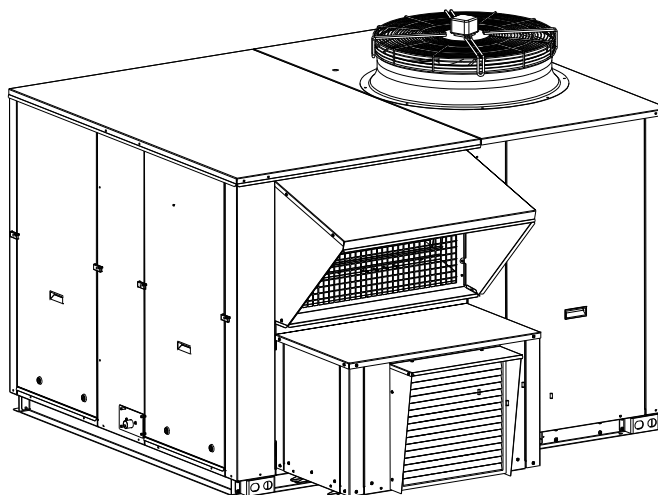




BY JOHNSON CONTROLS

# Exhaust fan for ROOF TOP ACTIVA 017/040



**Options and Accessories, Installation manual**

Ref.: N-40395\_EN 0911



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**Exhaust fan for ROOF TOP ACTIVA  
017/040**

1.1 General information

## 1.1 General information

The extraction fan is suitable for units using an economiser or motorised damper, in installations where the return air is ducted and planned air exhaust is above 25% of the total supply air flow.

Up to approximately 30% of outdoor air inlet opening, operating as a barometric damper. The fan is enabled at this point and the air is discharged directly outdoors.

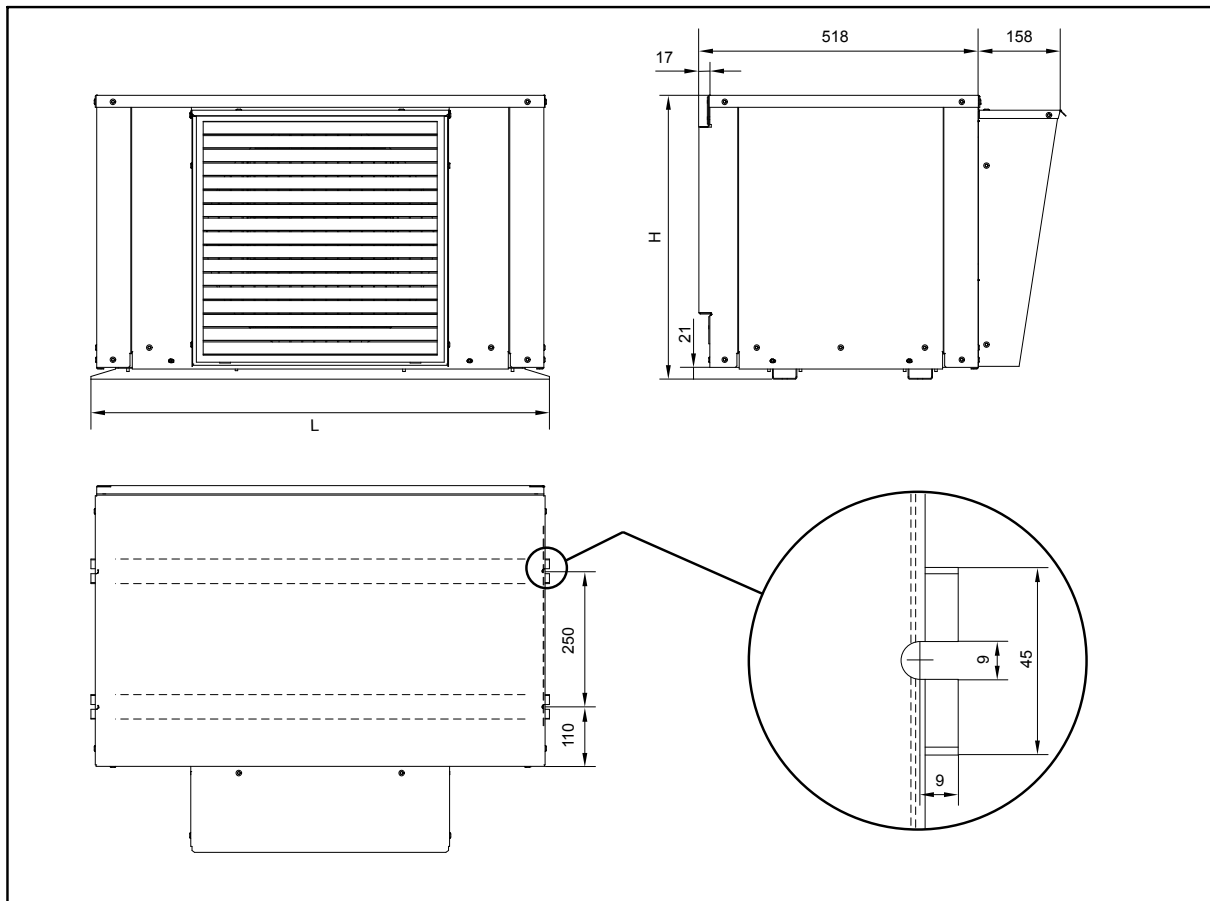
If the return duct connection to the unit is at the bottom, the exhaust fan assembly is installed on the side of the unit. See section *Installation in unit with lower return duct, see on page 3*.

