LOVE NATURE FOR FUTURE

DUCA®

Plumbing& Industrial
Product Catalog

2024-0301

DUCA®

Made in Türkiye

1/24 TECHNICAL SUPPORT

2years Warranty

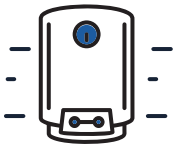
TSE CE

DOMESTIC PRODUCTION

DUCA®

2015

DUCA® sector entry



2017

Establishment of the Duca Brand and the Development of Market-Appropriate Alternative Products

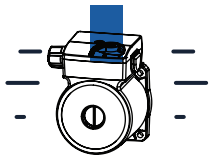
2018

The Entry of the Duca Brand into the European Market

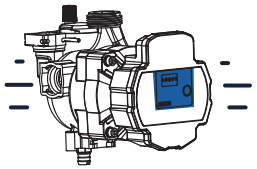
2020

Achieving an Annual Sales Volume of 400,000 Units and Commencing Mold Investments in Turkey

2021



Commencement of Pump Supply to Boiler Manufacturers Based in Turkey



2022

Supply of Hydroblock Kits to Boiler Manufacturers, Export to 35 Countries, Achieving an Annual Sales Volume of 1.000.000 Units

2023

Commencement of Production in Turkey

MEET DUCA

Boiler Manufacturer Solution Partner 2022

DUCA is a top-tier solution provider in the fields of Boiler Pumps, Industrial Pumps, and Pump Accessories. We offer user-friendly, easily applicable, energy-efficient, cost-effective, and high-performance solutions against complex technologies and monopolized products.

We place people at the center of our business. We offer solutions and services tailored to end consumers and practitioners with user-friendly products.

DUCA has earned numerous accolades since 2015 from many boiler manufacturers and service providers in the aftermarket industry. In line with this, we are aware of the questions that will shape the future and are developing technologies to provide solutions to them.

Our brand, established with the goal of actively conducting sales worldwide as a global company, has put the DUCA signature on circulation pumps, the most important product in the HVAC industry, by combining the idea of excellence with sustainability objectives.

ULUSLAR ARASI POMPA TEDARİĞİ

- Armenia
- Azerbaijan
- Belarus
- Bosnia and Herzegovina
- Croatia
- China
- Czech Republic
- Denmark
- England
- France
- Georgia
- Greece
- Netherlands
- Hungary
- Ireland
- Iraq
- Iran
- Italy
- Kazakhstan
- Moldova
- Poland
- Russia
- Romania
- Spain
- Slovenia
- Sweden
- Ukraine
- Uzbekistan

DUCA®

PLUMBING AND INDUSTRIAL PRODUCT FAMILY

- System Pumps
- Pressurization Pumps (Hydrophore)
- Purger
- Safety Valve

Türkiye

DOMESTIC PRODUCTION

GEX

Application:
You can use this product for domestic water in the following areas:
•Underfloor heating systems,
•Air-powered hot water systems,
•Solar-powered hot water circulation systems,
•Cold water pressurization systems
And similar systems

4,0 m³/h Flow rate • **7,5 m** Pump head

DUCA®

Main Features:

EEI≤0.21
Permanent magnet aluminum cast body motor with intelligent frequency control
Compact size, easy installation
Proportional pressure, constant pressure, constant speed mode
AUTOADAPT mode
PWM control (optional)
Quiet operation

Operating Conditions:

Liquid temperature: 2°C to 110°C
Ambient temperature: 0°C to +40°C
Maximum system pressure: 10 bar
Protection level: IP42
Mains connection: 220V~240V/50Hz
Insulation class: E
Liquid characteristics pumped: clean, free of solid matter and mineral oil, non-toxic, chemically neutral, similar to water properties

