



BRUSHLESS SERVODRIVES

Advantages

TDE MACNO digital brushless drives are the result of a significant experience in the design and development of products for industrial automation.

» EASE-OF-USE AND EASY SET UP

Thanks to the automatic functions, such as auto phasing of the resolver and auto tuning of the motor, TDE MACNO' s products are easy to adjust to any kind of motor type. The programming software from PC allows a rapid and precise use of all the operations and makes the set-up easy and extremely quick.

» ADVANCED CHARACTERISTICS

The control software enables particular functions such as electronic gearing, multi positioning, cams, etc. and a wide flexibility in the control of the motor. The advanced control system of the speed and current loop allows high dynamic performances.

» PARAMETER SETTING SOFTWARE

The programming software, developed in Windows operating system, leads the user to the programming of the drive: it displays all the set-up and control parameters and enables customised solutions.

» SMALL IN SIZE

As a result of an accurate research TDE MACNO has developed compact drives, which bring substantial space savings in the installation.

» FLEXIBILITY AND CUSTOMISED SOLUTIONS

Based on our experience as application and systems engineers for industrial automation we provide our know-how to realise in a flexible way customised solutions for the specific needs of the customers.

» RELIABILITY

Since its establishment in 1976 TDE MACNO has been designing and developing comprehensive and straight forward solutions to a wide variety of industrial automation applications. We have a strong commitment to the continuous development of high quality and reliable solutions. This has made TDE MACNO your reliable partner.

BRUSHLESS SERVODRIVE

DMBL is a small size digital converter for sinusoidal brushless motors. Thanks to its high dynamic response, DMBL is suitable for a wide range of applications.

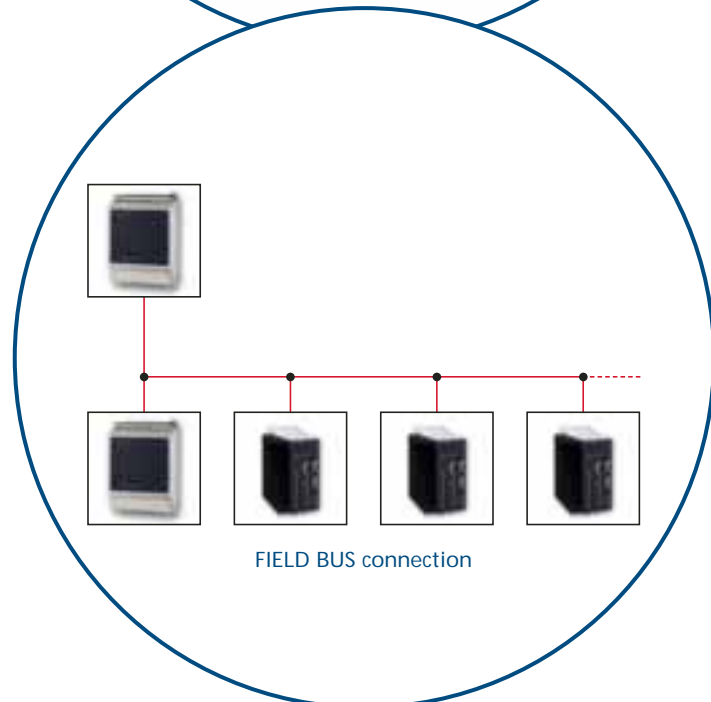
MAIN FEATURES

SPECIAL FUNCTIONS

- » Resolver auto phasing
- » Current loop gain automatic calibration according to motor inductance (motor auto tuning)
- » Resolver resolution self-adjustment to maximize precision in the whole speed range
- » Configurable simulated encoder output from 64 to 4096 ppr (line driver)
- » Backup power supply
- » Monitor software under Windows for parameters setting and monitoring
- » Possibility to set speed
- » Electrical gearing and master/slave function
- » Multipositioner: 12 full programmable positions
- » Programmable profiles
- » Digital potentiometer for setting speed ratio in master/slave function
- » Step motor function with space loop control
- » RS485 serial interface with Modbus protocol (baud rate 9.600÷115.200)
- » Single-phase supply for 3A and 7A sizes

OPTIONS

- » CAN BUS interface (can open compatible)
- » PROFIBUS DP interface
- » Opto isolated simulated encoder output
- » RS232 / 485 adapter for PC
- » Remote keypad for drive parameters setting and monitoring
- » Clamping resistors



DMBL SERIES

POWER

- ▶ Built in clamping circuit (external resistor)
- ▶ Built in EMC filter
- ▶ Output frequency: 0 ÷ 640 Hz
- ▶ Drive diagnostic through display or from serial line
- ▶ Three-phase, single-phase 230Vac or external DC bus supply
- ▶ Built in soft-start circuit

CONTROL AND REGULATION

- ▶ Full digital regulation
- ▶ Keypad for programming and diagnostic
- ▶ Independent ramps in the 4 quadrants
- ▶ 8 opto isolated configurable digital inputs
- ▶ 3 programmable speed references (jog)
- ▶ Inputs for speed reference:
 - analog ± 10V
 - digital: from keypad or RS485 serial line
 - frequency (encoder-like or frequency and up/down)
- ▶ Inputs for torque and current limit references:
 - analog ± 10V
 - digital: from keypad or RS485 serial line
- ▶ 3 opto isolated digital outputs
- ▶ 2 programmable analog outputs
- ▶ 1 analog output for speed monitoring

