

Customer :

Project Name :

Project No. :

Revision No. :

# SPECIFICATION for INDUCTION MOTOR



| 0   |      | For Bidding |             |            |             |
|-----|------|-------------|-------------|------------|-------------|
| No. | DATE | DESCRIPTION | PREPARED BY | CHECKED BY | APPROVED BY |

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# AC INDUCTION MOTOR DATA SHEET

|              |                  |             |  |          |      |
|--------------|------------------|-------------|--|----------|------|
| Catalog No.  | HES25-36-284/6JP | Item No.    |  | Rev. No. | [ ]  |
| Project Name |                  | Project No. |  | Quantity | sets |

| GENERAL SPECIFICATION                          |                                                                            |                          | PERFORMANCE DATA                                             |                 |                      |
|------------------------------------------------|----------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------|-----------------|----------------------|
| Frame Size                                     | 286JP                                                                      |                          | Rated Output                                                 | 18.5 kW         | 25 HP                |
| Type                                           | PJP                                                                        |                          | Number of Poles                                              | 2               |                      |
| Enclosure(Protection)                          | Totally Enclosed / IP55                                                    |                          | Rotor Type                                                   | Squirrel Cage   |                      |
| Method of Cooling                              | IC411(FC)                                                                  |                          | Starting Method*                                             | D.O.L           |                      |
| Rated Frequency                                | 60 Hz                                                                      |                          | Rated Voltage                                                | 575 V           | 460 V 230 V          |
| Number of Phases                               | 3                                                                          |                          | Current                                                      | Full Load       | 22.8 A 28.5 A 56.9 A |
| Insulation Class                               | F                                                                          |                          |                                                              | Locked-rotor**  | 670 % 670 % 670 %    |
| Temp. Rise at full load (by resistance method) |                                                                            |                          | Efficiency                                                   |                 |                      |
|                                                | at 1.0 S.F                                                                 | 80 deg. C                |                                                              | 50% Load        | 88.7 %               |
| Motor Location                                 | <input type="checkbox"/> Indoor <input type="checkbox"/> Outdoor           |                          |                                                              | 75% Load        | 90.7 %               |
| Altitude                                       | Less than 1,000 meter                                                      |                          |                                                              | 100% Load       | 91.7 %               |
| Relative Humidity                              | Less than 80 %                                                             |                          | Power Factor(p.u)                                            |                 |                      |
| Ambient Temp.                                  | 40 deg. C (Max.)                                                           |                          |                                                              | 50% Load        | 0.740                |
| Duty Type                                      | Continuous ( S1 )                                                          |                          |                                                              | 75% Load        | 0.840                |
| Service Factor                                 | 1.15                                                                       |                          |                                                              | 100% Load       | 0.890                |
| Mounting                                       | B35                                                                        |                          | Speed at Full Load                                           | 3560 r.p.m      |                      |
| Bearing                                        | Type                                                                       | Anti-Friction            | Torque                                                       |                 |                      |
|                                                | DE/N-DE                                                                    | 6312ZC3 / 6310ZC3        |                                                              | Full Load       | 36.61 lb.ft          |
|                                                | Lubricant                                                                  | Grease(Polyrex-EM)       |                                                              | Locked-rotor**  | 160 %                |
| External Thrust                                | Not applicable                                                             |                          |                                                              | Breakdown**     | 230 %                |
| Coupling Method                                | <input checked="" type="checkbox"/> Direct <input type="checkbox"/> V-belt |                          | Moment of Inertia (J)                                        |                 |                      |
| Shaft Extension                                | Single                                                                     |                          |                                                              | Load(Max.)      | 28.400 lb.ft2        |
| Terminal                                       | Main                                                                       | Cast Iron                |                                                              | Motor           | 2.089 lb.ft2         |
| Box                                            | Aux.                                                                       | No                       | Sound Pressure Level (No-load & mean value at 1m from motor) |                 |                      |
|                                                | Location                                                                   | Refer to Outline Drawing |                                                              | 80 dB(A)        |                      |
| Application                                    |                                                                            |                          | Vibration                                                    | 3.8 mm/s (peak) |                      |
| Area classification                            | Hazardous                                                                  |                          | Permissible number of consecutive starts                     | Cold 3 times    |                      |
| Type of Ex-Protection                          | Class I&II, Division 2                                                     |                          |                                                              | Hot 2 times     |                      |
| Applicable Standard                            | NEMA MG1, CSA C390                                                         |                          | Paint                                                        | Munsell No.     | 4.0PB5.4/5.5(VL-451) |

| ACCESSORIES | SUBMITTAL DRAWING                                 |
|-------------|---------------------------------------------------|
|             | Outline Dimension Drawing \ Motor Weight(Approx.) |
|             | B35 LM-T2286C4JLV25 430 lb.                       |
|             |                                                   |
|             |                                                   |
|             |                                                   |

