

Supplies 24V electric power via an M8 connector. Compressed air to power the generator can be supplied merely by connecting a pipe to the 1/8" threaded port. To interrupt energy production, all you have to do is to switch off the compressed air supply by means of a cock or solenoid valve. Voltage remains constant irrespective of changes in input pressure or the load applied (within the limits specified in the catalogue). An easy-to-read light display shows the status of the appliance at all times.



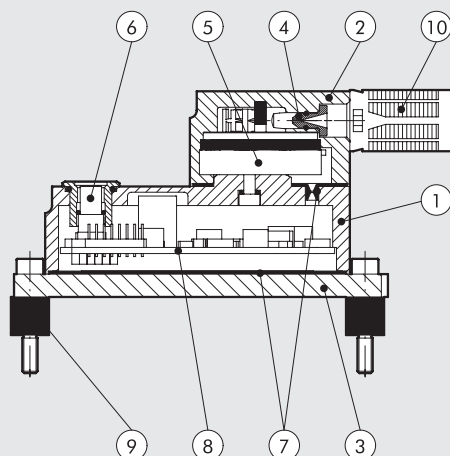
TECHNICAL DATA		50-1	50-2	50-3
Maximum power at 7 bar	W	3	7.5	12
Nominal voltage supplied		24 VDC		
Voltage tolerance		±3%		
Ripple and Noise		Including line regulation, load regulation and factory setup mMax 250 mV p-p o 79 mV rms		
Rise time at 7 bar at max. load	sec	2.5	1.5	1
Hold time at 7 bar at 50% of load	sec	1.3	0.9	0.8
Electrical connector		See graph on page E5.25		
Overload protection and short-circuit		See graph on page E5.25		
Overvoltage protection		See graph on page E5.25		
Electromagnetic compatibility		M8 - 3 poles		
Life at 6.3 bar	h	"Hiccup mode" with automatic recovery upon cessation of overload		
Signals		Intervention if output voltage > 120% than nominal value		
Index of protection for electronic devices		In compliance with the following standards:		
Input fluid		EN 61000-2: Part 6-2: Generic standards - Immunity for industrial environments		
Minimum input pressure	bar	4	3	3
Maximum input pressure	bar	7	7	7
Max air consumption at 7 bar (Leq)	Nl/min	32	50	75
Air ports		LED diagnostics.		
Temperature range	°C	Visual signals are flanked by a diagnostic pin on the M8 connector, which closes a GND contact when the voltage is 24 VDC ±3%		
Max noise level at 7 bar		IP 65		
Casing material		Filter unlubricated air		
Assembly position		Input: G1/8"		
Fixing		Exhaust: G1/8"		
Weight	g	0 - 50		
		75 dB		
		Painted aluminium		
		Any		
		Using 3 M4x10 screws		
		The device can be stabilised using rubber vibration dampers forniti in dotazione		
		330		

LED DIAGNOSTICS OVERVIEW

LED off or red LED flashing	Temporarily on start-up: the output voltage has not yet reached 24V If this condition persists, the applied load is probably excessive with respect to the input pressure.
Green LED fixed	Normal operation: the output voltage has reached 24V Optimal use of the compressed air supply.
Green LED flashing	Normal operation: the output voltage has reached 24V but the generator is used below capacity (can supply more power at the same compressed air supply)
Red and Green LED flashing	Charge short-circuited: output voltage is automatically cut off. It will return within the tolerance range upon elimination of overload.
Red LED fixed	The maximum supply pressure has been exceeded and the device risks getting damaged.

