

## SP SERIES

### CONTROL PANELS WITH INVERTER



Control panels with inverter SP series modulate the operation of electro pumps responding to the pressure trasducer control (measured by flow rate or other external signal 4-20 mA passive) adjusting the speed of the electric pumps to maintain constant the system demand.

#### VERSION

- "FC": Control panel for one electric pump with inverter
- "EFC": Control panel for two or more electric pumps, with single inverter but with electric pumps exchange
- "MFC": Control panel for two or more electricpumps, with one inverter for each individual electric pump

#### TECHNICAL DATA

- Power supply voltage: 400V  $\pm$ 10%,
- Three phases without aid of the neutral
- Power supply frequency: 50Hz or 60Hz
- Power for every motor: from 0.75 kW and above
- Type of start-up and power supply for all pumps:
  - during the start-up phase, the inverter powers the pump with a voltage ramp, the other pumps have direct or star/delta start-up according to the electric power
  - during emergency functioning (controlled by pressure switches) all of the pumps function according to the power size at direct or delta/ triangle start-up
- Limits of use (environment temperature): from -10°C to +40°C
- Protection rating:
  - IP55 up to 3 kW
  - IP44 for greater powers
- Conformity to the CE mark, EN 60204-1; Security electrical equipment. - EN 60439-1; Switchgear and controlgear assemblies.
- EMC standards applied:
  - CEI EN 61000-6-1; immunity for residential, commercial, and lightindustrial environments.
  - CEI EN 61000-6-2; industrial immunity.
  - CEI EN 61000-6-3; emission for residential, commercial and lightindustrial environments.
  - CEI EN 61000-6-4; industrial emission.
  - CEI EN 61000-3-2; harmonic current emission  $\leq$  16A (use XL.L line inductance to be installed on request, see ref. 8.1, 8.2).
- Emissions: conformity for residential environments.
- Immunity: conformity for industrial environments.
- Minimum output frequency: 30 Hz