



| Job or Customer                 | :      |        |  |  |
|---------------------------------|--------|--------|--|--|
| Location :                      |        |        |  |  |
| Engineer :                      |        |        |  |  |
| ☐ Complies with Spec☐ Alternate | Notes: |        |  |  |
| Contractor:                     |        |        |  |  |
| HeatLink Rep :                  |        |        |  |  |
| Submitted By :                  |        | Date : |  |  |
| Approved By :                   |        | Date : |  |  |
| P.O. Number :                   |        | Date : |  |  |

#### Description

The main application of the HEP Isolation Heat Exchanger Panel is to provide single wall isolation between a DHW tank and a heating system. While other applications are possible, it is important to note that this panel is not a temperature control device. The secondary water temperature is wholly dependent on the temperature of the primary supply water. The timer activates the primary pump once every 24 hours, for 15 minutes, to ensure that potable water in the piping or heat exchanger is not stagnant.

The panel is pre-wired to work with the optional FLWSWTCH DHW priority switch (mounted externally). When using the FLWSWTCH priority switch, a flow sensor is installed in the DHW supply to the house downstream from the branch to the HEP panel. When the FLWSWTCH detects water flow, it will turn off the primary pump in the HEP panel, until such time that the DHW flow to the house falls below ~0.5 US gpm.

| Qty | Stk. #     | Heat Exchanger                   | Primary Pump | Secondary Pumps | Weight             |
|-----|------------|----------------------------------|--------------|-----------------|--------------------|
|     | HEP025RTDP | Single-wall brazed plate; 3×8-12 | UPS15-58CIL2 | UPS15-58CIL2    | 30 lb<br>(13.6 kg) |
|     | HEP080RTDP | Single-wall brazed plate; 3×8-30 | UPS15-58CIL2 | UPS15-58CIL2    | 32 lb<br>(14.5 kg) |

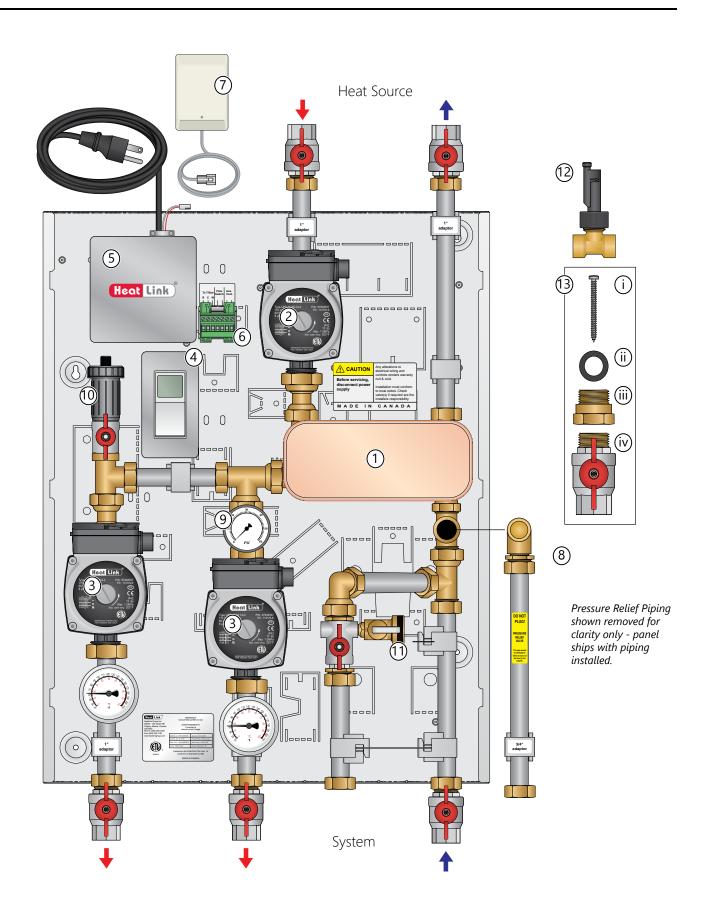
#### **Technical Data**

#### **Model Number**

|                            | Specifications                       | HEP025RTDP | HEP080RTDP |
|----------------------------|--------------------------------------|------------|------------|
| Max ambient temperature    | 120°F (49°C)                         | •          | •          |
| Max operating temperature  | 200°F (93°C)                         | •          | •          |
| Temperature control method | none                                 | n/a        | n/a        |
| Temperature control range  | Dependant on heat source temperature | •          | •          |
| Power supply               | 120/24 V(ac)                         | •          | •          |
| Primary Pump               | C                                    | •          | •          |
| Secondary pumps            | Grundfos UPS15-58                    | •          | •          |
| Auxiliary terminal         | Yes                                  | •          | •          |
| DHW priority               | Optional @ ~0.5 US gpm<br>DHW flow   | •          | •          |
| Piping                     | 3⁄4" 304SS Tubing                    | •          | •          |
| Piping connections         | 3⁄4" and 1" FNPT                     | •          | •          |
| Material - backplate       | 16 Gauge galvanized steel            | •          | •          |

