





## **⊜DOGU**<sup>®</sup>

# FOCUS DOGU

## For the Future of HVAC Systems

We produce energy-efficient, environmentally friendly, innovative and sustainable climate control products with future technolog.



## **CODGU**

## BGK

Heat Recovery Units with By-Pass Damper

## BGK

## **GENERAL OVERVIEW**

- Low Energy Consumption
- Aluminum Heat Exchanger with High Efficiency
- Sound Level €
- High External Static Pressure
- € G4 Class Filter
- By-Pass Damper
- Voltage Control
- © Optional Water or Electric Heater
- © Optional Sound Attenuator
- Coptional Smart Control System
- The unit case is produced from 275 gr galvanized sheet.



#### HEAT RECOVERY UNITS with BY-PASS DAMPER

## BGK

## COMPONENTS

#### • **OPERATION**

In places that are air-conditioned by heating or cooling, low quality air-conditioned indoor air is formed where carbon dioxide and other harmful gases in the indoor environment are concentrated. While this air is exhausted, the heat load it carries is collected in the plate heat exchanger of the BGK-By Pass Damper Heat Recovery Units to condition the incoming fresh air. Thus, it is possible to recover 50-60% of the heat load in this air while the poor quality indoor air is discharged. Thanks to the by-pass damper, free-cooling and anti-freezing protection of the heat exchanger is provided. BGK-By-Pass Damper Heat Recovery Units work silently and with high efficiency with their plug-fan motors. Thanks to the speed switch sent as standard with the product, the device can be operated at the desired flow rate.

#### 

The case is produced from galvanized sheet. It is covered with 6 mm rubber insulation, providing both sound and heat insulation.

#### (2) FANS

The blowing and exhaust fans used are plug type There are intervention covers on the case in order to easily intervene with these fans.

#### (3) FAN COVERS

By means of these covers, the fans can be easily removed in case of maintenance or malfunction.



#### (4) FILTERS

There is a G4 filter in both the exhaust and fresh air inlets of the device.

#### (5) HEAT EXCHANGER

In this way, the aluminum plate heat exchanger, which is the main equipment of the device, is kept clean and working efficiently.

#### (6) ELECTRICAL JUNCTION BOX

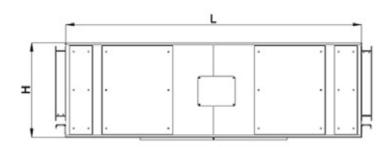
In order to easily connect the device to the mains, the electrical junction box, where the terminal connections of the fans are located, is fixed on the case.

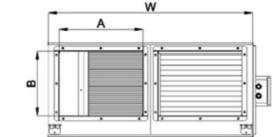
#### (7) BY-PASS DAMPER

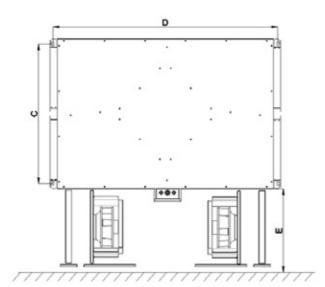
Thanks to the By-Pass Damper, free-cooling and anti-freezing protection of the heat exchanger is provided.



### DIMENSIONS

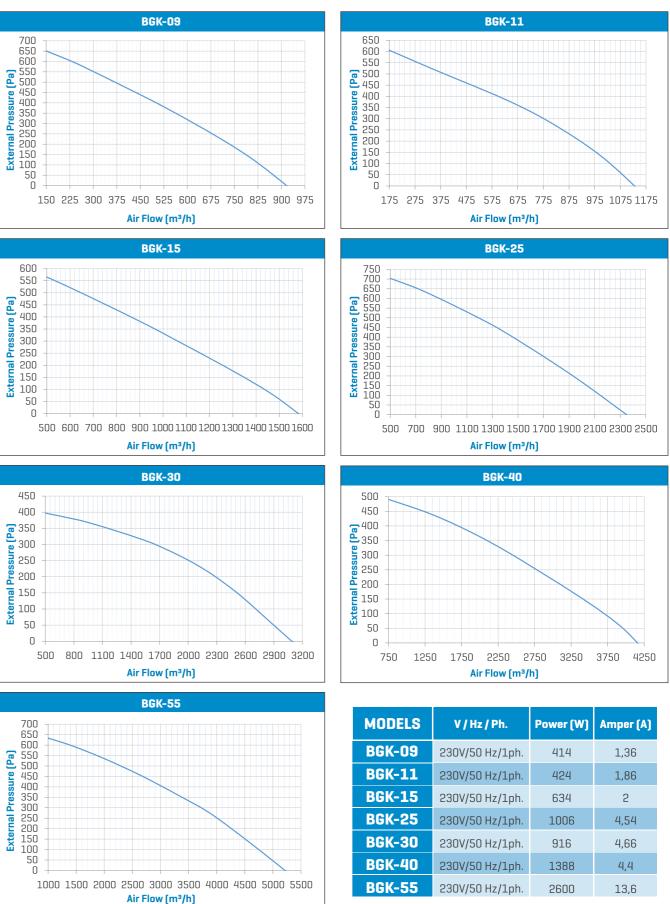






 $Q = V \times 0,36 \times [T_2 - T_1]$ Q = Power of Heater (Watt)  $V = Air Flow (m^3/h)$ T<sub>2</sub> = Output Temperature (°C) T<sub>1</sub> = Input Temperature (°C)

