

# Unidrive M200 AC Drives

## Flexible machine integration through communications and onboard PLC



Unidrive M200 Frame Size 1

The Unidrive M200 delivers benchmark functionality at no added cost to the base drive itself. Plug-in options, dynamic performance, PLC functionality and other advanced features such as industrial standard fieldbuses, Ethernet, and Modbus RTU communications ensure that in more complex applications Unidrive M200 can deliver more than the average general purpose drive - giving you lower cost solutions and better productivity in your motor control applications.

### Enhance up-time and system flexibility

- Flexible system integration and remote diagnostics through optional industrial Ethernet and fieldbus communication
- Flexible I/O that is expandable with SI-I/O option module
- Enhanced functionality and onboard PLC programming provides a low-cost system solution, minimizing the need for additional equipment such as PLCs

### High performance open loop motor control

- RFC-A (Rotor Flux Control) algorithm for exceptional induction motor control of demanding applications
- Closed loop current control without a position feedback device
- Speed control for conveyors, fans, pumps, and mixers, where their function are controlled remotely with fieldbus or Ethernet communications

### Key data

Heavy Duty Ratings:	0.33 hp to 150 hp (0.25 kW to 110 kW)
Normal Duty Ratings:	0.33 hp to 200 hp (0.25 kW to 132 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:	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

Voltage ratings	
100 / 120 VAC ± 10%	✓
200 / 240 VAC ± 10%	✓
380 / 480 VAC ± 10%	✓
500 / 575 VAC ± 10%	✓
500 / 690 VAC ± 10%	✓
Control mode	
Open loop vector or V/Hz induction motor control	✓
Open loop Rotor Flux Control for induction motors (RFC-A)	✓

### 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



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



Order Information & Ratings

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

115 VAC, Single Phase 50/60 Hz Input, 230 VAC 3-Phase Output				
Unidrive M200 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 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 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)

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
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 free 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)



460 VAC, Three Phase Input, 3-Phase Output, 50/60 Hz Input				
Unidrive M200 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
Operator Interfaces	Parameter cloning (requires an SD card)	AI-BACKUP-ADAPTOR
	8 GB SD card	CTSD8GB
	Remote LCD display	REMOTE-KEYPAD
Input / Output***	Remote LCD display with real-time clock	REMOTE-KEYPAD-RTC
	Extended I/O	SI-I/O
Communications***	Remote display cable	UM-LCD-485-XXX****
	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
Application Programming Software & Diagnostics	EtherCAT	SI-ETHERCAT
Power Accessories	EtherNet/IP, Modbus TCP	SI-ETHERNET
	PLC programming	MACHINE-CONTROL-STUDIO
	Digital oscilloscope	CTSCOPE
Environmental Protection & Cable Management	External EMC filter	See the Unidrive M: General Purpose AC Drives brochure
	Line & load reactors	
	Dynamic braking resistors	
Environmental Protection & Cable Management	UL Type 1 conduit kits	See the Unidrive M: General Purpose AC Drives brochure
	Retrofit kits 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)

