

Product Information Packet

November 9, 2016

Data shown is for the current revision model #. Ensure your nameplate model # matches.

| | |
|----------------------------|-----------------------|
| Model Number: | 5KS254XAE6422B |
| Catalog Number: | V864 |
| Instruction Manual: | GEK-95351 |
| Connection Diagram: | GEM2034E-FIG7 |
| Outline Drawing: | 4002B5825PNP5323 |

| Accessory Connection Diagrams | | | |
|-------------------------------|------|------------------------------|------|
| Bearing Thermocouple: | None | Heater: | None |
| RTD: | None | Thermistor: | None |
| Thermostat: | None | Winding Thermocouple: | None |
| Bearing RTD: | None | | |

Table of Contents

| | |
|-----------------------------|----|
| Specification | 01 |
| Performance Characteristics | 02 |
| Outline Drawing | 03 |
| Connection Drawing(s) | 04 |
| Spare parts | 05 |



Marks:

| | | | |
|----------------------------|-----------------------|-------------------------------|-----------|
| MODEL NUMBER: | 5KS254XAE6422B | Estimated Weight: | 315 Lbs |
| Outline Drawing: | 4002B5825PNP5323 | Time Rating: | CONT |
| Connection Diagram: | GEM2034E-FIG7 | Enclosure: | TEFC |
| Instruction Book: | GEK-95351 | Encl Construction: | 841 |
| Design Code: | 25BD1258A | Ambient Max(°C): | 40 |
| Type: | KS | Alt Ambient Max(°C): | -- |
| Frame: | L254VP10 | Insulation Class: | H |
| Phases: | 3 | NEMA Design: | B |
| Poles: | 4 | Nominal Efficiency: | 92.4 % |
| Output Power: | 15HP 11.1KW | Guaranteed Efficiency: | 91.0 |
| RPM: | 1775 | 3/4 Load Efficiency: | 93.3 |
| Voltage: | 460 | KVA Code: | G |
| Hertz: | 60 | Max KVAR: | 5.4 |
| Amps - FL: | 18.3 | Power Factor: | 83.0 |
| Service Factor: | 1.15 | Bearing - DE: | 7309 |
| Alt Service Factor: | -- | Bearing - ODE: | 6309-2ZC3 |

Enclosure is Totally Enclosed Fan-Cooled

Stamped Nameplate Notes:

VERTICAL-841
 PREMIUM EFFICIENT MOTOR
 DE BRG 45BT03XP3 ODE BRG 45BC03JP3
 SEVERE DUTY
 EXCEPTION TO IEEE-STD-841-2009:THRUST BRG ON DE
 INVERTER DUTY PER NEMA MG1 PART 31
 ALTERNATE RATING FOR PWM CONTROL:
 1.0 SF VAR TORQUE RANGE 0-60 HZ
 STAMP NP249A5499AP AS BELOW:
 MODEL:5KS254XAE6422B S/N: XXX
 EX NA IIC T3 GC CSA.09.2216219
 CLASS I, ZONE 2, AEX NA IIC T3
 CLASS I, DIV 2, GROUPS A, B, C, D T3
 -25C <= TAMB <= 40C

Additional Information:

4P - VP EXTN
 C/BOX 137 CU IN-1.25 NPT
 PAINTED FRAME ID & SHAFT,
 FAN COVER INSIDE & ODE E/S OUTSIDE
 ROUTINE AND 5 POINT VIBRATION TESTS INCL IN C/BOX
 INPRO SEAL BOTH ENDS
 E/SHLD GROUND STUD MTD ON DE C/BOX SIDE
 SHAFT RUNOUT LIMIT .001" TIR
 RCF 5000 CPM, STATIC DEFLECTION .0014 INCHES &
 CENTER OF GRAVITY 10.75 INCHES
 SOLID SHAFT HIGH THRUST



COPPER WASHER UNDER HEADS OF BEARING CAP BOLTS
APPLY TITE-SEAL (A50CD427A) ON BEARING CAP SCREWS, RABBETS,
AND PLUG THREADS
OIL RESISTANT SLEEVING ON LEADS
BEARING LIFE 26280 HOURS AT 1778 LB THRUST
UTD REPLACEMENT FOR 5KS254XAE6422

