BOREAS HRV Heat Recovery Ventilation Unit



Headquarter:	Bağlar Mah. Yalçın Koreş Cad. No:16 Bağcılar- İstanbul / Türkiye Tel: +90 (212) 502 60 57 Fax: +90 (212) 502 60 58
Factory:	Karaağaç Mah. Yiğit Türk Cad. No: 28 Büyükçekmece / İstanbul / Türkiye Tel: +90 (212) 608 17 17 Fax: +90 (212) 437 80 71
Ankara Office:	Ceyhun Atıf Kansu Cd. Gözde Plaza No:130/76 Çankaya – Ankara Tel: +90 (312) 472 79 98 Fax:+90 (312) 472 74 62
İzmir Office:	Adalet Mah. Anadolu Cad. No:41 Megapol Tower 17. Kat B Kısım, Bayraklı – İzmir Tel: +90 (232) 281 32 89 Fax:+90 (232) 281 32 81
Antalya Office:	Kızıltoprak Mh. Aspendos Bulvarı 927 Sok.Gülsün İş Merkezi No:12/A/B, Muratpaşa – Antalya Tel: +90 (242) 311 48 44 Fax:+90 (242) 311 68 44
	info@boreasklima.com

www.boreasklima.com

 U.K. Office:
 3 Blake House Admirals Way Canary Wharf London, E14 9UJ, United Kingdom Tel: +44 20 3793 4795 Fax:+44 20 3876 1122

 Spain Office:
 Calle Poeta Monmeneu 12 bajo 46009 Valencia, Spain Tel: +34 96 347 61 63 Fax: +34 96 327 80 78

 Kazakhstan Office:
 Kulan Business Center 10/1 188 Dostyk Avenue- Almaty Tel: +7 7272 321390 Fax:+7 7272 321391

BOREAS HRV

Heat Recovery Ventilation Unit

BOREAS HRV

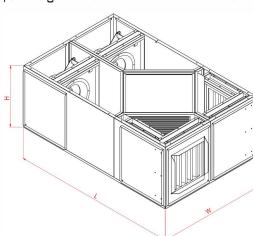
Heat Recovery Ventilation Unit



The BOREAS Fresh Air Unit with Heat Recovery (HR) was designed to achieve high indoor air quality while saving energy in air conditioned spaces. The plate type heat recovery exchanger which is the main component of BOREAS HRV was selected to provide the maximum heat transfer performance in residences, offices, schools, and industrial areas. It is a user friendly product which offers convenience during assembly, operation, and control.

General properties:

- Energy efficient, fans driven by speed controlled motors with a low noise level
- High efficiency, counter flow, aluminum plate type heat recovery exchanger
- High indoor air quality with accessible and easily removable filters
- Insulating layer providing sound and heat insulation in internal surfaces



Models		BHRU 1000	BHRU 2000	BHRU 3000	BRHU 4000	BRHU 5000
Maximum Air Flow Rate*	m³/h	1050	2200	3200	3900	5200
Motor Power Drawn (Total)	w	230	430	510	800	1100
Heat Recovery Efficiency**	%	50	57	59	59	61
Filter Class		G2	G2	G2	G2	G2

^{*} Denotes air flow rate when external pressure is 0 Pa.

^{**} Specified for conditions of Fresh air at -5 / 90% RH, Return Air at 22 C $^{\circ}$ / 50% RH

Dimensions		BHRU 1000	BHRU 2000	BHRU 3000	BRHU 4000	BRHU 5000
Height H	mm	387	511	516	657	717
Width W	mm	712	1052	1152	1220	1352
Length L	mm	1120	1490	1620	1729	1842

