

# MD65

## DRIVES

### Reliance® MD65 AC DRIVES

Rockwell Automation is proud to introduce the newest sensorless vector control microdrive: The MD65. Following on the success of the MD60, the MD65 continues to establish the reliability and ease-of-use expected in the Reliance brand drives.



#### PERFORMANCE FEATURES

- Adjustable Current Limit
  - 10% - 150%
- Operator Interface Module
  - Integral Drive Mounted
- Display Lines
  - 4-Character LED Display
- Programmable Preset Speeds
  - Eight
- Analog Outputs
  - One (0 - 10vdc or 4 - 20mA)
- Auto Restart
  - Yes
- Frequency Avoidance
  - One Band
- Fault Memory
  - Three Deep
- Digital Inputs
  - Four Logic (Configurable)

#### DRIVE SPECIFICATIONS

- Analog Inputs: Two Total
  - 0 - 10vdc: One
  - 4 - 20ma: One
- Digital Outputs
  - Two Opto-coupled (Configurable)
- Relay Outputs
  - One Form C (Configurable)
- Meter Outputs
  - 0-10vdc: One Analog Usable for Meter (Configurable)
- Maximum Load:
  - 15 HP @ 600 VAC
- Overload Capacity
  - Drive Output 150% for One Minute, 200% for Three Seconds
- Frequency Accuracy
  - Digital Keypad: +/- 0.5% of Set Output
  - Digital Keypad: +/- 0.5% of Maximum Output Frequency

- Input Voltage Tolerance
  - Typically +/- 10%
- Rated Input Frequency
  - 50/60 Hz (47 - 63 Hz Range)
- Carrier Frequency:
  - 2 - 16kHz (4kHz default)
- Operating Temperature:
  - -10° to 50°C (IP20)
- Snubber (Dynamic Braking):
  - BuiltIn Transistor
- Dynamic Braking External:
  - Resistor Terminals or DC Bus for Snubber Kit
- DC Braking:
  - Included
- Voltz/Hz
  - Custom V/Hz Curve
  - Speed Regulation: +/- 2% of motor base speed
  - 40:1 Operating Speed Range
- Sensorless Vector:
  - With Autotune
  - Speed Regulation: +/- 1% of motor base speed
  - 60:1 Operating Speed Range
- Frequency Control Range:
  - 0 - 400 Hz
- Accel/Decel:
  - Independently Adjustable: Two
- Time Range:
  - 0.1 to 600 Seconds
- S Curve Acceleration
  - Yes
- Din Rail Mount
  - Yes on B Frame
- Integral Speed Pot
  - Yes
- Sink/Source Inputs
  - Selectable, 24vdc Logic
- Electronic Overload Trip
  - Electronic Motor Overload Class 10 Protection

- Communication Option Card
  - DeviceNet™
  - EtherNet/IP
  - Profibus™
- Serial Communications
  - RS-485 Included for Optional PC Interface Program
- PID Control
  - Included
- StepLogic™
  - Timers, Counters & Sequence Logic Program

#### PROTECTIVE FEATURES

- Power Loss Ride Through
  - 500 Milliseconds
- Under Voltage
  - Level Depends on Voltage Class (240, 480, or 575)
- Ground Fault
  - Phase-to-Ground on Drive Output
- Output Short Circuit
  - Phase-to-Phase on Drive Output
- Over Temperature
  - Heatsink Monitor
- Output Voltage
  - DC Bus
- Drive Overload
  - Exceed Drive rating of 150% for One Minute
- Over Current
  - Hardware Overcurrent Circuit, Software Overcurrent Fault

