



MAC34-1 / MAC34-2



Technical specifications

	MAC34-1	MAC34-2Z
Power supply :	22 to 80 VDC	22 to 160 VDC
Holding torque :	6 Nm	9 Nm
Maximum speed :	4500 rpm	4500 rpm
Maximum mechanical power :	350 W	950 W
Resolution :	10 000 positions per rotation	
Digital input :	Reference/Clock, Init./Direction, end sensor+, - (Opto-isolated)	
Digital output :	Busy, Défaut, (Opto-isolated)	
Encoder output :	Differential A, /A, B, /B	
Driving modes :	•RS232C, at 9600, 19200, 38400 bd, Multiaxis configuration is possible. •CANopen, DS301, version 4.0. •Clock/Direction •Profibus	
Rotor inertia :	2,7 kg.cm ²	4,05 kg.cm ²
Attachment :	NEMA 34, shaft diameter 12 mm	
Weight motor :	3,7 kg	5 kg

Options

- DrvCom.dll (Part number DRVMAC)

This is a communication driver which provides access, in the form of a 32 bits DLL, to all functions required for dialoguing with MAC 23 (and/or MAC34). For example, it can be used with C++, Labview, Delphi, Visual Basic...

- Ballast MAC34 (Part number MACB34)

Enables breaking of important inertial loads

- Power supply On request
- Planetary Gearbox PLE80 et P81, Ratios 3 to 512
- Motor Protection up to IP 68 On request

Certifications

-  Mark
- All printed circuit boards equipping the products midi ingénierie are UL .

MAC34 is a fully digital intelligent brushless axis: on one hand a brushless motor with encoder; on other hand power electronics and a microprocessor position control unit in a closed box.

This motorization system, with high holding torque at zero speed, has a wide speed range and a high resolution. It can be driven in position, torque, speed or acceleration. Unlike with traditional brushless motors, this system doesn't need any feedback correction. The motor shaft is mounted on ball bearings and thanks to the brushless rotor, is a high reliability system.

A high optimization from the electronics enables a very simple using : no complex calculation, no complicated wiring.

This digital axis communicates via a RS232C serial link, or via a CAN bus interface, or via Profibus dp with your PC or your PLC.

Control is made easy by MACSIM software, which is supplied with the system (PC Windows 95/98/NT). In option, the communication driver for Windows 9x/XP can be purchased : DrvCom.dll.

References

MAC341 (MAC34-1 RS232C)
 MAC341-C (MAC34-1 CAN)
 MAC341-P (MAC34-1 Clock/Direction with RS232C)
 MAC341-PC (MAC 34-1 Clock/Direction with CAN)
 MAC341-PRO (MAC34-1 Profibus)
 MAC342 (MAC34-2 RS232C)
 MAC342-C (MAC34-2 CAN)
 MAC342-P (MAC34-2 Clock/Direction with RS232C)
 MAC342-PC (MAC34-2 Clock/Direction with CAN)
 MAC342-PRO (MAC34-2 Profibus)
 DRVMAC (DrvCom.dll)
 MACB34 (Ballast MAC34)
 PLE80-i (Precision planetary gearbox, reduction ratio i)
 Power Supply from 320 to 1000W available

MACSIM software

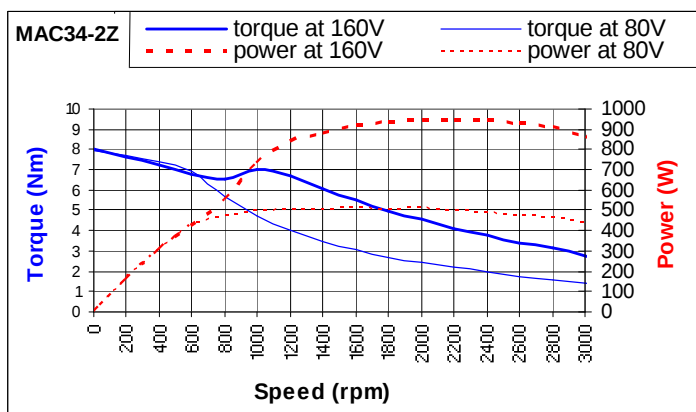
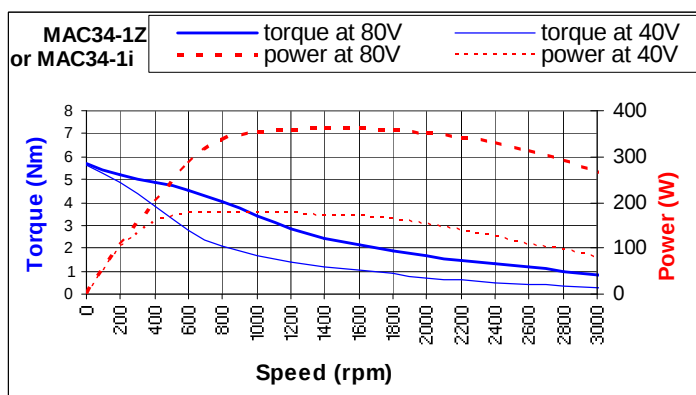


The MACSIM software, supplied with MAC34, is an utility for PC Windows 95/98 or NT.

