

Portable Chillers
PS Series 5 to 15 hp Portable Chillers

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All PS Series 5 to 15 hp (3.73 to 11.20 kW) portable chillers have an operating **leaving water temperature range of 30°F to 65°F (-1°C to 18°C)**. For applications outside this range, consult factory. PS Series portable chillers come standard with:

Mechanical

Compressor: Hermetic scroll

Evaporator: Stainless steel copper-brazed plate

Condenser: Air-cooled (PSA) aluminum fin/copper tube with washable filters

Water-cooled (PSW) 5 and 7.5 hp (3.73 & 5.95 kW) tube-in-tube, 10 and 15 hp (7.49 & 11.19 kW) cleanable shell and tube; with tower or city cooling water regulating valves

Remote air-cooled (PSR) Aluminum fin/copper tube with low ambient operation **down to -20°F (-29°C)**

Reservoir: 40-gallon polyethylene tank with external fill/drain sight glass

Piping: Non-ferrous construction

Pump: Non-overloading ODP motor, horizontally-mounted stamped stainless steel

Other mechanical features

- External fill/drain sight glass
- Valved Process water connections
- Mounting rails for PSR models

- Low water flow switch
- NEMA-rated ODP fan motor(s) (PSA air-cooled units)
- Structural steel frame and panels with 4" (101 mm) swivel casters
- Single pump models only: Pressure-actuated Process water bypass valve for system protection only
- To Process 2½" (63 mm) dual scale liquid-filled water pressure gauge
- Fully insulated refrigeration and process piping
- 20 mesh Y strainer on process water piping into evaporator

Electrical

- Fully accessible NEMA 1-style electrical control enclosure
- Branch fusing
- Non-fused disconnect switch
- Single-point power and ground connection

Refrigeration

- Sight glass
- High-discharge temp. cut-out (5-10 hp models)
- R-22 refrigerant
- Filter dryer

- Fan cycling switch (PSA air-cooled only)
- Hot gas bypass capacity control
- Hot gas bypass and liquid line shutoff valves
- Compressor service valves
- Balanced-port thermal expansion valve
- High and low refrigerant pressure cut-outs
- High pressure spring-actuated relief valve
- Multiple refrigeration access ports

Controls

- Off-the-shelf microprocessor-based PID auto-tuning control with To Process and Set Point LED readout
- Low and high process water temperature electronic cutout switch with LCD display
- Graphic control panel with indicating and warning status lights

Other features

- 1 year warranty on compressor and labor
- 2 year warranty on parts
- 3 year limited warranty on controller

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PS Series Available Options

Configure-to-Order and Field-Retrofittable Options • No additional lead time ✓ denotes availability

Option description	Add'l lead time (wks)	PSA- / PSW- / PSR-			
		-5 (3.73)	-7.5 (5.59)	-10 (7.49)	-15 (11.2)
Automatic water makeup valve	Configure-to-Order	✓	✓	✓	✓
Process water sidestream 50-micron filter with monitoring flow meter		✓	✓	✓	✓
General fault indicator:	Configure-to-Order	✓	✓	✓	✓
<ul style="list-style-type: none"> 85 dB @ 2 ft. (61 cm) audible alarm buzzer and silence button 100 dB @ 10 ft. (3 m) audible alarm horn / 108,000 peak candle-power, 80 flash/min. visual alarm strobe and silence button 		✓	✓	✓	✓
Compressor hour meter	Configure-to-Order	✓	✓	✓	✓

Configure-to-Order Options • No additional lead time ✓ denotes availability

Option description	Add'l lead time (wks)	PSA- / PSW- / PSR-			
		-5 (3.73)	-7.5 (5.59)	-10 (7.49)	-15 (11.2)
Communications:	Configure-to-Order	✓	✓	✓	✓
<ul style="list-style-type: none"> RS232 RS485 		✓	✓	✓	✓
Recirculation pump		✓	✓	✓	✓
High pressure fans; provides an additional 0.30" WG (75 Pa) static pressure on fan discharge ①	Configure-to-Order	✓	✓	✓	✓
Crankcase pressure regulating (CPR) valve ②		✓	✓	✓	✓
Stainless steel (304 SS) reservoir tank		✓	✓	✓	✓
5" (127 mm) swivel locking casters	Configure-to-Order	Available at no charge			
Mounting rails (standard w/PSR remote air-cooled condensers)		✓	✓	✓	✓
Mounting feet		✓	✓	✓	✓
UL-labeled electrical subpanel		✓	✓	✓	✓
Pumps: ③	Configure-to-Order	Standard	Standard	Not available	
<ul style="list-style-type: none"> 1.0 hp (0.75 kW) SS single stage 2.0 hp (1.50 kW) SS single stage 3.0 hp (2.24 kW) SS single stage 		✓	✓	Standard	Standard
<ul style="list-style-type: none"> 2.0 hp (1.50 kW) SS dual stage 3.0 hp (2.24 kW) SS dual stage 5.0 hp (3.73 kW) SS dual stage 		✓	✓	Not available	
<ul style="list-style-type: none"> 2.0 hp (1.50 kW) SS dual stage 3.0 hp (2.24 kW) SS dual stage 5.0 hp (3.73 kW) SS dual stage 		✓	✓	✓	✓
<ul style="list-style-type: none"> 5.0 hp (3.73 kW) bronze pump 7.5 hp (5.59 kW) bronze pump 		✓	✓	✓	✓
<ul style="list-style-type: none"> 10.0 hp (7.46 kW) (P) bronze pump ④ 10.0 hp (7.46 kW) (F) bronze pump ④ 		Not available		✓	✓
<ul style="list-style-type: none"> 10.0 hp (7.46 kW) (P) cast iron pump ④ ⑤ 10.0 hp (7.46 kW) (F) cast iron pump ④ ⑤ 				✓	✓

① High-pressure fans are necessary and must be included in chiller installations where the exiting air is to be exhausted through ductwork.