- Allows optional components such as electrical heater and actuator driven valve to be operated with convenience.
- The points of input and output on the unit for this purpose:
 - Digital Thermistor Input: 6
 - 0-10 V Analog Input: 1
 - 0-10 V Analog Output: 4
 - Triac Output: 2
 - Relay Output: 4
- · All inputs and outputs can be configured independently.
- Standard ModBus communication unit enables secure communication up to 100 m between the control card and room unit.
- Other Functions:
 - Weekly scheduler
 - BMS addresses can be assigned over the display.
 - Programmable indoor air quality and CO₂ scenarios
 - RS485 interface
 - ModBus RTU





Electrical Heater

They are used to prevent freezing on fresh air intakes in very cold climates or to increase air temperature after heat recovery in the winter in temperate climate conditions. They are manufactured of stainless steel material and safety measures are taken with a safety thermostat and pressure switch.

Water Heater

They are used to prevent freezing on fresh air intakes in very cold climates or to increase air temperature after heat recovery in the winter in temperate climate conditions.

Water Cooler

They are used to reduce air temperature after heat recovery during summer in warm climate conditions.

DX Cooler

They are used to reduce air temperature after heat recovery during summer in warm climate conditions. They can be connected to VRF outdoor units, enabling them to serve as indoor units.

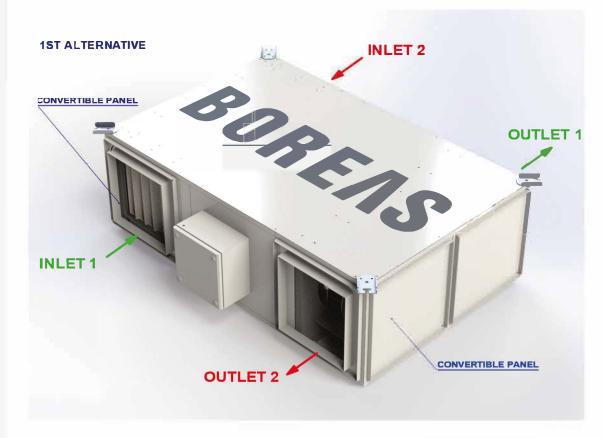
BOREAS HRV Control Unit

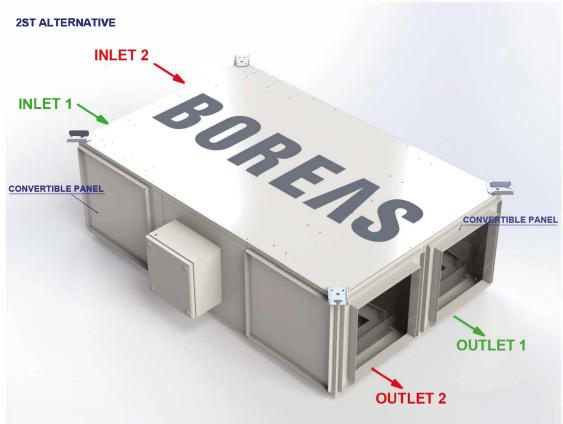
Optional Added Components

2 BOREAS HRV HEAT RECOVERY VENTILATION UNIT 3

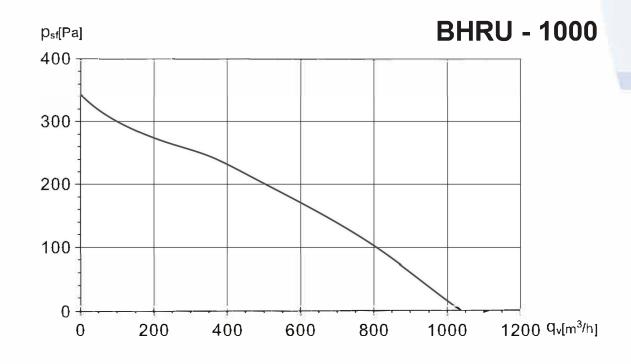
BOREAS HRV

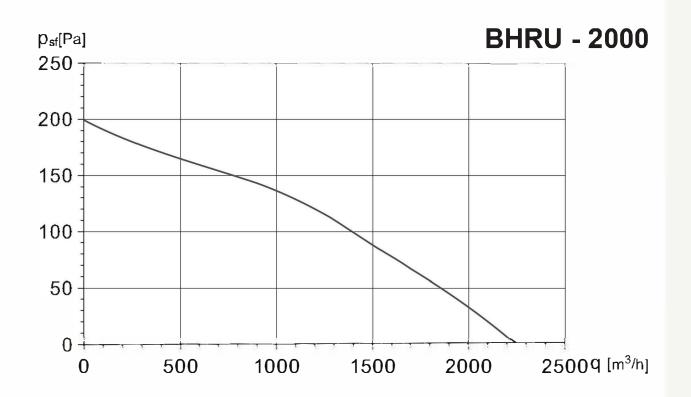
Heat Recovery Ventilation Unit





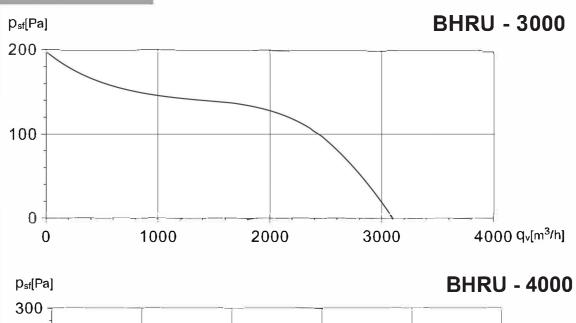
BOREAS HRV Fan Graphics

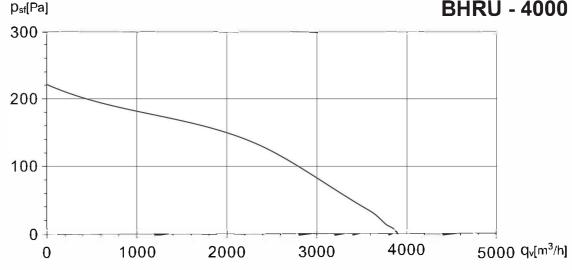


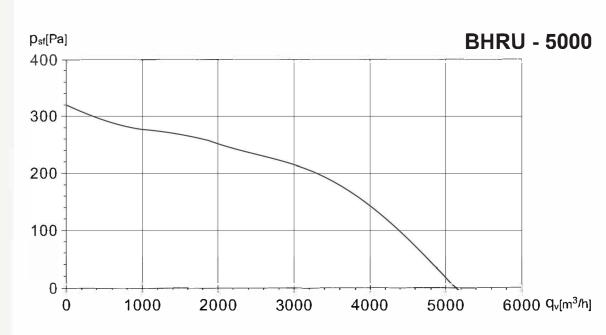


BOREAS HRV

Heat Recovery Ventilation Unit







BOREAS HRV

Fan speed control switch



FSC-25A/50A/75A Single-phase Fan Speed Switch

FCS Fan speed switches are designed for proportional control of single-phase fan motors.

The FCS single-phase fan speed switches are used in many fan speed control applications, such as duct type fans, aspirators, ventilators, heat recovery units and kitchen hoods.

- Stylish design
- Proportional fan control
- Easy to use
- Compact design
- Easy mechanical assembly
- Easily replaceable fuse

Technical Features

Control Internal potency

Max. Load 2,5A/5A/7,5A(FSC-25A/50A/75A) Frequency 50Hz/60Hz

Voltage 220VAC ± %10
Connection Max.1,5mm²
Working Temperature 0... +50°C

Dimension 100mmx100mmx55mm(HxWxD)

IP Protection Class

Fan Speed Key

Modeller

FSC-25A	Wall-mounted Fan Speed Control Switch (Max. 2,5A)
FSC-50A	Wall-mounted Fan Speed Control Switch (Max. 5A)
FSC-75A	Wall-mounted Fan Speed Control Switch (Max. 7,5A)

6 BOREAS HRV HEAT RECOVERY VENTILATION UNIT