#### AGENCY CERTIFICATIONS

- > Listings
  - UL, cUL, CE, C-Tick

✓ Pulp & Paper

✓ Aggregate

✓ Unit Handling

✓ Cement

✓ Nuclear

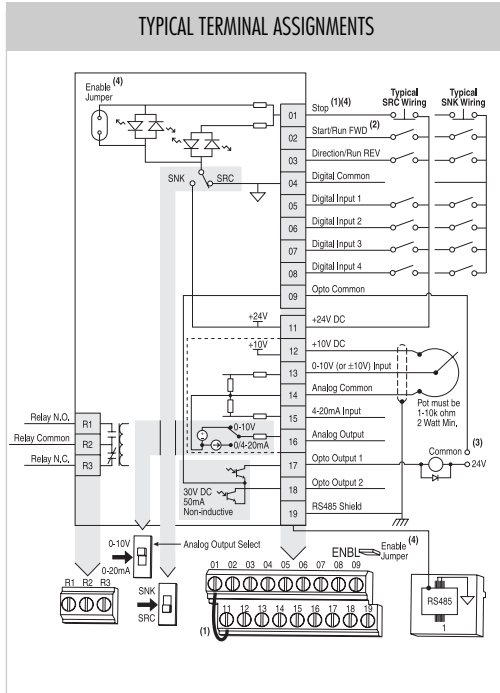
✓ Petro-Chem

Food & Beverage

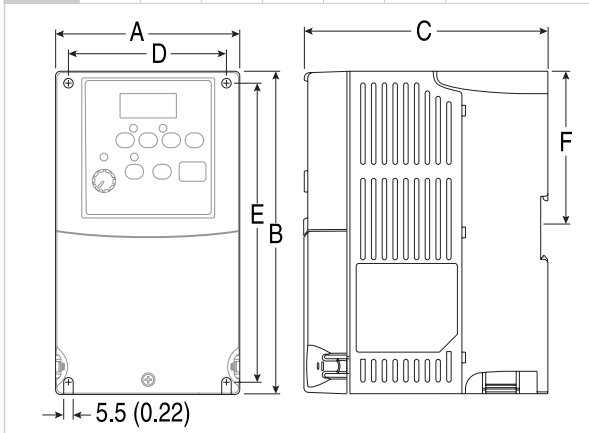
✓ Mining

✓ Entertainment

## DIMENSIONS AND TYPICAL TERMINAL ASSIGNMENTS



Frame	A	B	C	D	E	F	Shipping Weight lbs (kg)
in (B mm)	3.94 (100)	7.09 (180)	5.35 (136)	3.43 (87)	6.61 (168)	3.44 (87.4)	4.9 (2.2)
in (C mm)	5.1 (130)	10.2 (260)	7.1 (180)	4.57 (116)	9.7 (246)		9.5 (4.3)



Input Voltage	kW	HP	Output Current	Model Number	Frame
120V 50/60 Hz 1-Phase	0.4	0.5	2.3A	6MDVN-2P3102	B
	0.75	1	5.0A	6MDVN-5P0102	B
	1.1	1.5	6.0A	6MDVN-6P0102	B
240V 50/60 Hz 1-Phase	0.4	0.5	2.3A	6MDAN-2P3112	B
	0.75	1	5.0A	6MDAN-5P0112	B
	1.5	2	8.0A	6MDAN-8P0112	B
	2.2	3	12.0A	6MDAN-012112	C
240V 50/60 Hz 1-Phase	0.4	0.5	2.3A	6MDAN-2P3102	B
	0.75	1	5.0A	6MDAN-5P0102	B
	1.5	2	8.0A	6MDAN-8P0102	B
	2.2	3	12.0A	6MDAN-012102	C
240V 50/60 Hz 3-Phase	0.4	0.5	2.3A	6MDBN-2P3102	B
	0.75	1	5.0A	6MDBN-5P0102	B
	1.5	2	8.0A	6MDBN-8P0102	B
	2.2	3	12.0A	6MDBN-012102	B
	3.7	5	17.5A	6MDBN-017102	B
	5.5	7.5	24	6MDBN-024102	C
	7.5	10	33	6MDBN-033102	C
480V 50/60 Hz 3-Phase	0.4	0.5	1.4A	6MDDN-1P4102	B
	0.75	1	2.3A	6MDDN-2P3102	B
	1.5	2	4.0A	6MDDN-4P0102	B
	2.2	3	6.0A	6MDDN-6P0102	B
	4	5	10.5A	6MDDN-010102	B
	5.5	7.5	12.0A	6MDDN-012102	C
	7.5	10	17	6MDDN-017102	C
600V 50/60 Hz 3-Phase	0.75	1	1.7A	6MDEN-1P7102	B
	1.5	2	3.0A	6MDEN-3P0102	B
	2.2	3	4.2A	6MDEN-4P2102	B
	4	5	6.6A	6MDEN-6P6102	B
	5.5	7.5	9.9A	6MDEN-9P9102	C
600V 50/60 Hz 3-Phase	7.5	10	12.2A	6MDEN-012102	C
	11.1	15	19.0A	6MDEN-019102	C

For more information on the new MD65 drive, contact your authorized Reliance brand distributor or log onto [www.reliance.com](http://www.reliance.com)



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