② CPR valve **required** for process water leaving temperature of 66° to 75°F (19° to 24°C); CPR valve prevents compressor motor overloading.

③ Process flow less than 2.2 gpm per ton (2.75 lpm per 1,000 Kcal/hr) or greater than 4.8 gpm per ton (6.00 lpm per 1,000 Kcal/hr) **requires a recirculation pump**. (P) indicates **pressure pump**, (F) indicates **flow pump**.

④ Includes recirculation pump.

⑤ **Does not maintain non-ferrous construction integrity.**

Note: (P) indicates **pressure pump**, (F) indicates **flow pump**.

Additional Lead Time Options • Additional lead time required ✓ denotes availability

Option description	Add'l lead time (wks.)	PSA- / PSW- / PSR-			
		-5 (3.73)	-7.5 (5.59)	-10 (7.49)	-15 (11.2)
Y-strainer pressure drop gauge	2 weeks	✓	✓	✓	✓
380/3/50 operating voltage	2 weeks	✓	✓	✓	✓
575/3/60 operating voltage	Consult factory				
Less reservoir tank	2 weeks	✓	✓	✓	✓
Less reservoir tank and pump	2 weeks	✓	✓	✓	✓
Variable-speed fans (low ambient) ①	2 weeks	✓	✓	✓	✓
NEMA-12 electrical enclosure	2 weeks	✓	✓	✓	✓

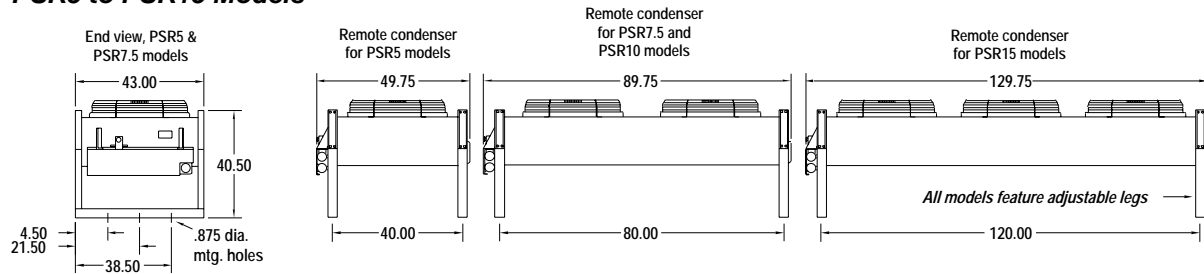
① Includes a variable-speed fan; provides sound attenuation in ambient temperatures below 95°F (35°C).

Remote Air-Cooled Startup Option

- Includes **on-site labor only**; consult factory for travel, living expenses, and scheduling.
- Remote condenser units **must** be installed, evacuated, and precharged **before** AEC arrives on site

Remote Condenser Assembly Models

PSR5 to PSR15 Models



Note: To convert inches to *cm*, multiply dimension by **2.54**.

PSR Series Remote Condenser Models

Model	Fan(s) ③ ④						Totals ③ ④				Refrigeration ⑤		
	1st fan (#1), Dia. in.	Motor hp ①	Amps @ 460V	Add'l. fans (#2 to #4) Dia. in.	Motor hp ①	Amps @ 460V	Fans	Amps @ 460V	Air flow cfm ⑥	Net wt. lbs. ⑥	Discharge in. ODS	Liquid in. ODS	Charge R-22 lbs. ⑥
PSR5	26	¾ hp 1 ø	2.4	—	—	—	1	2.4	6,450	260	1 ½	7/8	3.64
PSR7.5	26	¾ hp 1 ø	2.4	26	1/3 hp 3 ø	1.3	2	3.7	12,400	470	2 @ 1 ½	2 @ 7/8	3.64
PSR10	26	¾ hp 1 ø	2.4	26	1/3 hp 3 ø	1.3	2	3.7	13,700	510	2 @ 1 ½	2 @ 7/8	4.55
PSR15	26	¾ hp 1 ø	2.4	26	1/3 hp 3 ø	1.3	3	5.0	20,500	550	2 @ 1 ½	2 @ 1 ½	6.37

① ø represents electrical phase; all motors are 1,140 rpm. Multiply hp by **0.746** to convert to *kW*.

② All first fan motors are ¾ hp (0.56 *kW*) single phase variable speed.

③ Multiply 460V amperages by **2.0** for 208-230V amperages.

④ Multiply 460 V amperages by **0.8** for 575 V amperages.

⑤ Refrigeration charge is for **remote condenser only!**

⑥ To convert cfm to *cmh*, multiply by **1.699**. To convert lbs. to *Kg*, multiply by **0.454**.

