

ESBE SYSTEM UNITS

## 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

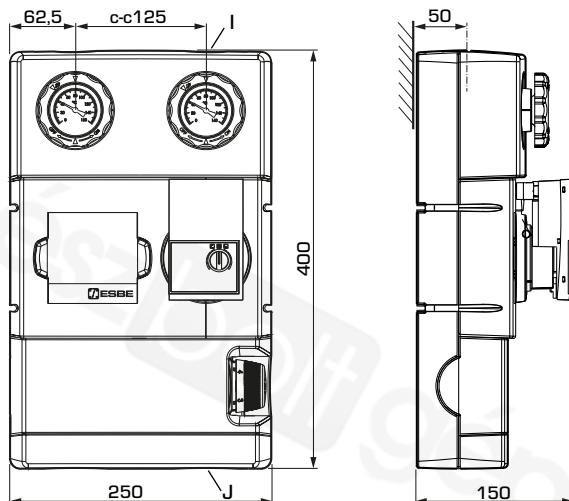
Manifold for 1, 2, or 3 circulation units. With integrated separator function.  
Art. No.

66001100	GMA411- for 1 unit
66001600	GMA521 - for 2 units
66001700	GMA531 - for 3 units

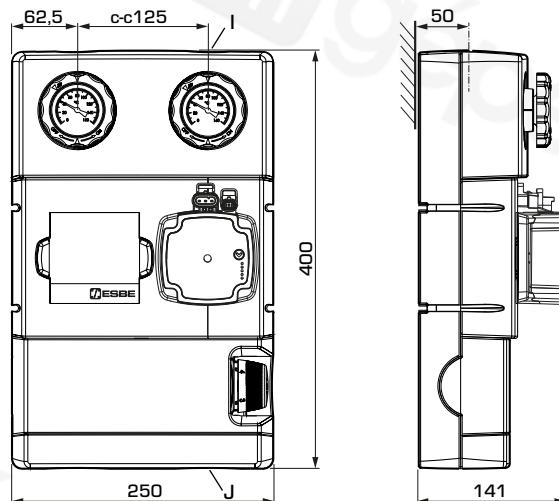
Manifold for 2, 3, 4 or 5 circulation units. Without integrated separator function.

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 I	Connections J	Weight [kg]	Note
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	

# CIRCULATION UNIT

## FIXED TEMPERATURE,

### SERIES GFA100

**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: \_\_\_\_\_ &lt;0,21

Grundfos circulation pump: \_\_\_\_\_ &lt;0,20

**Conformities and certificates:**

CE 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



ErP 2009/125/EU

ErP 2015



EnEV2014

**The integrated thermostatic mixing valve:**

Max. differential pressure drop: \_\_\_\_\_ 100kPa (1bar)

Temperature range: \_\_\_\_\_ 20–55°C

Temperature stability: \_\_\_\_\_ ±3°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 ± 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

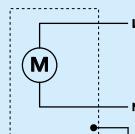
Enclosure rating: \_\_\_\_\_ IP X4D

Insulation class: \_\_\_\_\_ F

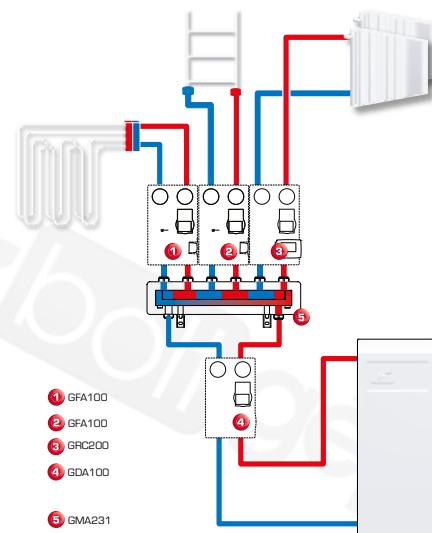
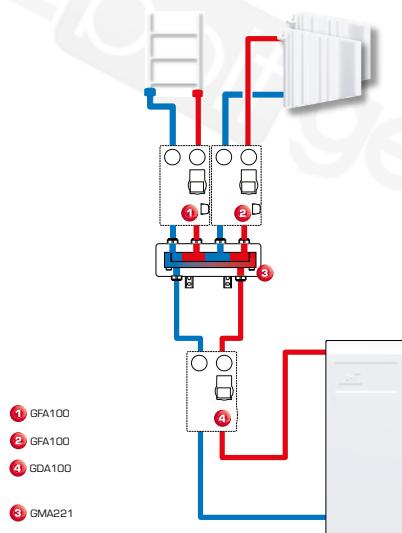
EEI (Energy Efficiency Index) - Wilo 25/6: \_\_\_\_\_ &lt;0,20

- Wilo 25/7,5: \_\_\_\_\_ &lt;0,21

- Grundfos: \_\_\_\_\_ &lt;0,20

**PUMP WIRING**

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

**INSTALLATION EXAMPLES**

# CIRCULATION UNIT

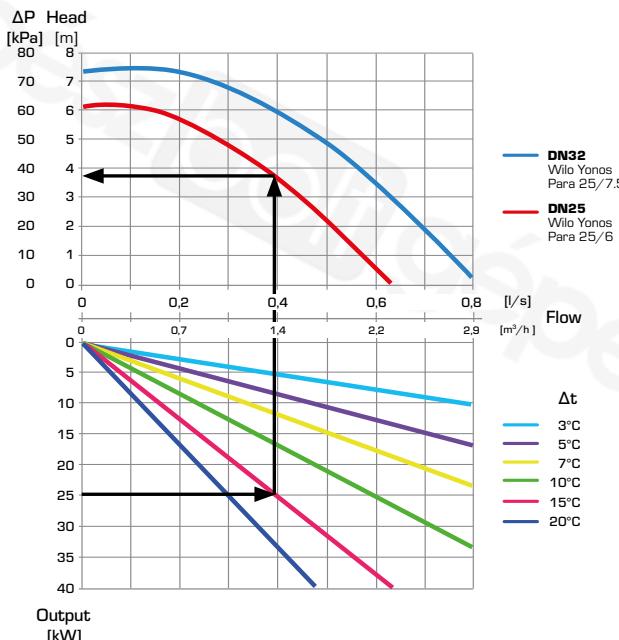
## FIXED TEMPERATURE,

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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 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

