



Model Number

SD3-143TC-4-BR-E-1-460-60

MFG PN

T143T1U4B

List Price

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All data shown at HIGH voltage setting

Format STD 3 Phase

**Electrical Data**

**General Data**

|                               |                    |                    |       |
|-------------------------------|--------------------|--------------------|-------|
| Rated Motor Output Power      | 1 HP               | Frame Size         | 143   |
| Rated Motor Speed             | 1740 r/min         | Enclosure          | TEFC  |
| Rated Motor Voltage (3 Phase) | 460-60 Volts - HZ  | Approximate Weight | 44.8  |
| Rated Motor Current           | 1.5 Amps           | NEMA Design        | B     |
| Service Factor                | 1.25               | IP Rating          | 56    |
| KVA Code                      | J                  | Insulation Class   | F     |
| Nominal Efficiency            | 85.5 %             | Tropicalization    | YES   |
| Nominal Power Factor          | 0.75 cosθ          | Duty               | Cont. |
| Full Load Torque Ft-Lb        | 4.11 Ft-Lb         | Cable Entry        | 1.25  |
| Temp Rise @ Full Load °C      | 36                 | Feet Removable     | YES   |
| Efficiency Level              | IE3 - NEMA Premium | Double Drilled     | NO    |

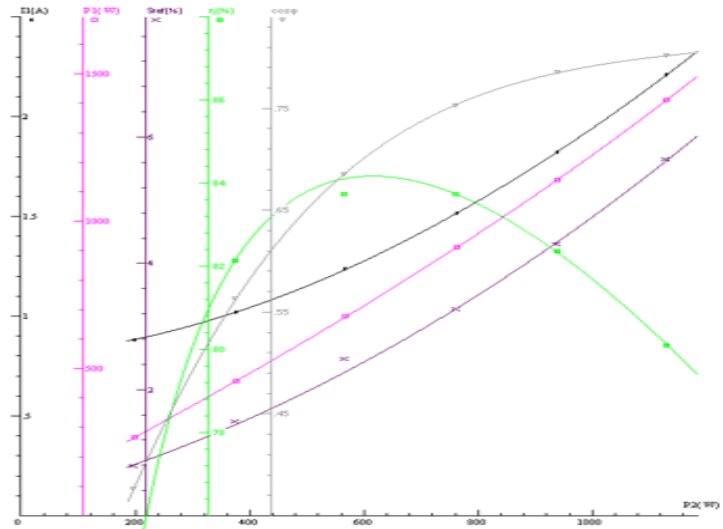
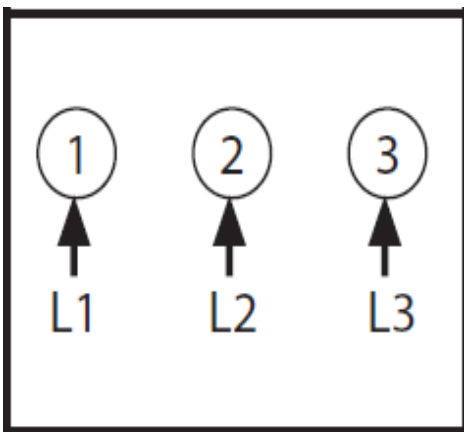
| Load Data    | RPM  | Trq %FL | Current Amps |                        |                      |
|--------------|------|---------|--------------|------------------------|----------------------|
| Locked Rotor | -    | 224     | 9.5          | Rated Ambient (°C)     | 40                   |
| Breakdown    | -    | 270     | -            | Rated Altitude (M)     | 1000                 |
| Pull Up      | -    | 171     | -            | Coating                | 7024 - Graphite Grey |
| 125% of FL   | 1722 | -       | 1.82         | Shaft Grounding        | YES                  |
| 75% of FL    | 1759 | -       | 1.22         | Brake Voltage (DC)     | --                   |
| 50% of FL    | 1774 | -       | 1.02         | Brake Torque (N-M)     | --                   |
| No Load      | 1797 | -       | 0.83         | <b>Mechanical Data</b> |                      |

