**Heating and cooling**

**High-efficiency pumps**

**Series description Wilo-Yonas PARA Red Knob 15/6, 20/6, 25/6, 30/6**

**Design**

Glandless circulation pump with cast iron pump housing and threaded connection. EC-motor with automatic power adjustment and self-protection modes. Operation by Red Knob technology and delivered with power cable.

**Application**

Hot-water heating systems of all kinds, cooling applications

**Type key**

- Example: Wilo-Yonas PARA RS 15/6 RKA FS 130 12 I
- Yonas: Electronically controlled high-efficiency pump
- PARA: Pump range adapted to requirements of the OEM market
- RS: Heating inline cast iron pump housing
- 15/6: Nominal diameters:
  - 18 threading 1"
  - 20 threading 1 1/4"
  - 25 threading 1 5/8"
  - 30 threading 2"
- 6: Max delivery height in [m] at Q = 0 m³/h
- RKA: The pump is controlled by Red Knob technology: ΔP-v / ΔP-c
- RK = ΔP-v, constant speed I, II, III
- FS: Overmoulded cable with brassed end splices.
- Optional connector
- 130: Pump housing length: 130 mm or 180 mm
- 12: Box orientation
- I: Individual packaging
- (not specified): Collective packaging (standard)

**Technical data**

- Approved fluids (or fluids on request)
- Heating water (in accordance with VDI 2035)
- Water-glycol mixtures (max. 1:1 above 20% mixture, the pumping data must be checked)

**Technical data**

- Max. delivery head: 6.2 m
- Max. volume flow: 3.3 m³/h
- Permitted field of application
  - Temperature range for applications in HVAC systems at max. ambient temperature:
    - of 57°C = 0°C to 95°C
    - of 59°C = 0°C to 80°C
    - of 67°C = 0°C to 70°C
  - Maximum static pressure: 6 bar
- Electrical connection
  - Multi connection: 1~230 V, 50/60 Hz
- Motor/electronics
  - Electromagnetic compatibility: EN 61000-3
  - Emitted interference: EN 61000-6-1, EN 61000-6-4
  - Interference resistance: EN 61000-6-1, EN 61000-6-2
  - Speed control: Frequency converter
  - Protection class: IPX 40
  - Insulation class: F

**Minimum suction head at suction part for avoiding cavitation at water pumping temperature**

- Minimum suction head at 50/95 / 110°C: 0.5 / 4.5 / 11 m

- -- available, -- not available

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Electronic performance control

Self controlled model with red button (Type RKA/RKC)
Available control modes
Control mode Ap-c:
In the Ap-c control mode, the electronic module keeps the differential pressure generated by the pump constant at the set differential pressure setpoint HE over the permissible volume flow range.

Control mode Ap-v:
In the Ap-v control mode, the electronic module changes the differential pressure setpoint to be maintained by the pump in linear fashion between HS and HE. The differential pressure setpoint value H varies with the volume flow Q.

Heating application
In nearly all circulation systems, correctly sized controlled glandless pumps ensure adequate heat supply at all times at significantly reduced energy costs, while at the same time preventing noise generation.
Heating and cooling
High-efficiency pumps

Dimensions, motor data Wilo-Yonas PARA Red Knob 15/6, 20/6, 25/6, 30/6

<table>
<thead>
<tr>
<th>Wilo-Yonas PARA</th>
<th>Nominal motor power</th>
<th>Speed</th>
<th>Power consumption 1–230 V</th>
<th>Current at 1–230V</th>
<th>Motor protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS / RRA / RRC</td>
<td>P2 = W</td>
<td>n</td>
<td>P3 = W</td>
<td>i</td>
<td></td>
</tr>
<tr>
<td></td>
<td>37</td>
<td>800 – 9250</td>
<td>3–45</td>
<td>0.03 – 0.44</td>
<td>Integrated</td>
</tr>
</tbody>
</table>

Materials

<table>
<thead>
<tr>
<th>Wilo-Yonas PARA</th>
<th>Pump housing</th>
<th>Impeller</th>
<th>Pump shaft</th>
<th>Bearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS / RRA / RRC</td>
<td>Cast Iron with cataphoresis treatment</td>
<td>PP composite with GF 40%</td>
<td>Stainless steel</td>
<td>Carbon, metal impregnated</td>
</tr>
</tbody>
</table>

Dimension drawing

Dimensions, weights

<table>
<thead>
<tr>
<th>Wilo-Yonas PARA</th>
<th>Threaded pipe union</th>
<th>Thread</th>
<th>Overall length</th>
<th>Dimensions</th>
<th>Weight approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS 15/6</td>
<td>Rp 1½</td>
<td>G 1</td>
<td>130</td>
<td>65</td>
<td>1.6</td>
</tr>
<tr>
<td>RS 20/6</td>
<td>Rp 1¾</td>
<td>G 1¼</td>
<td>130</td>
<td>65</td>
<td>1.6</td>
</tr>
<tr>
<td>RS 25/6</td>
<td>Rp 1</td>
<td>G 2½</td>
<td>130</td>
<td>65</td>
<td>1.7</td>
</tr>
<tr>
<td>RS 30/6</td>
<td>Rp 1</td>
<td>G 2¼</td>
<td>180</td>
<td>90</td>
<td>2</td>
</tr>
<tr>
<td>RS 35/6</td>
<td>Rp 1¼</td>
<td>G 2</td>
<td>180</td>
<td>90</td>
<td>2.1</td>
</tr>
</tbody>
</table>

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