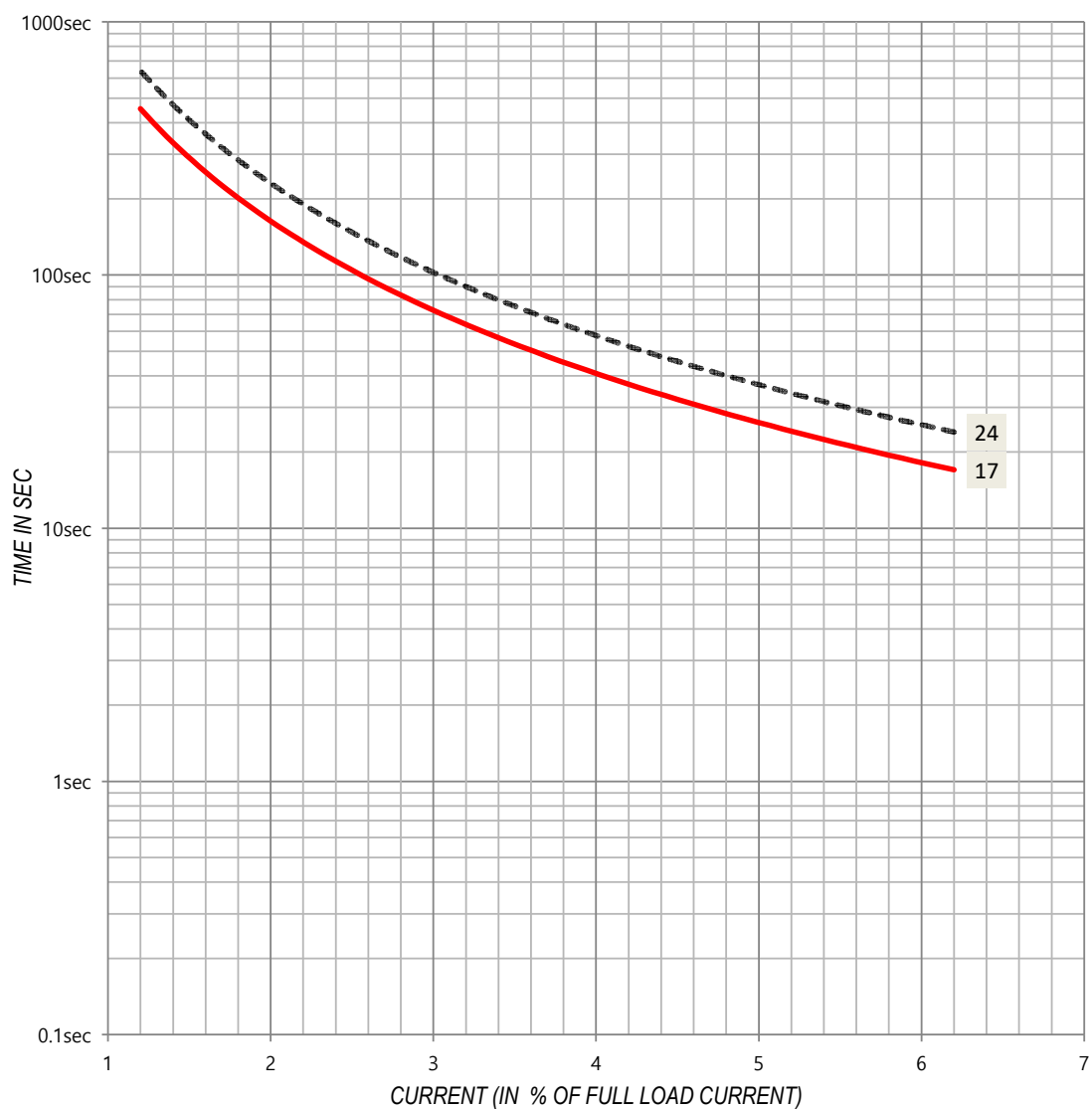
| <div> <div>HICO</div> <div>3 PHASE INDUCTION MOTOR</div> </div> | SPEED - TORQUE & CURRENT CURVE |                    |                          | Curve No. |                    |
|-----------------------------------------------------------------|--------------------------------|--------------------|--------------------------|-----------|--------------------|
|                                                                 |                                |                    |                          | 1ST       |                    |
| OUTPUT                                                          | 15                             | HP                 | POLES                    | 4         | P                  |
| VOLTAGE                                                         | 575                            | V                  | FREQUENCY                | 60        | Hz                 |
| FULL LOAD TORQUE                                                | 44.4                           | lb-ft              | FULL LOAD CURRENT        | 15.2      | A                  |
| LOCKED ROTOR TORQUE                                             | 200                            | %                  | LOCKED-ROTOR CURRENT     | 620       | %                  |
| BREAKDOWN TORQUE                                                | 230                            | %                  | SPEED (at FULL LOAD)     | 1775      | RPM                |
| GD <sup>2</sup> of LOAD :                                       | -                              | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 2.486     | 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