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |          |          |          |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|
|                    | <b>REMARK</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |          |          |          |          |
|                    | 1. Premium efficiency according to NEMA MG1<br>2. Inverter Duty @ 1.0 Service Factor & F Temperature rise<br>-. 10:1 VT (20:1 VT at 50% load)<br>-. 10:1 CT (1 hour duty, 4:1 continuous)<br>-. CHP up to 1.5 times base speed, NEMA MG1 Part31<br>3. CSA Certification<br>-. Class I, Division 2, Group A, B, C & D<br>-. Class II, Division 2 Group E, F & G (Group E : up to 320Fr.)<br>4. Service Factor 1.15 and Temperature rise B are applicable under the condition of sine wave power.<br>5. Service Factor 1.25 is applicable to motors of 100HP or less with temperature rise F & Non-Hazardous.<br>6. Temp. code : T3C(160°C) at sine wave |          |          |          |          |
| <b>SPARE PARTS</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |          |          |          |          |
|                    | Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DSND     | CHKD     | CHKD     | APPD     |
|                    | 2025-09-19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | S.H. LEE | I.K. KIM | R.G. KIM | S.W. KIM |

[Note] Others not mentioned in this data sheet shall be in accordance with maker standard.

Above technical data are only design values and shall be guaranteed with tolerance of applicable standard.

Inspection and performance test shall be done according to maker standard, if not mentioned.

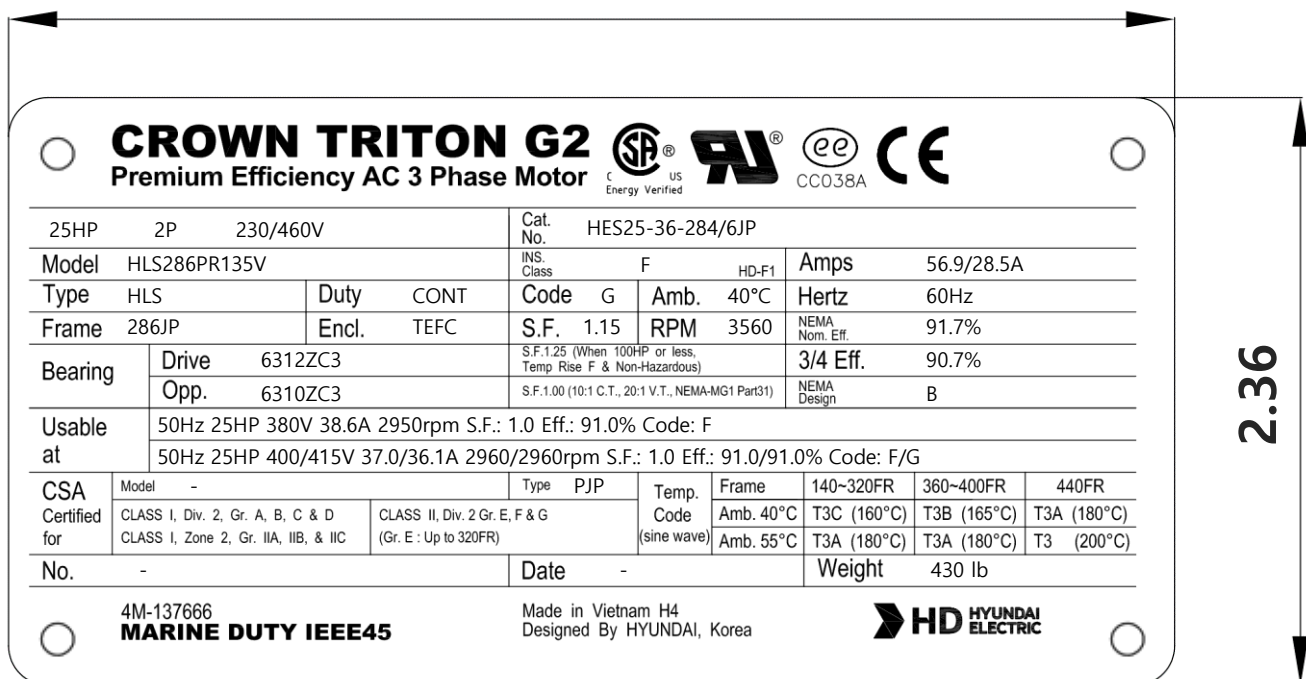
\* In case of Inverter-Fed Motor, performance data is based on sine wave tests. It may be different from test data of Inverter combined motor.