Modeller

Model	Body	Flow rate m³/h	Pump Head H(mSS)	input/output (inç)	Flange Distance (mm)
GEX-B 15-75-130	Bronz	0-3,4	5/6/7,5	1"	130
GEX-S 15-75-130	Döküm	0-3,4	5/6/7,5	1"	130
GEX-C 25-75 130	Döküm	0-3,4	5/6/7,5	1 1/2"	130
GEX-C 25-75 180	Döküm	0-3,6	5/6/7,5	1 1/2"	180
GEX-C 32-75 180	Döküm	0-4,0	5/6/7,5	2"	180

1x Power & Signal Cable
2x Union & Gasket

EEI ≤ 0.21 iPWM ErP READY CE RoHS Compliant

GEX-B

DHW Applications

GEX-S

Solar Applications

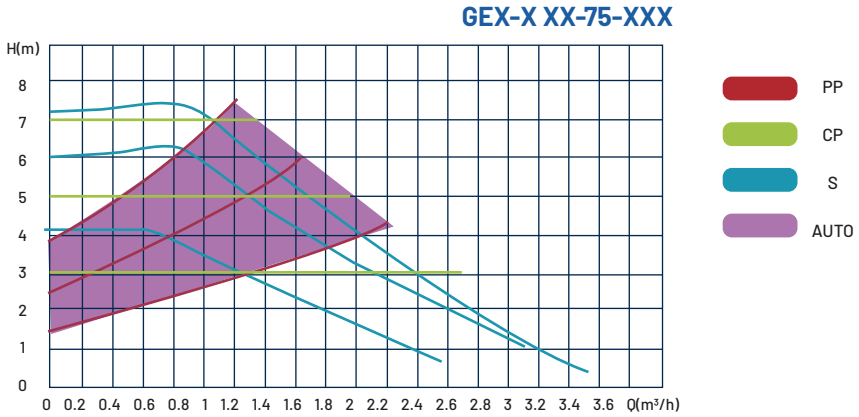
GEX-C

All Applications

EEI ≤ 0.21 iPWM ErP READY CE RoHS Compliant

Performance Curve:

DUCA®

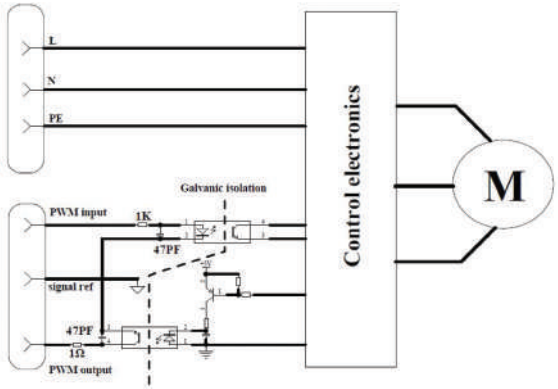


PWM

Basic Control Principles

When a PWM signal is connected, the operation of the circulation pump is controlled by Energy Saving High Reliability.
If there is no PWM signal, the operation of the circulation pump is controlled by internal control logic.

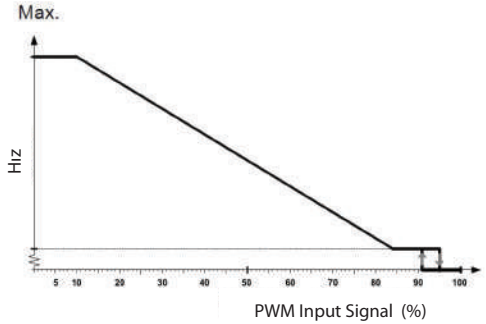
Basic Control Logic:



PWM Input Signal (PW1 Heating):

At high PWM signal percentages (duty cycles), there is a hysteresis (delay) around the input signal shift point that prevents the circulation pump from starting and stopping due to fluctuations. At low PWM signal percentages, for safety reasons, the circulation pump operates at high speed. In a gas boiler system, in the event of a cable break, the circulation pump continues to operate at maximum speed to transfer heat from the primary heat exchanger. This applies to heat circulation pumps suitable for ensuring heat transfer in the event of cable breakage.

