

**SPEEDMASTER®
INVERTER-DUTY/
VECTOR DUTY MOTORS**

2000:1 CONSTANT TORQUE



Features:

- Class H inverter-rated IRIS™ insulation system
- Constant torque operation from 0 to base RPM rating on Vector Drives
- Constant HP operation to twice base RPM rating for 143T-256T frame, 1.5 x base RPM for all other sizes
- Designed for optimum performance with IGBT inverters – not for across-the-line starting
- C-face with rigid base through 100HP
- Normally closed thermostats (one per phase)
- Continuous duty at 40° C ambient
- 1.0 Service Factor (Class “B” rise on TEBC motors)
- Premium quality, cast iron frame and endbells
- 284T and larger are blower-cooled with a separately powered three-phase blower motor to provide added cooling at low speeds
- Ball bearings (Roller bearings available 360-frame and larger)
- Field convertible to F2 mounting
- Encoder provisions included on opposite drive end (See Encoder Kits this page)
- UL Recognized and CSA Certified
- Three-year warranty
- Meets NEMA MG1, parts 30 and 31

Applications:

Designed for inverter or vector applications where up to a 2000:1 constant torque speed range is required. Typical uses include: material handling, machine tools, conveyors, crane and hoist, metal processing, test stands, pumps, compressors, textile processing, and other industrial machinery installed in dusty or dirty environments.

THREE PHASE • TOTALLY ENCLOSED • RIGID BASE

| HP | RPM 60 Hz | NEMA Frame | Catalog Number | List Price | Disc. Sym. | App. Wgt. (lbs.) | Voltage | F.L. Amps 230V | RPM Max.† | “C” Dim. (Inches) |
|-----|-----------------|---------------|-------------------|---------------|---------------|------------------------|---------|----------------------|--------------|-------------------------|
| 1 | 1725 | 143TC | 810548● | \$1177 | C | 61 | 230/460 | 3.0 | 5400 | 13.68 |
| 1½ | 1725 | 145TC | 810547● | 1296 | C | 68 | 230/460 | 4.6 | 5400 | 14.68 |
| 2 | 1750 | 145TC | 810546● | 1354 | C | 70 | 230/460 | 6.0 | 5400 | 14.68 |
| 3 | 1750 | 182TC | 811320● | 1617 | C | 110 | 230/460 | 8.0 | 5400 | 16.68 |
| 5 | 1750 | 184TC | 811322● | 1792 | C | 118 | 230/460 | 13.4 | 5400 | 17.69 |
| 7½ | 1760 | 213TC | 810157● | 2411 | C | 180 | 230/460 | 21.0 | 4200 | 20.56 |
| 10 | 1760 | 215TC | 810140● | 2848 | C | 290 | 230/460 | 26.0 | 4200 | 22.74 |
| 15 | 1765 | 254TC | 810066● | 3414 | C | 320 | 230/460 | 39.0 | 4200 | 25.12 |
| | 1170 | 284TC | 810068 | 7212 | C | 440 | 230/460 | 40.0 | 3600 | 37.48 |
| 20 | 1765 | 256TC | 810007● | 4653 | C | 435 | 230/460 | 52.0 | 4200 | 27.13 |
| | 1170 | 286TC | 810001 | 8641 | C | 450 | 230/460 | 52.4 | 3600 | 37.48 |
| 25 | 1770 | 284TC | 810011 | 5799 | C | 438 | 230/460 | 65.0 | 3600 | 37.48 |
| | 1180 | 324TC | 810003 | 10165 | C | 620 | 230/460 | 67.0 | 3600 | 40.41 |
| 30 | 1780 | 286TC | 810015 | 6386 | C | 520 | 230/460 | 74.0 | 4200 | 38.98 |
| | 1180 | 326TC | 810005 | 11186 | C | 700 | 230/460 | 82.0 | 3600 | 41.91 |
| 40 | 1775 | 324TC | 810019 | 8077 | C | 620 | 230/460 | 100.0 | 3600 | 40.41 |
| | 1185 | 364TC | 810096 | 13489 | C | 975 | 230/460 | 104.0 | 2700 | 42.78 |
| 50 | 1780 | 326TC | 810023 | 9528 | C | 640 | 230/460 | 120.0 | 3600 | 41.91 |
| | 1185 | 365TC | 810097 | 16171 | C | 1029 | 230/460 | 180.0 | 2700 | 43.78 |
| 60 | 1780 | 364TC | 810027 | 12262 | C | 975 | 230/460 | 147.0 | 2700 | 42.78 |
| | 1185 | 404TC | 810098 | 17941 | C | 1322 | 230/460 | 142.0 | 2700 | 46.72 |
| 75 | 1780 | 365TC | 810031 | 14703 | C | 1050 | 230/460 | 180.0 | 2700 | 43.78 |
| | 1185 | 405TC | 810099 | 21859 | C | 1350 | 230/460 | 180.0 | 2700 | 49.28 |
| 100 | 1780 | 405TC | 810087 | 17914 | C | 1400 | 230/460 | 230.0 | 2700 | 49.28 |
| | 1185 | 444TC | 811367+ | 24852 | C | 2050 | 230/460 | 250.0 | 2700 | 52.72 |
| 125 | 1780 | 444T | 811369+ | 22591 | C | 2000 | 460 | 138.0① | 2700 | 52.72 |
| 150 | 1780 | 445T | 811371+ | 25631 | C | 2321 | 460 | 170.0① | 2700 | 54.72 |
| 200 | 1785 | 445T | 810503+ | 30340 | C | 2450 | 460 | 230.0① | 2700 | 54.72 |
| 250 | 1780 | 449T | 811516+ | 40196 | C | 3210 | 460 | 295.0① | 2700 | 63.21 |
| 300 | 1785 | 449T | 811529+ | 50953 | C | 3410 | 460 | 330.0① | 2700 | 63.21 |
| 350 | 1785 | 449T | 811530+ | 62152 | C | 3520 | 460 | 385.0① | 2700 | 63.21 |

