Speedbox

Wall-mounted variable speed drives for single-phase and three-phase pump.

The power supply of the devices is single-phase at 110/230V or 3-phase at 230/400V - depending on the model. It can be mounted individually (1 pump) or in multi-pump groups, up to 4 devices, in cascade mode with balanced load sharing (duty-assist) or pure alternation mode (duty-standby).

1010 MT

1112 MM

1305 TT

1309 TT

1314 TT

OPERATING CHARACTERISTICS

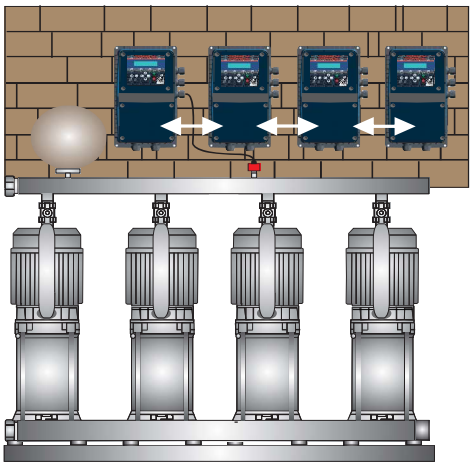
- Frequency inverter for pump management.
- 16x2 backlit display providing real-time information: set pressure (bar/psi), pressure (bar/psi), current consumption (A), frequency (Hz), power consumption (kW), module temperature, and enclosure temperature.
- Automatic supply voltage detection: 110 V, 230 V or 400 V.
- RS485 port for MODBUS RTU communication.
- CAN-BUS port for MULTI-PUMP operation – Cascade mode with balanced load sharing (duty-assist) or pure alternation mode (duty-standby) with up to 4 units.
- External pressure transducer (4-20 mA) (optional). Redundant configuration from 1 to 4 units in multi-pump systems.
- **ART** (Automatic Reset Test) function): when the device is stopped by the dry-run protection system, ART will attempt, at programmed intervals, to restart the unit until water supply is restored.
- **Automatic restart** after accidental power interruption. The system reactivates while maintaining all configuration parameters.
- **STC** (Smart Temperature Control) function: when the temperature of the electronic board or its enclosure exceeds certain limits, the device automatically reduces the pump's operating frequency, lowering heat generation while maintaining water supply.
- **Digital inputs** (3x): configurable for activating an alternative pressure setpoint, remote start/stop, or connection of an external level float switch.
- **Volt-free relay outputs** (2x): changeover contacts for monitoring alarms or pump running status (optional plug-in auxiliary circuit).
- **Auxiliary analog input** (1x): allows connection of a secondary pressure transducer for differential pressure applications or other types of sensors (configurable for 4-20 mA, 0-5 V or 0-10 V).
- Current sensor: provides real-time digital reading (A) and instantaneous power consumption (kW).
- **Operational log**: displays total working hours, number of starts, number of power-ups, and accumulated power consumption.
- **Alarm log**: shows the number and type of alarms generated since the device was commissioned.
- PID control adjustment possible.
- Configurable filling pressure to avoid overpressure in the hydraulic system after power restoration.
- Aluminium heat exchanger.
- Forced convection cooling with intelligent temperature management system.

Low Voltage Directive 2014/35/EC
Electromagnetic Compatibility 2014/30/EC
RoHS 2011/65/EC + 2015/863/EC

TECHNICAL CHARACTERISTICS

	1010 MT	1112 MM	1305 TT - 1309 TT - 1314 TT
Power supply voltage (Configurable)	~1x230 Vac	~1x110/230 Vac	~3x230/400 Vac
Frequency (Configurable)	50/60 Hz		
Output voltage	~3x230 Vac	~1x110/230 Vac	~3x230/400 Vac
Max. current	10 A	12 A	5 A - 9 A - 14A
Max. peak current	20% 10”		
Range of set pressure	0,5 ÷ 25 bar 7 ÷ 360 PSI		
Protection degree	IP55		
Input transducer	4-20 mA		
Max. environment temperature	50 °C		
Net weight (without cables)	4,5 kg	3,5 kg	4,5 kg
Cooling System	Forced Convection		

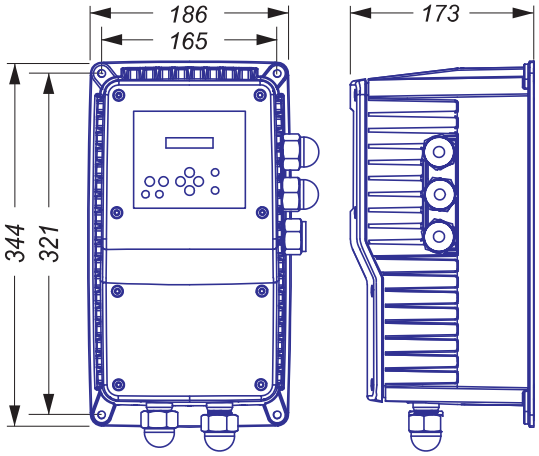
ASSEMBLY



SAFETY SYSTEMS

- Overcurrent protection system to prevent damage to the motor or inverter.
- Dry-run protection to stop the pump in the event of water shortage.
- Abnormal supply voltage protection to safeguard against incorrect input voltage levels.
- Short-circuit protection between output phases of the system.
- Transducer fault detection with automatic alarm generation.
- Minimum / maximum pressure protection with programmable thresholds.
- Low-level alarm to protect against insufficient water levels.

DIMENSIONS AND CONTROL PANEL



Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.