

 Domestic use

 Civil use



### INSTALLATION AND USE

**DG FIT** is an inverter-based electronic control device designed for single-phase surface or submersible pumps.

It is utilized for water supply in residential, commercial, and irrigation applications, and is compatible with all types of pressurization systems, including existing ones.

**DG FIT** ensures maximum comfort, extends the system's service life, and facilitates significant energy savings.

#### **DG FIT protects the pump from:**

- ✘ Dry running
- ✘ Overcurrent
- ✘ Overvoltage
- ✘ Undervoltage
- ✘ Overheating
- ✘ Short circuit

### PRODUCT DESCRIPTION

**DG FIT** is a wall-mounted frequency converter which, equipped with a pressure sensor, allows the rotation speed of the motor to adjust dynamically according to the amount of water required, thus ensuring constant pressure in the system.

**DG FIT** is characterised by:

- ✘ A display and keypad for easy, step-by-step setup of operating parameters with two levels of adjustment:
  - **BASIC**, for setting pressure and current;
  - **ADVANCED**, for customizing the inverter for specific system needs.
- ✘ Electronic components are cooled by an integrated fan to ensure heat dissipation.
- ✘ Integrated expansion board, which allows:
  - RS 485 communication for up to three **DG FIT** to talk to each other
  - configuration of a dry input contact (e.g. float, double set point)
  - configuration of a dry output contact (e.g. alarm)
- ✘ Input signal: pressure sensor
- ✘ Arrangement for wall connection

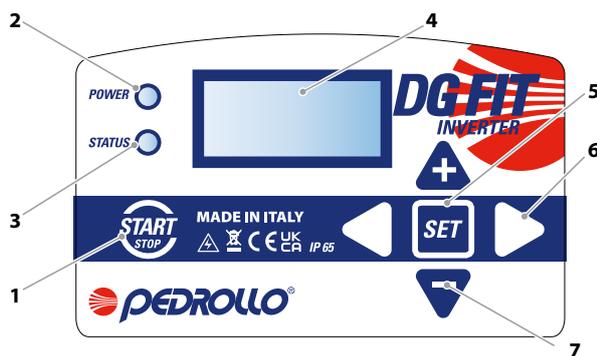
### ADVANTAGES IN USE

- ✘ Easy installation, adjustment and setting.
- ✘ Energy saving due to lower absorption of the pump.
- ✘ Control of hydraulic and electrical operating parameters and protection against faults.
- ✘ Reduced noise operation.
- ✘ Longer pump life.
- ✘ Possibility to connect up to three devices to create pressurization units

TECHNICAL DATA	DG FIT MM 8	DG FIT MM 11	DG FIT MM 16
Power supply voltage	1 ~ 230 V	1 ~ 230 V	1 ~ 230 V
Pump motor voltage	1 ~ 230 V	1 ~ 230 V	1 ~ 230 V
Permissible voltage variation	± 10%	± 10%	± 10%
Supply frequency	50/60Hz	50/60Hz	50/60Hz
Maximum pump motor current	8.5 A	11 A	16 A
Maximum pump motor power	1.5 HP (1.1 kW)	2 HP (1.5 kW)	3 HP (2.2 kW)
Room temperature	0 °C ÷ 40 °C	0 °C ÷ 40 °C	0 °C ÷ 40 °C
Protection rating	IP 54	IP 54	IP 54
RS-485 communication	standard	standard	standard
Dry input contact	standard	standard	standard
Dry contact output	standard	standard	standard

## ELECTRICAL PANEL

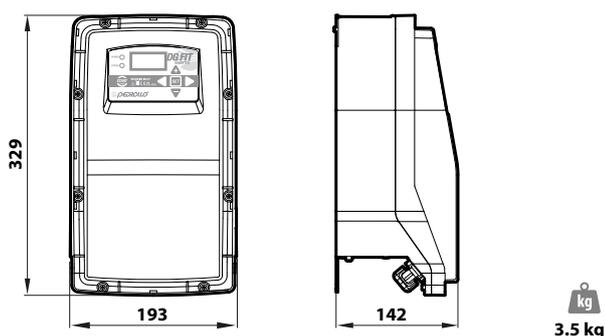
The keypad simplifies the process of accessing and navigating configuration menus, enabling the adjustment, and monitoring of various operational parameters, including system pressure, operating frequency, absorbed current, and alarm messages. LED indicators provide quick insights into the pump's operational status at a glance.



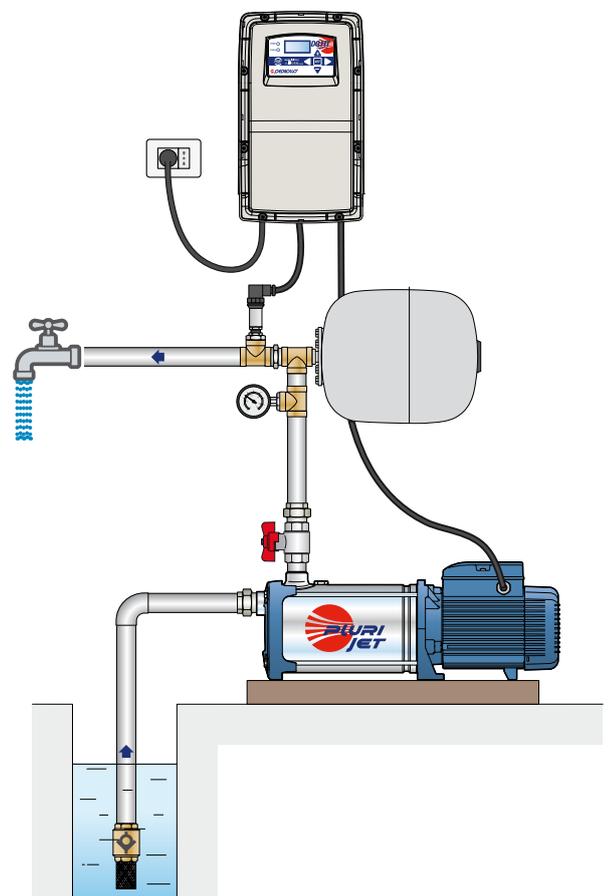
### KEY

- 1) Power on/off key
- 2) Red networking LED
- 3) Green run LED
- 4) Display
- 5) SET button
- 6) Menu/parameter input/output arrows
- 7) Menu/parameter scrolling arrows

## DIMENSIONS (mm)



## TYPICAL INSTALLATION



N.B.: it's neceadvisable to install a membrane EXPANSION TANK downstream of the inverter to:

- ✘ decrease pump start frequency
- ✘ absorb excess pressure from the system, like water hammer