

## Flexible machine integration through communications and onboard PLC




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# UNIDRIVE M: STEP BY STEP GUIDE

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Please select drive



UNIDRIVE M800000



UNIDRIVE M800000



UNIDRIVE M800



UNIDRIVE M800

Visit [www.Drive-Setup.com](http://www.Drive-Setup.com) for step by step guides, videos, software & product support documentation.

### Enhance up-time and system flexibility

- ## High performance open loop motor control

- ## Key data

Normal Duty Ratings: 0.33 hp to 200 hp (0.25 kW to 132 kW)

Control connections: 3x Analog I/O, 5x Digital I/O, 1x Relay

Drive rating: IP21 / UL open class as standard

Keypad: Fixed LED

Option slots: 1 (frame size 2 and above)

Parameter cloning via: PC tools, SD card

## 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 180% (mixers, conveyors, etc.)

### 3. Drive Mechanical Mounting

- Panel mounting – as standard
- Wall mounting – UL conduit kits are available
- Through panel mounting – frames 5 and up

## Order Information &amp; Ratings

## 115 VAC, Single Phase 50/60 Hz Input, 230 VAC 3-Phase Output

| Unidrive M200<br>Order Code* | Normal Duty |      | Heavy Duty |      |
|------------------------------|-------------|------|------------|------|
|                              | hp          | Amps | hp         | Amps |
| M200-01100017A               | 0.33        | 1.7  | 0.33       | 1.7  |
| M200-01100024A               | 0.5         | 2.4  | 0.5        | 2.4  |
| M200-02100042A               | 1           | 4.2  | 1          | 4.2  |
| M200-02100056A               | 1.5         | 5.6  | 1.5        | 5.6  |

## 230 VAC, Single Phase Input, 3-Phase Output, 50/60 Hz Input

| Unidrive M200<br>Order Code* | Normal Duty |      | Heavy Duty |      |
|------------------------------|-------------|------|------------|------|
|                              | hp          | Amps | hp         | Amps |
| M200-01200017A               | 0.33        | 1.7  | 0.33       | 1.7  |
| M200-01200024A               | 0.5         | 2.4  | 0.5        | 2.4  |
| M200-01200033A               | 0.75        | 3.3  | 0.75       | 3.3  |
| M200-01200042A               | 1           | 4.2  | 1          | 4.2  |
| M200-02200024A               | 0.5         | 2.4  | 0.5        | 2.4  |
| M200-02200033A               | 0.75        | 3.3  | 0.75       | 3.3  |
| M200-02200042A               | 1           | 4.2  | 1          | 4.2  |
| M200-02200056A               | 1.5         | 5.6  | 1.5        | 5.6  |
| M200-02200075A               | 2           | 7.5  | 2          | 7.5  |
| M200-03200100A               | 3           | 10   | 3          | 10   |
| M200-04200133A               | 3           | 13.3 | 3          | 13.3 |

## 230 VAC, Three Phase Input, 3-Phase Output, 50/60 Hz Input

| Unidrive M200<br>Order Code* | Normal Duty |      | Heavy Duty |      |
|------------------------------|-------------|------|------------|------|
|                              | hp          | Amps | hp         | Amps |
| M200-02200024A               | 0.5         | 2.4  | 0.5        | 2.4  |
| M200-02200033A               | 0.75        | 3.3  | 0.75       | 3.3  |
| M200-02200042A               | 1           | 4.2  | 1          | 4.2  |
| M200-02200056A               | 1.5         | 5.6  | 1.5        | 5.6  |
| M200-02200075A               | 2           | 7.5  | 2          | 7.5  |
| M200-03200100A               | 3           | 10   | 3          | 10   |
| M200-04200133A               | 3           | 13.3 | 3          | 13.3 |
| M200-04200176A               | 5           | 17.6 | 5          | 17.6 |
| M200-05200250A               | 10          | 30   | 7.5        | 25   |
| M200-06200330A               | 15          | 50   | 10         | 33   |
| M200-06200440A               | 20          | 58   | 15         | 44   |
| M200-07200610A               | 25          | 75   | 20         | 61   |
| M200-07200750A               | 30          | 94   | 25         | 75   |
| M200-07200830A               | 40          | 117  | 30         | 83   |
| M200-08201160A               | 50          | 149  | 40         | 116  |
| M200-08201320A               | 60          | 180  | 50         | 132  |
| M200-09201760x**             | 75          | 216  | 60         | 176  |
| M200-09202190x**             | 100         | 266  | 75         | 219  |

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

\*\*x= A or E (9E frame requires an external AC Line Reactor)

