



KIT BOXSMART KIT BOXSMART II

Pressurisation system for stairs or evacuation routes. Maintains a differential pressure of 50 Pa in a single stage, designed according to the European standard EN 12101-6



The correct operation of the pressurisation systems depends not only on their sound design, but also on the correct regulation performed by the system. For this reason, it is extremely important to have calibrated, high precision regulation elements that will permit both situations present in the event of a fire to be maintained simultaneously, quickly and stably.

KIT BOXSMART

- Staircase overpressure kit, consisting of a control panel (BOXSMART), a drive unit (CJHCH or CJBD), for the pressurization of stairs and evacuation routes, and an integrated control of motorized flaps with smoke detector (Compatible with DAMPER BOX SMART).

KIT BOXSMART II

- Overpressure kit with backup fan, consisting of a control panel (BOXSMART II), which incorporates an

automatic switching system to maintain overpressure in the event of failure of the main fan, and an integrated control of motorized flaps with smoke detector (Compatible with DAMPER BOX SMART).

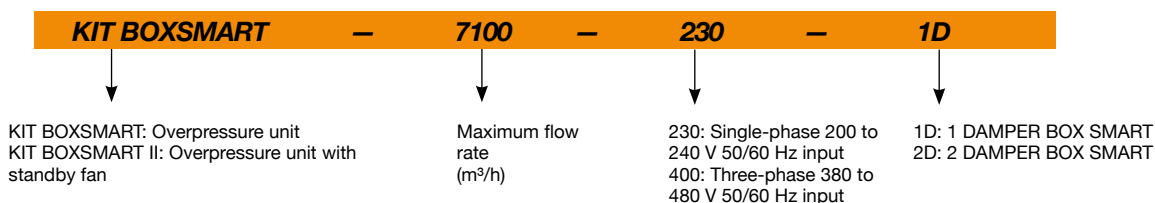
CM-SMART: External control panel for firefighters

- The CM-SMART indicates the system status and provides firefighters with the option of manually turning the system on or off via its selector switch. We recommend that this panel be installed at the main entry point to the protected area.
- This unit is not included in the KIT BOXSMART.
- The BOXSMART and BOXSMART II models are compatible with CM-SMART.



- Easy to install.
- A compact, autonomous solution.
- Easy start-up.
- Safe, functional installation.

Order code



Technical characteristics

| Model | Power (kW) | Power supply (V) (Hz) | Outlet (V) | Maximum flow rate (m ³ /h) | Impulsion unit |
|----------------------------|------------|-----------------------|----------------|---------------------------------------|---------------------|
| KIT BOXSMART-2880-230V-1D | 0.37 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 2880 | CJBD-2828-4M 1/2 |
| KIT BOXSMART-7100-230V-1D | 0.37 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 7100 | CJHCH-45-4T-0.5 IE3 |
| KIT BOXSMART-7800-230V-1D | 1.10 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 7800 | CJBD-3333-6T 1 1/2 |
| KIT BOXSMART-12900-230V-1D | 0.75 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 12900 | CJHCH-56-4T-1 IE3 |
| KIT BOXSMART-17000-230V-1D | 1.10 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 17000 | CJHCH-63-4T-1.5 IE3 |
| KIT BOXSMART-7800-400V-1D | 1.10 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 7800 | CJBD-3333-6T 1 1/2 |
| KIT BOXSMART-12900-400V-1D | 0.75 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 12900 | CJHCH-56-4T-1 IE3 |
| KIT BOXSMART-17000-400V-1D | 1.10 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 17000 | CJHCH-63-4T-1.5 IE3 |

Technical characteristics

| Model | Power | Power supply | Outlet | Maximum flow rate | Impulsion unit |
|----------------------------|-------|----------------------|----------------|---------------------|---------------------|
| | (kW) | (V) (Hz) | (V) | (m ³ /h) | |
| KIT BOXSMART-21100-400V-1D | 1.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 22100 | CJHCH-71-4T-2 IE3 |
| KIT BOXSMART-2880-230V-2D | 0.37 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 2880 | CJBD-2828-4M 1/2 |
| KIT BOXSMART-7100-230V-2D | 0.37 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 7100 | CJHCH-45-4T-0.5 IE3 |
| KIT BOXSMART-7800-230V-2D | 1.10 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 7800 | CJBD-3333-6T 1 1/2 |
| KIT BOXSMART-12900-230V-2D | 0.75 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 12900 | CJHCH-56-4T-1 IE3 |
| KIT BOXSMART-17000-230V-2D | 1.10 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 17000 | CJHCH-63-4T-1.5 IE3 |
| KIT BOXSMART-7800-400V-2D | 1.10 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 7800 | CJBD-3333-6T 1 1/2 |
| KIT BOXSMART-12900-400V-2D | 0.75 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 12900 | CJHCH-56-4T-1 IE3 |
| KIT BOXSMART-17000-400V-2D | 1.10 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 17000 | CJHCH-63-4T-1.5 IE3 |
| KIT BOXSMART-21100-400V-2D | 1.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 22100 | CJHCH-71-4T-2 IE3 |

