Supervision units for electric motor benches ●●

The MTD series is a complete system for monitoring a 1500W motor bench. From a PC or touch screen (according to the version), the supervisor controls and observes the operation of a bench. The electrical cabinet encloses the PLC, the speed controller and the protection devices required for the supervision and control functions.
Settings and supervision software is supplied. The supervision unit is fully programmed, ready to run and open to all modifications without restriction.

General features
- Technical cabinets with braked wheels.
- High-temperature 40 mm laminated top 750 x 670 mm.
- Console, dimensions 350 x 160 x 180 mm
- Overall dimensions: 750 x 670 x (h) 1210 mm (1460 mm touch version).
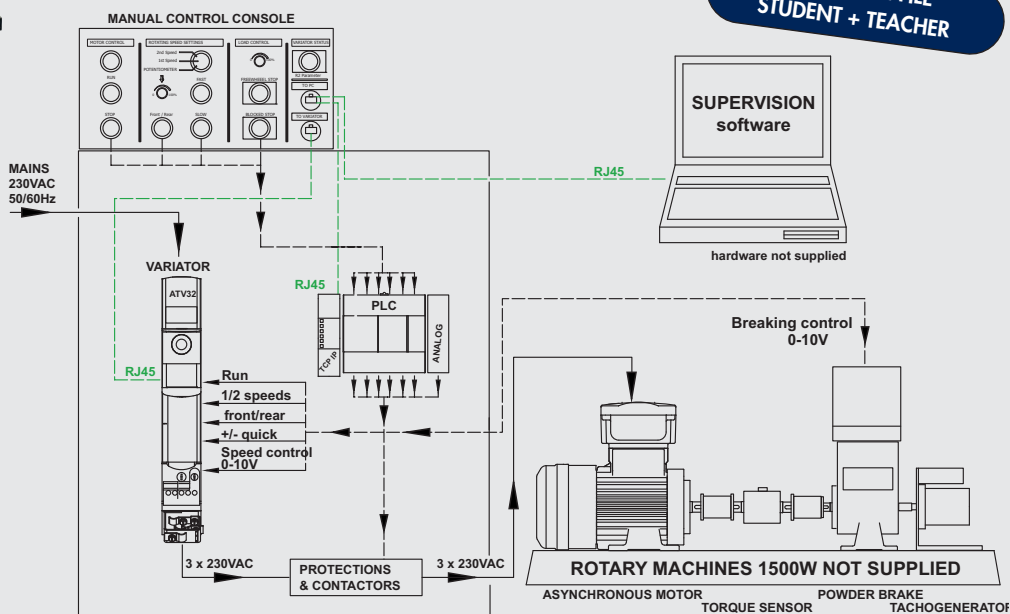- Power supply by single-phase mains cord 230V AC.

Software supplied with all versions
- SoMove: For settings on the speed controller.
- TWIDO Soft: For settings on the PLC.
- VijeoDesigner: For supervision. Fully programmed, ready to run. Modifiable to create your own supervision.

