

# KIT BOXSMART FLAP



**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.

Overpressure kit with hatch fan, consisting of a control panel (BOXSMART FLAP), which incorporates a control system for hatch fans (WALL or HATCH).

Optional CM-SMART accessory:

- External control panel for firefighters.
- 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 FLAP.
- The BOXSMART FLAP models are compatible with CM-SMART FLAP.

On request:

- Customized panels for all powers according to project needs.



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



## Order code

**KIT BOXSMART FLAP – 21100 – 400**

KIT BOXSMART FLAP: Pressurisation unit with hatch fan

Maximum flow rate (m<sup>3</sup>/h)

400: Three-phase 380 to 480 V 50/60 Hz input

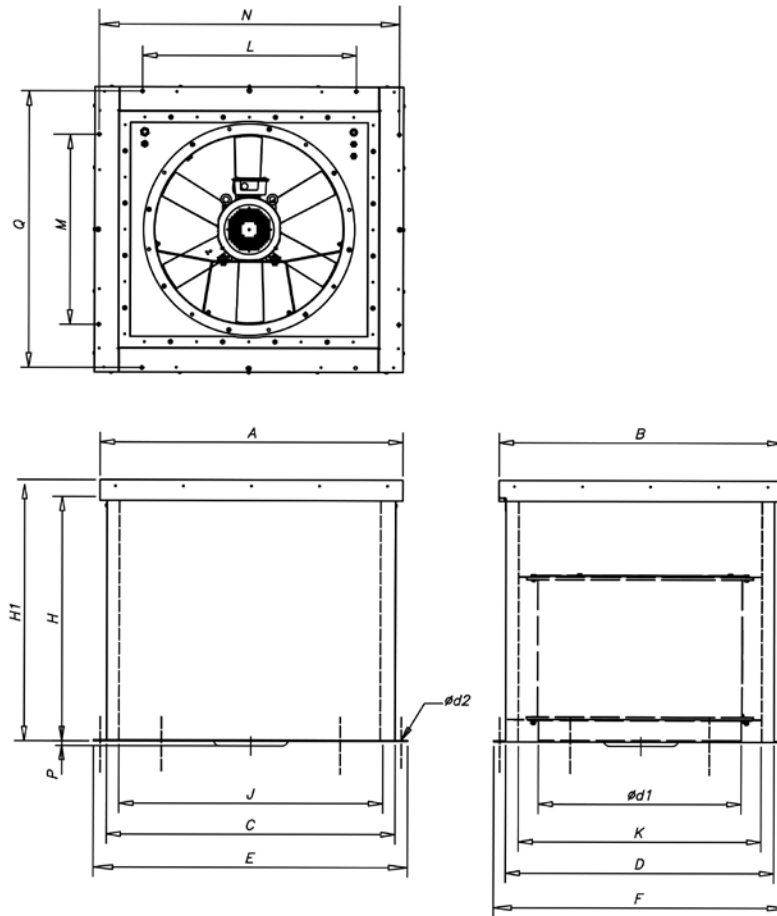
## Technical characteristics

Model	Power (kW)	Power supply (V) (Hz)	Outlet (V)	Maximum flow rate (m <sup>3</sup> /h)	Impulsion unit
KIT BOXSMART FLAP-21100 - 400	1.5	380 a 480 V 50/60 Hz	400 V 50/60 Hz	21100	WALL/DUCT-71-4T IE3
KIT BOXSMART FLAP-25400 - 400	3.0	380 a 480 V 50/60 Hz	400 V 50/60 Hz	25400	HCT/HATCH-63-4T-4 IE3
KIT BOXSMART FLAP-41850 - 400	4.0	380 a 480 V 50/60 Hz	400 V 50/60 Hz	41850	WALL/DUCT-90-4T-5.5 IE3
KIT BOXSMART FLAP-52500 - 400	5.5	380 a 480 V 50/60 Hz	400 V 50/60 Hz	52500	HCT/HATCH-100-4T-7.5 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