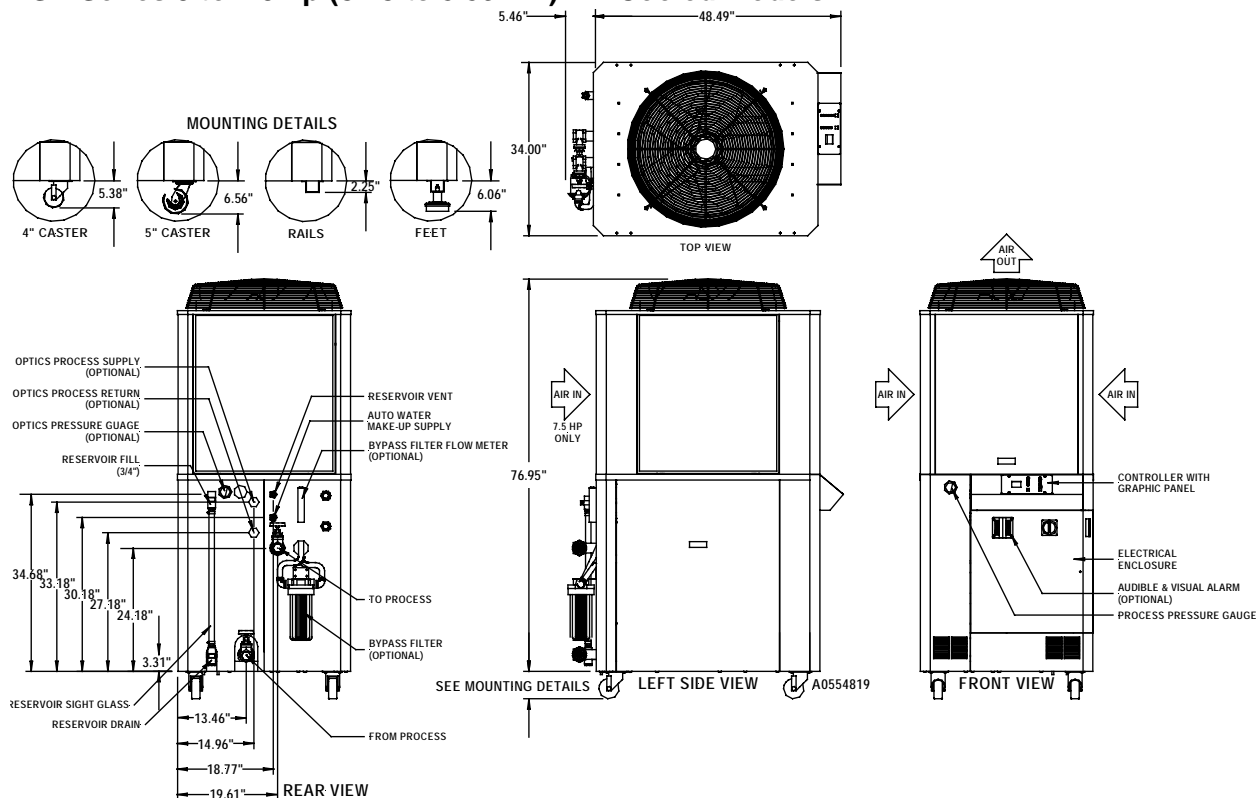
PSA Series 5 to 7.5 hp (3.73 to 5.59 kW) Air-Cooled Model Capacities

- Nominal operating parameters for PSA Series air-cooled models are 50°F (10°C) leaving water temperature at 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr) with 95°F (35°C) ambient air. **For 50 Hz applications, multiply capacity by 0.83. Nominal 60 Hz capacity flow rate must be maintained.**

Model number	Nominal cooling capacity ①			Water flow gpm ②	Com-pressor hp	Nom. pump hp	Discharge air ③		Power in amps ④, 460/3/60 ⑤			
	no pump	1 pump	2 pump				openings	cfm ⑥	1 pump		2 pumps	
									rated	running	rated	running
PSA5	4.82	4.62	4.52	11.1	5.0	1.0	1 @ 27"	3,400	14.00	10.95	14.93	11.88
PSA7.5	6.56	6.36	6.26	15.2	7.5	1.0	1 @ 27"	5,100	18.20	14.55	19.13	15.48

- Based on 50°F (10°C) chilled water supply temperature and 95°F (35°C) ambient air. Optional additional process pump hp (kW) reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Based on 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr), nominal 1 pump. Optional additional process pump hp (kW) reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Customer use of ductwork requires optional high-pressure fan for 5 hp to 15 hp (3.73 kW to 11.20 kW) models.
- An optional oversized process pump adds to the total rated or running chiller amperage. To find the new total chiller amperage, subtract the standard process pump amperage from the optional pump amperage (see bottom of Page 9), and add it to the chiller rated or running amperage.
- Multiply 460/3/60 amperage by 2.0 for 208-230/3/60 amperages; multiply by 0.8 for 575/3/60 amperages.
- To convert cfm to cmh, multiply by 1.699.

PSA Series 5 to 7.5 hp (3.73 to 5.59 kW) Air-Cooled Models



PSA Series 5 to 7.5 hp (3.73 to 5.59 kW) Specifications

- PSA portable chillers come standard with 4" (101 mm) swivel casters.