* The output power is reduced by 20% when the equipment is operating in the lower electrical power range. The same models, except the FLAP models, may be supplied with the KIT BOXSMART II for standby fan (a second impulsion unit is added to the KIT BOXSMART).

Dimensions mm

CJBD

| | A | B | C | D | E | F | G | K | L |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| CJBD-2828 | 550 | 575 | 600 | 479 | 504 | 104 | 177 | 330 | 294 |
| CJBD-3333 | 650 | 650 | 700 | 554 | 604 | 105 | 198 | 392 | 347 |

CJHCH

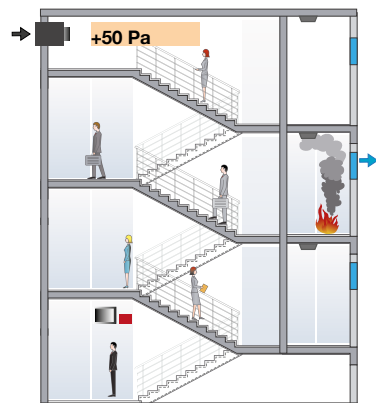
| | A | C | D1 |
|-------------|------|-----|-----|
| CJHCH-45 | 700 | 550 | 565 |
| CJHCH-56/63 | 825 | 550 | 690 |
| CJHCH-71 | 1000 | 650 | 850 |

Application example

Overpressure smoke control method

This system uses pressurisation by injecting air into spaces that are used as evacuation routes in the event of a fire, including stairwells, corridors, passageways, lifts, etc., especially in tall buildings with high occupancy.

The method is based on using air speed and over pressure to create a barrier, preventing smoke from entering evacuation routes.



BOXSMART

Control panel for a fan

BOXSMART II

Control panel with standby fan



- The BOXSMART control panel includes:
- Variable frequency drive programmed at 50 Pa and highly accurate differential pressure probe.
 - External connection for the control panel to be used exclusively by firefighters.
 - Magnetic thermal switch.
 - Status indicator lamp: Ready, Alarm, Fire and Run.
 - Built-in control panel with TEST selector for maintenance and selector to be used exclusively by firefighters 0-AUTO-MANUAL.
 - Operating procedures in safe mode in the case of failure of the differential pressure probe and automatic reset of the system in case of failure.
 - Connection of status signals using free power contacts (FAULT, START and FIRE ACTIVATION) and connection to BMS systems via RTU Modbus for monitoring the equipment.
 - Memory of the last activation state for greater security, resettable from the RESET selector on the control panel or by external signal.
 - External connection for daily ventilation use through SI-CALENDAR accessory.

- Metal casing with lock with key and with IP66 protection.
- Capable of managing asynchronous motors, IPM or RM.
- Ready to operate and perform its function of pressure control.
- Only the power supply, the impulsion fan and the fire signal need to be connected.
- Different input voltage ranges and power on demand.
- Integrated control of motorized flaps with smoke detector (Compatible with DAMPER BOX SMART).

Options:

- BOXSMART EC: control panel for an EC motor fan.
- BOXSMART: control box for a fan.
- BOXSMART II: control panel with backup fan.
- BOXSMART FLAP: control panel with damper fan.