Performance Characteristics

1st Winding 1st Connection

Design: 25BD1258A

Marks:

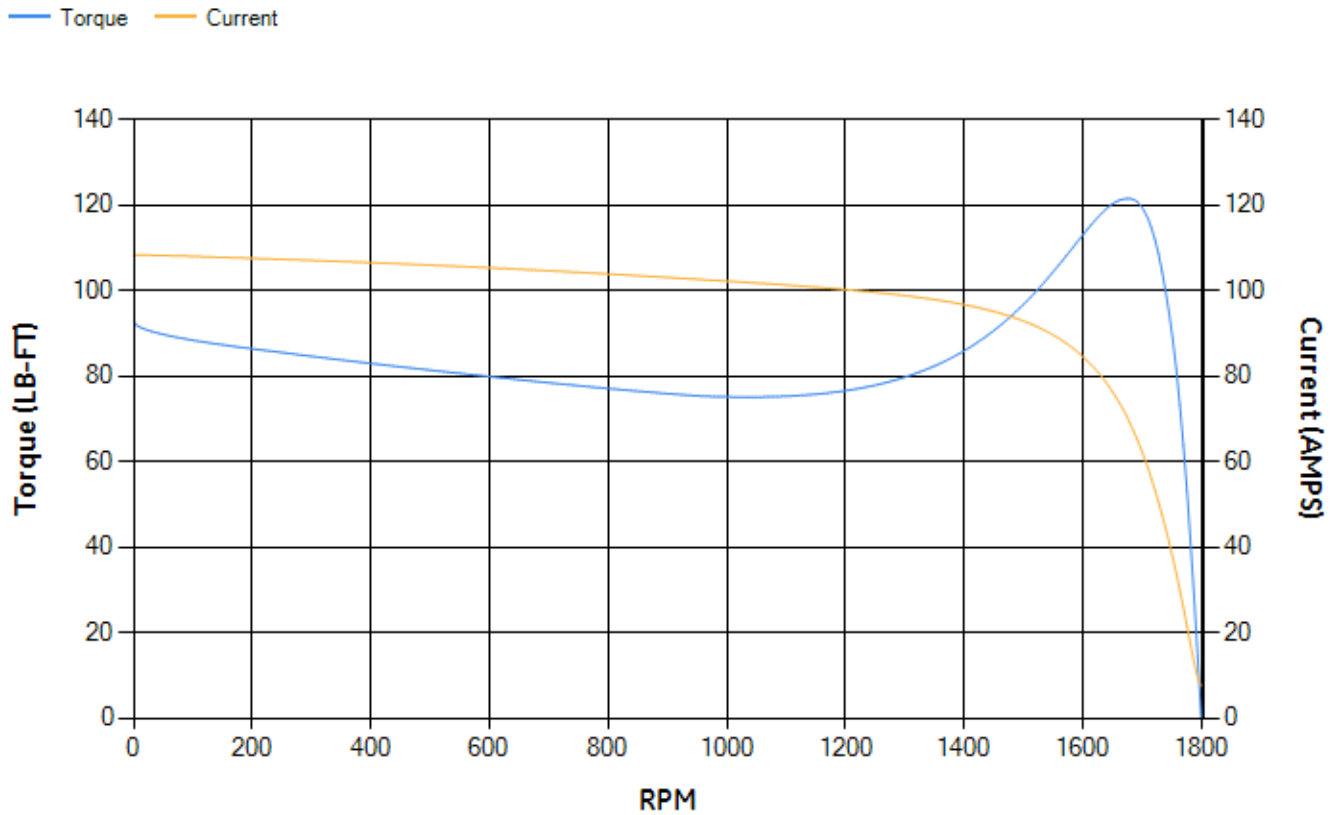
| LOAD % | 125.0 | 115.0 | 100.0 | 75.0 | 50.0 | 25.0 | 0.0 |
|--------|-------|-------|-------|-------|-------|-------|------|
| % EFF | 92.03 | 92.4 | 93.05 | 93.25 | 92.82 | 89.49 | 0.00 |
| % PF | 84.92 | 84.29 | 82.78 | 77.96 | 67.53 | 45.06 | 4.62 |
| AMPS | 22.45 | 20.73 | 18.23 | 14.48 | 11.2 | 8.7 | 7.55 |

| | | | | | |
|--------------------|--------|--------------------|--------|--------------------|--------|
| TORQ(FL)#FT | 44.35 | TORQ(LR)%FL | 209.27 | TORQ(BD)%FL | 272.81 |
| AMPS(LR) | 108.35 | PF AT START | 0.45 | | |