If the return duct connection to the unit is on the side, the exhaust fan assembly is installed directly on the front of the return duct, as close to the unit as possible. See section *Installation in unit with side return duct, see on page 4*

In both cases a bracket must be provided to support the exhaust fan assembly. See the dimensions of the support feet existing on the base of the unit. *Dimensions and weight, see on page 2*.

The assembly is supplied pre-assembled for on-site installation. A cable is supplied for connection of the fan to the electric box.

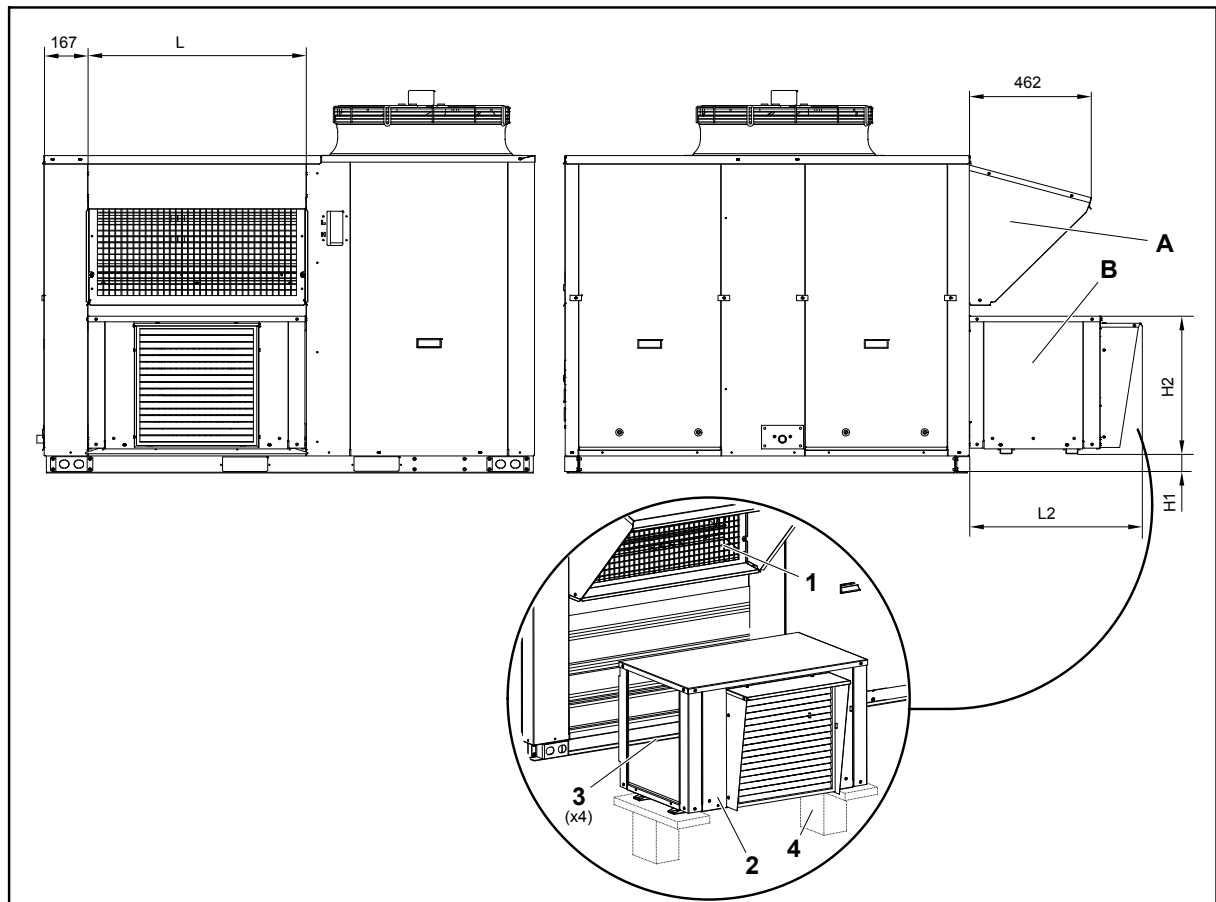
## 1.2 Dimensions and weight



Models	L	H	Weight [kg]
017 / 022	845	544	60
032 / 0440	1100	590	75

## 1.3 Installation

### 1.3.1 Installation in unit with lower return duct



- |   |                            |   |                                    |
|---|----------------------------|---|------------------------------------|
| A | Economiser rain protection | 2 | Pre-assembled exhaust fan assembly |
| B | Exhaust fan                | 3 | M6x20 bolts (x4)                   |
| 1 | Outdoor air inlet          | 4 | Brackets (NOT supplied)            |

Model	L	L2	H1	H2
017 / 022	830	655	73	655
032 / 040	1080	655	35	723

1. Remove and dispose of the original side panel on the unit.



#### ATTENTION

*Dispose of the components in the appropriate places or take them to an appropriate collection centre. Respect the regulations in force for this type of waste in the country where the unit is being installed.*

2. Remove the two fan access panels of the exhaust assembly.
3. Place the exhaust fan assembly in the opening on the side of the unit and fix it with the four M6x20 bolts supplied (two on the top flange and two on the bottom flange).