\*\* Data is based on rated voltage & frequency and is expressed as a percentage of full-load value.

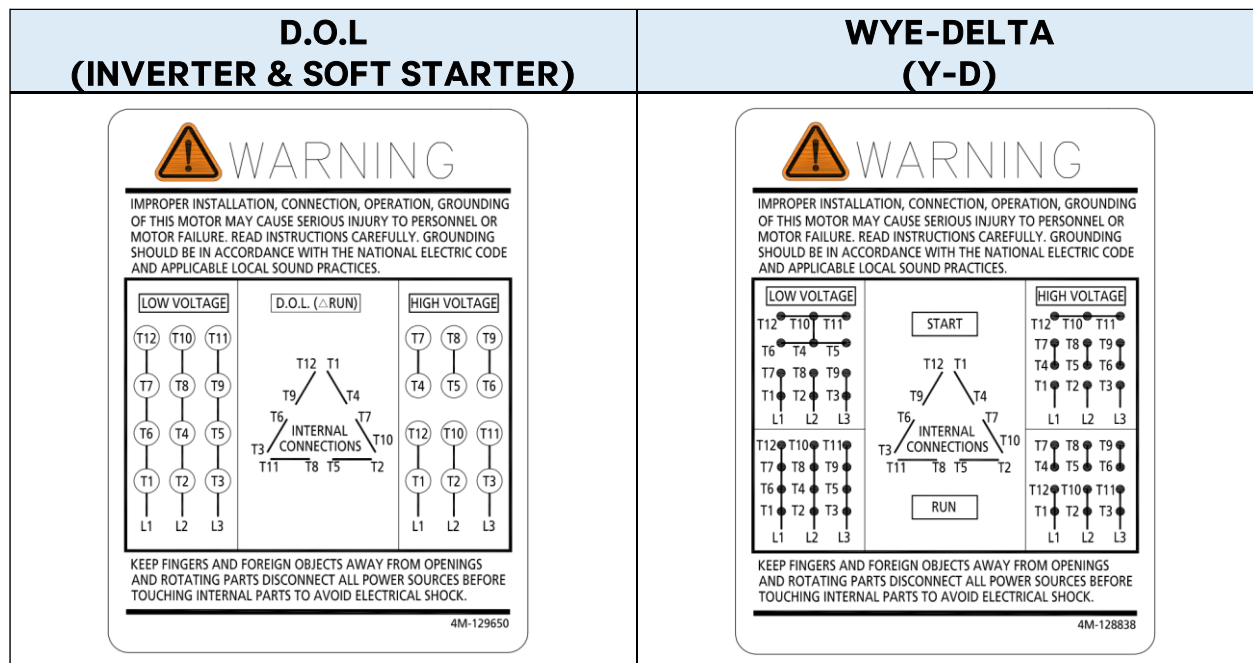
| REV | DATE | CONTENTS | REVD BY | CHKD BY | CHKD BY | APPD BY |
|-----|------|----------|---------|---------|---------|---------|
|     |      |          |         |         |         |         |
|     |      |          |         |         |         |         |
|     |      |          |         |         |         |         |