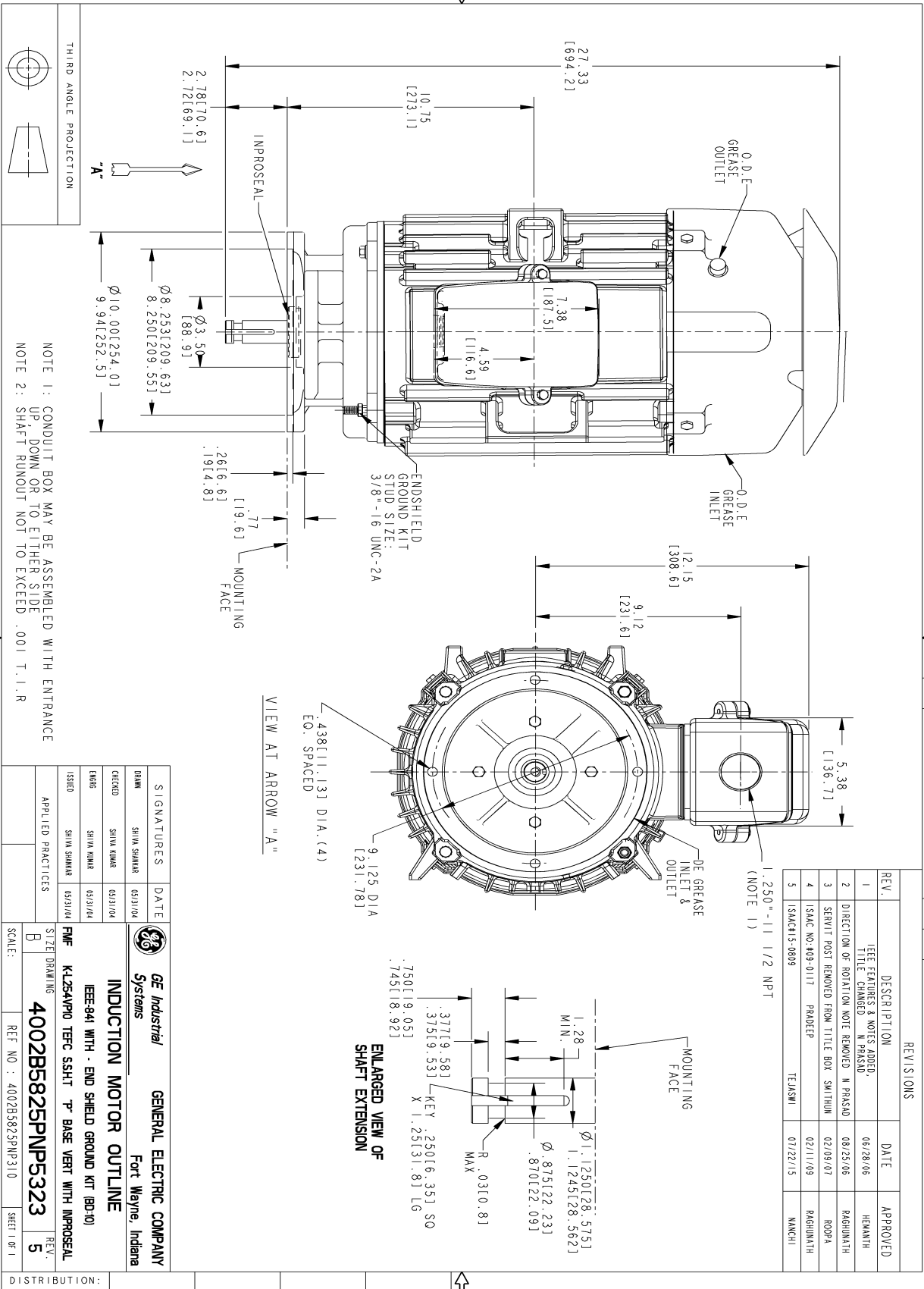
This motor is capable of two cold or one hot start with a maximum connected load inertia of 532 Lb-Ft Sq (22.4 Kg-meter Sq) at 100% voltage, where the load torque varies with the square of the speed. Acceleration time with maximum inertia and the above load type is 44 seconds. Safe stall time at 100% voltage is 98 seconds cold, 67 seconds hot. Rotor inertia is 2.31 Lb-Ft Sq (0.1 Kg-meter Sq).

