

# PRODUCT DATA SHEET

Model: **PZAT4.5S**  
*Packaged Air-Cooled  
4.5 Ton Chiller*



Legacy Chillers, Inc.  
851 Tech Drive  
Telford, PA 18969  
Toll-Free: (877) 988-5464

**STANDARD ON ALL LEGACY CHILLER MODELS:**  
Pentra Microsmart, Programmable Logic Controller (PLC)  
with HMI Touch Screen Display.

*with Stainless Steel Tank*



User-Friendly HMI  
Touch Screen Display

Process  
Fluid Outlet



**R454C  
Refrigerant**

## **Standard Features:**

- ETL listed to UL/CSA 60335-2-40:2022 Ed.4  
UL 60335-1:2016 Ed.6
- CSA C22.2 # 60335-1:2016 Ed.2
- CSA C22.2 # 60335-2-40:2022 Ed.4
- **Single point power connection**
- **Pentra Microsmart, Programmable Logic Controller (PLC) with easy to use HMI touch screen display**
- **STAINLESS STEEL**, brazed plate evaporator
- **Scroll** compressor with crankcase heater
- **Suction accumulator**
- Liquid line drier, sight glass, solenoid
- Electronic expansion valve
- Manual high pressure cutout
- **Water flow switch**
- **Hot gas by-pass capacity control**
- **24V control transformer**
- Direct drive condenser fan motor
- Rust resistant, high CFM, aluminum condenser fan blade
- Condenser(s): copper tube/aluminum fin
- Compressor motor contactor
- Condenser motor and control circuit fusing
- **Painted (Powder Coated), galvanized sheet metal cabinet**
- 1/2" insulation on all water and  
Low pressure refrigerant lines
- Complete refrigerant charge from factory
- **Factory Performance Test prior to shipment**



## **Options:**

- **VFD Compressor Control (Hot Gas Bypass Removed)**
- **Copeland Digital Scroll Compressor (Hot Gas Bypass Removed)**
- **Remote Idec touchscreen control panel**
- **5 Port Ethernet Switch**
- **BacNet Gateway**
- **STAINLESS STEEL Process Pump**
- **Process Pump VFD Controller**
- 4 year extended compressor warranty
- Casters (factory mounted)
- 115 volt (rain tight) service outlet
- Non Fused Disconnect
- Phase/voltage monitor
- Compressor fusing
- Compressor Sound Cover
- Flooded cond. w/receiver/head pressure control (0°F)
- Flooded cond. w/**Heated** receiver/head pressure control (-20°F)
- Dual process pumps with auto changeover
- Pump suction isolation valve(s)
- Water pressure gauge set
- Coastal powder coat paint protection
- E-Coat Condenser Coil (coastal protection)
- Water Flow Meter
- Auto city water make up solenoid & auto level switch
- Auto city water changeover panel with filter
- Door Mounted HMI with weather proof cover

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## with Stainless Steel Tank

### Dimensional & Electrical Table

Chiller Model	Nominal BTUH	Length Inches	Width Inches	Height Inches	Power			Compressor Qty.	RLA ea.	LRA ea.	Fan Motor		Recirculation Pump FLA	MCA	MOP	Reservoir Gal.	Chiller Fluid Conn	Weight Pounds			
					Voltage	Phase	Freq.				Qty.	FLA ea.									
PZAT4.5SE8	48600	46	34	74	208/230	1	60	1	27.9	175	1	3.8	4	43	70	50	1 "FPT	850			
PZAT4.5SF8					208/230	3	60		19.9	128		3.8							4	33	50
PZAT4.5SH8					460	3	60		8.7	63		1.5							0.89	13	20
PZAT4.5SI8					575	3	60		6.4	50		1.72							0.72	10	15

### Capacity Table (Refrigerant R454C)

Model	COMPRESSOR	AMB (°F)	80			90			95			100			105		
			LWT (°F)	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW	EER	TONS	KW
4.5S	YB34KAE	42	4.2	4.2	12.0	3.9	4.6	10.4	3.8	4.8	9.6	3.7	5.0	8.9	3.5	3.5	3.5
		44	4.4	4.2	12.6	4.1	4.6	10.8	4.0	4.8	10.0	3.8	5.0	9.2	3.7	3.7	3.7
		45	4.4	4.2	12.8	4.2	4.6	11.0	4.1	4.8	10.2	3.9	5.0	9.4	3.8	3.8	3.8
		50	4.7	4.2	13.6	4.5	4.6	11.7	4.3	4.8	10.8	4.2	5.0	10.0	4.0	4.0	4.0

1. Capacities on this chart are based on refrigerant R454C. Lower leaving water or low ambient can require the use of a glycol solution or other fluid blends. These solutions affect unit capacities. Please consult the factory on these or other special fluids.
2. KW input is for compressor(s) only.
3. EER = Energy Efficiency Ratio (BTU/watt-hour). Power inputs include compressor (s), condenser fan motor (s) and control power.



### Product Dimensional Drawing

**R454C  
 Refrigerant**

