

MD65 Sensorless Vector Control AC Microdrive

Questions and Answers

<p>Q: <i>What is the MD65?</i></p>	<p>A: The MD65 is a low cost, easy-to-use Sensorless Vector drive for controlling 3-phase AC Induction motors from 0.25 to 10 Hp. Ratings are available in 115V, 230V and 460V AC inputs. The drives have a standard integral LED display, keypad and speed potentiometer. The enclosures are rated IP20 as standard which includes DIN rail mounting capability, and can be field modified with the addition of an optional kit to Nema 1/IP30.</p>
<p>Q: <i>What are the target applications for the MD65?</i></p>	<p>A: The MD65 should be applied on applications that operate with single-phase 115V or 230V AC, or three-phase 230V or 460V AC input power. Target applications for the MD65 will be in both industrial and commercial OEM machinery. Typical applications include belt conveyors, centrifugal fans and blowers, centrifugal pumps and most types of commercial machinery. These applications range from variable torque to constant torque performance, which is a selectable feature in the MD65.</p> <p>Speed control for the MD65 may be performed with the integral potentiometer or from a remote source supplying a 0-10V dc or 4-20mA speed reference at the drive terminal strip. Up to 8 independent preset speeds may be activated by contact closures at the terminal strip as well. Each speed is a programmable value that can be configured independently.</p> <p>2-wire and 3-wire Start and Stop control is easily selected by selection of a parameter.</p>
<p>Q: <i>Does MD65 have Nema 1 capability?</i></p>	<p>A: The MD65 ships standard as IP20. A field installable kit is available that will convert the unit to Nema 1/IP30. The kits are available for both frame sizes.</p>
<p>Q: <i>What options are available with the MD65?</i></p>	<p>A: In addition to the NEMA 1 kit mentioned, Input Mains Filters for EMC compliance are available for compliance to Europe's CE initiatives.</p> <p>Options will include DeviceNet Communication, a dynamic braking resistor kit, a remote-mount Nema 4 operator keypad, and a handheld programmer for setting, uploading, and downloading parameters.</p> <p>There is also a cable option available to allow the MD65 to connect to a PC running V*S Utilities configuration software.</p>
<p>Q: <i>What features should be emphasized on the MD65 for users who are new to variable speed drives?</i></p>	<p>A: For new users of variable speed drives, the main benefits are its low cost and its ease-of-use. The MD65 has very good out-of-the-box performance, and with a simple feature set, can be easily understood and set up. Benefits of variable speed versus fixed-speed include:</p> <ul style="list-style-type: none"> • Improved process control including flow and pressure regulation • Reduced wear on mechanical components due to inherent soft start with ramped accel • Wide operating speeds to meet varying demand requirements • Constant power factor across the speed and load range • Energy savings due to the benefit of running at variable speeds at lower load currents
<p>Q: <i>What features should we emphasize against our competition?</i></p>	<p>A: The MD65 is a very competitive product against similar products, in price, features, and performance. Reliance Electric has a strong reputation for pre-sale and post-sale technical support. Reliance Electric motors and drives, along with Dodge gears, provide a complete line of power transmission equipment. Feature benefits of the MD65:</p> <ul style="list-style-type: none"> • The drive has as standard an integral keypad for easy setup • The drives have integral dynamic braking control, so that only a resistor needs to be connected to the drive to regulate regenerative motor conditions • Good Sensorless Vector speed control and torque production at speeds as low as 1Hz • The same simple parameter grouping used in the MD60

	<ul style="list-style-type: none"> • Zero side stacking clearance for 40°C applications • Optional Nema 1/IP30 kit • Enhanced display and diagnostic parameters • DeviceNet Communication • The capability to connect to Reliance Electric's V*S Utilities for PC programming
Q: <i>How does our net distributor price compare to our competitors?</i>	A: The MD65 is competitively priced against our competition. We are not the lowest-priced offering, but we are priced below our principal competitors. The MD65 drives have robust out-of-the-box performance, excellent reliability, and provide power matched performance when used with a Reliance Electric motor. Reliance Electric drives provide users the opportunity to have a complete power transmission solution from one provider.
Q: <i>How does our net distributor price of the MD65 compare to previous pricing of the MD60?</i>	A: Our pricing is very competitive when compared to our competition and to our existing MD60 product. When you compare the advantages of Sensorless Vector, Communications and expanded analog and digital I/O, the MD65 offers great value at a small premium to the MD60. Also with the MD65 available to 10HP, you can look for more opportunities within your existing customer base.
Q: <i>What is the status of the MD60?</i>	A: The MD60 will continue as a microdrive product. Customers and applications that are served with simple V/Hz control at a competitive price point will find the MD60 an excellent solution.
Q: <i>Where should I sell the MD65 versus the SP500 and the SP600?</i>	A: The MD65 is Reliance Electric's newest microdrive and should be used when the user application needs lowest price, easy-to-use Sensorless Vector or V/Hz drives up to 10 hp. The MD65 will be very well positioned, in terms of pricing, features, and performance, to replace SP500 in IP20 and Nema 1 applications. Continue to sell the SP500 Nema 4X rated models when washdown is required. The SP600 has more features and settings, supports Sensorless Vector Control, has a removable operator interface, has provisions for several communications options, and in general, is a higher performance product across a wider horsepower range, with ratings above 10 Hp. Soon, the SP600 will be available NEMA 4 washdown up to 20HP.
Q: <i>When will the product be available from stock?</i>	A: The drives will be available from stock at Crossville in April, 2003. The MD65 will be stocked in Crossville for immediate delivery, as will the Nema 1/IP30 option kit.
Q: <i>Should distributors stock the MD65? What is the recommended level?</i>	A: For immediate delivery to OEM's and users from local stocking centers, our distributors should stock a quantity of MD65 drives based on their local OEM customers needs.
Q: <i>Who do I contact for pre-sale application support?</i>	A: Contact one of our Regional Electrical Managers or call the Reliance Electric Drives Product Marketing Department at 1-888-Drives-0 (1-888-374-8370).
Q: <i>Who do I contact for post-sale technical support?</i>	A: Contact one of our Regional Electrical Managers or call our toll free technical support line at 1-800-726-8112. Our technical support staff is available Monday through Friday on normal business days from 7:00 AM to 6:00 EST/EDT.
Q: <i>What spare parts are available?</i>	A: The MD65 is not field repairable. Units that fail within the warranty period must be returned to Reliance Electric for evaluation through the WARP online return process.
Q: <i>What is the warranty, return, and repair policy?</i>	A: MD65 drives are covered under Reliance Electric's standard warranty policy of 1 year in operation, or 18 months from date of shipment, whichever occurs first.
Q: <i>What commercial sales tools are available?</i>	A: Tools available at launch: <ul style="list-style-type: none"> • Product Brochure – RAPS-959 • Data Sheet – RAPS-960 • Question & Answer Sheet – RAPS-1033 • Competitive Comparison – RAPS-1029 • Model Number/Pricing Sheet – RAPS-1034