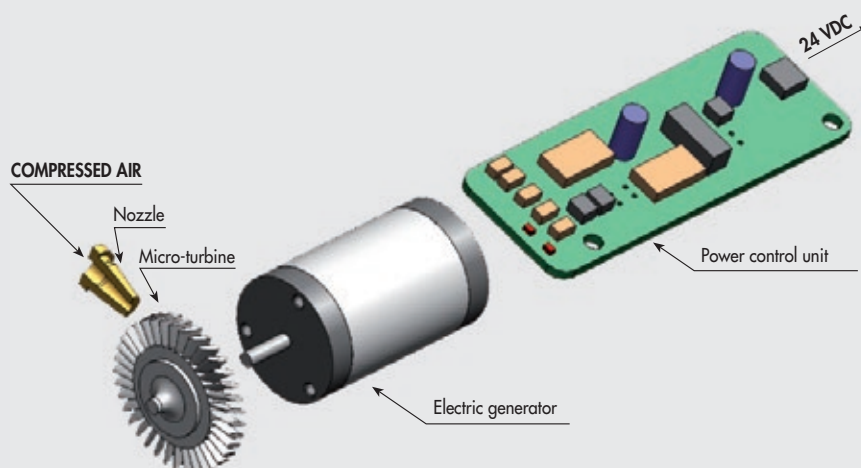
COMPONENTS

- ① Aluminium body, treated and painted
- ② Aluminium body, treated and painted
- ③ Aluminium base, treated and painted
- ④ Brass nozzle
- ⑤ Turbine and electrical generator unit
- ⑥ M8 3-pin connector
- ⑦ NBR gaskets
- ⑧ Electronic board
- ⑨ Vibration dampers
- ⑩ Silencer



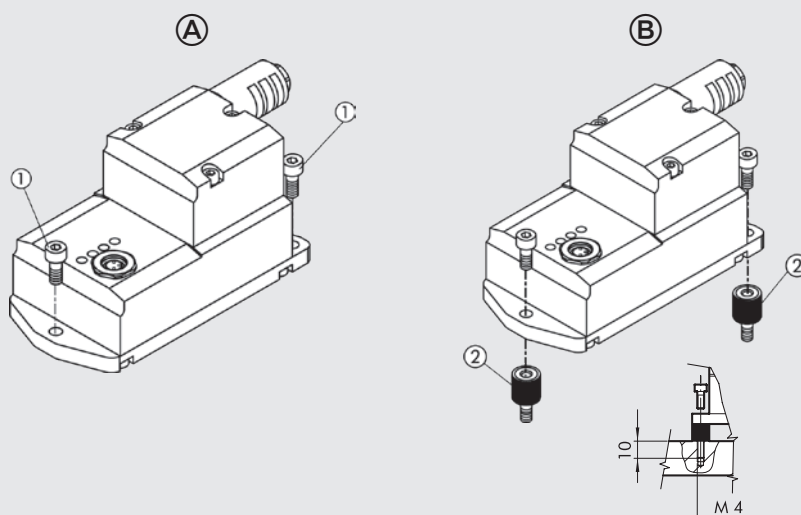
FUNCTION DIAGRAM

The compressed air is supplied via a nozzle that converts pressure energy into kinetic energy. The supersonic jet of air strikes the blades of a micro-turbine, which is integral with an electrical generator. An electronic power management unit ensures constant voltage output at varying input pressures and applied electrical loads. The electrical power thus generated can supply any type of utility.

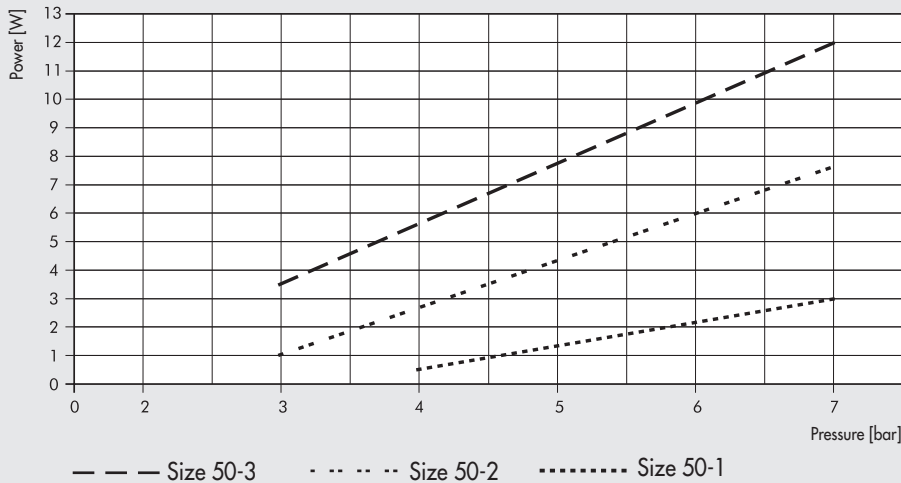


FIXING

The generator can be fixed on a flat surface using the 3 M4x10 screws ① (fig. A), and the 3 vibration dampers ② supplied with the device (fig. B)