Order code

| | | | | | | | | |
|--|---|------------|---|---------------|---|---|---|--|
| BOXSMART | — | 1.1 | — | 230 | — | M | — | 1D |
| ↓ | | ↓ | | ↓ | | ↓ | | ↓ |
| BOXSMART: Control panel for a fan BOXSMART II: Control panel with standby fan | | Power (kW) | | Input voltage | | M: Single-phase input T: Three-phase input | | 1D: 1 DAMPER BOX SMART 2D: 2 DAMPER BOX SMART |

Technical characteristics and dimensions

| BOXSMART | | | | | | | | |
|-----------------------------------|------------|-----------------------|----------------|-------------------------|------|---------------------------------------|---------------------|--|
| Model | Power (kW) | Power supply (V) (Hz) | Outlet (V) | Max. Output current (A) | Size | Measurements (length x width x depth) | Approx. weight (Kg) | |
| BOXSMART-0.37-230V 50/60Hz-M-T-1D | 0.37 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 2.3 | 2 | 400x500x250 | 11 | |
| BOXSMART-0.75-230V 50/60Hz-M-T-1D | 0.75 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 4.3 | 2 | 400x500x250 | 11 | |
| BOXSMART-1.5-230V 50/60Hz-T-T-1D | 1.50 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 7.0 | 2 | 400x500x250 | 11 | |
| BOXSMART-0.75-400V 50/60Hz-T-T-1D | 0.75 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 2.2 | 2 | 400x500x250 | 11 | |
| BOXSMART-1.5-400V 50/60Hz-T-T-1D | 1.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 4.1 | 2 | 400x500x250 | 11 | |
| BOXSMART-2.2-400V 50/60Hz-T-T-1D | 2.20 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 5.8 | 3 | 400x600x250 | 18 | |
| BOXSMART-4-400V 50/60Hz-T-T-1D | 4.00 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 9.5 | 3 | 400x600x250 | 18 | |

Technical characteristics and dimensions

BOXSMART

| Model | Power (kW) | Power supply (V) (Hz) | Outlet (V) | Max. Output current (A) | Size | Measurements (length x width x depth) | Approx. weight (Kg) |
|-----------------------------------|---------------|--------------------------|----------------|----------------------------|------|--|------------------------|
| BOXSMART-5.5-400V 50/60Hz-T-T-1D | 5.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 14.0 | 4 | 500x700x250 | 21 |
| BOXSMART-7.5-400V 50/60Hz-T-T-1D | 7.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 18.0 | 4 | 500x700x250 | 21 |
| BOXSMART-11-400V 50/60Hz-T-T-1D | 11.00 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 24.0 | 4 | 500x700x250 | 22 |
| BOXSMART-0.37-230V 50/60Hz-M-T-2D | 0.37 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 2.3 | 3 | 400x600x250 | 11 |
| BOXSMART-0.75-230V 50/60Hz-M-T-2D | 0.75 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 4.3 | 3 | 400x600x250 | 11 |
| BOXSMART-1.5-230V 50/60Hz-T-T-2D | 1.50 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 7.0 | 3 | 400x600x250 | 11 |
| BOXSMART-0.75-400V 50/60Hz-T-T-2D | 0.75 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 2.2 | 3 | 400x600x250 | 11 |
| BOXSMART-1.5-400V 50/60Hz-T-T-2D | 1.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 4.1 | 3 | 400x600x250 | 11 |
| BOXSMART-2.2-400V 50/60Hz-T-T-2D | 2.20 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 5.8 | 4 | 500x700x250 | 18 |
| BOXSMART-4-400V 50/60Hz-T-T-2D | 4.00 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 9.5 | 4 | 500x700x250 | 18 |
| BOXSMART-5.5-400V 50/60Hz-T-T-2D | 5.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 14.0 | 5 | 600x800x250 | 21 |
| BOXSMART-7.5-400V 50/60Hz-T-T-2D | 7.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 18.0 | 5 | 600x800x250 | 21 |
| BOXSMART-11-400V 50/60Hz-T-T-2D | 11.00 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 24.0 | 5 | 600x800x250 | 22 |

