## **DATA SHEET**

## Three Phase Induction Motor - Squirrel Cage



Customer

Product line : W22 Cooling Tower NEMA

Premium Efficiency Three-Phase

Product code: 12126931

03018AT3ECT286TF1-W2 Catalog #:

Frame : 284/6T Cooling method

Insulation class Duty cycle : Cont.(S1)

: -20°C to +40°C Ambient temperature Altitude : 1000 m.a.s.l.

Protection degree : IP55

: IC410 - TEAO Mounting : F-1

Rotation<sup>1</sup> : Both (CW and CCW)

Starting method : Direct On Line Approx. weight<sup>3</sup> : 441 lb

Moment of inertia (J) : 5.85 sa.ft.lb

| Design                   | e                 | : B            |            | Wiomer       | it of inertia (J) | ormenia (J) . 5.05 sq.it.ib |              |            |
|--------------------------|-------------------|----------------|------------|--------------|-------------------|-----------------------------|--------------|------------|
| Output [HP]              |                   | 30             | 25         | 25           | 25                | 30                          | 30           | 30         |
| Poles                    | ·                 |                | 4          | 4            | 4                 | 4                           | 4            | 4          |
| Frequency [Hz]           |                   | 60             | 50         | 50           | 50                | 50                          | 50           | 50         |
| Rated voltage [V]        |                   | 208-230/460    | 380        | 400          | 415               | 380                         | 400          | 415        |
| Rated current [A]        |                   | 77.6-70.2/35.1 | 35.7       | 34.0         | 33.6              | 42.4                        | 40.4         | 39.4       |
| L. R. Amperes [A]        |                   | 474-428/214    | 214        | 228          | 235               | 212                         | 226          | 236        |
| LRC [A]                  |                   | 6.1x(Code      | 6.0x(Code  | 6.7x(Code H) | 7.0x(Code H)      | 5.0x(Code E)                | 5.6x(Code F) | 6.0x(Code  |
|                          |                   | G)             | G)         |              |                   |                             |              | G)         |
| No load current [A]      | ]                 | 22.4-26.0/13.0 | 12.9       | 13.8         | 14.5              | 12.9                        | 13.8         | 14.5       |
| Rated speed [RPN         | Rated speed [RPM] |                | 1465       | 1465         | 1465              | 1455                        | 1460         | 1460       |
| Slip [%]                 |                   | 1.94           | 2.33       | 2.33         | 2.33              | 3.00                        | 2.67         | 2.67       |
| Rated torque [ft.lb]     |                   | 88.1           | 88.4       | 88.4         | 88.4              | 107                         | 106          | 106        |
| Locked rotor torque [%]  |                   | 240            | 220        | 250          | 280               | 180                         | 210          | 229        |
| Breakdown torque [%]     |                   | 240            | 250        | 290          | 310               | 210                         | 240          | 260        |
| Service factor           |                   | 1.25           | 1.00       | 1.00         | 1.00              | 1.00                        | 1.00         | 1.00       |
| Temperature rise         |                   | 80 K           | 80 K       | 80 K         | 80 K              | 105 K                       | 105 K        | 105 K      |
| Locked rotor time        |                   | 36s (cold)     | 27s (cold) | 27s (cold)   | 27s (cold)        | 27s (cold)                  | 27s (cold)   | 27s (cold) |
|                          |                   |                | 15s (hot)  | 15s (hot)    | 15s (hot)         | 15s (hot)                   | 15s (hot)    | 15s (hot)  |
| Noise level <sup>2</sup> |                   | 64.0 dB(A)     | 61.0 dB(A) | 61.0 dB(A)   | 61.0 dB(A)        | 61.0 dB(A)                  | 61.0 dB(A)   | 61.0 dB(A) |
|                          | 25%               |                |            |              |                   |                             |              |            |
| Efficiency (%)           | 50%               | 93.0           | 92.1       | 92.1         | 91.6              | 92.4                        | 93.0         | 92.4       |
| Liliciency (70)          | 75%               | 93.0           | 92.5       | 92.8         | 92.5              | 92.4                        | 92.4         | 92.4       |
|                          | 100%              | 93.6           | 92.6       | 92.7         | 92.6              | 91.7                        | 92.4         | 92.4       |
| Power Factor             | 25%               |                |            |              |                   |                             |              |            |
|                          | 50%               | 0.70           | 0.70       | 0.67         | 0.64              | 0.76                        | 0.73         | 0.70       |
| 1 OWEL FACIOI            | 75%               | 0.80           | 0.81       | 0.79         | 0.76              | 0.83                        | 0.82         | 0.80       |
|                          | 100%              | 0.84           | 0.85       | 0.84         | 0.82              | 0.86                        | 0.85         | 0.84       |
|                          |                   | Drivo and      | Non drivo  | and Faunda   | tion loads        |                             |              |            |

Drive end Bearing type

Non drive end 6211

Foundation loads

6311 2RS C3 2RS C3 V'Ring

Sealing V'Ring Lubrication interval Lubricant amount Lubricant type Mobil Polyrex EM Max. traction : 1003 lb

Max. compression : 1444 lb

Notes

This revision replaces and cancel the previous one, which must be eliminated.

- (1) Looking the motor from the shaft end.
- (2) Measured at 1m and with tolerance of +3dB(A).
- (3) Approximate weight subject to changes after manufacturing process.

(4) At 100% of full load.

These are average values based on tests with sinusoidal power supply, subject to the tolerances stipulated in NEMA MG-1.

| Rev.         |            | Changes Summary | Performed | Checked | Date     |
|--------------|------------|-----------------|-----------|---------|----------|
|              |            |                 |           |         |          |
| Performed by |            |                 |           |         |          |
| Checked by   |            |                 |           | Page    | Revision |
| Date         | 22/01/2018 |                 |           | 1/2     |          |

## DATA SHEET

|   | П |
|---|---|
| ш | Ш |
|   |   |

| Three Phase Induction Motor - Squirrel Cage |            |                      |           |         |           |  |  |
|---|------------|----------------------|-----------|---------|-----------|--|--|
| Customer                                    | :          |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
| \   |            | Space heater informa | ation     |         |           |  |  |
| Voltage: 110-127                            | 7200-240 V |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
|   |            |                      |           |         |           |  |  |
| Rev.  |            | Changes Summary      | Performed | Checked | Date      |  |  |
|   |            | T                    |           |         |           |  |  |
| Performed by Checked by                     |            |                      |           | Page    | Revision  |  |  |
| Date  | 22/01/2018 |                      |           | 2/2     | INGVISION |  |  |