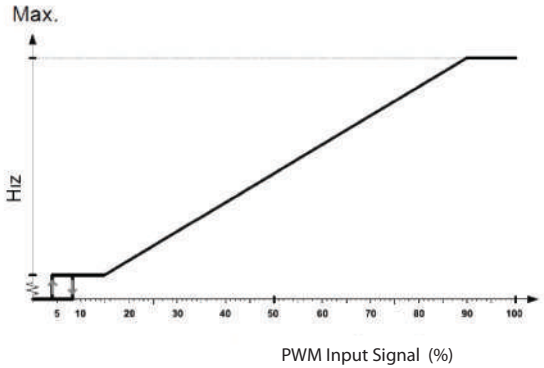
PWM Waveform:



PWM girdi sinyali (%)	Pump status
PWM=0	Switches the pump out of PWM mode (internal control).
0<PWM≤10	Max. speed: Max.
10<PWM≤84	Variable speed: max. to min. e
84<PWM≤91	Minimum speed: Min.
91<PWM≤95	Hysteresis field: on/off
95<PWM≤100	Standby mode: off

PWM Input Signal (P2 Solar):

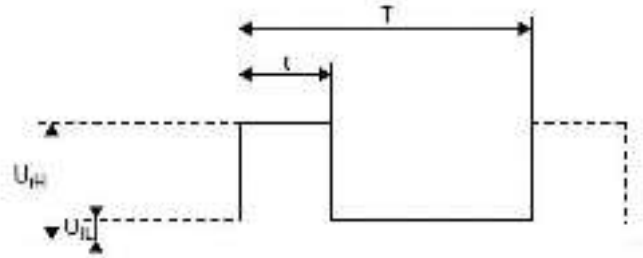
At low PWM signal percentages (duty cycles), a hysteresis prevents the circulation pump from starting and stopping if the input signal fluctuates around the shift point. Without PWM signal percentages, the circulation pump stops for safety reasons. For example, if there is a signal loss due to a cable break, the circulation pump stops to prevent overheating of the solar thermal system.



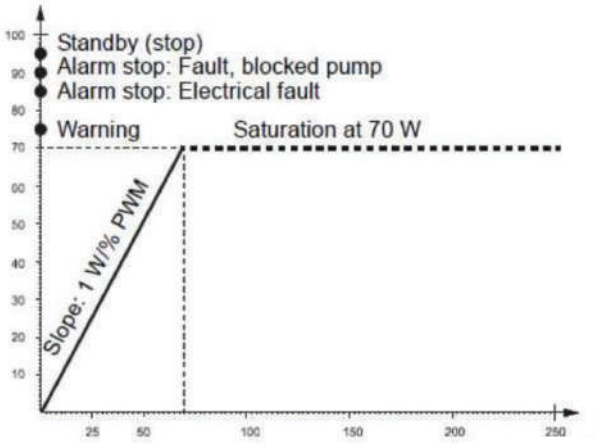
PWM girdi sinyali (%)	Pump status
PWM=0	Switches the pump out of PWM mode (internal control).
0<PWM≤5	Standby mode: off
5<PWM≤8	Hysteresis field: on/off
8<PWM≤15	Minimum speed: Min
15<PWM≤90	Variable speed: min. to max.
90<PWM≤100	Maximum speed: Max.

PWM Signal

Optocoupler Isolation		YES1000-2500Hz
PWM Input Frequency		4.0-5.5V
High-Level Input Voltage:	UIH	<0.7V
Low-Level Input Voltage	UIL	Max3.5mA@4700Ohms Max10mA@100Ohms
High-Level Input Current	IH	0-100%
PWM output duty cycle		Constant
Signal polarity : Constant		<3M
Signal line length		<T/1000
Rising and falling edge time		



Pwm Geri Besleme Sinyali (Güç Tüketimi)



PWM output signal (%)	Competency Time QT (s)	Wait with PWM signal (STOP)	Disqualification Time DT (s)0	Priority1
95	0	Alarm, stop, blockage error	12	2
90	30	Alarm, stop, electrical fault	1-12	3
85	0-30	Warning	0	5
75	0	0-70W (slope 1W/%PWM)		6
0-70		75Hz+/-5%6		
Output frekansı				

Signal Connections:

- Ground wire (GND)
- PWM input (from controller)
- PWM output (from pump)

COSMO

HIGH FLOW

Application:
You can use this product for domestic water in the following areas:
•Underfloor heating systems,
•Air-powered hot water systems,
•Solar-powered hot water circulation systems,
•Cold water pressurization systems
And similar systems.

