

Unidrive M100 AC Drives

Value drive with quality and performance for open loop applications



Unidrive M100 Frame Size 1

The Unidrive M100 series was developed in response to increasing customer requests for an easy-to-use, compact, cost-effective general purpose AC drive. This drive provides outstanding V/Hz and open loop vector performance up to 10 HP, has a bright, easy to read LED keypad and has an optional parameter copy device. The Unidrive M101 variant features an LED keypad with a speed reference potentiometer.

Quick and easy to install and configure

- Simple and easy to read high brightness LED keypad as standard
- 6 operator buttons make the M100 easy to program and use
- Top ten level 1 parameters listed on the drive's front cover allows for easy on-the-spot reference for drive setup and maintenance

Enhanced motor control

- Flexible control features including 8 preset speeds, 7 stopping modes with DC injection braking and catch a spinning motor
- Quadratic motor V/Hz control optimizes multi-motor fan and pump operation.
- Dynamic motor V/Hz control optimizes energy savings
- Open loop vector control with true space vector modulation is a precise control algorithm that provides full torque down to 1 Hz
- Simple speed control for conveyors, fans, pumps, and mixers

Key data

Heavy Duty Ratings:	0.33 HP to 10 HP (0.25 kW to 7.5 kW)
Normal Duty Ratings:	0.33 HP to 10 HP (0.25 kW to 7.5 kW)
Supply phases:	Frame size 1 and 2: 110 V drives 1Ø, 230 V drives 1Ø or 3Ø; Frame size 7 and larger 3Ø; 460, 575 and 690 V drives 3Ø
Control connections:	1x Analog Input, 4x Digital I/O, 1x Relay
Drive rating:	IP21 / UL open class as standard
Keypad:	M100: Fixed LED; M101: Fixed LED, with a keypad mounted potentiometer
Parameter cloning via:	PC tools, SD card

Voltage ratings	
100 / 120 VAC ± 10%	✓
200 / 240 VAC ± 10%	✓
380 / 480 VAC ± 10%	✓
Control mode	
Open loop vector or V/Hz induction motor control	✓

How to select a drive (Consult online catalog for complete drive information)

1. Electrical Considerations

- What is the supply voltage?
- Single or 3Ø input power?
- What is the motor rating?
 - Continuous current – FLA (Full Load Amps)
 - Select the drive based on motor Amps rather than horsepower

2. Load Type (choose one)

- Normal Duty: Peak current is 110% of drive rating (fans, pumps, etc.)
- Heavy Duty: Peak current is 150% (mixers, conveyors, etc.)

3. Drive Mechanical Mounting

- Panel mounting – as standard
- Wall mounting – UL conduit kits are available



Visit www.Drive-Setup.com for step by step guides, videos, software & product support documentation.



Order Information & Ratings

115 VAC, Single Phase 50/60 Hz Input, 230 VAC 3-Phase Output					
Order Code*		Normal Duty		Heavy Duty	
M100	M101	HP	Amps	HP	Amps
M100-01100017A	M101-01100017A	0.33	1.7	0.33	1.7
M100-01100024A	M101-01100024A	0.5	2.4	0.5	2.4
M100-02100042A	M101-02100042A	1	4.2	1	4.2
M100-02100056A	M101-02100056A	1.5	5.6	1.5	5.6

230 VAC, Single Phase Input, 3-Phase Output, 50/60 Hz Input					
Order Code*		Normal Duty		Heavy Duty	
M100	M101	HP	Amps	HP	Amps
M100-01200017A	M101-01200017A	0.33	1.7	0.33	1.7
M100-01200024A	M101-01200024A	0.5	2.4	0.5	2.4
M100-01200033A	M101-01200033A	0.75	3.3	0.75	3.3
M100-01200042A	M101-01200042A	1	4.2	1	4.2
M100-02200024A	M101-02200024A	0.5	2.4	0.5	2.4
M100-02200033A	M101-02200033A	0.75	3.3	0.75	3.3
M100-02200042A	M101-02200042A	1	4.2	1	4.2
M100-02200056A	M101-02200056A	1.5	5.6	1.5	5.6
M100-02200075A	M101-02200075A	2	7.5	2	7.5
M100-03200100A	M101-03200100A	3	10	3	10
M100-04200133A	M101-04200133A	3	13.3	3	13.3