Model number	Com-pressor hp	Process connections, in. NPT				Dimensions in inches ①			Weights		
		1 pump	2 pumps	no pump, no tank	1 pump, no tank, to/from	height	width	depth	Dry ② lbs.	Ship. ② lbs.	Oper. ② ③ lbs.
PSA5	5.0	1.5	2.0	1.5	1.5 / 2.0	76.95"	34.00"	48.49"	872	1,047	1,205
PSA7.5	7.5	1.5	2.0	1.5	1.5 / 2.0	76.95"	34.00"	48.49"	922	1,097	1,255

- To convert to cm, multiply by 2.54. Add to height dimension based on mounting options.
- Weight is for standard chiller. Some optional features will increase weight. Multiply lbs. by 0.454 to calculate Kg.
- Operating weight is with a full 40-gallon (151 liter) reservoir tank of water.

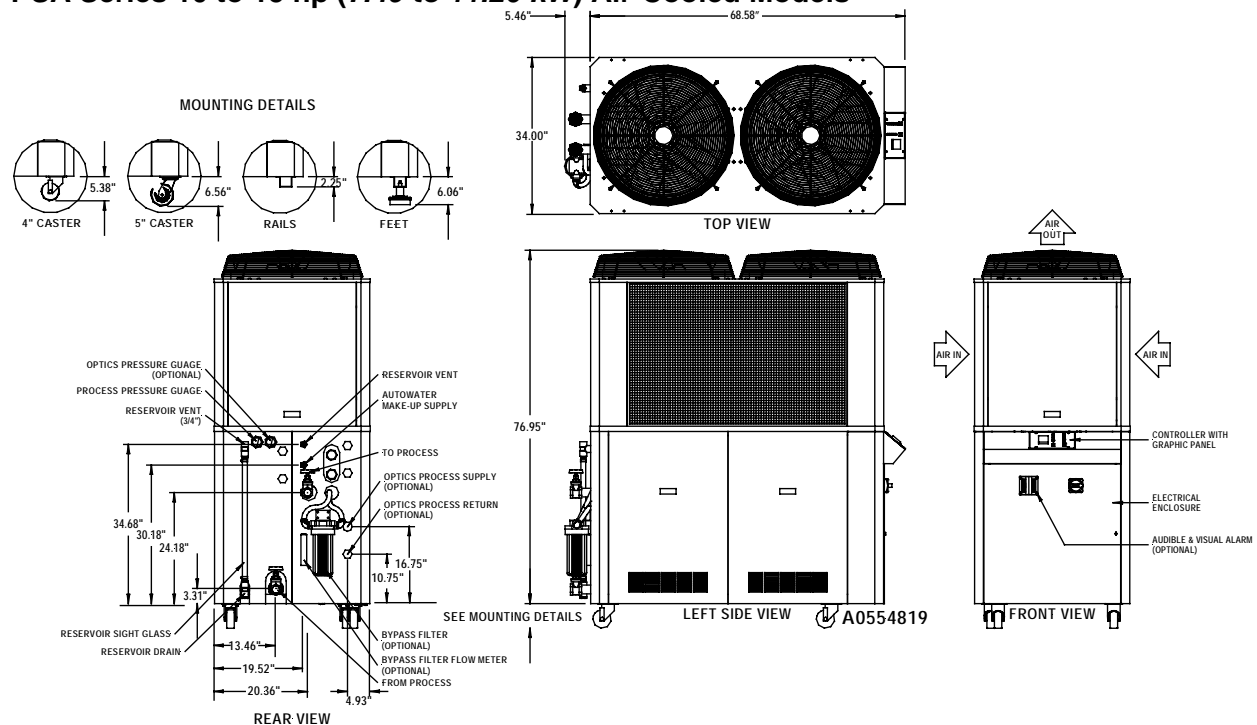
PSA Series 10 to 15 hp (7.49 to 11.20 kW) Air-Cooled Model Capacities

- Nominal operating parameters for PSA Series air-cooled models are 50°F (10°C) leaving water temperature at 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr) with 95°F (35°C) ambient air. **For 50 Hz applications, multiply capacity by 0.83. Nominal 60 Hz capacity flow rate must be maintained.**

Model number	Nominal cooling capacity ① tons			Water flow gpm ②	Com-pressor hp	Nom. pump hp	Discharge air ③		Power in amps ④, 460/3/60 ⑤			
	no pump	1 pump	2 pump				openings	cfm ⑥	1 pump		2 pumps	
	rated	running	rated				rated	running	rated	running	rated	running
PSA10	9.91	9.51	9.36	22.8	10.0	2.0	2 @ 27"	5,800	26.10	21.80	27.80	23.50
PSA15	14.54	14.14	13.99	33.9	15.0	2.0	2 @ 27"	10,000	33.30	27.45	35.00	29.15

- Based on 50°F (10°C) chilled water supply temperature and 95°F (35°C) ambient air. Optional additional process pump hp (kW) reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Based on 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr), nominal 1 pump. Optional additional process pump hp (kW) reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Customer use of ductwork requires optional high-pressure fan for 5 hp to 15 hp (3.73 kW to 11.20 kW) models.
- An optional oversized process pump adds to the total rated or running chiller amperage. To find the new total chiller amperage, subtract the standard process pump amperage from the optional pump amperage (see bottom of Page 9), and add it to the chiller rated or running amperage.
- Multiply 460/3/60 amperage by 2.0 for 208-230/3/60 amperages; multiply by 0.8 for 575/3/60 amperages.
- To convert cfm to cmh, multiply by 1.699.

