

|                                        |                              |        |            |
|----------------------------------------|------------------------------|--------|------------|
| <b>HICO</b><br>3 PHASE INDUCTION MOTOR | <b>PERFORMANCE DATASHEET</b> | ISSUED | 01/15/2026 |
|                                        |                              | MODEL  | 30HP 6P    |

| NAMEPLATE INFORMATION |             |          |                                     |    |            |                |      |            |        |            |
|-----------------------|-------------|----------|-------------------------------------|----|------------|----------------|------|------------|--------|------------|
| OUTPUT                |             | RPM      | VOLTS                               | Hz | FRAME SIZE | ENCLOSURE TYPE | S.F. | INS. CALSS | RATING | AMB. TEMP. |
| HP                    | kW          |          |                                     |    |            |                |      |            |        |            |
| 30                    | 22          | 1180     | 575                                 | 60 | 326TD      | 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. |          |          |                  |          |          |
| 91.7                     | 93   | 93.6     | 93.5     | 79.4             | 76.1     | 67.5     |

| CURRENT        |               |               |              |                       |                        |
|----------------|---------------|---------------|--------------|-----------------------|------------------------|
| FULL LOAD AMPS | 3/4 LOAD AMPS | 1/2 LOAD AMPS | NO LOAD AMPS | STARTING CURRENT AMPS | STARTING CURRENT % FLC |
| 30.4           | 23.7          | 17.8          | 10.7         | 185.4                 | 610                    |

| TORQUE            |                    |                  |               | ALLOWABLE STARTS PER HOUR |     |
|-------------------|--------------------|------------------|---------------|---------------------------|-----|
| FULL LOAD (lb-ft) | LOCKED ROTOR % FLT | BREAK DOWN % FLT | PULL UP % FLT | COLD                      | HOT |
| 133.6             | 215                | 258              | 194           | 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> ) |                                     |                  |              |
| 13.188                                      | 384                                             | 706                                                 | 70                                  | 55               | 593          |

| BEARING |         | GREASE                   | MOUNTING             |                     |
|---------|---------|--------------------------|----------------------|---------------------|
| DE      | ODE     |                          | TYPE OF CONSTRUCTION | TERMINAL BOX DESIGN |
| 6313ZC3 | 6212ZC3 | GREASE(MOBIL Polyrex EM) | RIGID MOUNTING       | NEMA                |

