

ADJUSTABLE SPEED DRIVES

Fractional HP Drives .25 Through 1.5 HP Models FD-2541 Through FD-9523



Description

Fractional horsepower Drives are air-cooled, adjustable speed AC induction motors. The drive transmits constant torque at variable speeds. There is no physical contact between input and output members.

Features & Benefits

- The mechanical unit is self-contained and requires no special hookup for easy installation.
- Torque is transmitted by a magnetic field without friction or wear providing longer life and less downtime.
- Tachometer feedback maintains the output speed within 2% for load changes from 0-75%. Controls speed accurately.
- Approximately 200% rated torque capability is standard for starting and high peak loads. Meets demanding overload requirements.
- Rugged AC motor is the main drive member. Permanently lubricated bearings provide minimal maintenance.
- Available in single phase or three phase. Compatible with existing machinery wiring and plant power.
- Double output shaft and double 56C-Face allow brakes and gears to be easily added. Flexible modifications after drive is in service. Brake mounting on drive rather than on driven machine.

Ordering Information

| Selection Table – 1 Phase – 60Hz | | | |
|----------------------------------|-------------------|--------------|---------|
| HP | Speed Range (RPM) | Model Number | 1 Phase |
| .25 | 1650-50 | FD-2541-4001 | 115/230 |
| .50 | 3300-65 | FD-5021-4001 | 115/230 |
| | 1600-50 | FD-5041-4001 | 115/230 |
| .75 | 3300-65 | FD-7521-4001 | 115/230 |
| | 1600-50 | FD-7541-4001 | 115/230 |
| 1 | 1600-50 | FD-9941-4001 | 115/230 |

| Selection Table – 1 Phase – 50Hz | | | |
|----------------------------------|-------------------|--------------|---------|
| HP | Speed Range (RPM) | Model Number | 1 Phase |
| .25 | 1350-50 | FD-2541-4002 | 115/230 |
| .50 | 2700-65 | FD-5021-4002 | 115/230 |
| | 1290-50 | FD-5041-4002 | 115/230 |
| .75 | 2700-65 | FD-7521-4002 | 115/230 |
| | 1270-50 | FD-7541-4002 | 115/230 |

| Selection Table – 3 Phase – 60Hz | | | |
|----------------------------------|-------------------|--------------|---------|
| HP | Speed Range (RPM) | Model Number | 3 Phase |
| .25 | 1650-50 | FD-2543-4001 | 230/460 |
| .50 | 3300-65 | FD-5023-4001 | 230/460 |
| | 1600-50 | FD-5043-4001 | 230/460 |
| .75 | 3300-65 | FD-7523-4001 | 230/460 |
| | 1600-50 | FD-7543-4001 | 230/460 |
| 1 | 3300-65 | FD-9923-4001 | 230/460 |
| | 1600-50 | FD-9943-4001 | 230/460 |
| 1.5 | 3300-65 | FD-9523-4001 | 230/460 |

| Selection Table – 3 Phase – 50Hz | | | |
|----------------------------------|-------------------|--------------|---------|
| HP | Speed Range (RPM) | Model Number | 3 Phase |
| .25 | 1350-50 | FD-2543-4002 | 220/380 |
| .50 | 2700-65 | FD-5023-4002 | 220/380 |
| | 1290-50 | FD-5043-4002 | 220/380 |
| .75 | 2700-65 | FD-7523-4002 | 220/380 |
| | 1270-50 | FD-7543-4002 | 220/380 |
| 1 | 2600-65 | FD-9923-4002 | 220/380 |
| | 1300-380 | FD-9943-4002 | 220/380 |
| 1.5 | 2700-490 | FD-9523-4002 | 220/380 |

ADJUSTABLE SPEED DRIVES

Fractional HP Drives .25 through 1.5 HP Specifications for FD-2541 Through FD-9523