|          |        |          | CAP      | ACITY    |          |      |      |     |     |     |      |      |     |        |                    |
|----------|--------|----------|----------|----------|----------|------|------|-----|-----|-----|------|------|-----|--------|--------------------|
|          |        | Air Flow | Pressure | Air Flow | Pressure | L    | w    | н   | A   | в   | C    | D    | E   | Weight | Electric<br>Heater |
|          | Birim  | m³/h     | Pa       | m³/h     | Ра       | mm   | mm   | mm  | mm  | mm  | mm   | mm   | mm  | kg     | Capacity           |
|          | BGK-09 | 910      | 0        | 800      | 150      | 1120 | 720  | 455 | 260 | 210 | 650  | 1086 | 400 | 55     | 3 Kw-2Kd           |
|          | BGK-11 | 1125     | 0        | 1000     | 150      | 1160 | 800  | 485 | 300 | 240 | 730  | 1126 | 440 | 60     | 4 Kw-2Kd           |
| <b>S</b> | BGK-15 | 1570     | 0        | 1350     | 150      | 1430 | 980  | 550 | 390 | 300 | 910  | 1496 | 550 | 105    | 6 Kw-3Kd           |
| MODELS   | BGK-25 | 2350     | 0        | 2000     | 150      | 1590 | 1100 | 610 | 450 | 350 | 1030 | 1656 | 610 | 130    | 9 Kw-3Kd           |
| M        | BGK-30 | 3100     | 0        | 2500     | 150      | 1900 | 1126 | 720 | 510 | 460 | 1156 | 1966 | 660 | 165    | 12 Kw-3Kd          |
|          | BGK-40 | 4155     | 0        | 3500     | 150      | 1930 | 1300 | 775 | 550 | 520 | 1230 | 1996 | 700 | 210    | 15 Kw-3Kd          |
|          | BGK-55 | 5550     | 0        | 5000     | 150      | 1930 | 1300 | 775 | 550 | 520 | 1230 | 1996 | 700 | 210    | 15 Kw-3Kd          |



#### HEAT RECOVERY UNITS with BY-PASS DAMPER

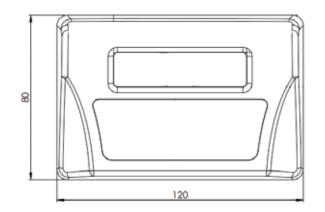
| MODELS | V / Hz / Ph.    | Power (W) | Amper (A) |
|--------|-----------------|-----------|-----------|
| BGK-09 | 230V/50 Hz/1ph. | 414       | 1,36      |
| BGK-11 | 230V/50 Hz/1ph. | 424       | 1,86      |
| BGK-15 | 230V/50 Hz/1ph. | 634       | 2         |
| BGK-25 | 230V/50 Hz/1ph. | 1006      | 4,54      |
| BGK-30 | 230V/50 Hz/1ph. | 916       | 4,66      |
| BGK-40 | 230V/50 Hz/1ph. | 1388      | 4,4       |
| BGK-55 | 230V/50 Hz/1ph. | 2600      | 13,6      |

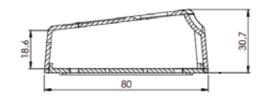
### **CONTROL PANEL**

The control panel, meticulously designed to incorporate all details of heat recovery units, takes the operation of these devices a step further. In today's world of rising energy costs, it plays a significant role in minimizing operating expenses by maximizing energy savings in HVAC systems. Below are some key features of the control panel:

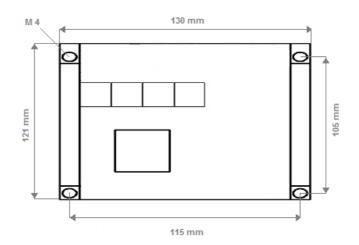
- Stylish and simple LCD screen control unit
- € 220V AC power supply
- € Temperature control range: 5-35°C
- ♥ High-precision digital sensor
- € Real-time ambient temperature display on the control unit
- Operation modes for summer and winter seasons
- € Automatic/manual operation options
- € Fan speed level monitoring in manual mode
- Communication capability with the heat recovery unit up to a distance of 50 meters

#### **ROOM PANEL**





## CONTROL BOARD



#### HEAT RECOVERY UNITS with BY-PASS DAMPER

## SUSTAINABILITY Solutions at dogu hvac



We offer supplementary health insurance to our employees to promote healthy living. We also plan health-focused initiatives such as smoking cessation programs.



Through the DOĞU HVAC CLUB project, we organize technical tours of our factory, participate in career events, and provide sponsorships to support the skill development of university and technical high school students.

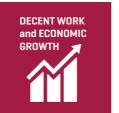


In 2024, we increased female employment in our administrative and production departments. This step aims to contribute to gender equality by offering a workplace with equal rights for all employees.



Our R&D center's 2,500 m<sup>2</sup> solar panels and 0.6 MW annual capacity solar energy systems reduce our carbon footprint. We generate our electricity, ensuring a reliable, sustainable, and accessible clean energy source.





Decent Work and Economic Growth: As an employer brand, our primary goal is to protect our employees' rights and create a workplace founded on equality and justice for all employees.



We enhance indoor air quality with environmentally friendly and energyefficient products, ensuring adherence to European standards.



We minimize waste through lean production policies and emphasize recycling, simultaneously increasing efficiency in our production processes.



We support environmental protection through our eco-friendly, sustainable, energy-efficient product lines and R&D efforts focused on reducing waste that could contribute to climate change.







We value transparency and accountability, working with associations like İSKAV to prevent corruption and unfair competition, aligning with sectoral ethical values.

## Venues Breathe With Us



Read to watch our promotional video



www.dogu.com.tr

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