

2011 PTCS™ Commissioned Heat Pump Certificate & Startup Form

Instructions: All sections must be filled out by a PTCS-Certified Technician at the time of installation. A copy of the completed form must be promptly submitted to the utility and homeowner in accordance with utility policy. Please enter online at www.ptcsnw.com or fax to Ecos IQ at 877-848-4074. Questions? Call 800-941-3867.

Technician Certification Number PTCS - _____		Installation Company Name		Electric Utility Company	
Customer Name			Street Address		
Site Address 2 (Unit #/ Mailing Address)		City	State	Zip Code	Phone Number () -
<input type="checkbox"/> Site Built (Existing) <input type="checkbox"/> Site Built (New Construction) Year Built: _____ <input type="checkbox"/> Y <input type="checkbox"/> N Energy Star Home? _____ Foundation Type: <input type="checkbox"/> Half Basement <input type="checkbox"/> Full Basement <input type="checkbox"/> Crawl <input type="checkbox"/> Slab		Manufactured Home <input type="checkbox"/> Y <input type="checkbox"/> N Sections <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 Energy Star Home? <input type="checkbox"/> Y <input type="checkbox"/> N Super Good Cents? <input type="checkbox"/> Y <input type="checkbox"/> N			
What type of heating system was installed at this site? <input type="checkbox"/> Electric Forced Air <input type="checkbox"/> Heat Pump <input type="checkbox"/> Inverter Driven Heat Pump <input type="checkbox"/> Gas Furnace Other _____					Heated Area (sq ft)
New Heat Pump Equipment Data					
AHRI Number:		SEER	HSPF	EER	
Outdoor Unit Make	Outdoor Unit Model Number		Capacity (tons)	# of Compressor Stages	
Indoor Unit Make	Indoor Unit Model Number		Capacity (tons)	Locked Rotor Amps	

SECTION A: SITE INFORMATION

External Static Pressure Test							
<i>Check in full capacity unless conditions do not permit. Attach additional sheets as needed if test must be re-run.</i>							
1. Record expected CFM/Ton based on fan wiring board settings. 2. Measure return static pressure. 3. Measure supply plenum static pressure. 4. Add values together (ignore minus "-" sign on return pressure).	Heating CFM/Ton Setting 1	Cooling CFM/Ton Setting 1	Note: Result of 0.8 Inch H₂O (200 Pa) or more in Step 4 can result in extreme fan energy use and early fan failure				
	Return Static Pressure	2				Units (check one) Pa Inches H₂O <input type="checkbox"/> <input type="checkbox"/>	
	Supply Static Pressure	3				External Static Pressure	4
	TrueFlow Test						
1. Measure Normal Supply Operating Pressure (NSOP) or re-record Supply Static Pressure from above. 2. Specify TrueFlow plate # and filter size. 3. Install TrueFlow plate at filter slot and specify location. 4. Measure Supply Pressure with plate in (TFSOP) 5. Determine Correction Factor (square root of NSOP divided by TFSOP) 6. Measure pressure across TrueFlow plate and record Raw Flow (in CFM). 7. Calculate Corrected Flow = (Raw Flow × Correction Factor)	NSOP	1 [A]	Plate Size (check one) 2	Units (check one)			
			<input type="checkbox"/> 14 <input type="checkbox"/> 20	<input type="checkbox"/> Pa <input type="checkbox"/> Inches H ₂ O			
	Filter Location (check one)	Indoor Unit	Return Grille	Other (explain)	3		
			<input type="checkbox"/>	<input type="checkbox"/>	_____		
	TFSOP	4 [B]	Enter Correction Factor (CF) from table or use formula	$\sqrt{\frac{NSOP[A]}{TFSOP[B]}}$	5 [C]		
			Plate Pressure	Raw Flow (CFM)	6 [D]		
			Corrected Flow (CFM) = [C] × [D]	7	CFM/Ton	Is flow above 350/Ton? Yes No <input type="checkbox"/> <input type="checkbox"/>	

SECTION B: AIRFLOW TEST

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Refrigerant Charge Information/ Testing *To be completed by certified technician at time of installation.*

Does the Indoor Unit have an ECM blower?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Outside Air Temp: _____ °F	<i>If ambient is higher than 65°F test in cooling, if lower test in heating.</i> Unit Tested In (check one) <input type="checkbox"/> Heating <input type="checkbox"/> Cooling
Stage or Capacity Tested:	Total lineset length: _____ ft	Refrigerant adjustment (if any):	<input type="checkbox"/> Added <input type="checkbox"/> Removed _____ oz.

SECTION C: REFRIGERANT CHARGE INFORMATION/TESTING

Performance Check *Run unit for at least 15 minutes in compressor-only mode before taking readings.*

Heating Mode Test (65°F or Lower)	Cooling Mode Test (66°F or Higher)	Alternative Method (specify)
Supply Air (SA) Temperature °F	Discharge Pressure	What method was used?
Return Air (RA) Temperature °F	Temp °F (From Chart) [A]	Manufacturer's target?
Temperature Split (SA – RA)	Measured Liquid Line Temp [B]	Alternative method test result?
Expected Temperature Split (Use Chart)	Acceptable? <input type="checkbox"/> Y <input type="checkbox"/> N	Sub cooling [A] – [B] Acceptable? <input type="checkbox"/> Y <input type="checkbox"/> N

Low Ambient Lockout

For All Systems (single and multi-stage compressors): Is compressor low-ambient lockout control (LAL) set no higher than 0°F? (check one)	Yes <input type="checkbox"/>	LAL Not Installed <input type="checkbox"/>	LAL Disabled <input type="checkbox"/>	Make/Model of Indoor Thermostat
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Single Capacity Compressor Systems

Confirm discharge air temperature sensor is either not installed or is disabled?	Confirmed <input type="checkbox"/>	Auxiliary (strip) heat setting: <input type="checkbox"/> 35°F <input type="checkbox"/> 40°F Other _____	<i>Aux heat must be set to remain off if outdoor temp is higher than 35°F.</i>
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Specify how checkout was performed:

Multiple Capacity Compressor Systems (if applicable) – Choose only one of the following

<input type="checkbox"/> If the discharge air sensor control is used to control auxiliary heat, confirm it is set no higher than 85°F.	OR	<input type="checkbox"/> If staging temperature is set warmer than 85°F confirm resistance heat cannot operate at temperatures above 35°F.
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Specify how checkout was performed:

SECTION D: CONTROLS SETUP

Notes

SECTION E: NOTES

PTCS™ Certification of Compliance – *To be completed by technician at the time of installation*

As a certified PTCS™ Heat Pump Technician, **I certify** the heat pump commissioning performed on this site and equipment is in accordance with the System Airflow, Refrigerant Charge, and Controls Setup (sections B, C, and D) of the PTCS™ Heat Pump Installation Standards.

PTCS™ Certified Technician Name (Print)	PTCS™ Certified Technician Signature (Required)
Completed Date	PTCS™ Certified Technician Phone Number
Customer Name	Customer Signature

SECTION F: PTCS™ HP CERTIFICATE