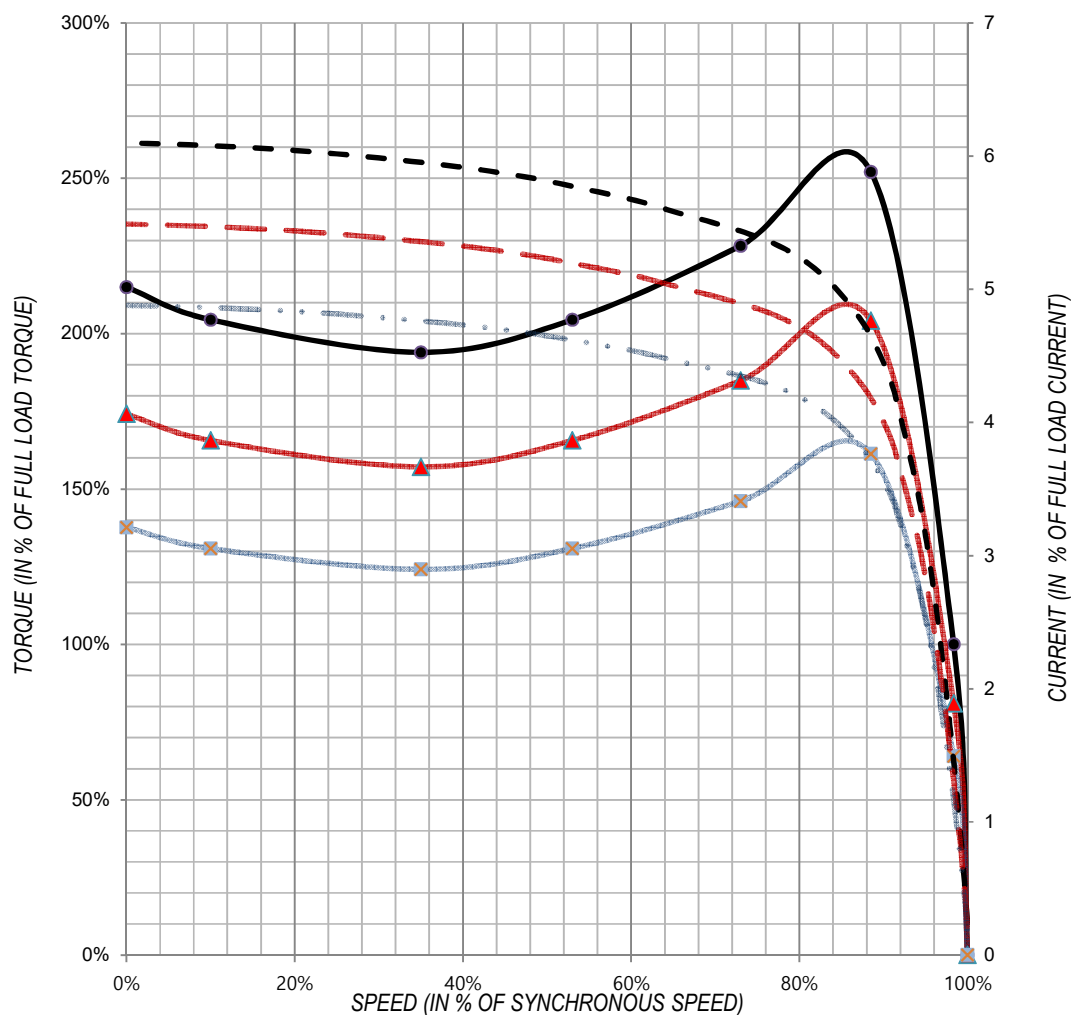
| INVERTER DUTY DATA |       |           |           |               |                                    |
|--------------------|-------|-----------|-----------|---------------|------------------------------------|
| TYPE               | HZ    | HP        | RPM       | TORQUE(LB-FT) | NOTE                               |
| VARIABLE TORQUE    | 3~60  | 0.0038~30 | 60~1200   | 0.334~133.6   | WITH TEMP. RISE CLASS F & S.F. 1.0 |
| CONSTANT TORQUE    | 6~60  | 3~30      | 120~1200  | 133.6         |                                    |
| CONSTANT HP        | 60~90 | 30        | 1200~1800 | 133.6~89.067  |                                    |

| DRAWING NO. | ES1AS185716 | 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                    | 30    | HP                 | POLES                    | 6      | P                  |
| VOLTAGE                   | 575   | V                  | FREQUENCY                | 60     | Hz                 |
| FULL LOAD TORQUE          | 133.6 | lb-ft              | FULL LOAD CURRENT        | 30.4   | A                  |
| LOCKED ROTOR TORQUE       | 215   | %                  | LOCKED-ROTOR CURRENT     | 610    | %                  |
| BREAKDOWN TORQUE          | 258   | %                  | SPEED (at FULL LOAD)     | 1180   | RPM                |
| GD <sup>2</sup> of LOAD : | -     | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 13.188 | lb-ft <sup>2</sup> |