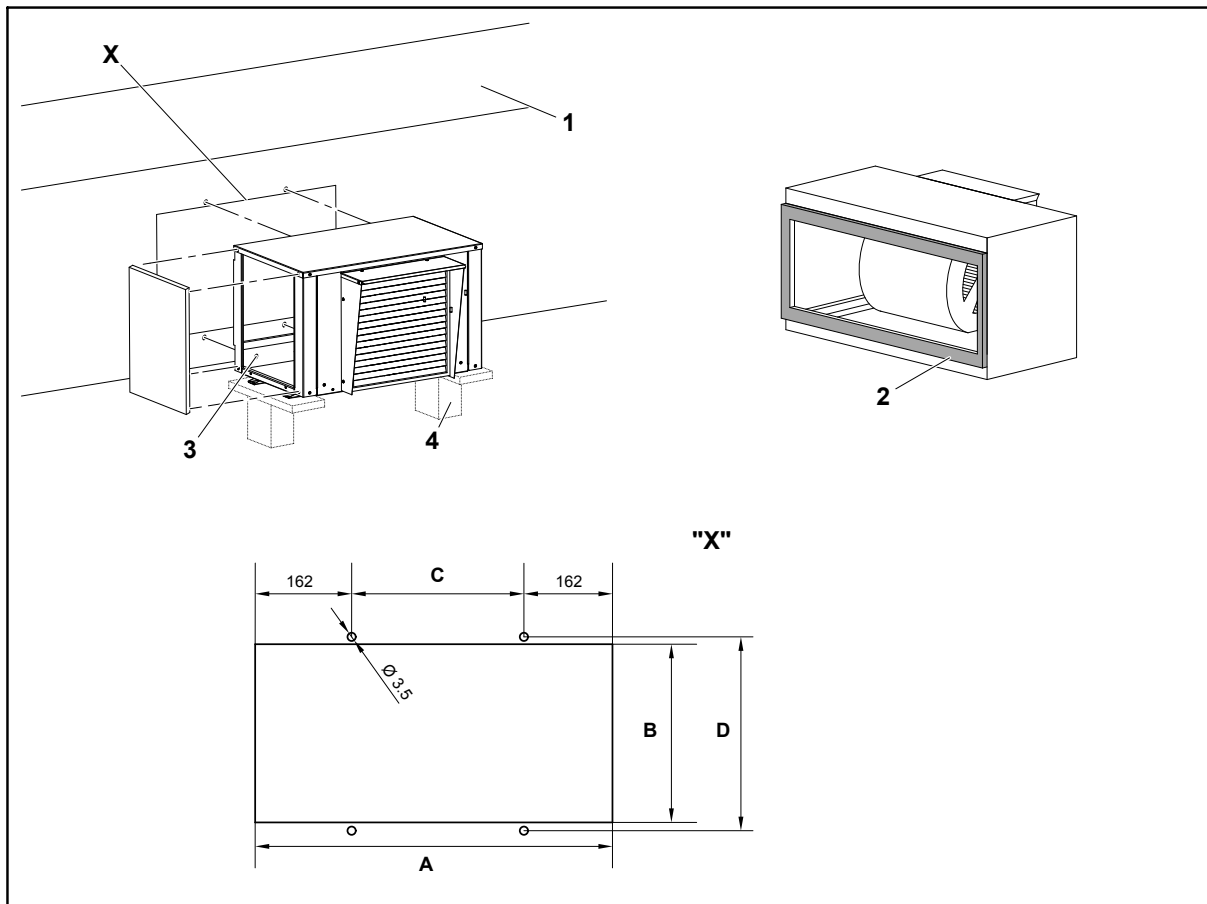
#### NOTE

*The holes and fixing nuts in the front flanges of the opening in the unit are hidden under the sealing strip. In this case it is not necessary to add a sealing strip on the fan assembly.*

4. Install the two fan access panels, making sure that they are sealed.

1.3 Installation

1.3.2 Installation in unit with side return duct



- |   |  |   |  |
|---|--|---|--|
| 1 | Side return duct                                 | 4 | Brackets (NOT supplied)                                |
| 2 | Sealing strip placement zone (support perimeter) | X | Detail of the cut on the front side of the return duct |
| 3 | M6x20 bolts (x4)                                 |   |  |

Model	A	B	C	D
017 / 022	764	280	440	320