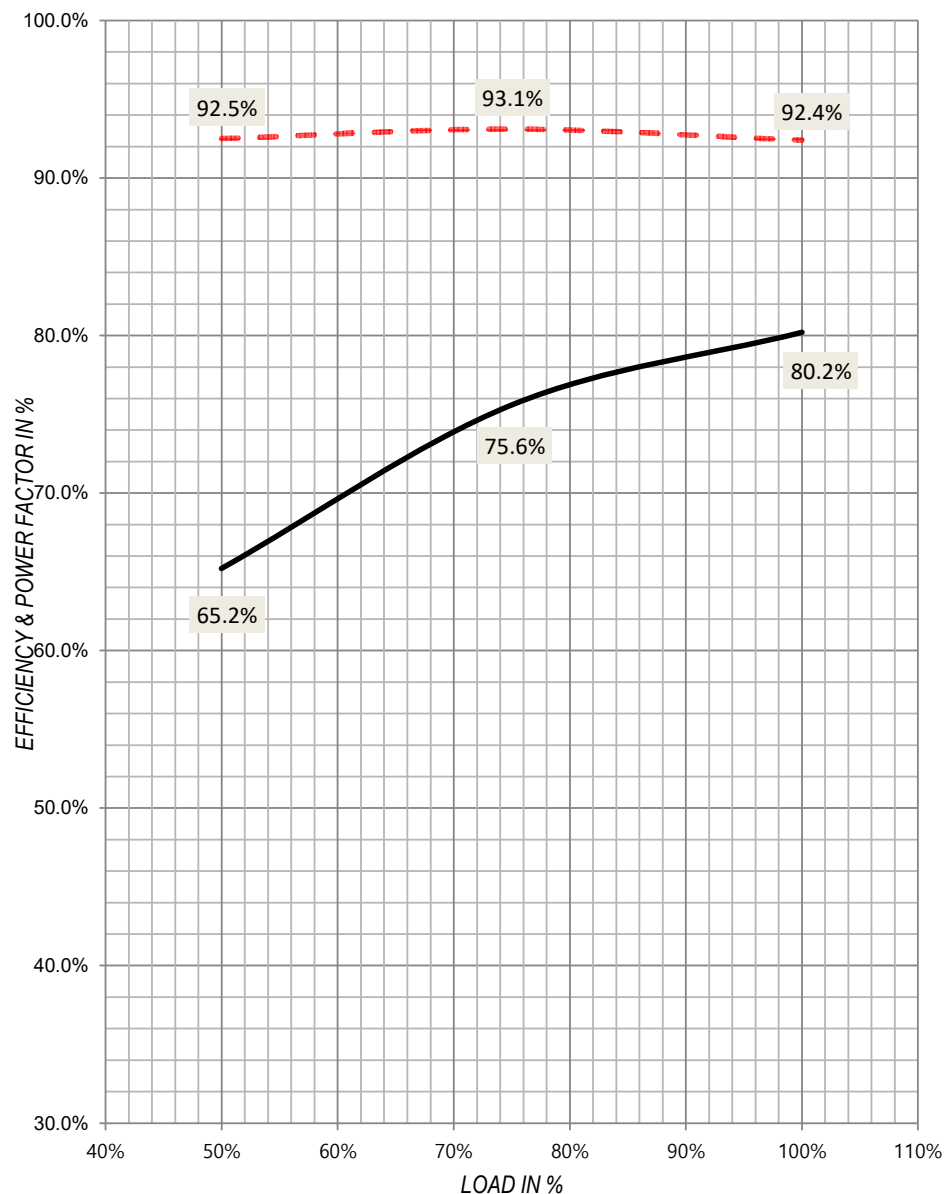
| HICO<br>3 PHASE INDUCTION MOTOR | THERMAL LIMIT &<br>TIME - CURRENT CURVE |                    |                          | Curve No. |                    |
|---------------------------------|-----------------------------------------|--------------------|--------------------------|-----------|--------------------|
|                                 |                                         |                    |                          | 1TL       |                    |
| OUTPUT                          | 15                                      | HP                 | POLES                    | 4         | P                  |
| VOLTAGE                         | 575                                     | V                  | FREQUENCY                | 60        | Hz                 |
| FULL LOAD TORQUE                | 44.4                                    | lb-ft              | FULL LOAD CURRENT        | 15.2      | A                  |
| LOCKED ROTOR TORQUE             | 200                                     | %                  | LOCKED-ROTOR CURRENT     | 620       | %                  |
| BREAKDOWN TORQUE                | 230                                     | %                  | SPEED (at FULL LOAD)     | 1775      | RPM                |
| GD <sup>2</sup> of LOAD :       | -                                       | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 2.486     | 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

| <div> <div>HICO</div> <div>3 PHASE INDUCTION MOTOR</div> </div> | LOAD - POWER FACTOR & EFFICIENCY CURVE |                    |                          |       | Curve No.          |
|-----------------------------------------------------------------|----------------------------------------|--------------------|--------------------------|-------|--------------------|
|                                                                 |                                        |                    |                          |       | 1PE                |
| OUTPUT                                                          | 15                                     | HP                 | POLES                    | 4     | P                  |
| VOLTAGE                                                         | 575                                    | V                  | FREQUENCY                | 60    | Hz                 |
| FULL LOAD TORQUE                                                | 44.4                                   | lb-ft              | FULL LOAD CURRENT        | 15.2  | A                  |
| LOCKED ROTOR TORQUE                                             | 200                                    | %                  | LOCKED-ROTOR CURRENT     | 620   | %                  |
| BREAKDOWN TORQUE                                                | 230                                    | %                  | SPEED (at FULL LOAD)     | 1775  | RPM                |
| GD <sup>2</sup> of LOAD :                                       | -                                      | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 2.486 | 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 VOLTAGE-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. |
|                                    |                 |                                    |                 |                                         |                     |                                      |             |              |             |
|                                    |                 |                                    |                 |                                         |                     |                                      |             |              |             |
| <b>DIRECT-ON-LINE<br/>STARTING</b> |                 | <b>DIRECT-ON-LINE<br/>STARTING</b> |                 | <b>WYE-DELTA<br/>STARTING</b>           |                     | <b>WYE-DELTA<br/>STARTING</b>        |             |              |             |

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

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