PSA Series 10 to 15 hp (7.49 to 11.20 kW) Air-Cooled Models



PSA Series 10 to 15 hp (7.49 to 11.20 kW) Specifications

- PSA portable chillers come standard with 4" (101 mm) swivel casters.

Model number	Com-pressor hp	Process connections, in. NPT				Dimensions in inches ①			Weights		
		1 pump	2 pumps	no pump, no tank	1 pump, no tank, to/from	height	width	depth	Dry ② lbs.	Ship. ② lbs.	Oper. ② ③ lbs.
PSA10	10.0	1.5	2.0	1.5	1.5 / 2.0	76.95"	34.00"	68.58"	1,305	1,570	1,637
PSA15	15.0	2.0	2.5	2.0	2.0 / 3.0	76.95"	34.00"	68.58"	1,388	1,653	1,720

- To convert to cm, multiply by 2.54. Add to height dimension based on mounting options.
- Weight is for standard chiller. Some optional features will increase weight. Multiply lbs. by 0.454 to calculate Kg.
- Operating weight is with a full 40-gallon (151 liter) reservoir tank of water.

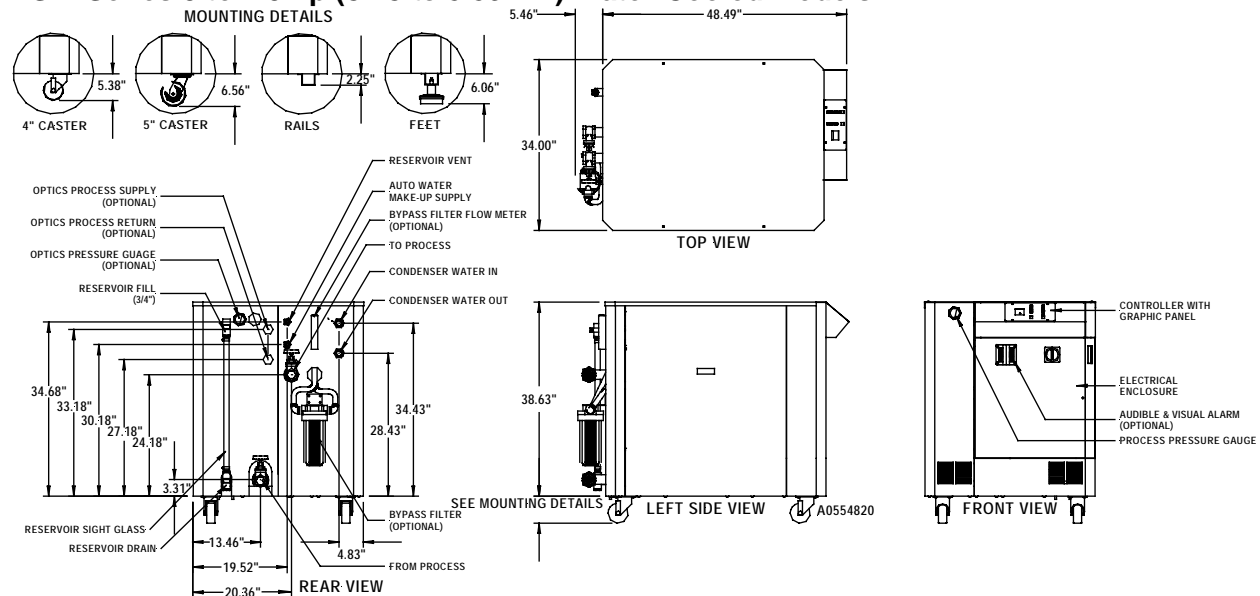
PSW Series 5 to 7.5 hp (3.73 to 5.59 kW) Water-Cooled Model Capacities

- Nominal operating parameters for PSW Series water-cooled models are 50°F (10°C) leaving water temperature at 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr) with 85°F (29°C) tower water. **For 50 Hz applications, multiply capacity by 0.83. Nominal 60 Hz capacity flow rate must be maintained.**

Model number	Nominal cooling capacity ①			Nominal water flow gpm ②	Com-pressor hp	Nom. pump hp	Condenser water		Power in amps ⑤				
	no pump	1 pump	2 pump				Water conn. in. dia.	flow in gpm Tower water ③	City water ④	460/3/60 ⑥		1 pump 2 pumps	
PSW5	5.24	5.04	4.94	12.11	5.0	1.0	1.0	15.72	7.86	12.20	8.28	13.13	9.21
PSW7.5	7.10	6.90	6.80	16.55	7.5	1.0	1.0	21.30	10.65	16.40	11.75	17.33	12.68

- Based on 50°F (10°C) chilled water supply temperature and 85°F (29°C) tower water. Optional additional process pump hp (kW) reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Based on 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr), nominal 1 pump. Optional additional process pump hp reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Based on availability of 85°F (29°C) tower water at 25 psi (172.4 kPa/1.7 bars) minimum.
- Based on availability of 70°F (21°C) city water at 25 psi (172.4 kPa/1.7 bars) minimum.
- An optional oversized process pump adds to the total rated or running chiller amperage. To find the new total chiller amperage, subtract the standard process pump amperage from the optional pump amperage (see bottom of Page 9), and add it to the chiller rated or running amperage.
- Multiply 460/3/60 amperage by 2.0 for 208-230/3/60 amperages; multiply by 0.8 for 575/3/60 amperages.