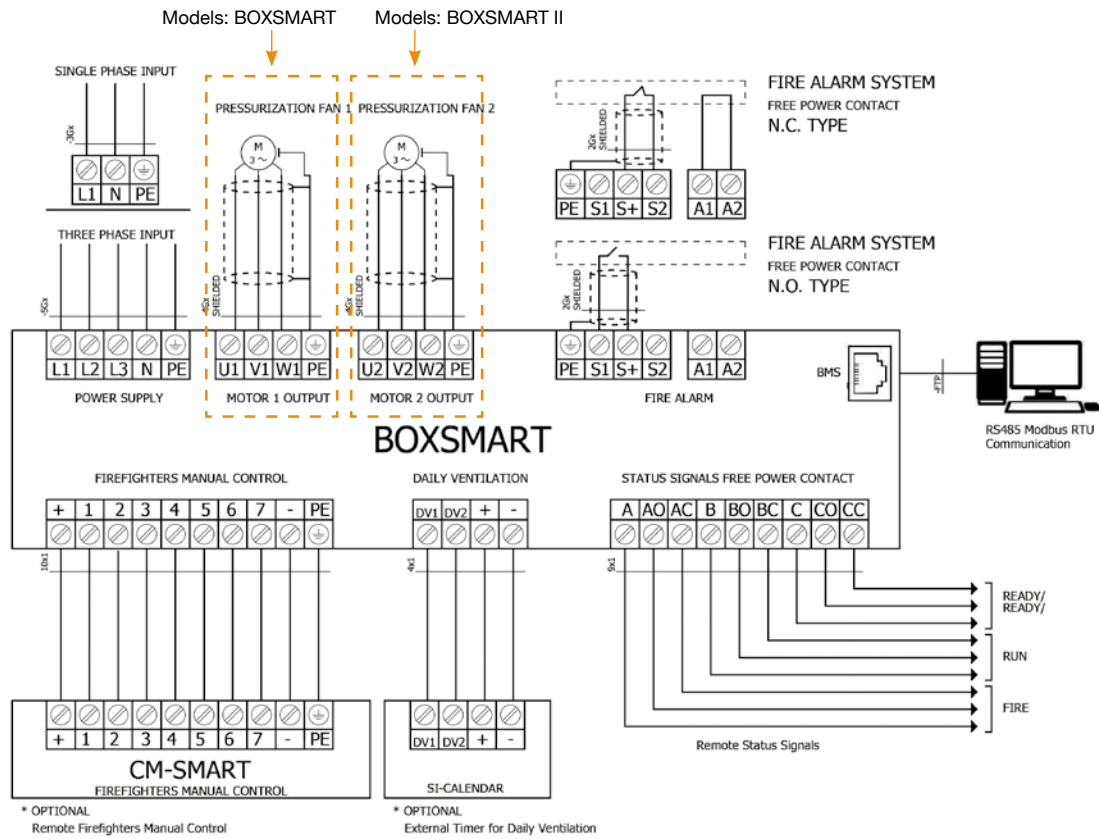
BOXSMART II

For systems with a standby fan. The fans never operate simultaneously.

| Model | Power (kW) | Power supply (V) (Hz) | Outlet (V) | Max. Output current (A) | Size | Measurements (length x width x depth) | Approx. weight (Kg) |
|--------------------------------------|---------------|--------------------------|----------------|----------------------------|------|--|------------------------|
| BOXSMART II-0.37-230V 50/60Hz-M-T-1D | 0.37 | 200 a 240 V 50/60 Hz | 230 V 50/60 Hz | 2.3 | 4 | 500x700x250 | 11 |
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| BOXSMART II-2.2-400V 50/60Hz-T-T-1D | 2.20 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 5.8 | 5 | 600x800x250 | 18 |
| BOXSMART II-4-400V 50/60Hz-T-T-1D | 4.00 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 9.5 | 5 | 600x800x250 | 18 |
| BOXSMART II-5.5-400V 50/60Hz-T-T-1D | 5.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 14.0 | 6 | 800x800x250 | 21 |
| BOXSMART II-7.5-400V 50/60Hz-T-T-1D | 7.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 18.0 | 6 | 800x800x250 | 21 |
| BOXSMART II-11-400V 50/60Hz-T-T-1D | 11.00 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 24.0 | 6 | 800x800x250 | 22 |
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| BOXSMART II-1.5-400V 50/60Hz-T-T-2D | 1.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 4.1 | 4 | 500x700x250 | 11 |
| BOXSMART II-2.2-400V 50/60Hz-T-T-2D | 2.20 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 5.8 | 5 | 600x800x250 | 18 |
| BOXSMART II-4-400V 50/60Hz-T-T-2D | 4.00 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 9.5 | 5 | 600x800x250 | 18 |
| BOXSMART II-5.5-400V 50/60Hz-T-T-2D | 5.50 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 14.0 | 6 | 800x800x250 | 21 |
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| BOXSMART II-11-400V 50/60Hz-T-T-2D | 11.00 | 380 a 480 V 50/60 Hz | 400 V 50/60 Hz | 24.0 | 6 | 800x800x250 | 22 |

Connections

*All connections are made at the top section of the panel.



Accessories



CM-SMART



SI-CALENDAR



DAMPER BOX SMART