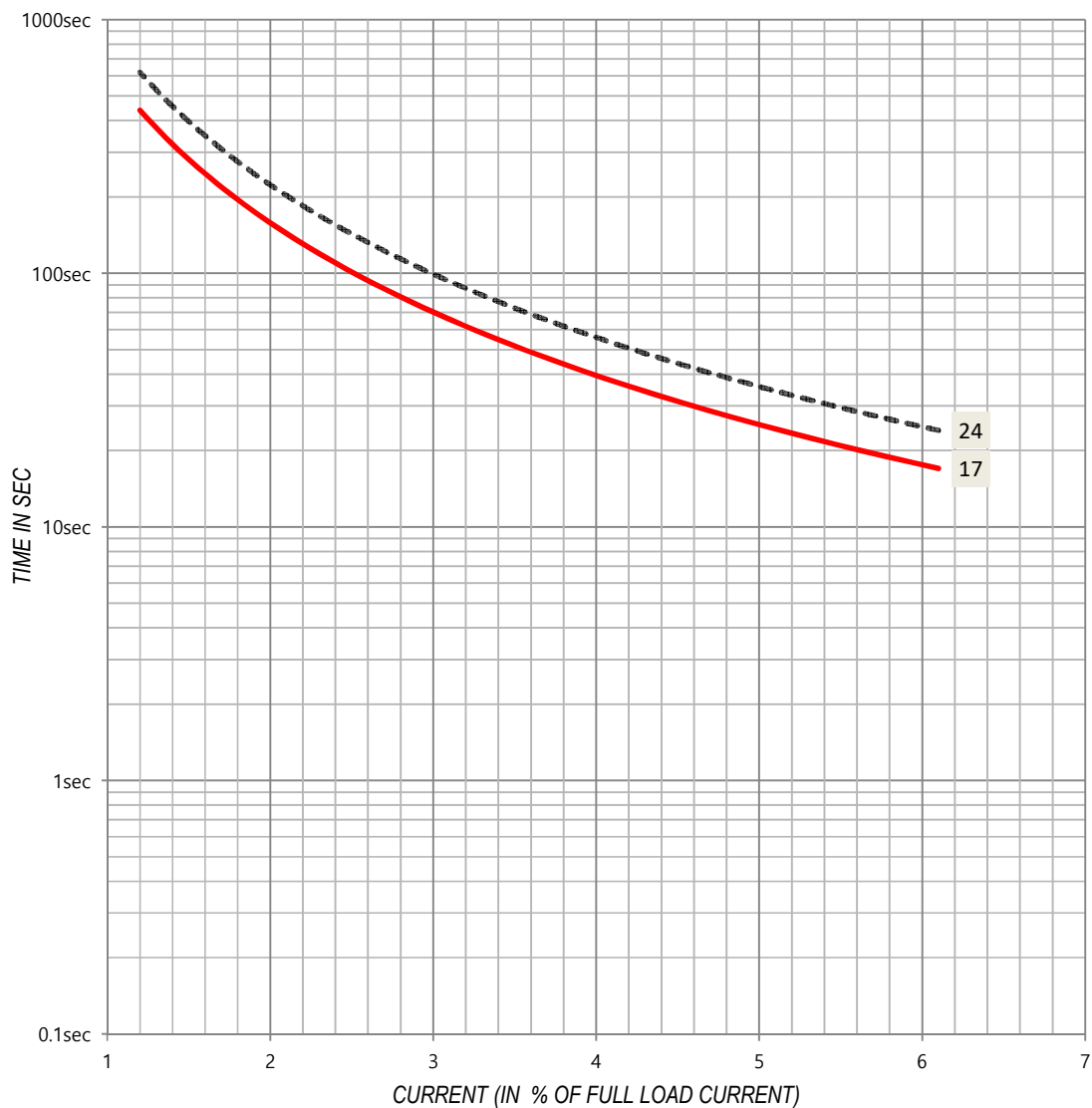


**NOTE**

|  |                            |                    |
|--|----------------------------|--------------------|
|  | 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       |