PSW Series 5 to 7.5 hp (3.73 to 5.59 kW) Water-Cooled Models



PSW Series 5 to 7.5 hp (3.73 to 5.59 kW) Specifications

- PSW portable chillers come standard with 4" (101 mm) swivel casters.

Model number	Com-pressor hp	Process connections, in. NPT				Dimensions in inches ①			Weights		
		1 pump	2 pumps	no pump, no tank	1 pump, no tank, to/from	height	width	depth	Dry ② lbs.	Ship. ② lbs.	Oper. ② ③ lbs.
PSW5	5.0	1.5	2.0	1.5	1.5 / 2.0	38.63"	34.00"	48.49"	637	787	970
PSW7.5	7.5	1.5	2.0	1.5	1.5 / 2.0	38.63"	34.00"	48.49"	727	877	1,060

- To convert to cm, multiply by 2.54. Add to height dimension based on mounting options.
- Weight is for standard chiller. Some optional features will increase weight. Multiply by 0.454 to calculate Kg.
- Operating weight is with a full 40-gallon (151 liter) reservoir tank of water.

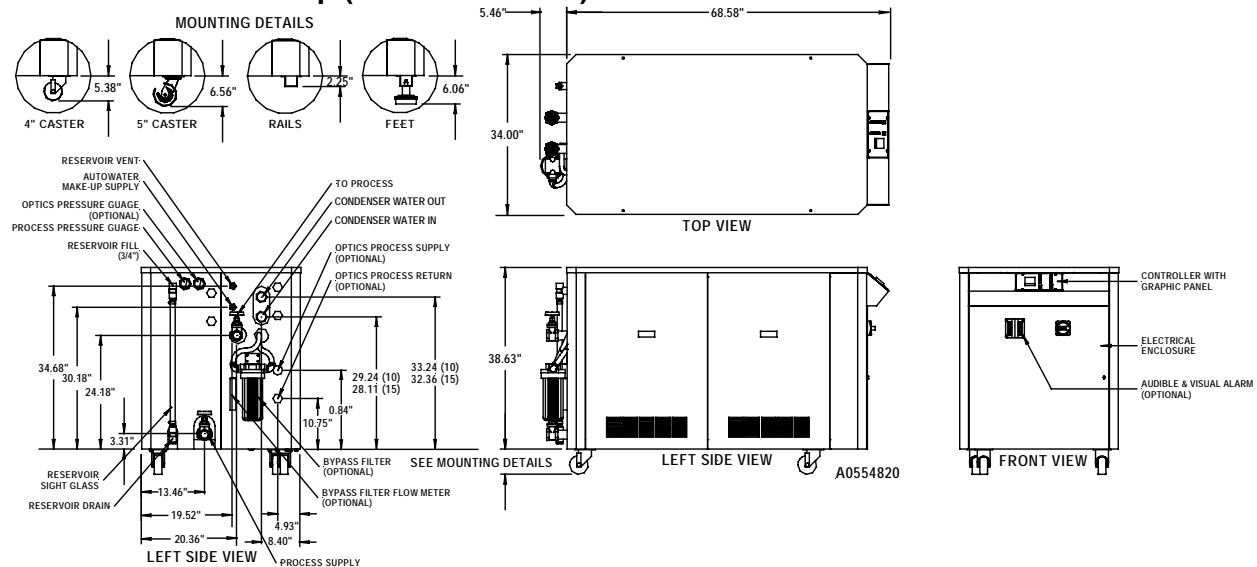
PSW Series 10 to 15 hp (7.49 to 11.20 kW) Water-Cooled Model Capacities

- Nominal operating parameters for PSW Series water-cooled models are 50°F (10°C) leaving water temperature at 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr) with 85°F (29°C) tower water. **For 50 Hz applications, multiply capacity by 0.83. Nominal 60 Hz capacity flow rate must be maintained.**

Model number	Nominal cooling capacity ①			Nominal water flow gpm ②	Com-pressor pump hp	Condenser water			Power in amps ⑤				
	no pump	1 pump	2 pump			Water conn. in. dia.	Tower water ③	City water ④	460/3/60 ⑥	1 pump rated	2 pumps rated	1 pump running	2 pumps running
PSW10	10.72	10.32	10.17	24.76	10.0	2.0	1.5	32.16	16.08	22.50	16.70	24.20	18.40
PSW15	15.86	15.46	15.31	37.11	15.0	2.0	2.0	47.58	23.79	29.70	21.58	31.40	23.28

- Based on 50°F (10°C) chilled water supply temperature and 85°F (29°C) tower water. Optional additional process pump hp (kW) reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Based on 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr), nominal 1 pump. Optional additional process pump hp reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Based on availability of 85°F (29°C) tower water at 25 psi (172.4 kPa/1.7 bars) minimum.
- Based on availability of 70°F (21°C) city water at 25 psi (172.4 kPa/1.7 bars) minimum.
- An optional oversized process pump adds to the total rated or running chiller amperage. To find the new total chiller amperage, subtract the standard process pump amperage from the optional pump amperage (see bottom of Page 9), and add it to the chiller rated or running amperage.
- Multiply 460/3/60 amperage by 2.0 for 208-230/3/60 amperages; multiply by 0.8 for 575/3/60 amperages.