	To be combined with a 1500W motor bench (not supplied) equipped with:			To be combined with a 1500W motor bench (not supplied) equipped with:		
	Essential: 1 motor + 1 powder brake			Essential: 1 motor + 1 three-phase alternator		
	Recommended: 1 torque sensor + 1 tacho-generator			Recommended: 1 torque sensor + 1 tacho-generator		
REF	MTD1	MTD2	MTD3	MTD4	MTD5	MTD6
Controls by	Integral 10-inch touch screen	Your PC	Your PC Manual (on console)	Integral 10-inch touch screen	Your PC	Your PC Manual (on console)
Supervision by	Integral touch screen	Your PC	Your PC	Integral touch screen	Your PC	Your PC
Controls and Supervision	**On the motor** Start Stop - Speed 0 to 1600 rpm - 1st and 2nd speed of rotation - Forward/Back Operation - Speed of rotation (+ and -) - Motor overload - Display of torque and speed (if brushless torque sensor) **On the brake**: From 0 to 100% - Blocking - Free wheel **Other**: Speed controller overload			**On the motor** Start Stop - Speed 0 to 1600 rpm - 1st and 2nd speed of rotation - Forward/Back Operation - Speed of rotation (+ and -) - Motor overload - Display of torque and speed (if brushless torque sensor) **On the alternator:** Voltage variation at terminals of rotary field. **On the resistive load:** load variation from 0 to 100% in 6 steps.		
Equipment of the console	Emergency stop General Start/Stop 2 RJ45 sockets Mains socket 230V Touch screen colour	Emergency stop General Start/Stop 2 RJ45 sockets Mains socket 230V	Emergency stop - General start/stop 2 RJ45 sockets Mains socket 230V Motor, Load & Speed control	Emergency stop General Start/Stop 2 RJ45 sockets Mains socket 230V Touch screen colour	Emergency stop General Start/Stop 2 RJ45 sockets Mains socket 230V	Emergency stop - General start/stop 2 RJ45 sockets Mains socket 230V Motor, Load & Speed control
Equipment of the cabinets	• Front door, closing by 2 key locks: Control panel with indicator lights (marked PVC panel). Transparent panel: view of the speed controller and PLC information. Safety system cutting off electrical distribution if opened. • Rear door, closing by 2 key locks: Large PVC surface with complete wiring diagram. Safety terminals 4 mm and connection sockets for: - Earths - Three-phase asynchronous motor 3 x 230V AC - 1500W - Brushless torque sensor (Din. socket) - Powder brake. - Tacho-generator 0-10/20/60V for 1000 rpm • Main components Differential 30mA and magneto-thermal circuit-breakers. Contactor for motor control. TWIDO PLC with 24I/24O binary, Ethernet RJ45. Analogue board 4 Inputs 0-10V DC and 2 Outputs 0-10V DC Speed controller ATV32, 1500W - 3 x 230V AC.			• Front door, closing by 2 key locks: Control panel with indicator lights (marked PVC panel). Transparent panel: view of the speed controller and PLC information. Safety system cutting off electrical distribution if opened. • Rear door, closing by 2 key locks: Large PVC surface with complete wiring diagram. Safety terminals 4 mm and connection sockets for: - Earths - Three-phase asynchronous motor 3 x 230V AC - 1500W - Brushless torque sensor (Din. socket) - Powder brake. - Tacho-generator 0-10/20/60V for 1000 rpm • Main components Differential 30mA and magneto-thermal circuit-breakers. Contactor for motor control. TWIDO PLC with 24I/24O binary, Ethernet RJ45. Analogue board 4 Inputs 0-10V DC and 2 Outputs 0-10V DC Speed controller ATV32, 1500W - 3 x 230V AC. Power supply controlled from the PLC. Powers the rotary field. Resistive load of 2kW can be controlled from 0 to 100% of load in 6 steps.		

Schneider® tools and equipment

BLOCK DIAGRAM OF MTD3 VERSION WITH 1500W MOTOR GROUP

Vue recto MTD3

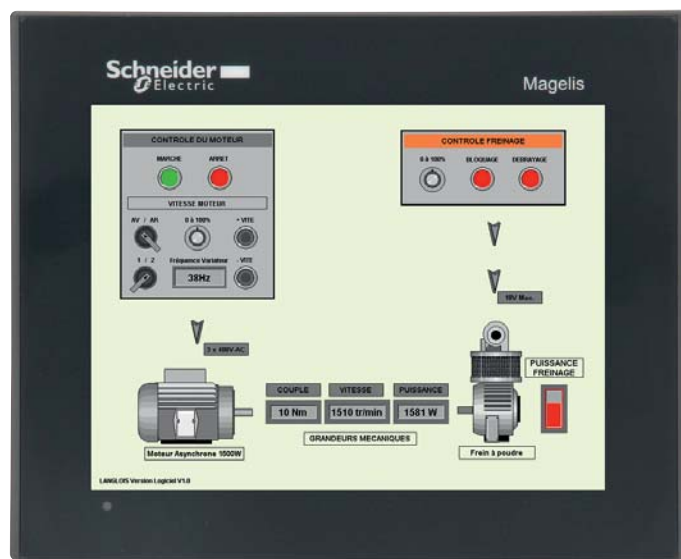Vue verso MTD3

EDUCATION FILE
STUDENT + TEACHER

MANUAL CONTROL CONSOLE

SUPERVISION software

RJ45

hardware not supplied

MAINS
230VAC
50/60Hz

VARIATOR

ATV32

RJ45

RJ45

PLC

ANALOG

Run
1/2 speeds
front/rear
+/- quick
Speed control
0-10V

Breaking control
0-10V

3 x 230VAC   PROTECTIONS & CONTACTORS   3 x 230VAC

ROTARY MACHINES 1500W NOT SUPPLIED

ASYNCHRONOUS MOTOR   TORQUE SENSOR   POWDER BRAKE   TACHOGENERATOR

EXAMPLE OF SUPERVISION ON TOUCH SCREEN OF MTD1 MODEL (MOTOR + POWDER BRAKE)

EXAMPLE OF SUPERVISION ON PC OF MTD5 MODEL MOTOR + THREE-PHASE ALTERNATOR

ACQUISITION OPTION

All the versions shown are compatible with the acquisition option.

Enables the acquisition of:
- electrical values (Voltage - Current - Absorbed power).
- mechanical values (Torque - Speed - Power).

Supplied with measuring panel and acquisition software.

This option requires a bench that should be equipped with a brushless torque sensor and tacho-generator.

Add -ACQUI to the end of the reference. Example: MTD4-ACQUI

Factory assembly only.

ref. -ACQUI