| | | | |
|---------------------------|-------|---------------------------|-------|
| Open Circuit A-C: | 0.453 | Short Circuit D-C: | 0.013 |
| Short Circuit A-C: | 0.025 | X/R Ratio: | 4.808 |
| Stator Slots: | 48 | Rotor Slots: | 40 |

Speed Torque Current Curve (First Connection, First Speed)



Marks:



SIZE: B DRAWING NO: 4002B5825PNP5323 SH: 1 REV: 5

REVISIONS

| REV. | DESCRIPTION | DATE | APPROVED |
|------|--|----------|-----------|
| 1 | IEEE FEATURES & NOTES ADDED TITLE CHANGED N PRASAD | 06/28/06 | HEMANTH |
| 2 | DIRECTION OF ROTATION NOTE REMOVED N PRASAD | 08/23/06 | RAGHUNATH |
| 3 | SERVIT POST REMOVED FROM TITLE BOX SMITHUM | 02/09/07 | ROOPA |
| 4 | ISAC NO. 409-0117 PRADIEP | 02/11/09 | RAGHUNATH |
| 5 | ISACH 15-0809 | 07/22/15 | NANCHI |

| SIGNATURES | DATE |
|----------------------|----------|
| DRMAN SHIVA SHANKAR | 03/31/04 |
| DESIGNED SHIVA KUMAR | 03/31/04 |
| ENGRG SHIVA KUMAR | 03/31/04 |
| ISSUED SHIVA SHANKAR | 03/31/04 |

GE Industrial Systems **GENERAL ELECTRIC COMPANY**
 Fort Wayne, Indiana

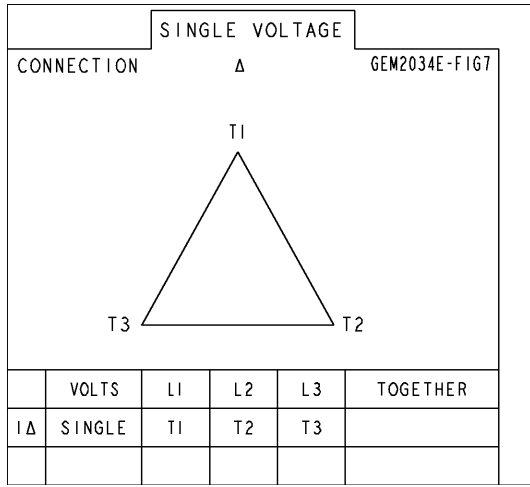
INDUCTION MOTOR OUTLINE
 IEEE-94 WITH - END SHIELD GROUND KIT (BD-10)
 FIVE KVA/5HPD TERC SSHT "P" BASE VERT WITH IMPROSEAL
 SIZE DRAWING: **4002B5825PNP5323**
 REV: **5**

SCALE: B REF NO: 4002B5825PNP310 SHEET 1 OF 1

DISTRIBUTION:

Marks:

Connection Diagram
GEM2034E-FIG7



| End shield Assembly | | |
|---------------------|---------------|----------------|
| Part Description | DE Side Part# | ODE Side Part# |
| End Shield | 128D6129PJ1 | 4004D5283SK1 |
| Bearing | 235A2507AC01 | 235A2507AD01 |
| Slinger/Inproseal | 4002B5918CD3 | 4002B5914AG4 |

| Fan & Fan Cover Assembly | |
|--------------------------|-----------------|
| Part Description | Part# |
| Fan | 159C6700G02 |
| Fan Cover | 4003C5525BN-G01 |

| Conduit & Accessories Box Assembly | |
|------------------------------------|-----------------|
| Part Description | Part# |
| Conduit Box | 4002B5728PA-G04 |

| Mechanical Accessories | |
|------------------------|-------|
| Part Description | Part# |
| Brake | |
| Tachometer | |