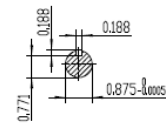
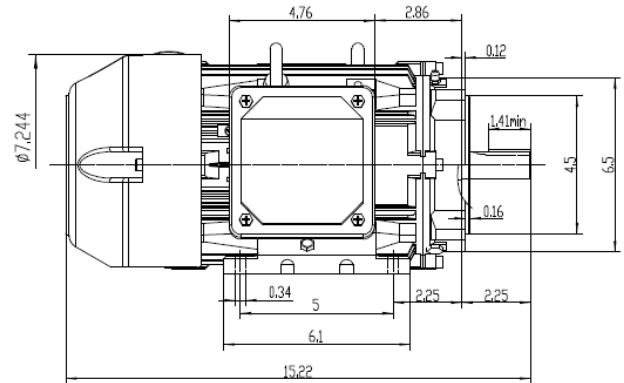
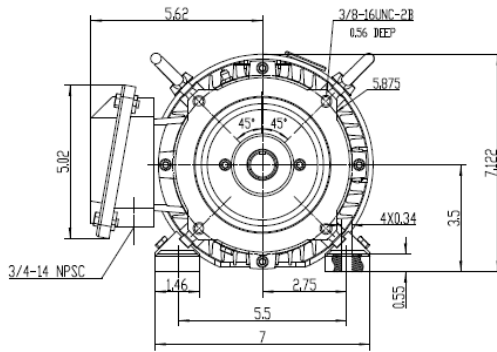
|                    |                      |  |  |                   |                 |
|--------------------|----------------------|--|--|-------------------|-----------------|
| Hazardous Location | CL1 Div2 Grp A,B,C,D |  |  | Bearing DE Side   | 6205ZZ          |
|                    |                      |  |  | Bearing NDE Side  | 6205ZZ          |
|                    |                      |  |  | Moment of Inertia | -- kg.m2        |
|                    |                      |  |  | Noise Level       | Per NEMA dB (A) |

|                                                                                                                                           |    |                             |  |
|-------------------------------------------------------------------------------------------------------------------------------------------|----|-----------------------------|--|
| CT VFD Range                                                                                                                              | -- | <b>Loaded Torque Curves</b> |  |
| $P_1 = \text{INPUT POWER (KW)}$ , $S = \text{Slip (\% of Sync RPM)}$ , $\eta = \text{Efficiency (\%)}$ , $\cos\phi = \text{Power Factor}$ |    |                             |  |

|                |        |        |      |
|----------------|--------|--------|------|
| Certifications | UL     | CSA    | DOE  |
| File Numbers   | 323353 | 224693 | 096A |


Wiring Diagram 3PH Single Voltage SD3





**NOTES:**

1. All Cast Iron Construction
2. Design B
3. IP55 Labyrinth seals on DE and ODE
4. H Class Insulation System
5. Max Winding Temperature rise 80°C
6. Max bearing temperature rise 45°C for 4 pole and 50°C for 2 pole motors when direct coupled.
7. Regreasable bearings
8. External Grounding provisions
9. Maximum foot flatness deviation .127 mm
10. Conductive Polymer Cooling Fan
11. Diagonally Split Conduit Box rotatable in 90° Increments
12. Lead seals in conduit box
13. Maximum no load sound power 85 dBA(2 pole),  
Maximum no load sound power 70 dBA(4 pole),  
Maximum no load sound power 64 dBA(6 pole).
14. No Load Motor Vibration not to exceed  
a.Radial 60HZ - 2.03mm/s (2,4 pole) and 1.52mm/s (6 pole)  
b.Axial 60HZ - 1.52mm/s
15. 300 series Stainless Steel hardware
16. Epoxy Coating meeting ASTM B117-97 for 96 h
17. All internal surfaces coated with anti-corrosion coating.
18. Internal Shaft Grounding brush installed on drive end.
19. No Load test report included with motor

|                                                                                                                                             |          |                     |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------------|--------------------------|
| <br><b>Shanghai HIMAK Electrical Machinery CO., LTD</b> |          | NEMA TEFC 145TC     |                          |
|                                                                                                                                             |          | IEEE-841 UNITS:INCH |                          |
| Design                                                                                                                                      | Standard | NO:                 | CY252.A20.002            |
| Checker                                                                                                                                     | Allow    | STEP MARK           | 1:3 SORT Cast iron Motor |
| Auditing                                                                                                                                    | Date     |                     |                          |