PSW Series 10 to 15 hp (7.49 to 11.20 kW) Water-Cooled Models



PSW Series 10 to 15 hp (7.49 to 11.20 kW) Specifications

- PSW portable chillers come standard with 4" (101 mm) swivel casters.

Model number	Com-pressor hp	Process connections, in. NPT				Dimensions in inches ①			Weights		
		1 pump	2 pumps	no pump, no tank	1 pump, no tank, to/from	height	width	depth	Dry ② lbs.	Ship. ② lbs.	Oper. ② ③ lbs.
PSW10	10.0	1.5	2.0	1.5	1.5 / 2.0	38.63"	34.00"	68.58"	950	1,175	1,282
PSW15	15.0	2.0	2.5	2.0	2.0 / 3.0	38.63"	34.00"	68.58"	1,024	1,249	1,365

- To convert to cm, multiply by 2.54. Add to height dimension based on mounting options.
- Weight is for standard chiller. Some optional features will increase weight. Multiply by 0.454 to calculate Kg.
- Operating weight is with a full 40-gallon (151 liter) reservoir tank of water.

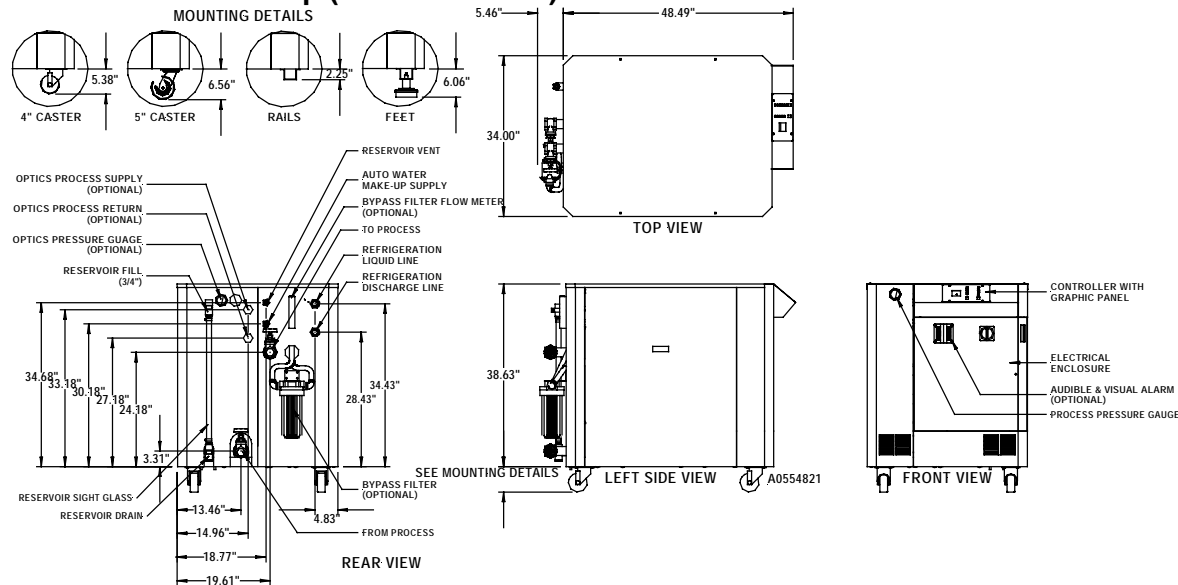
PSR Series 5 to 7.5 hp (3.73 to 5.59 kW) Remote Air-Cooled Model Capacities

- Nominal operating parameters for PSR Series remote air-cooled models are 50°F (10°C) leaving water temperature at 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr) with 95°F (35°C) ambient air. For 50 Hz applications, multiply capacity by 0.83. **Nominal 60 Hz capacity flow rate must be maintained.**

Model number	Nominal cooling capacity ①			Nom. water flow gpm ②	Com-pressor hp	Nom. pump hp	Refrigeration connections in. dia. ODS		Power in amps ③			
	no pump	1 pump	2 pump				Discharge	Liquid	460/3/60 ④		1 pump	
									rated	running	rated	running
PSR5	4.82	4.62	4.52	11.10	5.0	1.0	5/8"	5/8"	12.20	9.15	13.13	10.08
PSR7.5	6.56	6.36	6.26	15.26	7.5	1.0	7/8"	5/8"	16.20	12.75	17.33	13.68

- Based on 50°F (10°C) chilled water supply temperature and 95°F (35°C) ambient air. Optional additional process pump hp (kW) reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Based on 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr), nominal 1 pump. Optional additional process pump hp (kW) reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- An optional oversized process pump adds to the total rated or running chiller amperage. To find the new total chiller amperage, subtract the standard process pump amperage from the optional pump amperage (see bottom of Page 9), and add it to the chiller rated or running amperage.
- Multiply 460/3/60 amperage by 2.0 for 208-230/3/60 amperages; multiply by 0.8 for 575/3/60 amperages.

PSR Series 5 to 7.5 hp (3.73 to 5.59 kW) Remote Air-Cooled Models



PSR Series 5 to 7.5 hp (3.73 to 5.59 kW) Specifications

- PSR portable chillers come standard with mounting rails.
- PSR portable chillers are charged with 25 psi (172.4 kPa/1.7 bars) nitrogen for shipping purposes.