## ■ MAIN NAMEPLATE

4.72



## WIRING DIAGRAM



|                                                                                                |         |          |            |                   |                                                          |                   |
|------------------------------------------------------------------------------------------------|---------|----------|------------|-------------------|----------------------------------------------------------|-------------------|
| APPD BY                                                                                        | S.Y.KIM | UNIT     | INCH       | SUBJECT           | CSA Class I, Division2 Severe Duty (HES, JM/JP, 254-326) | DWG SIZE          |
| CHKD BY                                                                                        | I.K.KIM | SCALE    | NONE       |                   |                                                          | A4 ( 1:1 )        |
| CHKD BY                                                                                        | R.G.KIM | PROJEC'N | 3rd Angle  |                   |                                                          |                   |
| DSND BY                                                                                        | S.H.LEE | DATE     | 2024.06.07 |                   |                                                          |                   |
| <div></div> |         |          |            | TITLE             |                                                          |                   |
|                                                                                                |         |          |            | NAMEPLATE DRAWING |                                                          |                   |
|                                                                                                |         |          |            | REF. NO           | 4M-137666 / 4M-129650                                    | Sheet No.    of   |
|                                                                                                |         |          |            | DWG NO            | NP-HES25-36-284/6JP                                      | Revision No.    0 |

Type : PJP

18.5kW 25HP

2 P

60 Hz

Full Load Torque : 36.61 lb.ft

Speed at Full Load : 3560 RPM

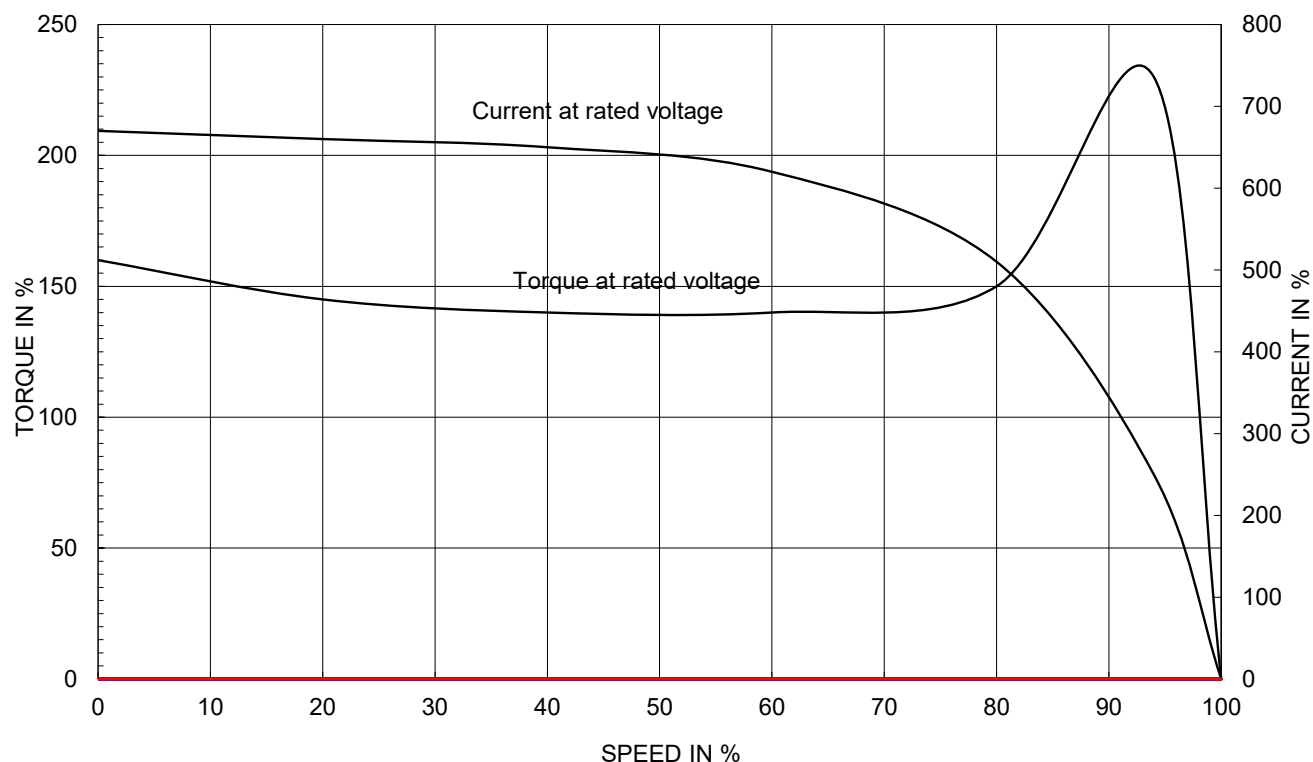
Load moment of Inertia (J) : 28.400 lb.ft<sup>2</sup>

|               |      |      |      |
|---------------|------|------|------|
| Rated Voltage | 575V | 460V | 230V |
|---------------|------|------|------|