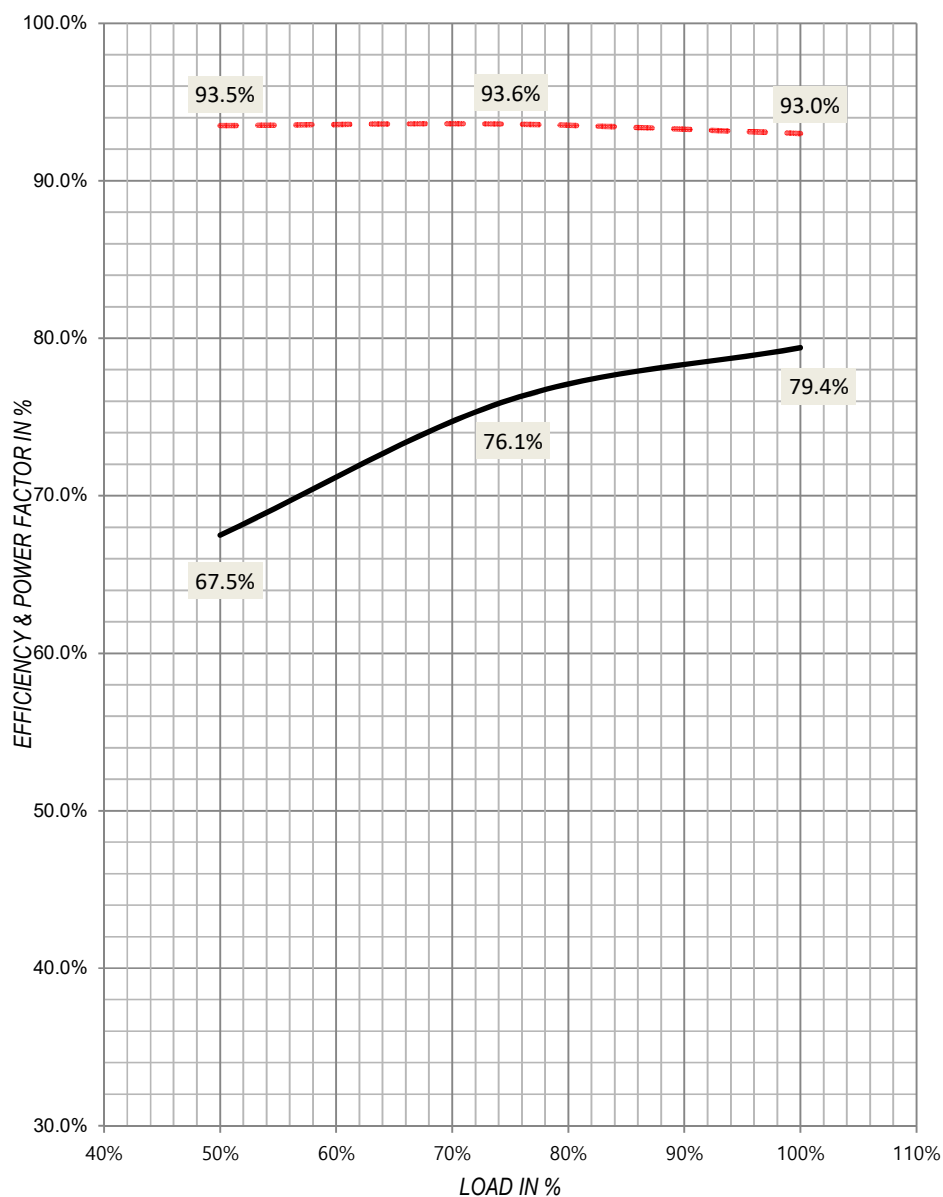
|                           |       |                    |                          |        |                    |
|---------------------------|-------|--------------------|--------------------------|--------|--------------------|
| OUTPUT                    | 30    | HP                 | POLES                    | 6      | P                  |
| VOLTAGE                   | 575   | V                  | FREQUENCY                | 60     | Hz                 |
| FULL LOAD TORQUE          | 133.6 | lb-ft              | FULL LOAD CURRENT        | 30.4   | A                  |
| LOCKED ROTOR TORQUE       | 215   | %                  | LOCKED-ROTOR CURRENT     | 610    | %                  |
| BREAKDOWN TORQUE          | 258   | %                  | SPEED (at FULL LOAD)     | 1180   | RPM                |
| GD <sup>2</sup> of LOAD : | -     | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 13.188 | lb-ft <sup>2</sup> |



|      |                                              |                                                             |
|------|----------------------------------------------|-------------------------------------------------------------|
| NOTE | <span style="color: red;">—————</span>       | A : THERMAL LIMIT CURVE AT HOT CONDITION                    |
|      | <span style="color: black;">- - - - -</span> | B : THERMAL LIMIT CURVE AT COLD CONDITION                   |
|      | <span style="color: black;">- - - - -</span> | C : ✕TIME-CURRENT CURVES(C,D,E) NEED BELOW DATA TO BE DRAWN |
|      | <span style="color: red;">~~~~~</span>       | D : * LOAD GD2 AT MOTOR SHAFT                               |
|      | <span style="color: blue;">~~~~~</span>      | 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                    | 30    | HP                 | POLES                    | 6      | P                  |
| VOLTAGE                   | 575   | V                  | FREQUENCY                | 60     | Hz                 |
| FULL LOAD TORQUE          | 133.6 | lb-ft              | FULL LOAD CURRENT        | 30.4   | A                  |
| LOCKED ROTOR TORQUE       | 215   | %                  | LOCKED-ROTOR CURRENT     | 610    | %                  |
| BREAKDOWN TORQUE          | 258   | %                  | SPEED (at FULL LOAD)     | 1180   | RPM                |
| GD <sup>2</sup> of LOAD : | -     | lb-ft <sup>2</sup> | GD <sup>2</sup> of MOTOR | 13.188 | 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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