## 460 VAC, Three Phase Input, 3-Phase Output, 50/60 Hz Input

| Unidrive M200<br>Order Code* | Normal Duty |      | Heavy Duty |      |
|------------------------------|-------------|------|------------|------|
|                              | hp          | Amps | hp         | Amps |
| M200-02400013A               | 0.5         | 1.3  | 0.5        | 1.3  |
| M200-02400018A               | 0.75        | 1.8  | 0.75       | 1.8  |
| M200-02400023A               | 1           | 2.3  | 1          | 2.3  |
| M200-02400032A               | 1.5         | 3.2  | 1.5        | 3.2  |
| M200-02400041A               | 2           | 4.1  | 2          | 4.1  |
| M200-03400056A               | 3           | 5.6  | 3          | 5.6  |
| M200-03400073A               | 3           | 7.3  | 3          | 7.3  |
| M200-03400094A               | 5           | 9.4  | 5          | 9.4  |
| M200-04400135A               | 7.5         | 13.5 | 7.5        | 13.5 |
| M200-04400170A               | 10          | 17   | 10         | 17   |
| M200-05400270A               | 20          | 30   | 20         | 27   |
| M200-05400300A               | 20          | 30   | 20         | 30   |
| M200-06400350A               | 25          | 38   | 25         | 35   |
| M200-06400420A               | 30          | 48   | 30         | 42   |
| M200-06400470A               | 50          | 63   | 30         | 47   |
| M200-07400660A               | 60          | 79   | 50         | 66   |
| M200-07400770A               | 75          | 94   | 60         | 77   |
| M200-07401000A               | 75          | 112  | 75         | 100  |
| M200-08401340A               | 125         | 155  | 100        | 134  |
| M200-08401570A               | 150         | 184  | 125        | 157  |
| M200-09402000x**             | 150         | 221  | 150        | 180  |
| M200-09402240x**             | 200         | 255  | 150        | 211  |

\*\*x= A or E (9E frame requires an external AC Line Reactor)

## Order String - Frame Size Key

Example: M200-XX\_ \_ \_ \_ \_

XX = Frame Size (01-09 above)

## OPTIONS AT-A-GLANCE

| Option                                         | Description                                    | Order Code                                             |
|------------------------------------------------|------------------------------------------------|--------------------------------------------------------|
| Drive Configuration & Programming              | Configuration software                         | UNIDRIVE-M-CONNECT                                     |
|                                                | Drive to PC USB cable (requires a 485 adaptor) | CT-USB-CABLE                                           |
|                                                | Parameter cloning 4 GB (includes 4 GB SD card) | AI-SMART-ADAPTOR                                       |
|                                                | Parameter cloning (requires an SD card)        | AI-BACKUP-ADAPTOR                                      |
|                                                | 8 GB SD card                                   | CTSD8GB                                                |
| Operator Interfaces                            | Remote LCD display                             | REMOTE-KEYPAD                                          |
|                                                | Remote LCD display with real-time clock        | REMOTE-KEYPAD-RTC                                      |
|                                                | Remote display cable                           | UM-LCD-485-XXX****                                     |
| Input / Output***                              | Extended I/O                                   | SI-I/O                                                 |
| Communications***                              | Modbus RTU                                     | AI-485-ADAPTOR                                         |
|                                                | Modbus RTU with 24 V                           | AI-485-24V-ADAPTOR                                     |
|                                                | PROFIBUS DP                                    | SI-PROFIBUS                                            |
|                                                | DeviceNet                                      | SI-DEVICENET                                           |
|                                                | CANopen                                        | SI-CANOPEN                                             |
|                                                | PROFINET RT                                    | SI-PROFINET-V2                                         |
|                                                | EtherCAT                                       | SI-ETHERCAT                                            |
| Application Programming Software & Diagnostics | EtherNet/IP, Modbus TCP                        | SI-ETHERNET                                            |
|                                                | PLC programming                                | MACHINE-CONTROL-STUDIO                                 |
| Power Accessories                              | Digital oscilloscope                           | CTSCOPE                                                |
|                                                | External EMC filter                            | See the Unidrive M: General Purpose AC Drives brochure |
|                                                | Line & load reactors                           |                                                        |
| Environmental Protection & Cable Management    | Dynamic braking resistors                      |                                                        |
|                                                | UL Type 1 conduit kits                         |                                                        |
|                                                | Retrofit for Commander SK                      |                                                        |
|                                                | Fan replacement kits                           |                                                        |

\*\*\*frame sizes 2 and up accept 1 SI option

\*\*\*\*Shielded RS485 patch cable, CAT5e, conductive metal RJ45 connectors, XXX=cable length in 5 foot increments (max 330 ft), standard lengths are (005, 010, 015, 025 and 050)

See the Unidrive M: General Purpose AC Drives brochure for our full product offering including 575 V and 690 V solutions.



CONTROL TECHNIQUES™

## Dimensions &amp; Weights

| Frame Size | Dimensions<br>H x W x D (in) | Weight<br>(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             |
| 05         | 15.4 x 5.6 x 7.9             | 16.3            |
| 06         | 15.4 x 8.3 x 9.0             | 30.9            |
| 07         | 21.9 x 10.6 x 11.0           | 61.7            |
| 08         | 31.7 x 12.2 x 11.4           | 114.6           |
| 09E        | 39.8 x 12.2 x 11.4           | 101.4           |
| 09A        | 43.6 x 12.2 x 11.4           | 146.6           |

Additional distance should be added to the height dimension (H) when the AI options are fitted.



## 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](http://www.controltechniques.com/mobile-applications)