**Standards / Listings** CAN/CSA-C22 No.14, UL508 cETLus









## **Enclosure Dimensions**

| Stk.#      | Width            | Height  | Depth   |
|------------|------------------|---------|---------|
| HEP025RTDP | 18.75"           | 24.0"   | 8.00"   |
| HEP080RTDP | ( <b>476</b> mm) | (610mm) | (203mm) |

|    | Components             |  |   | Part Number (Qty.)              |            |  |  |
|----|------------------------|--|---|---------------------------------|------------|--|--|
| #  |                        |  | Component Description   | HEP025RTDP                      | HEP080RTDP |  |  |
| 1  | Single                 | wall, brazed-plate heat exchanger                        | Provides separation of the primary and secondary loops.   | HTEX3812 (3×8-12) HTEX3830 (3×8 |            |  |  |
| 2  | Prima                  | ry pump  | The circulator moves the heated fluid through the hydronic system when there  | PUMP1558                        |            |  |  |
| 3  | Secon                  | dary pumps   | is a call for heat from the thermostat. Factory set to 3rd speed. See pump curves below.  | PUMP1558                        |            |  |  |
| 4  | Timer                  |  | Exercises the system 15 minutes every 24 hours to keep water from getting stagnant.   | n/a                             |            |  |  |
| 5  | Electri                | cal box  | Houses relays and wiring.   | n/a                             |            |  |  |
| 6  | Ternin                 | al block   | Provides easy access wiring for thermostats, flow switch (opt.), and aux. contacts.   | n/a                             |            |  |  |
| 7  | 24V(a                  | c) 40Va plug-in transformer                              | Provides power to the panel electronics.  | PLINTR40VA                      |            |  |  |
| 8  | ½" Safety relief valve |  |   | n/a                             |            |  |  |
| 9  | Pressure gauge         |  | Reads the secondary loop pressure. May not be exactly as shown. Range: 0-60psi  | PG14NPT260                      |            |  |  |
| 10 | Automatic air vent     |  | Purges air trapped in the secondary loop. May not be exactly as shown.  | 79932                           |            |  |  |
| 11 | Drain and fill valve   |  | Access point for filling and draining the panel.  | n/a                             |            |  |  |
| 12 | Optional flow switch   |  | The electronic flow indicator provides DHW priority when the DHW flow rate reaches a factor pre-set level (approx. 0.5 US gpm). Must be piped in downstream of panel. | FLWSWTCH                        |            |  |  |
| 13 | Accessory pack         |  | Panel installation accessories.*  | ACCHE                           | P025R      |  |  |
|    | i                      | Mounting screw   | Panel mounting screws.  | (×                              | 4)         |  |  |
|    | ii                     | ³¼" Nitrile washer                                       | Washers for installation of adapters, plus (4) spares.  | NTRWSH                          | 134 (×10)  |  |  |
|    | iii                    | 3/4" MBSP × 3/4" FNPT adapters                           | Adapters for expansion tank, and pressure relief piping.  | (×                              | 2)         |  |  |
|    | iv                     | <sup>3</sup> / <sub>4</sub> " MBSP × 1" FNPT ball valves | Ball valves for panel isolation, & system hookup.   | (×                              | 4)         |  |  |

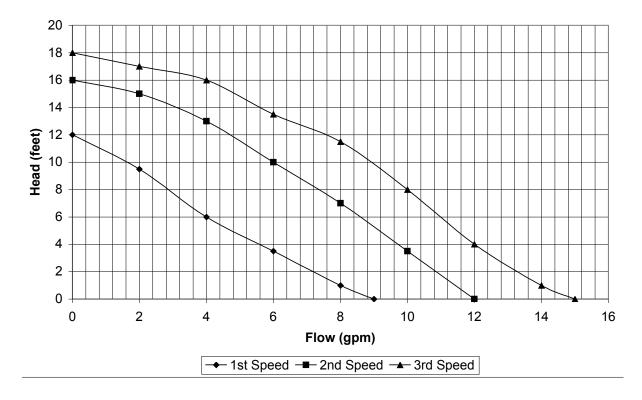


# **HEP Panel Performance at Different Supply Water Temperatures**

| Comple Tomoroustons             | HEP025RTDP |        |        |        | H8EP080RTDP |        |         |         |         |         |
|---------------------------------|------------|--------|--------|--------|-------------|--------|---------|---------|---------|---------|
| Supply Temperature              | 140        | 150    | 160    | 170    | 180         | 140    | 150     | 160     | 170     | 180     |
| BTUH                            | 39,000     | 55,000 | 66,000 | 77,000 | 88,000      | 80,000 | 102,000 | 125,000 | 149,000 | 172,000 |
| GPM Primary                     | 4          | 4.5    | 4.5    | 4.5    | 4.5         | 8      | 8       | 8       | 8       | 8       |
| GPM Secondary                   | 4          | 5      | 5      | 5      | 5           | 8      | 8       | 8       | 8       | 8       |
| Htg. Sys. Available ft.hd.      | 10         | 9      | 9      | 9      | 9           | 8      | 8       | 8       | 8       | 8       |
| Htg System Temp Differential °F | 18         | 22     | 26     | 31     | 35          | 20     | 25      | 31      | 37      | 43      |

Note: Performance data is based on water as the primary and secondary heating fluid.

# **UPS15-58CIL2 Pump Curve**



### Installation

Installation must follow all of HeatLink's instructions and guidelines.

#### Maintenance

Maintenance must follow all of HeatLink's instructions and guidelines.

## **Related Documents**

- HEP0xxRTDP Installation, Operation, and Maintenance Manual Instructions (L6HEP0xxRTDP)
- FLWSWTCH Flow Switch for DHW Priority Submittal (SUBFLWSWTCH)
- HeatLink Limited Heating Warranty