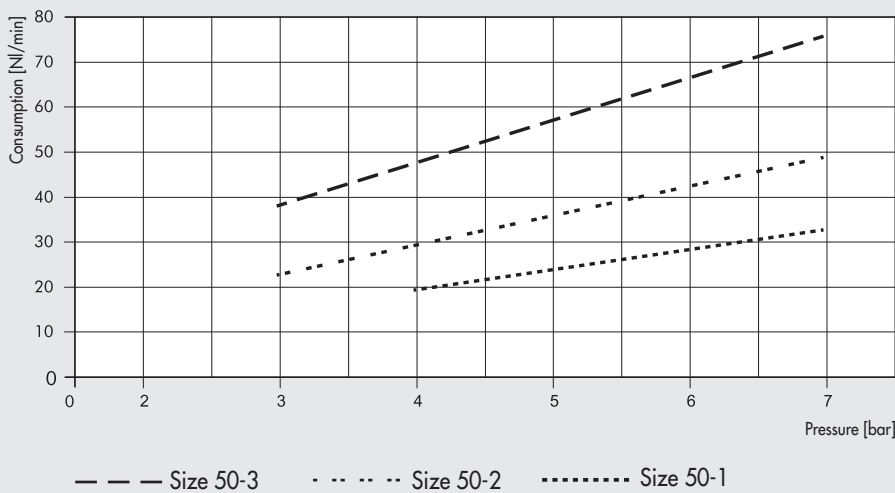


PRESSURE / AVAILABLE POWER

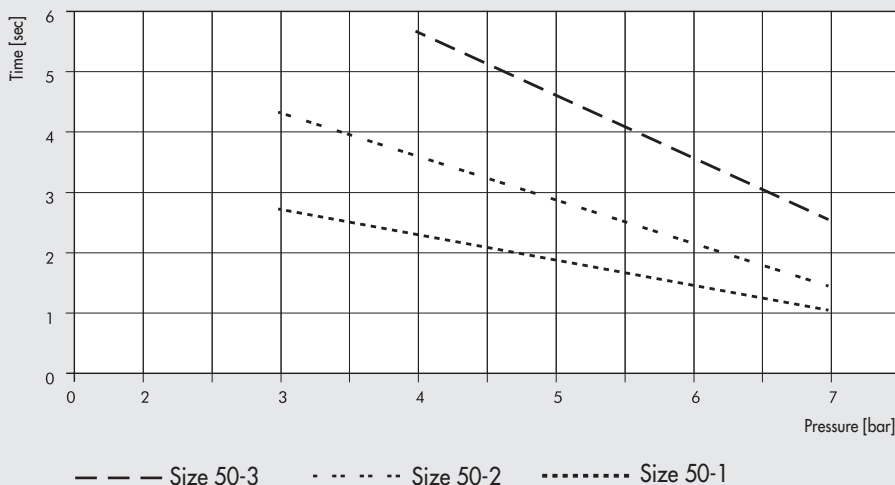


Important: if the input pressure is not sufficient to generate the power required by the electric load, the generator keeps switching on and off (intermittently). You only need to increase the air pressure (as shown in the chart) to get the required power.

PRESSURE / AIR CONSUMPTION



PRESSURE AND ACTUATION TIME WITH ELECTRICAL LOAD



The above graph shows, for a set input pressure, the maximum time required to reach the rated output voltage (with maximum electrical load applicable for this pressure) as the size of the device changes. For example, with a size 50-2 device having an input pressure of 5.2 bar, a 24VDC output voltage will be available about two seconds after start-up.

