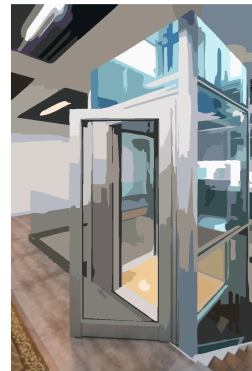
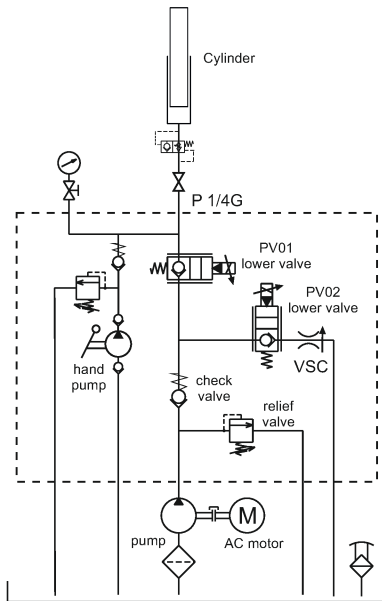
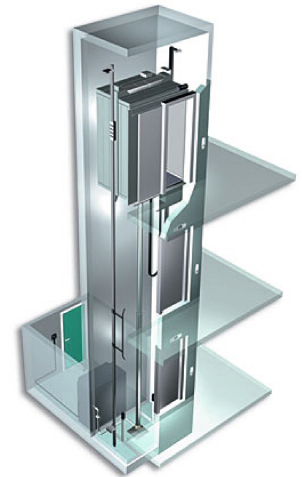
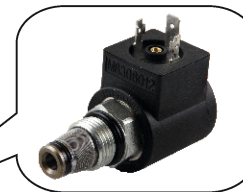


Hydraulic Proportional Power Pack for Home Lifts

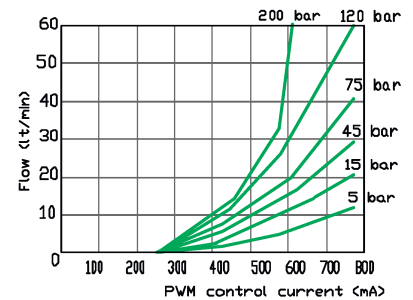
Hydraulic scheme



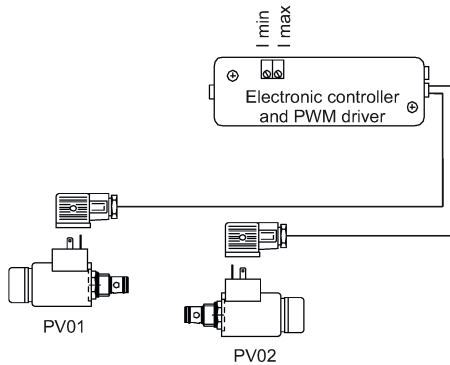
Proportional poppet valve



Flow (l/min) vs PWM Current (mA) at different load induced pressure (bar)

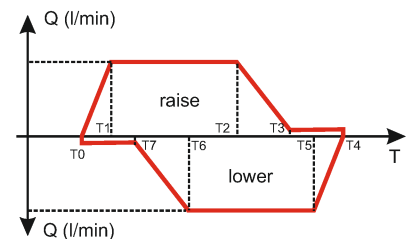


Electric scheme



Low noise pump

Typical flow / speed cycle



Description:

This **proportional hydraulic power pack** is used in the latest generation home lifting systems for both people or loads. The unit is built with standard core parts from **Hydronit extended PPC Compact Power Pack range**, ensuring a **wide choice** of motor / pump combinations, **high reliability** (tens of thousands of PPC units are currently in use in over 40 countries around the world), **high efficiency, high performance** (flow up to 25 l / min, AC motors up to 7.5 kW), **low pressure drop** (allowing for a smooth descent of the lift even if unloaded) and **competitive prices**, thanks to the mass production of the parts. The silent pump guarantees a very low noise level.

Functionality:

When **lifting**, the motor is started and the proportional valve PV02 is switched, in response to a variable PWM signal, from fully open (lifting speed = 0) to progressively closed, realizing the acceleration ramp. Alternatively, you can replace the PV02 with an on-off valve: in this case a proper **inverter** must be connected to the electric motor, in order to obtain the acceleration ramp by varying the speed of the motor / pump.

When **lowering**, the proportional valve PV01 is progressively opened, in response to a variable PWM signal, while the PV02 valve remains wide open and the motor switched off for the whole time. The flow control valve VSC, pressure **compensated**, ensures constant and never excessive rate of descent, **regardless of the load**. While assembling or during installation of the elevator, it is possible to finely calibrate the "cruise speed" of the lowering, within a wide interval of the corresponding lifting speed, simply by varying the parameters of the electronic controller PWM.

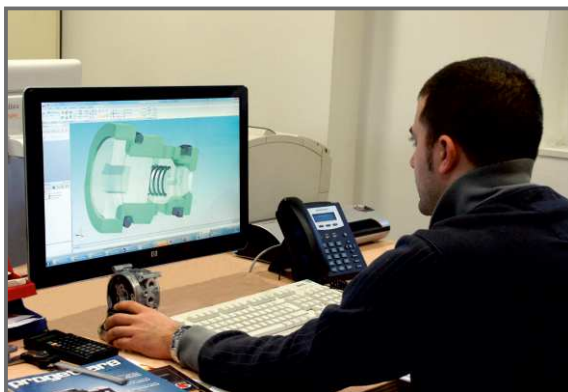
The system thus conceived has an intrinsically safe design as the break or jam of a single valve does not compromise on **safety**. In addition, when it is stationary at the floor, the elevator does not go down even if loaded with a load considerably greater than the rated capacity, thanks to the **poppet** valves. In general, at any stage of operation, the elevator can not move in an uncontrolled manner and / or not in accordance with the given commands. The lack of current to the whole assembly, or any of its components, does not lead to dangerous situations and / or uncontrolled movements.

No operating condition leads to overspeed.

When equipped with single-phase motor, this starts at zero load, avoiding any start-up problem.

Why choose Hydronit ?

- Complete **focus** on hydraulic power pack parts & system design, continuous **research, development** and **innovation**
- Organization fully based on processes and **Total Quality Management** principles, certified **ISO9001:2008** (Quality) and **ISO50001:2011** (Energy Efficiency)
- **Lean** and **energy efficient** product design and production
- **Know-how** on hydraulic components as well as on system and application design
- **Flexible marketing policy:** supply of loose hydraulic components and power packs either in kit or fully assembled and tested
- Associated companies, distributors, service centers and partners in over **40 countries worldwide**



if it moves... we can power it!



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