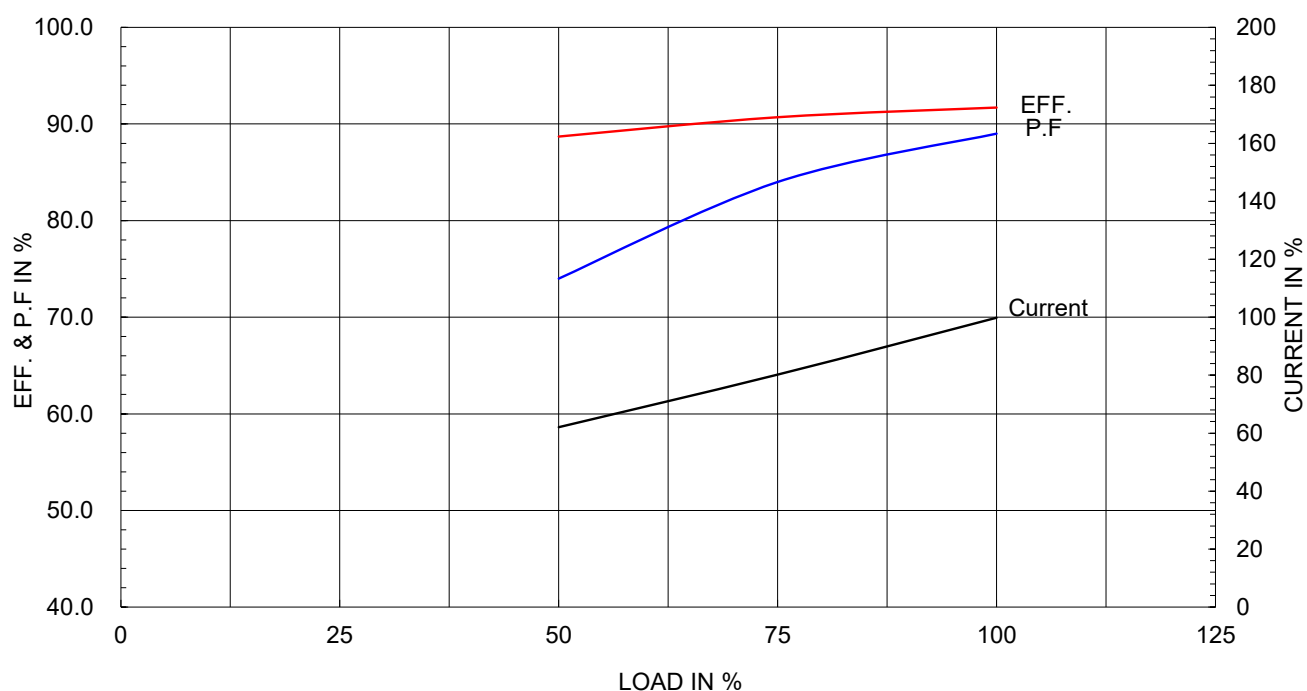
Motor moment of Inertia (J) : 2.089 lb.ft<sup>2</sup>

