

*TracMotion2000 model RA165*  
**VSR MOTOR SYSTEMS**



- **Four Phase, Fault Tolerant Construction**
- **Three Standard Sizes available**
- **Four Standard Operating Voltages**
- **100% AMC Drive Compatibility**
- **9 HP peak and 4.6 HP continuous**

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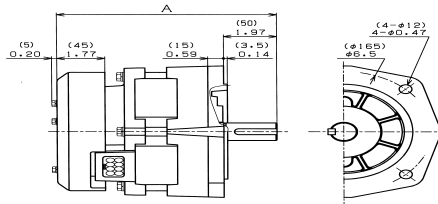
▪ **FEATURES**

- **VSR design:** The inherent benefits and simplify of Variable Switched Reluctance motors allow for high speed and high torque operation at high efficiency. Switched Reluctance design operates without magnets.
- **Multiple stack lengths:** Three stack lengths are part of the standard product line. These choices provide a range of motor performance from one flange size, allowing for increased motor torque with the same equipment.
- **Motor Drive Availability:** A range of standard drives as well a custom drive design and manufacturing capability allow for an optimally matched system.
- **High torque and efficiency:** The VSR design allows for simplification of the system design and improvement of total system efficiency.
- **Flexibility in motor winding selection:** A range of standard windings has been selected for common operating voltages. Production motors can be tailored for specification application profiles to optimize the performance and efficiency.
- **Regenerative capability:** The VSR motor technology is well suited for both motor and power generating applications. For electric vehicle applications, four quadrant regenerative breaking dramatically improves the range.

## SPECIFICATIONS

Model No.	HP Peak	HP Cont.	Peak Torque lb-in (Nm)	Max speed rpm	Shaft OD inch/mm	Weight lbs. (kg)
RA165S	2.8	1.5	29.1 (3.3)	15,000	0.94 (24)	18.7 (8.5)
RA165M	6.0	3.1	63.1(7.1)	15,000	0.94 (24)	25.3 (11.5)
RA165L	9.0	4.6	94.5 (10.7)	15,000	0.94 (24)	31.9 (14.5)

All data taken at a 6,000 RPM base speed. The TracMotion2000 model RA165 is a Switched Reluctance motor that is well suited for traction applications. The high starting torque and efficiency makes it well suited for light vehicle and other demanding application. The motor uses a 8/6 topology with four-phase operation.



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RA165157	8.15 (207)
RA165187	9.33 (237)
RA165217	10.51 (267)

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### Model Overall motor length w/ shaft

RA165S	8.15 in (207mm)
RA165M	9.33 in (237mm)
RA165L	10.51 in (267mm)

### Other dimensions:

Flange bolt holes: 0.47 in (12 mm), 4 places

Flange size: 6.5 in (165 mm)  
flange diameter to bolt centers

### GENERAL SPECIFICATIONS

Peak Efficiency: 94.6%

Max. winding temp: 180°C

Connection: 8 winding leads  
6 sensor contacts

Standard voltages: 48VDC, 96VDC, 115VAC  
others by request