

# BOXPARK

**Control panels for car park ventilation systems with triple purpose: daily ventilation, CO concentration control and smoke extraction in case of fire**



Control panels in metal enclosure with all the necessary elements for the management and control of fans in car park ventilation systems, whether they are based on duct networks or impulse fans, for the control of CO concentration levels and smoke extraction in case of fire. Customised panels for all power ratings and number of fans according to project requirements.

#### BOXPARK BASIC:

- Control panel for smoke extraction in case of fire and CO control in single zone car parks, with daily ventilation mode using a time programmer included.

#### BOXPARK ADVANCED:

- Control panel for smoke extraction in case of fire and CO control in car parks for single or multiple zones, with daily ventilation mode using a time programmer included, with the possibility of managing motorised dampers and incorporating a remote panel for fire fighters.

#### BOXPARK ADVANCED PLC:

- Control panel for smoke extraction in case of fire and CO control in car parks for single or multiple zones, with daily ventilation mode using a time programmer included, with the possibility of managing motorised dampers and incorporating a remote panel for fire fighters. Includes PLC with algorithm for managing the activation sequence of the ventilation systems, either by duct networks or by impulse (Jet fan type), in case of fire, with MODBUS communications and WEB SERVER incorporated. All the logic of the system can be adapted to the project on demand.

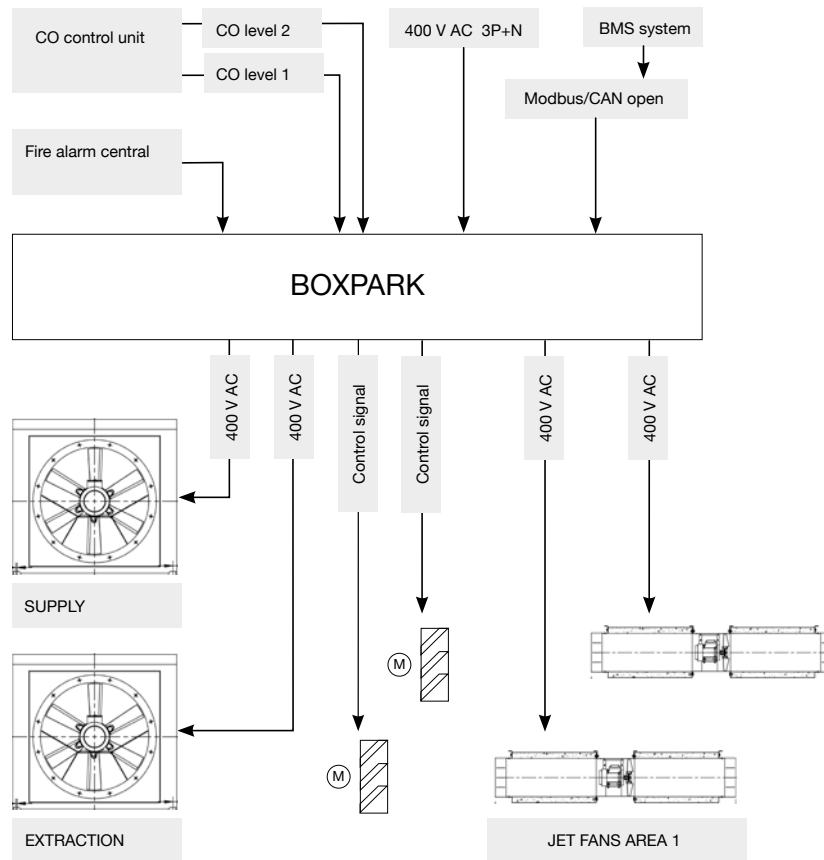
#### Generic specifications BXPARK cabinet on request:

- Power supply: 400 V AC three-phase plus neutral and earth conductor.
- Metal enclosure, depending on the dimensions of the wall-mounted or self-supporting equipment with plinth.
- Load-break disconnect switch sized to the maximum power of the system.
- Natural or forced ventilation of the electrical panel, with thermostat for activation/deactivation and thermomagnetic circuit breaker protection.
- Interior cabinet lighting (from 1600 mm height).
- Auxiliary voltage for 24 V DC control through power supply and protections.
- SCHUKO base inside the control panel (protected).
- Unbalance and phase loss detector.
- Overload and short-circuit protection per group.
- Depending on the drives, the equipment incorporates the following protections:
- Frequency converter starter (VSD): Individual input thermomagnetic circuit breaker.
- Single-speed contactor starter (S1): Individual thermomagnetic circuit breaker per group, individual motor-protective switch.
- Starting by double speed contactor (S2): Individual magnetothermic circuit breaker per group, individual motor protection switch for high speed, individual motor protection switch for slow speed.
- Back-up of the system's electronics by UPS in case of power failure.
- Microcontroller with programmable logic (PLC).
- Communication with BMS, MODBUS TCP protocol.
- WEB SERVER integrated for programming.
- Daily time switch with battery reserve, for activation of daily ventilation per zone.
- Connection input to monoxide control unit with three CO activation levels, low level, high level and alarm level. NO potential-free activation contacts.
- Connection input with fire detection control panel, via NO or NC potential-free activation contact (selectable). Memory of the last operating status and resettable fire activation signal, via key switch on the front of the control panel.
- 0-AUTO-MANUAL selectors per group.
- Control panel status lights per zone (System OK, Fault, Run, CO Activation and Fire Activation).
- Status signals (System OK, Fault, Run, CO Activation and Fire Activation).
- General magneto-thermal and differential line protection.
- Differential protection by group and zone (Jet fans, extraction, supply).
- 2-speed fan control.
- Fan control using a variable speed drive.
- Reversible fans control.
- LC filters (recommended with variable frequency drive (VSD) control from 50 m of EMC cable and from 100 m of non-screened cable).
- Possibility of request for several areas.
- Possibility of analogue CO signal for proportional operation.
- Remote control for firefighters that incorporates 0-AUTO-MANUAL selector, and status lights (System OK, Fault, Run and Fire Activation).
- Touch screen for monitoring and configuration.
- Motorised gate management.
- Interconnection between panels.

## Comparison between models

Characteristics	BOXPARK BASIC	BOXPARK ADVANCED	BOXPARK ADVANCED PLC
Fire activation sequence (Jet fan delay)	NO	NO	YES
Communication with BMS, MODBUS TCP protocol	NO	NO	YES
Microcontroller with programmable logic (PLC)	NO	NO	YES
WEB SERVER integrated for programming	NO	NO	YES
Time clock for daily ventilation by zone	NO	YES	YES
Time clock for general daily ventilation	YES	NO	NO
Fire signal status memory card, including fire Reset selector	NO	YES	YES
2 levels of CO	NO	NO	YES
3 levels of CO	YES	YES	NO
Analogue CO signal for proportional operation	NO	NO	OPTIONAL
0-AUTO-MANUAL selectors per group	NO	YES	YES
Fire signal selectable NO-NC	YES	YES	YES
Status signals (System OK, Fault, Run, CO Activation and Fire Activation)	NO	YES	YES
Remote control panel for fire fighters CM (BOXSMART type)	NO	OPTIONAL	OPTIONAL
Multizone	NO	YES	YES
Status lights (System OK, Fault, Run, CO Activation and Fire Activation)	YES	YES	YES
Status lights per zone (System OK, Fault, Run, CO Activation and Fire Activation)	NO	NO	YES
Load-break disconnect switch	YES	YES	YES
Overload and short-circuit protection per group	YES	YES	YES
General magneto-thermal and differential line protection	NO	OPTIONAL	OPTIONAL
Differential protection by group and zone (Jet fans, extraction, supply)	NO	OPTIONAL	OPTIONAL
2-speed fan control	OPTIONAL	OPTIONAL	OPTIONAL
Fan control using a variable speed drive	OPTIONAL	OPTIONAL	OPTIONAL
Unbalance and phase loss detector	NO	OPTIONAL	YES
UPS	NO	NO	YES
Interior cabinet lighting (from 1600 mm height)	NO	NO	YES
SCHUKO base inside the control panel (protected)	NO	NO	YES
Interconnection between panels	NO	OPTIONAL	OPTIONAL
Enclosure ventilation (depending on control panel size and power)	YES	YES	YES
LC-filters (recommended from 50 m EMC cable, from 100 m non-screened cable)	OPTIONAL	OPTIONAL	OPTIONAL
Reversibility	NO	NO	OPTIONAL
Touch screen for monitoring and configuration	NO	NO	OPTIONAL
Motorised gate management	NO	OPTIONAL	OPTIONAL

## Installation examples with BOXPARK



## Accessories



CM-SMART



CENTRAL CO