Technical data

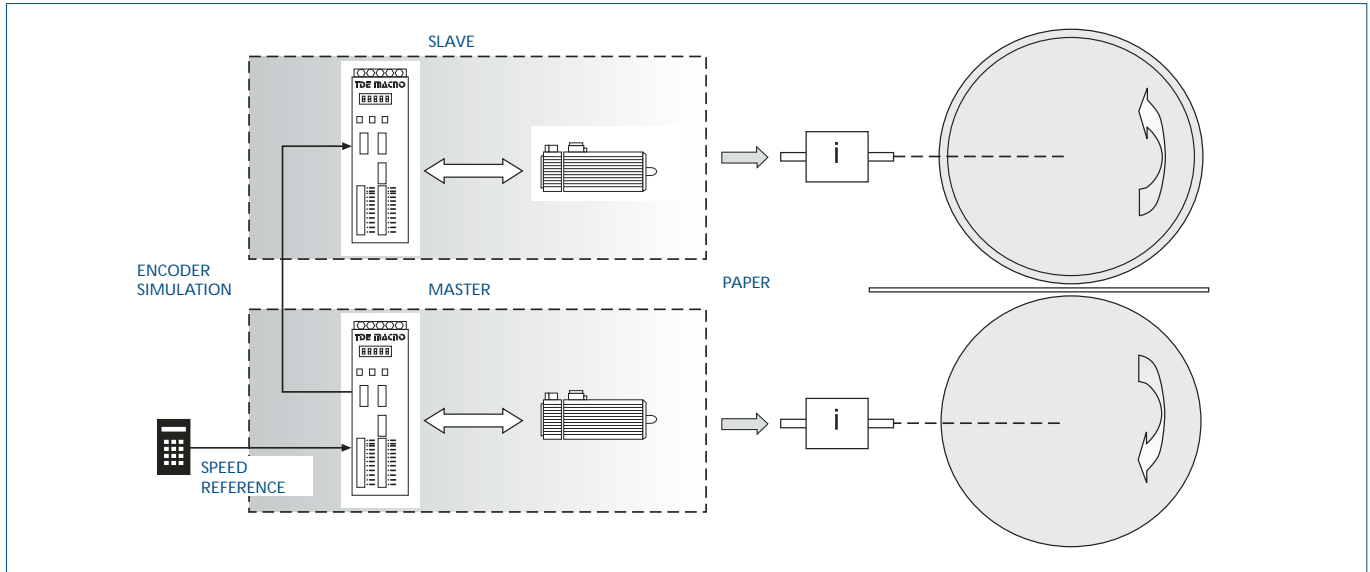
Size		DMBL 03	DMBL 07	DMBL 10	DMBL 12	DMBL 15	DMBL 20
Rated current	A rms	3	7	10	12	15	20
Peak current	A rms	6	14	20	24	30	40
Dimensions							
H= 236 P= 153 (mm)	L (mm)	108	108	128	128	148	148
H= 236 P= 153 (mm) (with field bus)		125	125	145	145	165	165

Main supply

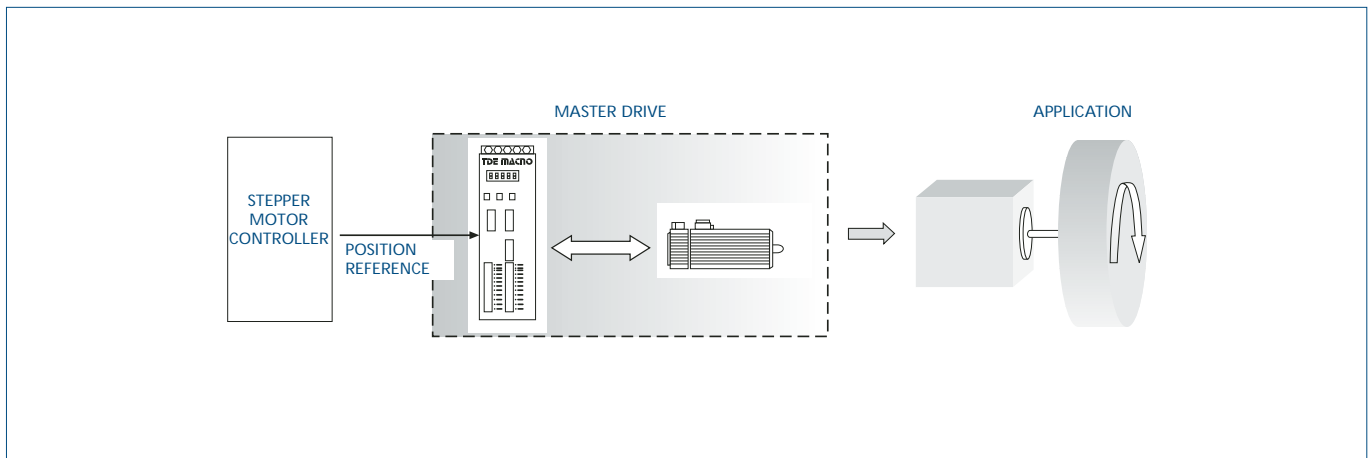
Line voltage	V a.c.	three-phase 230 Vac -15% / + 10% (single-phase 230 Vac for 3A and 7A es)
Line frequency	Hz	50 ÷ 60 ± 5%
Power supply from external DC bus		
Environment temperature	°C	0 ÷ 45

SOME APPLICATIONS

ELECTRONIC GEARING



STEPPER MOTOR FUNCTION



MULTIPOSITIONING