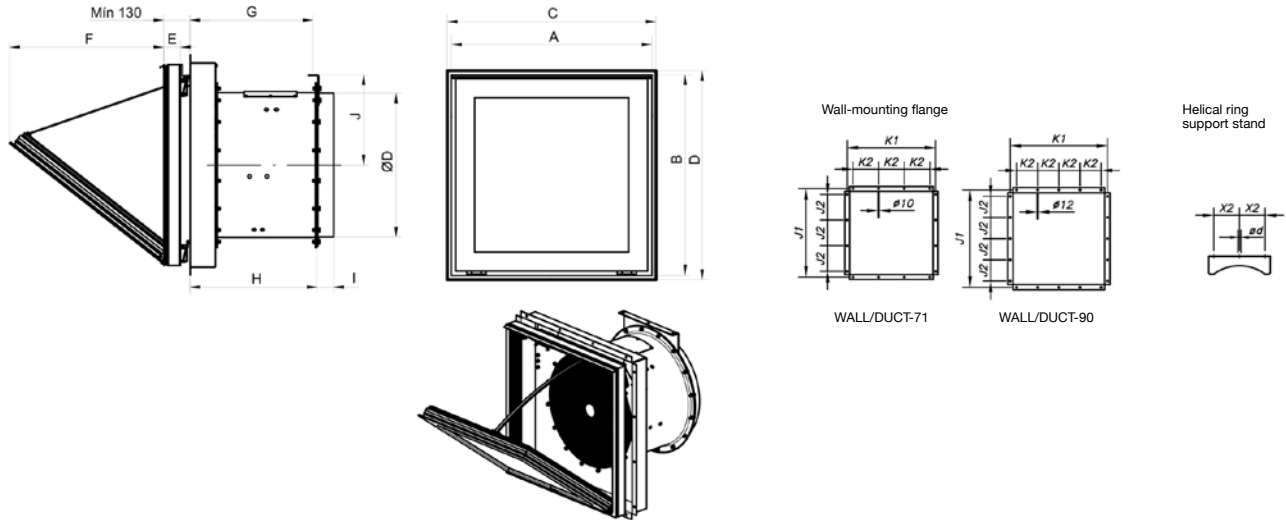
### HCT/HATCH



	A	B	C	D	$\varnothing d1$	E	F	H	H1	J	K	L	M	N	P	Q	$\varnothing d2$
HCT/HATCH-63	1300	1200	1220	1120	630	1300	1200	900	1000	1100	1000	900	800	1265	-	1165	13
HCT/HATCH-100	1500	1400	1420	1320	1000	1500	1400	900	1000	1300	1200	1100	1000	1465	-	1365	13

## Dimensions mm

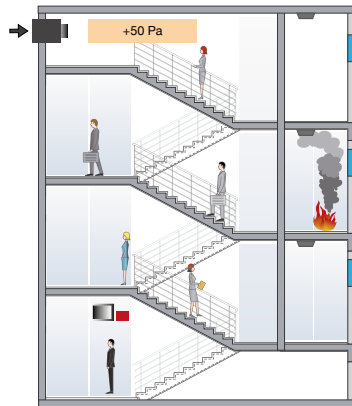
### WALL/DUCT



	A	B	C	Ød	D	ØD*	E	F	G	H	I	J	J1	J2	K1	K2	X2
WALL/DUCT-71	990	990	1000	13	1000	710	82	760	605	630	80	445	1050	300	1050	300	225
WALL/DUCT-90	1190	1190	1200	18	1200	900	82	790	605	630	100	550	1250	250	1250	250	280

\* Recommended nominal tube diameter  
(CxD) Nominal panel opening dimension.