It allows to drive direct motions on one or more MAC34. It also can be used to program the motion parameters (torque, speed, acceleration...) and to read all datas (position, motion parameters, module state...).

This utility simplifies development of your application .

Torque/speed characteristics

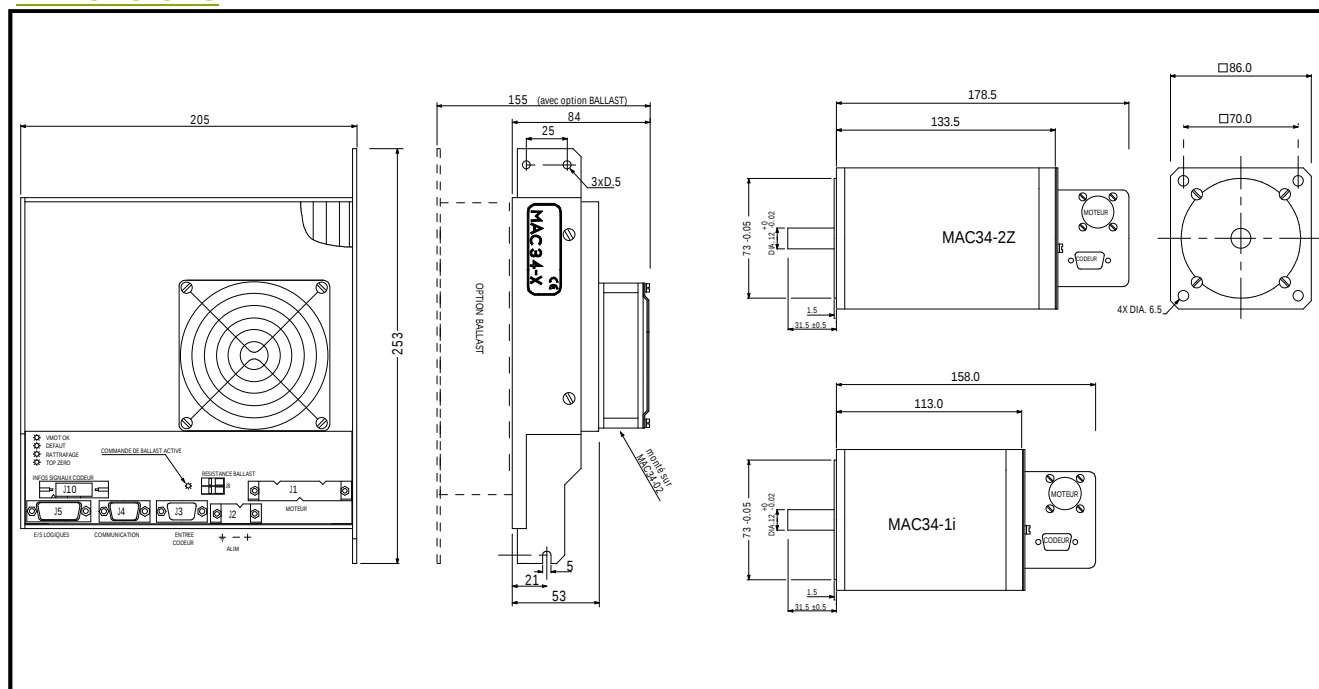


Commands

For speed command, parameter is given in 1/10 rpm.
 For position command, parameter is given in 1/10000 rotation.
 In a multiaxis configuration, command must be preceded by the module address.

am06	Programs the module address at the value 06
bn-56400	Defines software end sensor- at -56400
bp+8000	Defines software end sensor+ at +8000
di	Puts position counter at zero (Home)
dg10	Position tolerance ± 10 inc
ga+5000	Motion to the absolute position +5000
ge	Stop with deceleration
gf+3200	Endless motion at 320 rpm
gh	Return Home
gi 68	Motor torque = 68% Cmax
gm	Motor power ON
gr	Motor power OFF
gs	Immediate stop
gt1200 900	Interpolation Segment +1200 increments at 90 rpm
mb	Enables software and hardware end sensors
mbr	Enables hardware end sensors only
mbs	Enables software end sensors only
mn	Disables software and hardware end sensors
mr	Reset
mrz	Return to factory configuration
msn	Forced nominal torque
mss	Automatic commutation standby/nominal torque
mza	Enables Reference input
mzi	Disables Reference input
wl 40	Defines the unlock speed at 4 rpm
wx 2500 30	Defines the speed profile (Speed 250 rpm, Acceleration and deceleration time 30ms)
ws	Waiting for the synchronization signal
sy	Synchronization signal
qa	Reads secondary parameters
qb	Reads software en sensors
ql	Reads main parameters
qp	Reads position
qv	Reads software version
qx	Reads module state

Dimensions



Tél.: +33 (0)5 61 39 96 18

Fax.: +33 (0)5 61 39 17 58

midi ingénierie

Route de Baziège
 Immeuble « Le Memphis » BP 48308
 31683 Labège Cedex FRANCE

Mail : mail@midi-ingenierie.com
 Web : <http://www.midi-ingenierie.com>