032 / 040	1014	375	690	415

1. Make an opening and holes on the front side of the duct according to detail -X-.



**ATTENTION**

*There must not be any separation between the different sealing strips to ensure a correct sealing.*

2. Place the sealing strip along the entire support perimeter of the exhaust fan assembly.
3. Remove the two fan access panels of the exhaust assembly.
4. Place the assembly on the duct opening and fix it with the four self-threading screws with seal washers.
5. Install the two fan access panels, making sure that they are sealed.



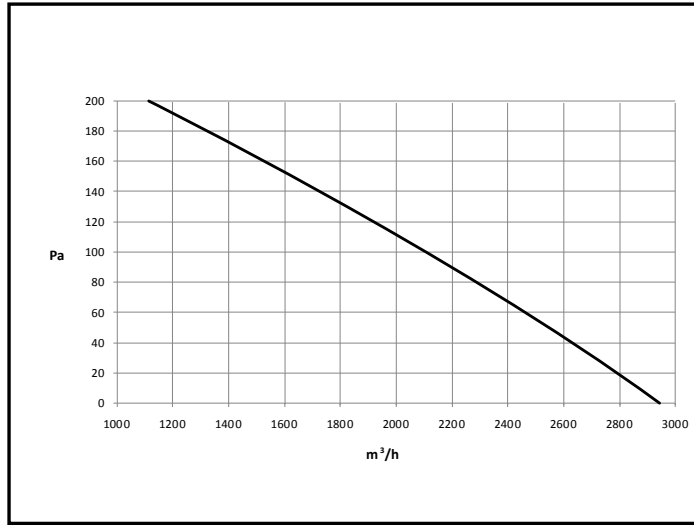
**NOTE**

*It is advisable to seal the joint between the duct and the fan cabinet with a silicone bead along the entire perimeter to finish ensuring the seal between them.*