## 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 FLAP

Control panel with damper fan



The BOXSMART FLAP control panel includes:

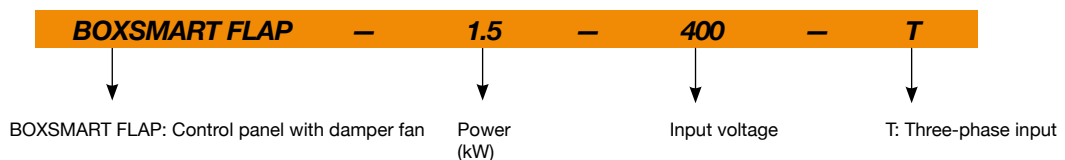
- Variable frequency drive programmed at 50 Pa and highly accurate differential pressure probe.
- External connection for the control panel to be used exclusively by firefighters.
- Magnetic thermal switch.
- Status indicator lamp: Ready, Alarm, Fire and Run.
- Built-in control panel with TEST selector 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.

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

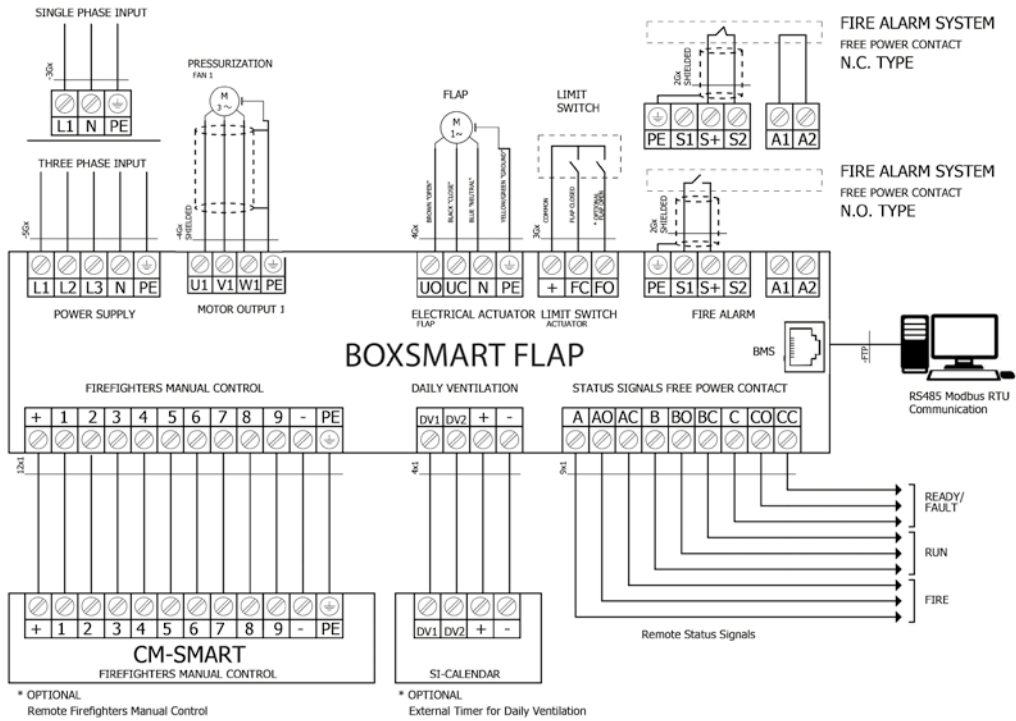


## Technical characteristics

Model	Power (kW)	Power supply (V) (Hz)	Outlet (V)	Max. Output current (A)	Size	Measurements (length x width x depth)	Approx. weight (Kg)
BOXSMART FLAP-1.5-400V 50/60Hz-T-T	1.50	380 a 480 V 50/60 Hz	400 V 50/60 Hz	4.1	2	400x500x250	18
BOXSMART FLAP-4-400V 50/60Hz-T-T	4.00	380 a 480 V 50/60 Hz	400 V 50/60 Hz	9.5	3	400x600x250	20
BOXSMART FLAP-5.5-400V 50/60Hz-T-T	5.50	380 a 480 V 50/60 Hz	400 V 50/60 Hz	14.0	4	500x700x250	28

## Connections

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



## Accessories



CM-SMART



SI-CALENDAR