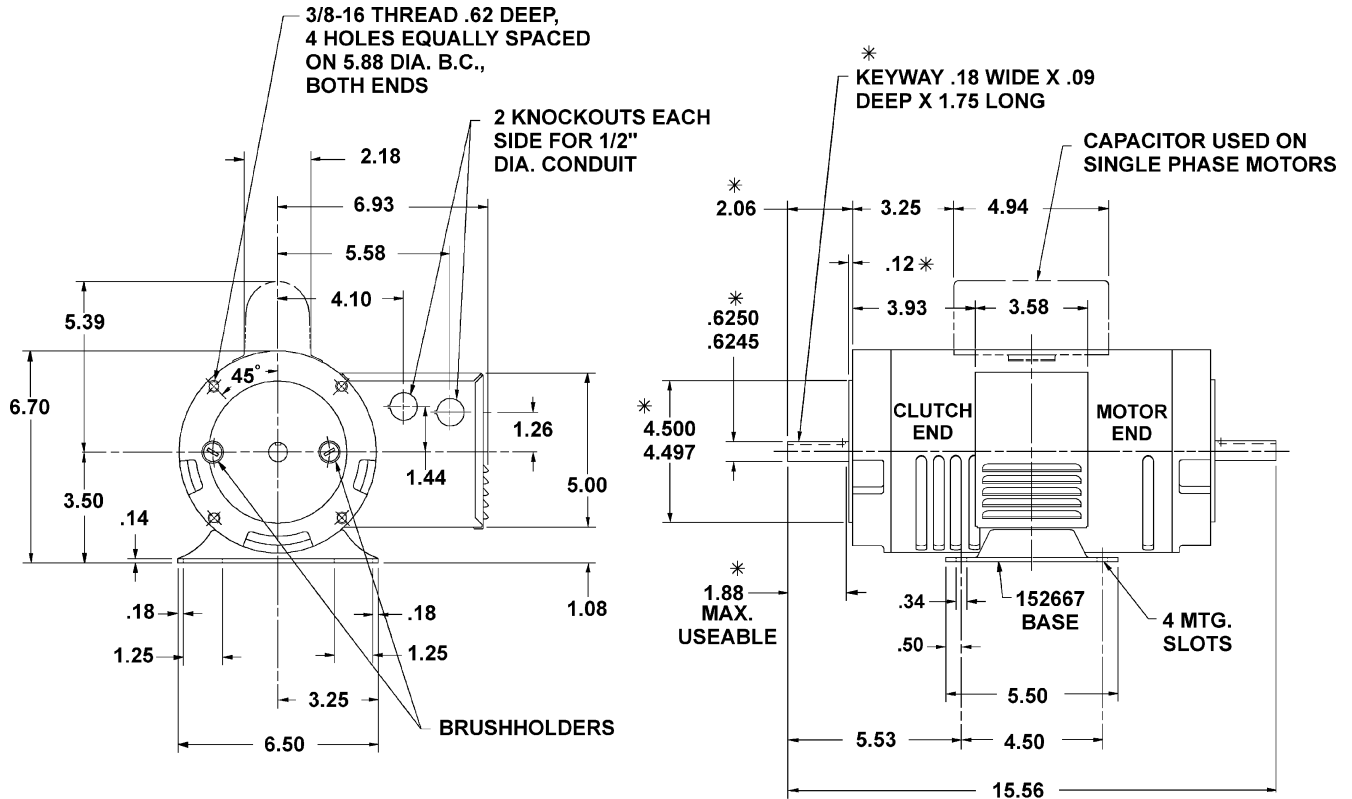
| | | |
|------------------------------|---|--|
| MOTOR | HP and RPM | See Ordering Information |
| | TEFC Unit | Standard |
| | NEMA Design B | Standard |
| | Class F Insulation, Class B Rise | Standard |
| | 1.15 Service Factor | Standard |
| | Frame Type | 56C |
| | Input Power Options | 115/230V, 1 Phase, 60 Hz – Standard 230/460V, 3 Phase, 60 Hz - Standard |
| | Controller transformer winding, 80 | Standard |
| CLUTCH | Coil Voltages | 40 VDC – Standard; 90 VDC – Optional |
| | Rated for Constant Torque | Standard |
| | Starting Torque | Approximately 200% |
| | Intermittent Torque | Approximately 200% |
| | AC Tachometer Generator | Standard |
| | Cooling | 100% Self-Ventilated |
| CONTROLLER | Model 15-47 Integral (Solid State) | Standard |
| | Model 15-80 Wall Mounted (Solid State) | Optional |
| | Closed Loop Speed Control | Standard |
| | Speed Regulation | Standard |
| | Regulated Speed Range | 34 to 1 available |
| | Input Power | Motor Transformer Winding - Standard (40 V controller only) |
| | Wall Mounted Enclosure | Optional |
| | Output Voltage; Current to Clutch Coil | 40VDC; 1.25 AMP |
| STATUS INDICATION | Speed Indicating Signal | 0-40 VAC from Tachometer Generator for Optional Meter |
| ENVIRONMENTAL RATINGS | Storage Temperature | -20° to 65° C (-4° to 149° F) Standard |
| | Operating Temperature | 0° to 40° C (32° to 104° F) Standard |
| | Maximum Operating Temperature | 65° C – Optional |
| | Altitude | 1000m (3300 Ft.) Standard |
| CODES & STANDARDS | Mechanical NEMA as applicable | Standard |
| | Mechanical 100% Dynamometer Tested | Standard |
| | Controllers (sold separately) Pre-Tested Components Printed Circuit Thermal Stress Cycle Computer Test and Pre-Calibrated PCBs | All Standard |
| Reliability Testing | Mechanical 100% dynamometer Tested Controllers Pre-tested components Printed circuit thermal stress cycle Computer Test and pre-calibrated PCB's | Standard Standard Standard Standard |

ADJUSTABLE SPEED DRIVES

Fractional HP Drives .25 through 1.5 HP

Outline Drawings

Fractional Horsepower Drive with Base



* THESE DIMENSIONS TYPICAL BOTH ENDS

Approx. net weight: 51 lbs.

DIMENSIONS ARE IN INCHES