230 VAC, Three Phase Input, 3-Phase Output, 50/60 Hz Input					
Order Code*		Normal Duty		Heavy Duty	
M100	M101	HP	Amps	HP	Amps
M100-02200024A	M101-02200024A	0.5	2.4	0.5	2.4
M100-02200033A	M101-02200033A	0.75	3.3	0.75	3.3
M100-02200042A	M101-02200042A	1	4.2	1	4.2
M100-02200056A	M101-02200056A	1.5	5.6	1.5	5.6
M100-02200075A	M101-02200075A	2	7.5	2	7.5
M100-03200100A	M101-03200100A	3	10	3	10
M100-04200133A	M101-04200133A	3	13.3	3	13.3
M100-04200176A	M101-04200176A	5	17.6	5	17.6

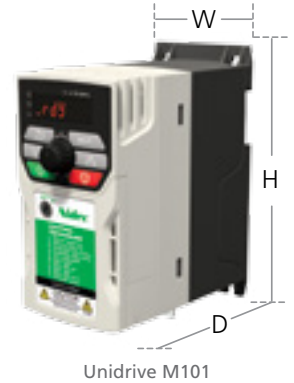
460 VAC, Three Phase Input, 3-Phase Output, 50/60 Hz Input					
Order Code*		Normal Duty		Heavy Duty	
M100	M101	HP	Amps	HP	Amps
M100-02400013A	M101-02400013A	0.5	1.3	0.5	1.3
M100-02400018A	M101-02400018A	0.75	1.8	0.75	1.8
M100-02400023A	M101-02400023A	1	2.3	1	2.3
M100-02400032A	M101-02400032A	1.5	3.2	1.5	3.2
M100-02400041A	M101-02400041A	2	4.1	2	4.1
M100-03400056A	M101-03400056A	3	5.6	3	5.6
M100-03400073A	M101-03400073A	3	7.3	3	7.3
M100-03400094A	M101-03400094A	5	9.4	5	9.4
M100-04400135A	M101-04400135A	7.5	13.5	7.5	13.5

*Add 10101AB100 to the base order code when ordering standard US (60Hz) default products

Order String - Frame Size Key
Example: M100-XX_ _ _ _ _
XX = Frame Size (01-04 above)

Dimensions & Weights

Frame Size	Dimensions H x W x D (in)	Weight (lbs)
01	6.3 x 3.0 x 5.1	1.7
02	8.1 x 3.1 x 5.9	2.2
03	8.9 x 3.5 x 6.3	3.3
04	10.9 x 4.5 x 6.9	6.9



OPTIONS AT-A-GLANCE

Option	Description	Order Code
Drive Configuration	Parameter cloning 4GB	AI-SMART-ADAPTOR
	Parameter cloning (requires an SD card)	AI-BACKUP-ADAPTOR
	8GB SD card	CTSD8GB
Power Accessories	External EMC filter	See Unidrive M: General Purpose AC Drives brochure
	Line & load reactors	
	Dynamic braking resistors	
Environmental Protection & Cable Management	UL Type 1 conduit kits	See Unidrive M: General Purpose AC Drives brochure
	Retrofit for Commander SK	
	Fan replacement kits	

See the Unidrive M: General Purpose AC Drives brochure for our full product offering.

Diagnostic Software

Our **Drive Diagnostics APP** allows users to quickly diagnose faults. In the unlikely event that you get a drive error, download our complimentary Diagnostics Tool app. Just input the error code on your device and you'll be given a solution.

Download our Diagnostics Tool App at:
www.controltechniques.com/mobile-applications



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