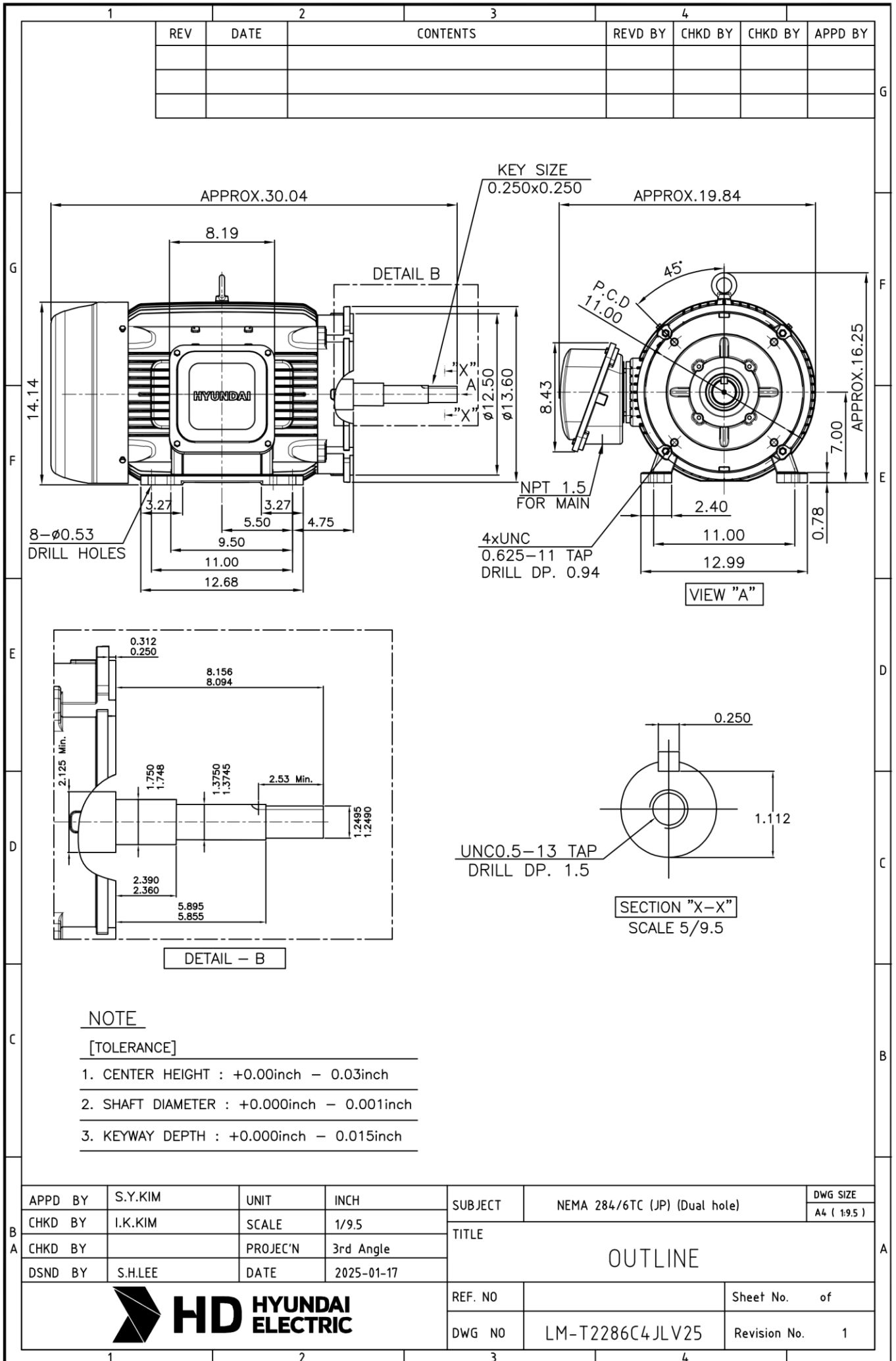
|                   |       |       |       |
|-------------------|-------|-------|-------|
| Full Load Current | 22.8A | 28.5A | 56.9A |
|-------------------|-------|-------|-------|