- These motors are Totally Enclosed, Non-Ventilated (TENV) — Others are Totally Enclosed Blower-Cooled (TEBC).
- † Contact LEESON for applications requiring higher speeds.
- + Contact LEESON for production leadtime on these items.
- ① Amps at 460 volts

ENCODER KITS* FOR SPEEDMASTER® 2000:1 MOTORS

| Description | Enclosure | Frame | Brand/Model | PPR | Catalog Number | List Price | Disc. Sym. |
|--|-----------|----------|----------------|------|-------------------|---------------|---------------|
| Encoders | | | | | | | |
| Modular Mount, 5-15 VDC, with EPIC connector | TENV | 143-256T | Northstar SL56 | 1024 | E175927 | \$2610 | C |
| Shaft Mount, 5-26 VDC, with 10 pin connector | TENV | 143-256T | Dynapar HS35 | 1024 | E175928 | 1676 | C |
| Shaft Mount, 5-26 VDC, with 10 pin connector | TENV | 143-256T | BEI HS35 | 1024 | E175929 | 1676 | C |
| Shaft Mount, 5-26 VDC, with 10 pin connector | TENV | 143-256T | Dynapar HS35 | 2048 | E175930 | 1676 | C |
| Shaft Mount, 5-26 VDC, with 10 pin connector | TENV | 143-256T | BEI HS35 | 2048 | E175931 | 1676 | C |
| Modular Mount, 5-15 VDC (Encoder Conduit Box Required) | TEBC | 284-449T | Northstar SL56 | 1024 | E175921 | 2610 | C |
| Shaft Mount, 5-26 VDC (Encoder Conduit Box Required) | TEBC | 284-449T | Dynapar HS35 | 1024 | E175922 | 1676 | C |
| Shaft Mount, 5-26 VDC (Encoder Conduit Box Required) | TEBC | 284-449T | BEI HS35 | 1024 | E175923 | 1676 | C |
| Shaft Mount, 5-26 VDC (Encoder Conduit Box Required) | TEBC | 284-449T | Dynapar HS35 | 2048 | E175924 | 1676 | C |
| Shaft Mount, 5-26 VDC (Encoder Conduit Box Required) | TEBC | 284-449T | BEI HS35 | 2048 | E175925 | 1676 | C |
| Conduit Box Required for all TEBC Units | — | — | — | — | ECB175926 | 186 | C |

* Shipped separately for field installation.

SHADED FRAME INDICATES CAST IRON CONSTRUCTION