Intelligent, Efficient, In-line Pumping

GRUNDFOS TPE3

The Grundfos TPE3 joins the Grundfos commercial products line as not only the smartest in-line pump, but also one of the easiest to use. The TPE3 offers increased flow and pressure, as well as breakthrough efficiency, in a plug-and-pump design.

With features that simplify installation, commissioning, operation and maintenance, the TPE3 is a logical choice for almost any commercial heating and cooling application. Adaptive control modes, integrated sensors, hassle-free communication capabilities and an ultra-efficient permanent magnet motor combine to provide simplified, intelligent pumping that can save you up to 85% in energy consumption compared to a typical circulator.

Key Features and Benefits

- **Plug-and-pump** with features like built-in temperature and pressure sensors, which eliminate the need for additional sensors in most cases.
- **Intelligent control modes** simplify the optimization of pump performance using temperature, pressure and flow to deliver unrivaled efficiency automatically.
  - **Differential temperature** can control system performance based on ΔT with just one additional temperature sensor.
  - **Proportional pressure** adjusts pressure when the setpoint is known, to match flow to actual demand and decrease energy consumption with integrated sensor.
  - **AUTO ADAPT** controls proportional pressure even when the setpoint is unknown in order to maximize efficiency.
  - **FLOW ADAPT** monitors flow and ensures that the flow rate never exceeds the FLOW LIMIT value, eliminating the need for a pump balancing valve.
- **Advanced permanent magnet motor** offers an additional 7–10% decrease in energy cost over NEMA Premium, operating at IE5 — the world's highest efficiency rating.
- **Wireless communication** allows connection of up to four single TPE3 pumps, enabling cascade control for wider range and greater efficiency.
- **Easy BMS integration** available with snap-in CIM modules that follow LON, Profinet, Modbus, SMS / GSM / GPRS and BACnet standards and provide over 30 points of data and control using single poll functionality.
- **I/O package** includes multiple replays and inputs for accurate system monitoring and optimal pump regulation.
- **Heat energy monitor** is built-in to provide system performance data and to help avoid system imbalances.
- **High quality user interface** provides simple setup, commissioning and monitoring on TFT color display.
- **Cataphoresis surface treatment** protects against corrosion, while the same treatment inside the pump keeps efficiency high.
- **Silicon carbide shaft seal** is Grundfos-designed and manufactured for reliability.

APPLICATIONS

- Hydronic Heating and Cooling
  - Single-pipe Heating Systems
  - Primary / Secondary
  - Heat Recovery Systems
  - Distributed Pumping
  - District Energy Systems
- Boiler Bypass Pumps
- Domestic Hot Water Recirculation
### TPE3 Technical Data

**TPE3 INFORMATION**  
(Single & Dual Head Models)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Flow, Q:</td>
<td>max. 500 gpm (114 m³/h)</td>
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<tr>
<td>Head, H:</td>
<td>max. 80 ft (24 m)</td>
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</tbody>
</table>
| Motor:             | 1-Phase: 200–240v  
                    3-Phase: 440–480v |
| Working Pressure:  | max. 145 psi                   |
| Liquid Temperature:| -13 °F to 248 °F (-25 °C to 120 °C) |
| Approvals:         | NSF372 (Stainless Steel ONLY)   |

**Available Materials:**  
Cast Iron – Standard  
Stainless Steel – Single pumps only

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**Graph: TPE2 & TPE3**

Available at [www.grundfos.us](http://www.grundfos.us)  
www.grundfos.ca  
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