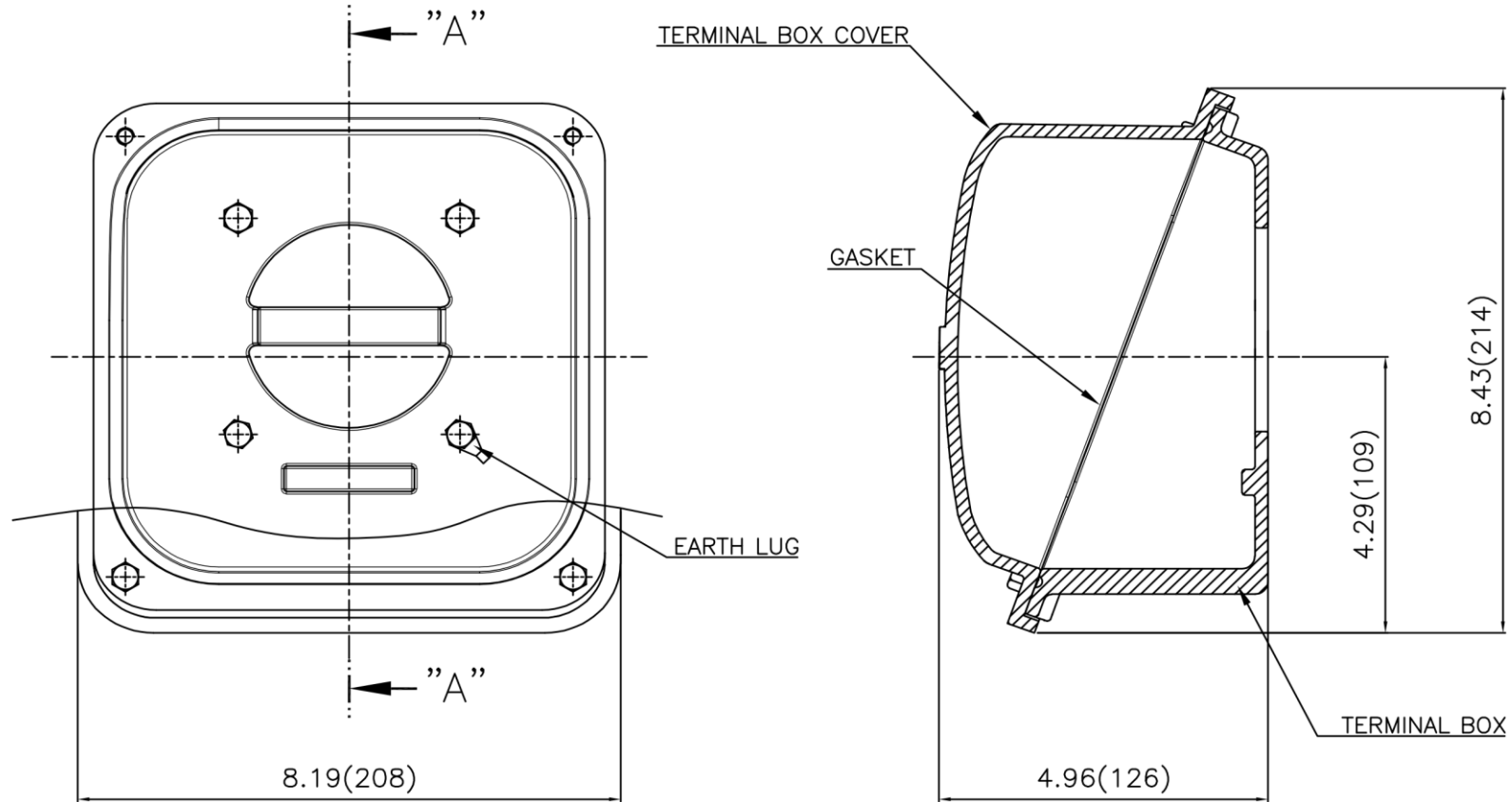
SPEED VS TORQUE &amp; CURRENT CURVE



OUTPUT VS EFF., P.F &amp; CURRENT CURVE





**Cls. I&II, Div. 2**  
**IEEE 841**

SEC. ”A”-”A”

|      |       |
|------|-------|
| ▽    | 50S   |
| ▽▽   | 12.5S |
| ▽▽▽  | 3.2S  |
| ▽▽▽▽ | 0.4S  |

| REV | DATE | CONTENTS | REV'D BY | CHKD BY | CHKD BY | APPD BY |
|-----|------|----------|----------|---------|---------|---------|
| 1   |      |          |          |         |         |         |

| 일반가공공차 |      | 일반계관공차   |      |
|--------|------|----------|------|
| 1~4    | ±0.1 | 6~30     | ±0.5 |
| 4~18   | ±0.2 | 30~120   | ±0.8 |
| 18~63  | ±0.3 | 120~315  | ±1.2 |
| 63~250 | ±0.5 | 315~1000 | ±2.0 |
| 250~   | ±0.8 | 1000~    | ±3.0 |

| Q'TY    | DESCRIPTION | MATERIAL | DIMENSION  | WEIGHT  | PART NO.                | REMARK         | NO. |
|---------|-------------|----------|------------|---------|-------------------------|----------------|-----|
| APPD BY | S.Y.KIM     | UNIT     | inch(mm)   | SUBJECT | FR. 250~280 (CAST IRON) | DWG SIZE       |     |
| CHKD BY |             | SCALE    | 1/2        | TITLE   | TERMINAL BOX ASS'Y      | A3 ( 1:2 )     |     |
| CHKD BY | R.G.KIM     | PROJEC'N | 3rd Angle  | REF. NO |                         | Sheet No. of   |     |
| DSND BY | 네슬의         | DATE     | 2023-10-19 | DWG NO  | 3M-248458               | Revision No. 0 |     |

