

# CIRCULATION UNIT

## DIRECT SUPPLY, SERIES GDA300



GDA311

### PRODUCT DESCRIPTION

The ESBE series GDA300 is a direct supply circulation unit designed for applications, where the energy transport in the most efficient way is required. Equipped with two shut-off valves with thermometers, check valve, high class insulation shell and high efficiency circulation pump. You can be sure that ESBE delivers the best circulation unit for both your economy as well as for the environment. It is simply the most efficient direct supply unit available. When designing the circulation unit product line the focus at ESBE has been to simplify installation. This goes through the whole product from pre assembly, mounting brackets and insulation to packaging design.

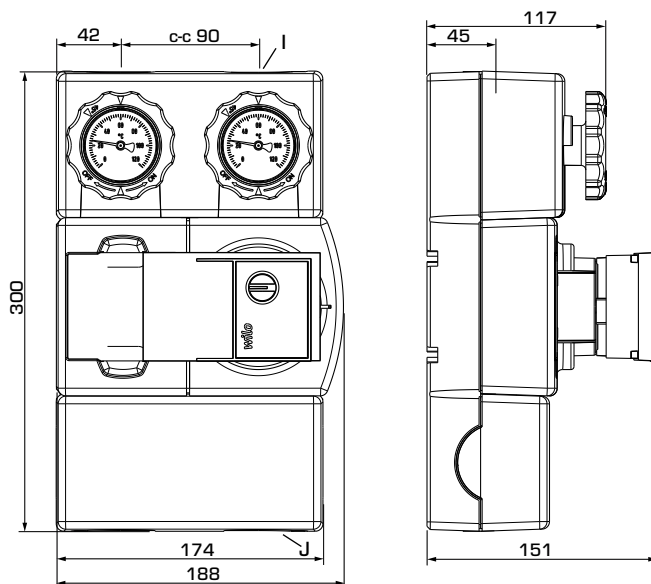
### KEY BENEFITS

- High efficiency circulation pump
- High class insulation shell
- Pre tested and ready to use
- Compact design

### SERVICE AND MAINTENANCE

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

### PRODUCT ASSORTMENT



GDA311

### SERIES GDA300

Art. No.	Reference	DN	Pump	Connections		Weight [kg]	Note
				I	J		
61003100	GDA311	20	Wilo 15/7,5	G 3/4"	G 1"	3,7	

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### TECHNICAL DATA

 Visit [esbe.eu](http://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  $\lambda$  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: \_\_\_\_\_ Steel, Cast iron, Brass  
 Sealing material of: \_\_\_\_\_ PTFE, Aramid fibre, EPDM

#### EEI (Energy Efficiency Index),

Wilco circulation pump: \_\_\_\_\_ <0,21

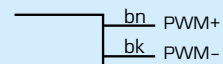
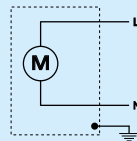
#### Conformities and certificates:

 LVD 2014/35/EU  ErP 2015    
 EMC 2014/30/EU  ErP 2015  
 RoHS 2015/863/EU  ErP 2015  
 PED 2014/68/EU, article 4.3

#### The integrated circulation pump:

Type: \_\_\_\_\_ Wilo RSTG 15/7,5  
 Power supply: \_\_\_\_\_ 230  $\pm$  10% V AC, 50/60 Hz  
 Cable length: \_\_\_\_\_ 3m  
 Power consumption: \_\_\_\_\_ 4-75 W  
 Enclosure rating: \_\_\_\_\_ IP X4D  
 Insulation class: \_\_\_\_\_ F  
 EEI (Energy Efficiency Index): \_\_\_\_\_ <0,21

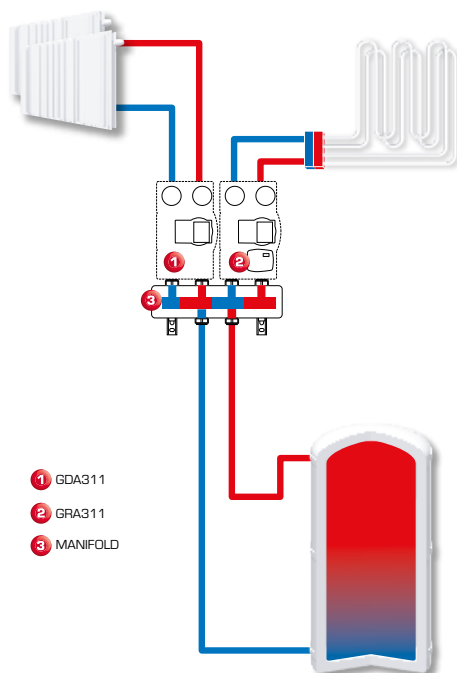
#### PUMP WIRING\*



Pump speed could be controlled by PWM signal

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

### INSTALLATION EXAMPLES



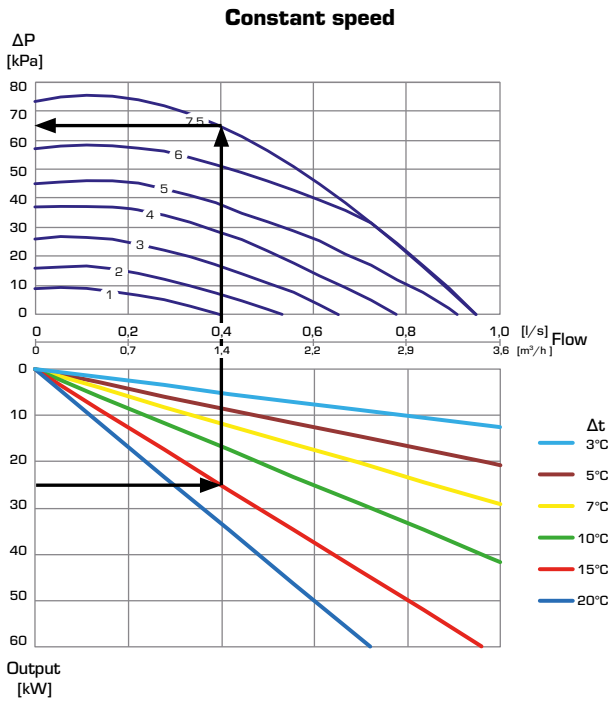
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### DIMENSIONING, PUMP CAPACITY DIAGRAM

**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 -  $\Delta p = 65 \text{ kPa}$ .

#### SERIES GDA300 – available pressure



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