

CIRCULATION UNIT FIXED TEMPERATURE, SERIES GFA100



GFA111

GFA112

PRODUCT DESCRIPTION

The ESBE series GFA100 is a circulation mixing unit designed for heating circuits, where the constant temperature control is required. Equipped with two shut-off valves with thermometers, check valve, high class insulation shell and high efficiency circulation pump. The GFA100 is delivered with the 3-way thermostatic mixing valve for constant temperature control of the heating circuit. The thermostatic mixing valve has adjustable temperature setting.

SERVICE AND MAINTENANCE

The circulation unit does not require any specific maintenance under normal conditions.

PRODUCT ASSORTMENT

KEY BENEFITS

- Thermostatic constant temperature control
- Adjustable temperature setting
- High class insulation shell
- High efficiency circulation pump

RELATED ACCESSORIES

See separate data sheet for further detailed information.

ESBE Manifold

Manifold for 1, 2, or 3 circulation units. With integrated separator function.

Art. No.

66001100 _____ GMA411- for 1 unit

66001600 _____ GMA521 - for 2 units

66001700 _____ GMA531 - for 3 units

Manifold for 2, 3, 4 or 5 circulation units. Without integrated separator function.

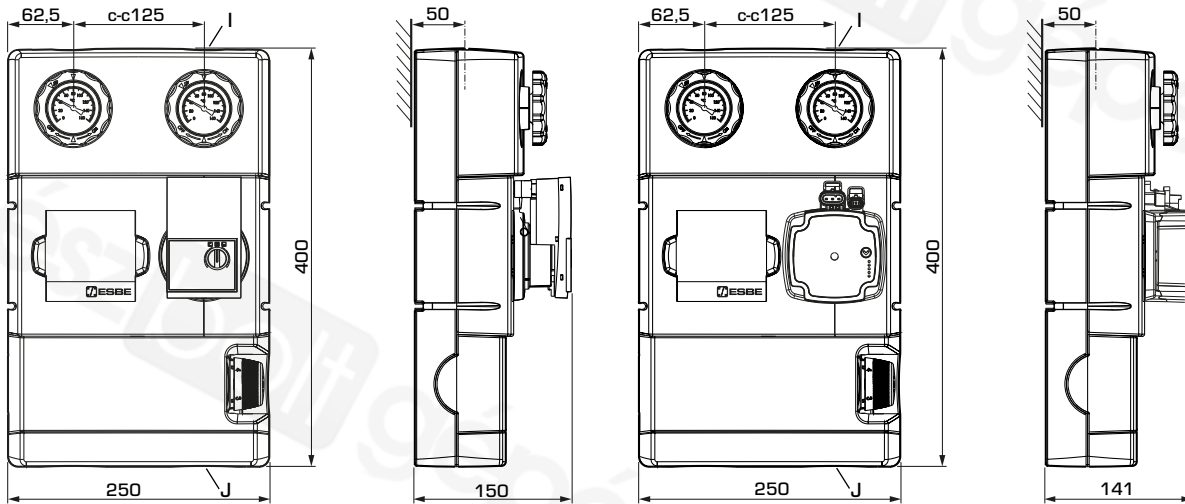
Art. No.

66001200 _____ GMA421- for 2 units

66001300 _____ GMA431 - for 3 units

66001400 _____ GMA441 - for 4 units

66001500 _____ GMA451 - for 5 units



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SERIES GFA100

Art. No.	Reference	DN	Pump	Temperature range	Connections		Weight [kg]	Note
					I	J		
61020100	GFA111	25	Wilo 25/6	20-55 °C	G 1"	G 1½"	5,4	
61020200		32	Wilo 25/7,5		G 1¼"	G 1½"	6,0	
61020300	GFA112	25	Grundfos 25-50	20-55 °C	G 1"	G 1½"	5,5	
61020400		32	Grundfos 25-70		G 1¼"	G 1½"	6,1	

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TECHNICAL DATA

 Visit esbe.eu for further detailed information.

The Circulation unit, in general:

Pressure class: _____ PN 6
 Media temperature: _____ max. +110°C
 _____ min. 0°C
 Ambient temperature: _____ max. +50°C
 _____ min. 0°C
 Working pressure: _____ 0,6 MPa (6 bar)
 Connections,
 _____ Internal thread (G), ISO 228/1
 _____ External thread (G), ISO 228/1
 Insulation: _____ EPP λ 0,036 W/mK
 Media: _____ Heating water (in accordance with VDI2035)
 _____ Water / Glycol mixtures, max. 50%.
 (above 20% admixture, the pump data must be checked)
 _____ Water / Ethanol mixtures, max. 28%

Material, in contact with water:

Components of: _____ Brass, Cast iron, Steel
 Sealing material of: _____ PTFE, Aramid fibre, EPDM

EEI (Energy Efficiency Index),

Wilo circulation pump: _____ <0,21
 Grundfos circulation pump: _____ <0,20

Conformities and certificates:

 LVD 2014/35/EU  ErP 2009/125/EU
 EMC 2014/30/EU ErP 2015
 RoHS 2011/65/EU  EnEV2014
 PED 2014/68/EU, article 4.3

The integrated thermostatic mixing valve:

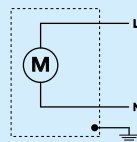
Max. differential pressure drop: _____ 100kPa (1bar)
 Temperature range: _____ 20–55°C
 Temperature stability: _____ $\pm 3^\circ\text{C}^*$

* Valid at unchanged hot/cold water pressure, minimum flow rate 9 l/min.
 Minimum temperature difference between hot water inlet and mixed water outlet 10°C.

The integrated circulation pump:

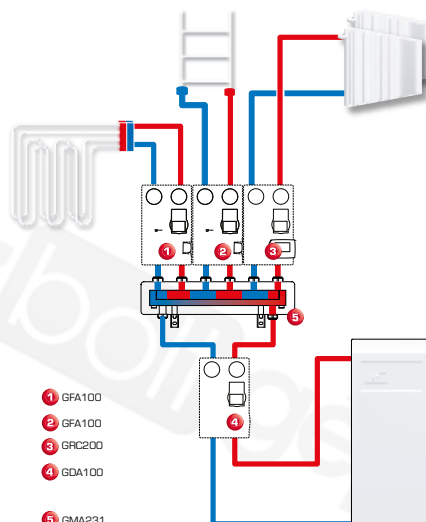
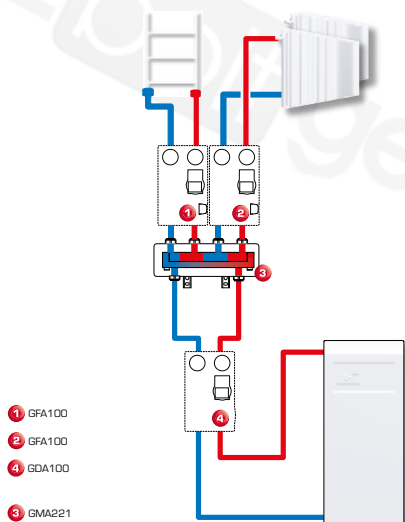
Power supply: _____ 230 \pm 10% V AC, 50/60 Hz
 Power consumption - Wilo 25/6: _____ 3–45 W
 - Wilo 25/7,5: _____ 3-76 W
 - Grundfos 25-50: _____ 2-34 W
 - Grundfos 25-70: _____ 2-53 W
 Enclosure rating: _____ IP X4D
 Insulation class: _____ F
 EEI (Energy Efficiency Index) - Wilo 25/6: _____ <0,20
 - Wilo 25/7,5: _____ <0,21
 - Grundfos: _____ <0,20

PUMP WIRING



The circulation pump should be preceded by a multi-pole contact breaker in the fixed installation.

INSTALLATION EXAMPLES



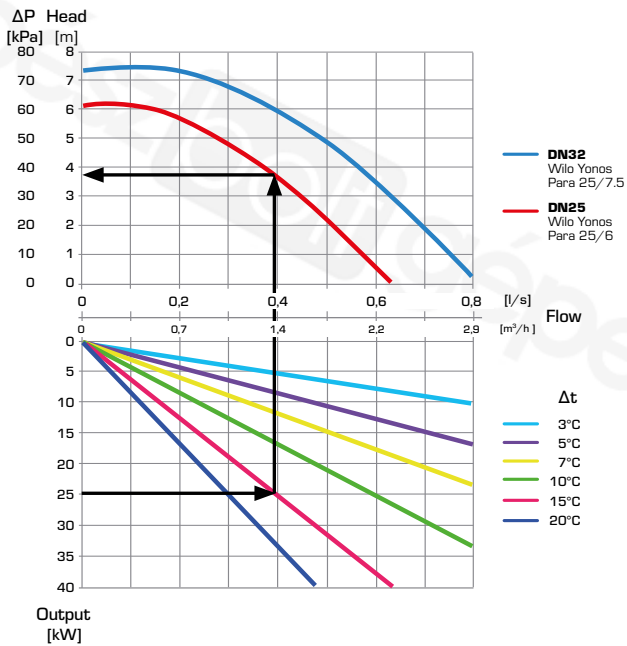
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DIMENSIONING, PUMP CAPACITY DIAGRAM

Example: Start with the heating demand of heating circuit (e.g. 25 kW) and move horizontally to the right in the diagram to the $\Delta t = 15^\circ\text{C}$ (temperature difference between flow and return of the heating circuit). Next go up and find working flow point and read the available pressure of the pump on the left - $\Delta p = 39 \text{ kPa}$.

SERIES GFA100 – available pressure, Wilo pumps



SERIES GFA100 – available pressure, Grundfos pumps