10,0 m³/h Flow Rate • **12,0 m** Pump Head

Main Features:

"A" Nominal energy efficiency - lowest power consumption
Permanent magnet aluminum cast body motor, intelligent frequency control
Compact design with control box integrated into pump head
Proportional pressure, constant pressure, constant speed mode
AUTOADAPT mode
Night setback mode
Real power indicator through smart display
Low noise operation

Operating Conditions:

Liquid temperature: 2°C to 110°C
Maximum ambient temperature: +40°C
Maximum system pressure: 10 bar
Protection level: IP42
Mains connection: 220V~240V; 50Hz
Insulation class: F
Liquid characteristics pumped: clean, free of solid matter and mineral oil, non-toxic, chemically neutral, similar to water properties

EEI ≤ 0.21 ECO DESIGN ErP READY TSE CE

COSMO

HIGH FLOW

Application:
You can use this product for domestic water in the following areas:
•Underfloor heating systems,
•Air-powered hot water systems,
•Solar-powered hot water circulation systems,
•Cold water pressurization systems
And similar systems.

10,0 m³/h Flow Rate • **12,0 m** Pump Head

Modeller

Model	Body	Flow rate m³/h	Pump Head H(mSS)	input/output (inç)	Flange Distance (mm)
COSMO-C 25-8-180	Döküm	8,0	8,5	1 1/2″	180
COSMO-C 25-10-180	Döküm	9,0	10,0	1 1/2″	180
COSMO-C 25-12-180	Döküm	10,0	12,0	1 1/2″	180
COSMO-C 32-10-180	Döküm	9,0	10,0	2″	180
COSMO-C 32-12-180	Döküm	10,0	12,0	2″	180
COSMO-B 25-8-180	Bronz	8,0	8,5	1 1/2″	180
COSMO-B 25-10-180	Bronz	9,0	10,0	1 1/2″	180
COSMO-B 25-12-180	Bronz	10,0	12,0	1 1/2″	180
COSMO-B 32-10-180	Bronz	9,0	10,0	2″	180
COSMO-B 32-12-180	Bronz	10,0	12,0	2″	180

1x Power & Signal Cable
2x Union & Gasket

EEI ≤ 0.21 ECO DESIGN ErP READY TSE CE

COSMO-B

HIGH FLOW

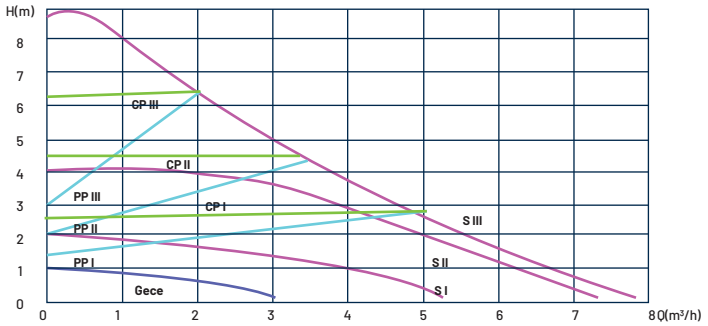
COSMO-C

HIGH FLOW

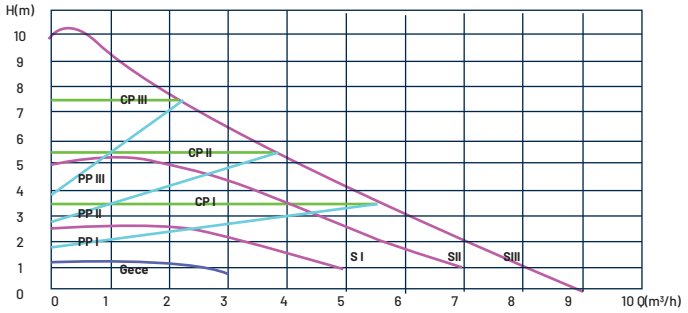
DUCA®

Performance Curve:

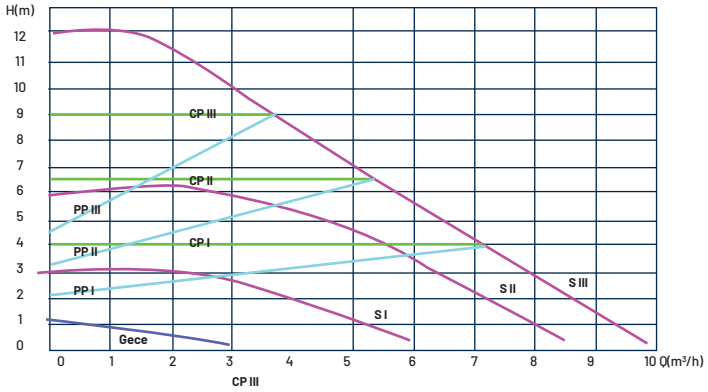
COSMO-X XX-8-180



COSMO-X XX-10-180



COSMO-X XX-12-180



ALBATROS

200

A home booster pump is used to obtain
higher pressure when the water pressure is low.

3,5 m³/h Flow Rate • **25,0 m** Pump Head

DUCA®

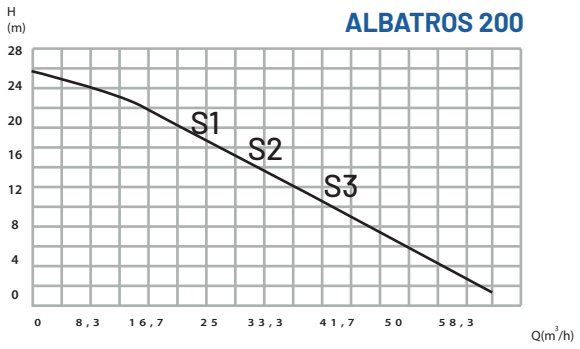
Specifications:

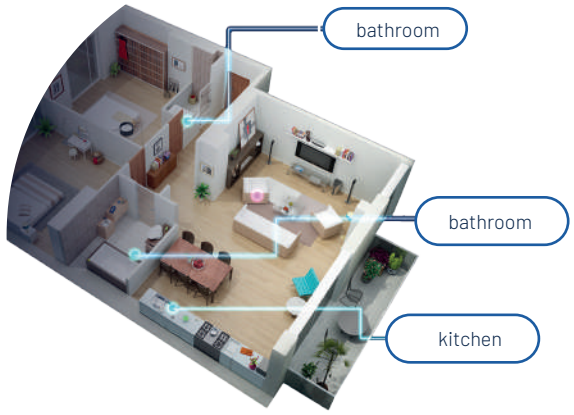
"A" Nominal energy efficiency - lowest power consumption
Permanent magnet, intelligent frequency control
Smart display
Low noise operation
Nominal Flow: 1.5 M3/h
Nominal H: 17.5 M
Maximum Input Power: 300 W

Operating Conditions:

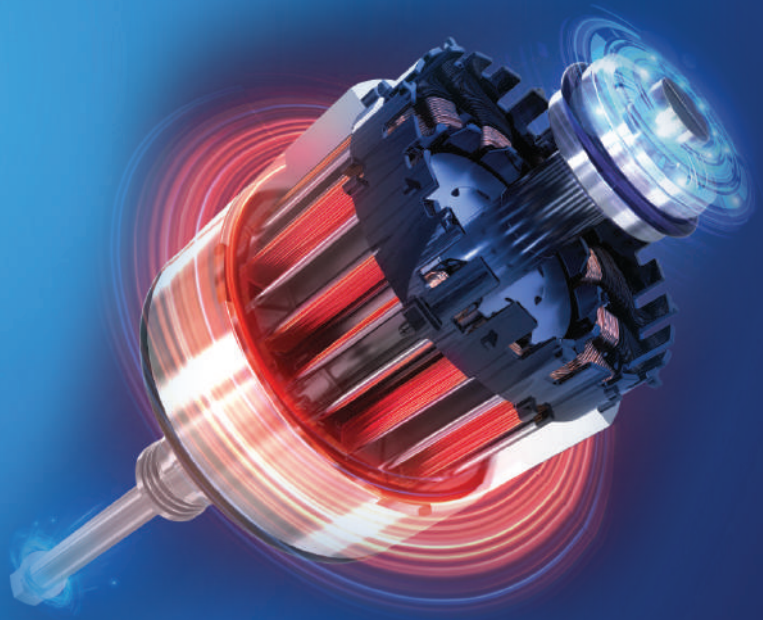
Environment pH: 6.5 ~ 8.5
Medium Temperature Range: 0°C ~ +60°C;
Mains Connection: 220V AC Single Phase (Fluctuation Range ± %10)
Liquid characteristics pumped: clean, free of solid matter and mineral oil, non-toxic, chemically neutral, similar to water properties

Performance Curve:





ALBATROS;
COMPACT DESIGN,
LOW CONSUMPTION,
HIGH EFFICIENCY



ALBATROS

1000

A home booster pump is used to obtain
higher pressure when the water pressure is low.

4,0 m³/h Flow Rate • **50,0 m** Pump Head

DUCA®

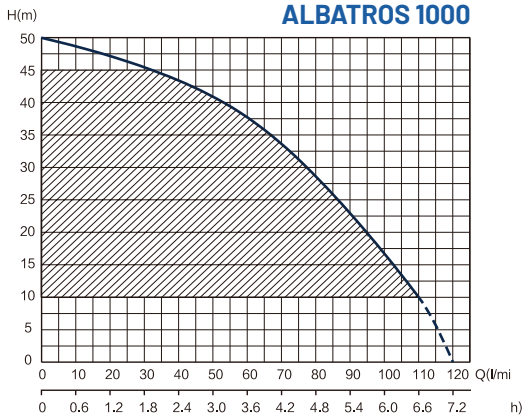
Specifications:

"A" Nominal energy efficiency - lowest power consumption
Permanent magnet, intelligent frequency control
Smart display
Low noise operation
Nominal Flow: 4.0 m3/h
Nominal H: 35.0 M
Maximum Input Power: 1200 W

Operating Conditions:

Environment pH: 6.5 ~ 8.5
Medium Temperature Range: 0°C ~ +60°C;
Mains Connection: 220V AC Single Phase (Fluctuation Range + %10)
Liquid characteristics pumped: clean, free of solid matter and mineral oil, non-toxic, chemically neutral, similar to water properties

Performans Curve



PURGER

Purgers are devices used to automatically discharge air from the heating system. Ensuring that the heating system is free of air allows it to operate efficiently. With the check valve located at the bottom, the risk of water flowing out of the system when the purge valve is removed is prevented.

Main Features

Body: Brass-Sand
Connection: R 1/2"
Spring: Stainless Steel
Float: Plastic

Operating Conditions

Liquid Temperature: 110°C
Maximum System Pressure: 10 Bar

SAFETY VALVE

(Constant pressure)

Safety valves are safety devices used to discharge excess pressure in heating, cooling, and plumbing systems to prevent damage to the system

Main Features

Discharge: G 1/2" B
Connection: G 1/2"
Spring: Spring Steel

Operating Conditions

Liquid Temperature: 110°C
Maximum System Pressure: 10 Bar
Pressure: 3/4/6 Bar

DUCA®

REFERENCES

warmhaus

Vaillant
Russia

BOSCH
Russia

VIESMANN
Russia

DiZAYN

Emko

Baykan®

BIASI

SANICA

TERMODİNAMİK

MAKTEK

شعله خیز آذر
Shoaleh Khiz Azar Industrial Group

HAMGAM

PAKKENS®

hexel

DUCA®

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