

# Lifting stations

MODEL REF. STAR-D



**STAR** is a lifting station similar to an irrigation system (apart from the length of the hoses). For use in teaching, STAR is equipped with sensors to analyze the electrical and mechanical magnitudes involved.

**STAR** is equipped with:

- standardized centrifugal pump, cast-iron body, bronze turbine with back-flow valve, output 3 - 20 cubic meters / hour
- three-phase asynchronous motor: 1.5kW 4-pole 230/400V(1)
- dynamic torque sensor directly connected to the motor shaft: 50Nm
- sensitivity: 2mV/V. Accuracy 0.1% (except STAR-ECO)
- speedometer dynamo connected to the motor shaft 10V/1000 rpm (except STAR-ECO)
- flow-meter with analog output 4-20mA gauge 2 - 20 cubic meters / hour. Accuracy 1%
- manual output adjustment valve (spherical, full-flow type)
- polyethylene tank
- double-sink terminal box, including motor inputs and sensor outputs.
- 1500 x 750mm laminated workbench
- all protective casings
- certificate of compliance with current EC standards

## VERSIONS WITH OR WITHOUT DISPLAY

Models STAR-C and STAR-D are equipped with a frequency regulator that controls motor speed, and thus, the mechanical output absorbed by the pump, from 0 to 2kW. This regulator is particularly useful for observing the motor's mechanical and electrical magnitudes when it is overcharging and during the acceleration and deceleration phases.

Réf.(1) (2)	STAR-A	STAR-B	STAR-C	STAR-D	STAR-ECO	PC-STAR
Torque sensor	✓	✓	✓	✓		✓
Speedometer Dynamo	✓	✓	✓	✓		✓
Output sensor	✓	✓	✓	✓	✓	✓
Variable speed drive			✓	✓		✓
<b>Magnitudes displayed</b>						✓
Torque		✓	✓	✓		✓
Speed		✓	✓	✓		✓
Mechanical output power			✓	✓		✓
RMS voltage				✓		✓
RMS current				✓		✓
Absorbed power				✓		✓
Output		✓	✓	✓		✓
Pressure 5 bars/4-20mA			✓	✓		✓

(1) Add 400 to the reference if equipped with a 400/690V motor. E.g. STAR-A-400

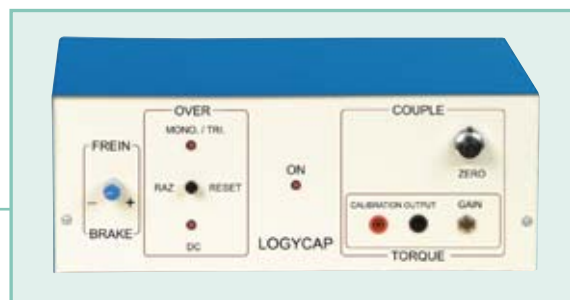
(2) Add W to the reference if equipped with 4 steerable wheels. E.g. STAR-A-W

MODEL REF. PC-STAR



## PC-STAR VERSION

Includes an interface between the motor and the PC as well as real-time acquisition software. The following parameters: Urms Irms CosPhi speed torque slip power output, idle power, apparent power, time are calculated and displayed digitally and graphically. The transient quantities displayed in real time are stored and may be printed. Demonstration diskette available free of charge on request.



Acquisition interface (with software) connected to a PC via an RS232 link, supplied with all standard PC systems.