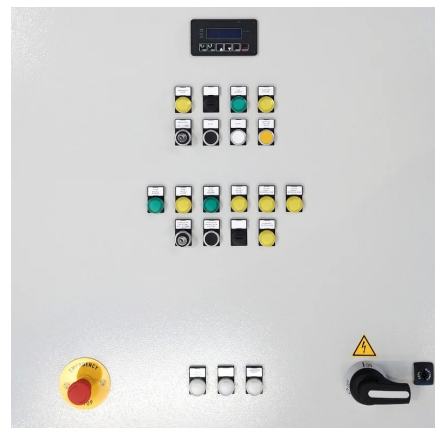


Switch cabinet with inverter for fan control

📌 Sectors

📌 Applications: **Fix**

COD: QEI000000000000



Industrial switchboard complete with three-phase inverter and remote operator terminal with LCD display, run/stop control, frequency regulation, monitor and alarm reset.

Composition

- Power supply 3F+E 400Vac 50/60Hz
- Carpentry painted RAL7035 with IP65 external protection rating
- General door lock disconnect
- inverter Toshiba or Invt
- mITOS VT6 operator panel for inverter management
- cooling system
- Motor protection
- Contactor
- Emergency mushroom button
- Coloured run-stop buttons
- Power indicator light
- Fan operation indicator light
- Inverter alarm warning light
- Fan thermal indicator light



Detailed description

The QEI version of **SECUREAIR®** switchboards comes complete with an inverter and MITOS VT6 operator terminal, which allows the adjustment of fan speed to reduce noise or adapt performance to the exact requirements of extraction systems.

Why use the inverter to service fans

Example of savings in an ideal case of centrifugal fan regulation

- By reducing the speed by 50% the energy consumed is reduced to one eighth
- Reducing the speed by 20% saves 50% energy
- Reducing the speed by only 10% (from 100 to 90) saves 27% of the energy

Practical example always with application on acentrifugal fan serving a centralised air extraction system

Air extraction system equipped with a 75 kW motor with an average absorption of 56 kW

4.000 hours/year of operation

Using the inverter we will have an average absorption of 36 kW instead of 56.

Consequently 80,000 kWh per year saved

With an energy cost of 0.15 (?) €/kWh, you save 12,000 €/year!

Investment amortised in a very short time

Designed to comply **with European and international standards** for low voltage switchboards. Our switchboards are produced for nominal power ratings up to 55kW and are supplied with

- WIRING DIAGRAM
- TEST CERTIFICATE
- DECLARATION OF CONFORMITY

For code QED00000001 the power must be specified when ordering

Options available

External pressure switch with alarm lamp

Rotovalve up to 4 kW

Screw conveyor up to 4 kW

Economiser power supply

Programmer power supply with pressure alarm lamp

Level switch with level alarm lamp

Triboelectric probe

Extractor fan

Timed electric vibrator

Timed solenoid valve

Damper solenoid valve

Ammeter + CT

Voltmeter + voltmeter switch

Hour meter

Flashing visual alarm

Remote control selector

Key selector switch for remote control

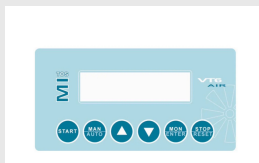
Acoustic alarm

Case with transparent door up to 400x600

ATEX barriers for 2-channel sensors



Accessories

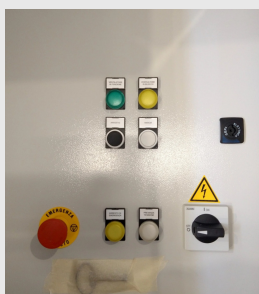


Extra operator panel VT6 AIR for QEI switchboards

QEIVT6AIR000000

Basic functionality similar to VT6 HVAC, but with more advanced PID and integrated 0-999 or 0-3000 mmH₂O pressure transducer.

Flow, pressure or speed regulation. Compatibility with ALL SECUREAIR® panels equipped with TOSHIBA inverters.



Electric panel for fan start-up

QED000000000000

Industrial switchboard with direct and star-delta starting, for starting and protection of fan motors with 3F+E 400Vac 50/60Hz power supply

Composition

- Carpentry painted RAL7035 with IP65 external protection rating
- General door lock disconnecter
- Motor protection switch
- Remote control switch
- Emergency mushroom button
- Coloured stop buttons
- Power indicator light
- Fan operation indicator light
- Fan thermal indicator light



TOSHIBA Inverter VFS15 400V three-phase

IVTO154004PLIW0

Frequency inverter for the regulation of the speed of three-phase fans; model with input for 400V Three-phase motors with integrated STO.

Power supply 400V Three-phase - Output 400V Three-phase

The Toshiba range differs in the market for reliability, and technological innovation of the solutions adopted and is designed to ensure the best performance in full compliance with international standards.



Spare parts



SVM industrial centrifugal fans

SVM000000000000

Industrial centrifugal fans with backward blade impeller series SVM made as follows

- steel scroll equipped with flange connections on the suction and pressure ports, with an entirely electrowelded structure and blue powder coated
- chair for motor-impeller unit support connected to the auger with bolted plate for rapid impeller extraction in the event of maintenance
- electrowelded steel impeller, statically and dynamically balanced with cast-iron hub with backward-moving flat blades
- electric motor suitable for outdoor installation, can be driven by three-phase inverter.

They are available from stock in 7 sizes from 250 to 450 all with 2-pole motors, but are also available up to diameter 1000 with 4 or 6-pole motors



SVF industrial centrifugal fans

SVF000000000000

Industrial centrifugal fans with backward blade impeller series SVF made as follows

- steel scroll equipped with flange connections on the suction and pressure ports, with an entirely electrowelded structure and blue powder-coated
- chair for motor-impeller unit support connected to the auger with bolted plate for quick extraction of the impeller in the event of maintenance and support foot
- electrowelded steel impeller, statically and dynamically balanced with cast-iron hub with flat backward-moving blades
- electric motor suitable for outdoor installation, can be driven by three-phase inverter.

They are available from stock in 6 sizes from 250 to 450, all with 2-pole motors, but are also available up to diameter 1000 with 4- or 6-pole motors



SVR industrial centrifugal fans

SVR000000000000



Industrial centrifugal fans with backward blade impeller series SVR made as follows

- steel scroll equipped with flange connections on the suction and pressure ports, with fully electrowelded and blue powder-coated structure
- chair for supporting the motor-impeller unit connected to the auger with bolted plate for quick extraction of the impeller in the event of maintenance and support foot
- electrowelded steel impeller, statically and dynamically balanced with cast-iron hub with flat backward-moving blades
- electric motor suitable for outdoor installation, can be driven by three-phase inverter.

They are available from stock in 6 sizes from 250 to 450, all with 2-pole motors, but are also available up to diameter 1000 with 4- or 6-pole motors

