

MD Series Features + Specifications

- Dual Voltage 120/240 VAC, 50/60Hz
 - Full HP rated - no auxiliary heat sink required
 - 85-250VAC line voltage operating range
 - Closed loop - $\pm 0.1\%$ regulation*
 - Encoder required - See Dart PU Series
 - Barrier terminal strip - optional plug terminal strip
 - Full wave bridge supply
 - Configurable Minimum & Maximum speed
 - Configurable Linear Acceleration and Deceleration
 - Programmable display units
 - Non-volatile memory retains custom programming
 - Program lockout safety feature
 - Custom user program memory storage & retrieval
 - -10° to $+45^{\circ}$ C ambient temperature
 - 100:1 speed range
 - Overload capacity: 200% for one minute
 - Transient voltage protection
 - Configurable alarms with Form C relay output
 - Inhibit circuit—permits low power start & stop
 - Suitable for wash down applications
- * Sensor PPR/application dependent

Model	Width	Length	Depth	Weight
MD10P/ MD40P ¹	3.62 in [9.19 cm]	1.66 in [4.21 cm]	4.63 in [11.75 cm]	1.32 lb [0.60 kg]
MD3P/ MD50P ²	3.62 in [9.19 cm]	3.50 in [8.88 cm]	4.63 in [11.75 cm]	2.17 lb [0.98 kg]
MD3E/ MD50E	5.13 in [13.03 cm]	7.40 in [18.80 cm]	3.90 in [9.91 cm]	2.19 lb [0.99 kg]

1 – Front bezel is 4.54 x 2.29 in. 2 - Front bezel is 4.54 x 4.18 in.



Optimized for use with
the Dart PU Series Speed Sensor

Base Model [MD Series] ¹						Options					
Model	Supply Voltage	Motor Voltage	Current	HP	Body	-P	-1	OPT3	-9	OPT51	-420
MD10P	120 VAC	90 VDC	5 ADC	1/8-1/2	P	F	F	✓	F	N/A	N/A
	240 VAC	180 VDC		1/4-1							
MD3P	120 VAC	90 VDC	10 ADC	1/8-1	P	F	F	✓	F	N/A	N/A
	240 VAC	180 VDC		1/4-2							
MD3E	120 VAC	90 VDC	10 ADC	1/8-1	E	F	F	✓	F	N/A	N/A
	240 VAC	180 VDC		1/4-2							

Base Model [MD Plus Series] ²						Options					
Model	Supply Voltage	Motor Voltage	Current	HP	Body	-P	-1	OPT3	-9	OPT51	-420
MD40P*	120 VAC	90 VDC	5 ADC	1/8-1/2	P	N/A	N/A	✓	N/A	✓	✓
	240 VAC	180 VDC		1/4-1							
MD50P*	120 VAC	90 VDC	10 ADC	1/8-1	P	N/A	N/A	✓	N/A	✓	✓
	240 VAC	180 VDC		1/4-2							
MD50E*	120 VAC	90 VDC	10 ADC	1/8-1	E	N/A	F	✓	N/A	✓	✓
	240 VAC	180 VDC		1/4-2							

P – Panel mount
E – NEMA 4 enclosed

✓ - Option is available
F – Option is available as Factory Installed only

N/A – Option Not available

* PU-40 sensor is recommended for these models

1 - A minimum 500 and maximum 50,000 pulses/min sensor feedback for proper operation

2 - A minimum 500 and maximum 600,000 pulses/min sensor feedback for proper operation

Option Description:

- P: Plug-style terminal strip for ability to remove all wires / harness connection easily
- 1: Provision for external set of Up/Dn push buttons
- OPT3: Option card that boosts signal from 2-wire (non-powered) magnetic proximity sensors
- 9: Blank front bezel overlay (all references to Dart removed) - '9' models only
- OPT51: RS485 Serial Communication card. Factory installed in MD50E - field installed only in MD40P and MD50P
- 420: 4-20mA isolated input/output card. Factory installed only MD50E; factory or field installed MD40P/MD50P. Does NOT supply loop power