## 1.4 Fan flow rate / pressure curves

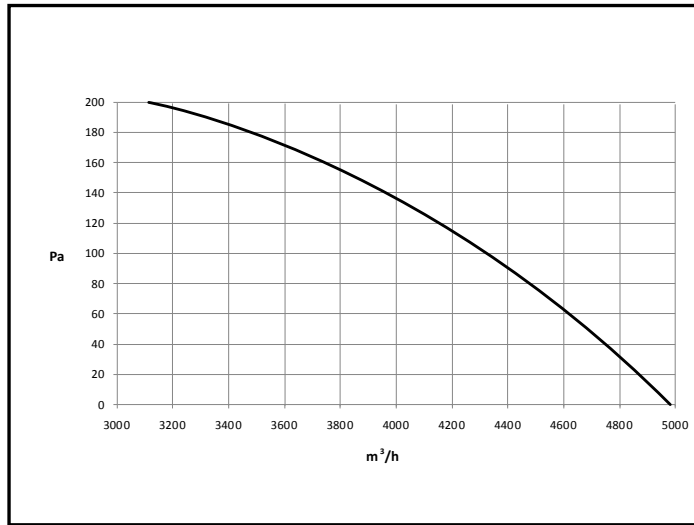
Models 017 / 022

Motor rated power: 0,45 kW



Models 032 / 040

Motor rated power: 0,96 kW

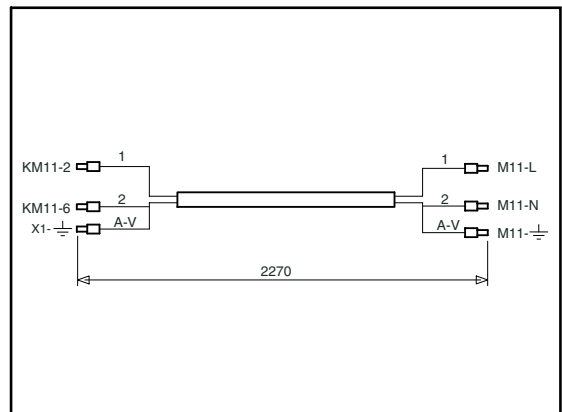


## 1.5 Electrical connection

Make the electrical connections according to the diagram.

KM11: Box side.

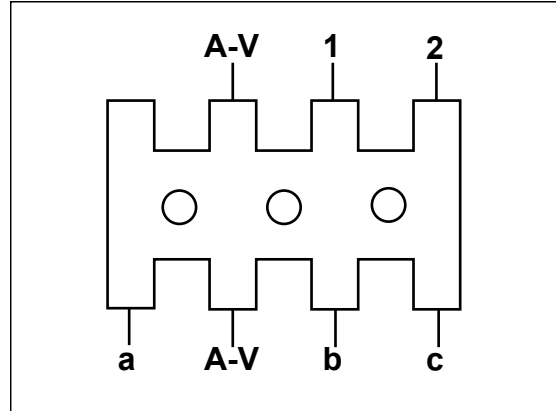
M11: Motor side.



1.5 Electrical connection

**Single-phase electrical connection**

- a Yellow / White
- b Black
- c White / Blue



**Close-up of connections in the electrical box**

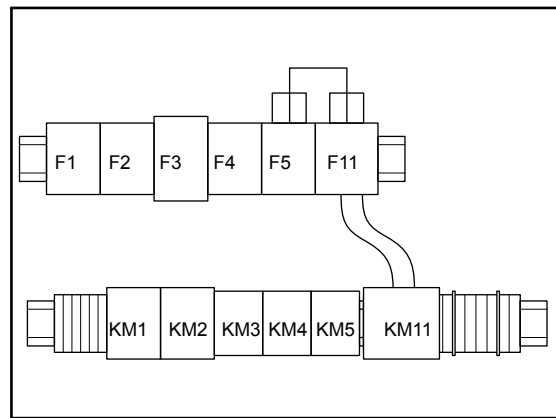
A: A1 to X2-7

B: A2 to X2-B

Connect the exhaust fan cables to contactor KM-11, terminals 2 and 6.

Adjust motor trip switch F11:

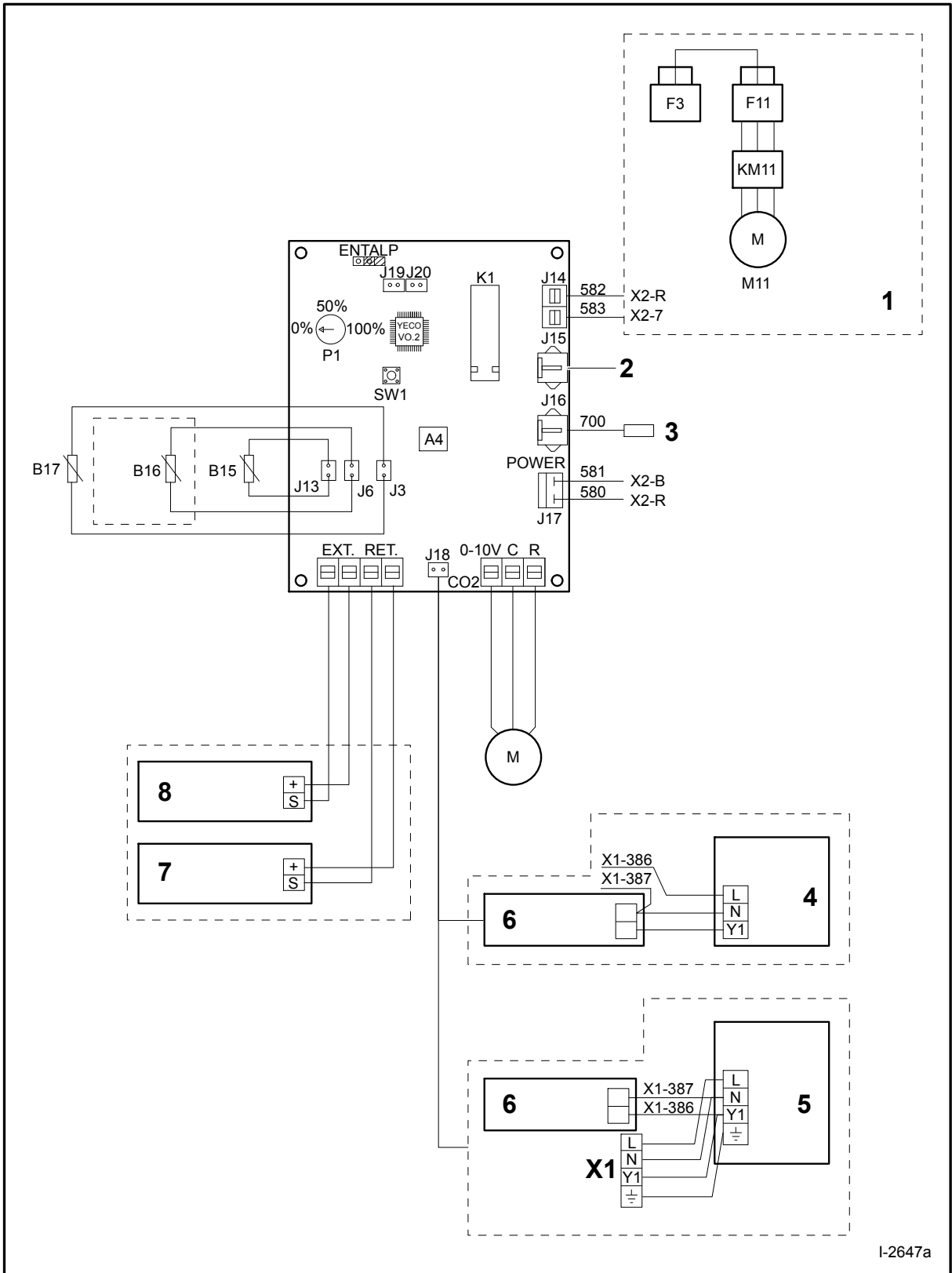
- Models 017/022: 2,5 A.
- Models 032/040: 5,5 A.



Cable no.	Colour	Cross-section	From	To	Cable length
174	Blue	1,5	F11-6	KM11-5	210
173	Black	1,5	F11-2	KM11-1	210
172	Blue	1,5	F5-5	F11-5	260
171	Black	1,5	F5-3	F11-3	260
170	Black	1,5	F11-1	F11-4	1000
585	Red	1	X2-7	KM11-A1	1000
584	White	1	KM5-A2	KM11-A2	190



## 1.6 Wiring diagram



1.6 Wiring diagram

1.	F11	Optional • Reg. 2,5 A (017, 022). • Reg. 5,5 A (032, 040). • Reg. 1,4 A (045, 060). • Reg. 3A (0,75, 090).
	KM11	A1 to X2-7 (Cable 583) A2 to X2-B
	M11	Exhaust fan
	X2-R	24 VAC Phase-R switching
	X2-7	To A1 from KM11
2.	Accessories	
3.	Accessories	
4.	Air quality probe, optional, fitted on return (inside machine)	
	L	Black
	N	Blue
	Y1	Brown
5.	Air quality probe, optional, fitted on ambient (machine exterior)	
	L	Black
	N	Blue
	Y1	Brown
		Yellow-Green
6.	Air quality board (green)	
7.	Enthalpy probe C7400A return, optional	
	+	Red
	S	White
8.	Enthalpy probe C7400A outside, optional	
	+	Red
	S	White
B15	Return probe (black)	
B16	Supply probe, optional depending on model (yellow)	
B17	Outdoor probe (white)	
M10	Damper	
	0-10 V	Grey
	C	Black
	R	Red
X1	Cables to be installed on site (not supplied)	

Data and measurements subject to changes without prior notice.