## Technical Data

### Compact Series Heat Pump Pool Heaters

#### Swimming Pool and Spa Heating Products

- **Model**: R2350ti, R3350ti, R4350ti/R4350ti-PD
- **Heat BTUH Output**: (80,80,80)*AHRI 1160 (80,63,80)**
  - R2350ti: 50,000/48,000
  - R3350ti: 68,000/63,000
  - R4350ti/R4350ti-PD: 85,000/80,000
- **C.O.P.**: 5.5/5.3
- **C.O.P. low ambient (50,63,80)**: 3.5†
- **Compressor**: Scroll
- **Refrigerant**: R-410A
- **Voltage**: 208/230V-1Ph-60Hz
- **Minimum Circuit Ampacity**: 23, 30, 34
- **Maximum Breaker Size (Amps)**: 35, 50, 50
- **Electrical Input (kw)**: 2.7, 3.4, 3.9
- **Heat Exchanger**: Titanium
- **Water Flow (gpm)**: 15-60, 15-60, 15-60
- **Shipping Weight (lbs.)**: 167, 212, 237

*Tested outside the scope of AHRI 1160   **Tested to AHRI 1160
†Does not comply with Florida 4.0 minimum C.O.P. requirement. This product can not be installed in Florida.

### Model Designation

- **R** = Raypak Brand
- **2** = Approximate Horsepower
- **3** = Classic Cabinet Design
- **5** = Model Revision
- **E** = Digital Control
- **ti** = Titanium Heat Exchanger
- **0** = 1 phase 208/230V

Raypak is proud to have all of our heat pump pool heater products AHRI Certified and Listed. It’s your guarantee that the performance is true to the manufacturers claims. When shopping for your next heat pump pool heater, make sure it has this mark!

![AHRI Certified Logo](https://www.ahriirectory.org)

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**Swimming Pool and Spa Heating Products**

The Pool and Spa Heating Experts℠
Technical Data
Compact Series Heat Pump Pool Heaters

Standard Features

Cabinet
- **Durable Pre-painted Steel Cabinet**
  While blending effortlessly into your home’s landscape, the attractive, low-profile, louvered, warm grey steel cabinet provides style and protection from yard hazards and weather extremes. Epoxy primed with a beautiful polyester coated finish, it can withstand a 1000 hour salt spray test.
- **Louvered Side Panels**
  Louvered side panels protect the coil from getting damaged by flying debris during high winds and storms. Raypak heat pumps are built to last, year after year.
- **Base Pan**
  The entire line of Raypak heat pump pool heaters use a sturdy, one-piece drawn base pan. This pan elevates the coil off the pad, helping minimize corrosion while reducing sound and vibration.
- **Easy Service Access**
  All controls are accessible by removing one service panel. Removable top grille provides access to the condenser fan motor, compressor and condenser coil.

Compressor and Refrigerant Circuit
- **Scroll® Compressor**
  Scroll compressors are quiet and efficient compared to piston type compressors. They provide higher efficiency, lower sound levels, superior durability and unsurpassed reliability. The unique design of a scroll compressor actually wears in over time, not out!
- **R410A Refrigerant**
  Raypak uses only R410A, a chlorine-free, high performance refrigerant that is better for the environment.
- **External Refrigerant Connections**
  The 1/4” charging ports are conveniently located on the outside of the cabinet. This allows for quick and easy refrigerant service without having to dismantle the heater.
- **Refrigerant Pressure Controls**
  Raypak installs high and low pressure controls on all models to protect the scroll compressor from pressure extremes. Most small, value priced units delete this type of protection.
- **TXV and Filter/Drier**
  Raypak heat pumps come standard with Parker® TXV’s. This allows for the refrigerant charge to be throttled during cold starts, thus extending the life of the compressor and eliminating nuisance lock outs. We also include premium filter/driers for long life and trouble free operation. Again, these components are not usually found on the small, value priced heat pumps. Raypak uses the same high quality components used in our larger units into our smallest units. This ensures you get the highest quality unit with the Raypak name to back it up, all in the value priced unit.

Evaporator Coil
- **Large Air Coils**
  Raypak heat pump pool heaters use an innovative wraparound outdoor coil constructed of copper tubing and aluminum fins. This design allows improved airflow transfer and helps reduce energy consumption. Raypak engineered coils are highly optimized to meet our specific design requirements. We are the only heat pump pool heater company to actually manufacture our own coils!

Heat Exchanger
- **Spiral Titanium Tube**
  Our spiral titanium tube heat exchanger provides a corrosion-free waterway that can withstand the abuses of harsh pool chemistry. The spiral tube helps reduce deposit build-up and increases efficiency by performing a “scoop-and-lift” action. This is the same high quality heat exchanger used in our larger heat pumps. At Raypak, we value reliability and true performance. That’s why we are AHRI certified and listed.
- **Plumbing Connections**
  1-1/2” PVC union connections are included for ease of installation.

Fan Blade and Motor
- **“Swept Wing” Fan Blades**
  Specially designed “Swept Wing” fan blades operate more efficiently and generate minimum sound. Raypak heat pumps are packed full of premium quality components.
- **Fan Motor**
  The Premium Emerson® permanent-split capacitor (PSC), sealed ball bearing motor is matched specifically for the fan blade assembly, which allows optimum efficiency with extended motor life.

Controls - Digital
- **Pool/Spa Control**
  Your digital heat pump pool heater can be set to have a different target temperature for your pool and spa. This allows you to dial in just the right spa temperature and never have to adjust it again. The pool can be set to a lower, more energy saving temperature. This is the exact same high end control we use on our larger heat pumps, not some defeatured value style controller.
- **Remote Compatible**
  The digital heat pump pool heater can be easily controlled by most two-wire and three-wire remote systems.
- **On Board Diagnostics**
  Tells the homeowner if there is a problem. Provides the service technician with detailed diagnostic information.

In keeping with its policy of continuous progress and product improvement, Raypak reserves the right to make changes without notice.

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