Model number	Com-pressor hp	Process connections, in. NPT				Dimensions in inches ①			Weights		
		1 pump	2 pumps	no pump, no tank	1 pump, no tank, to/from	height	width	depth	Dry ②	Ship. ②	Oper. ② ③
PSR5	5.0	1.5	2.0	1.5	1.5 / 2.0	38.63"	34.00"	48.49"	597	748	930
PSR7.5	7.5	1.5	2.0	1.5	1.5 / 2.0	38.63"	34.00"	48.49"	644	794	977

- To convert to cm, multiply by 2.54. Add to height dimension based on mounting options.
- Weight is for standard chiller. Some optional features will increase weight.
- Operating weight is with a full 40-gallon (151 liter) reservoir tank of water.

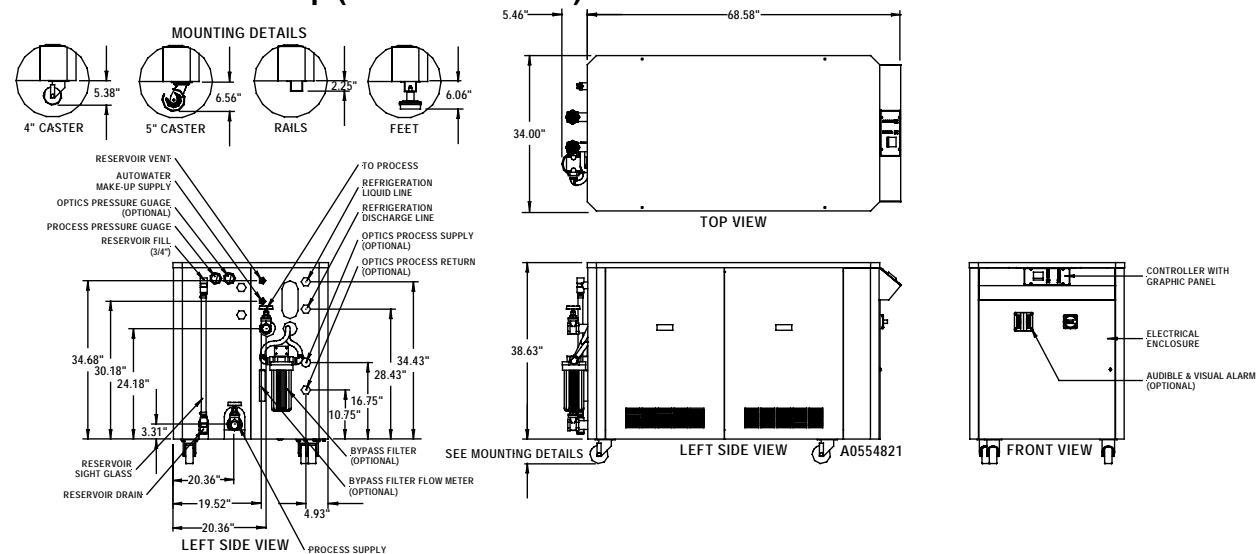
PSR Series 10 to 15 hp (7.49 to 11.20 kW) Remote Air-Cooled Model Capacities

- Nominal operating parameters for PSR Series remote air-cooled models are 50°F (10°C) leaving water temperature at 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr) with 95°F (35°C) ambient air. **For 50 Hz applications, multiply capacity by 0.83. Nominal 60 Hz capacity flow rate must be maintained.**

Model number	Nominal cooling capacity ①			Nom. water flow gpm ②	Compressor hp	Nom. pump hp	Refrigeration connections in. dia. ODS		Power in amps ③					
	no pump	1 pump	2 pump				Discharge	Liquid	460/3/60 ④		1 pump		2 pumps	
									rated	running	rated	running	rated	running
PSR10	9.91	9.51	9.36	22.80	10.0	2.0	1 1/8"	5/8"	22.50	18.20	24.20	19.90		
PSR15	14.54	14.14	13.99	33.94	15.0	2.0	1 1/8"	5/8"	29.70	23.85	31.40	25.55		

- Based on 50°F (10°C) chilled water supply temperature and 95°F (35°C) ambient air. Optional additional process pump hp reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- Based on 2.4 gpm per ton (3.00 lpm per 1,000 Kcal/hr), nominal 1 pump. Optional additional process pump hp (kW) reduces chiller capacity by 0.2 tons per hp (811 Kcal/hr per kW).
- An optional oversized process pump adds to the total rated or running chiller amperage. To find the new total chiller amperage, subtract the standard process pump amperage from the optional pump amperage (**see table below**), and add it to the chiller rated or running amperage.
- Multiply 460/3/60 amperage by 2.0 for 208-230/3/60 amperages; multiply by 0.8 for 575/3/60 amperages.

PSR Series 10 to 15 hp (7.49 to 11.20 kW) Remote Air-Cooled Models



PSR Series 10 to 15 hp (7.49 to 11.20 kW) Specifications

- PSR portable chillers come standard with mounting rails.
- PSR portable chillers are charged with 25 psi (172.4 kPa/1.7 bars) nitrogen for shipping purposes.

Model number	Compressor hp	Process connections, in. NPT				Dimensions in inches ①			Weights		
		1 pump	2 pumps	no pump, no tank	1 pump, no tank, to/from	height	width	depth	Dry ② lbs.	Ship. ② lbs.	Oper. ② ③ lbs.
PSR10	10.0	1.5	2.0	1.5	1.5 / 2.0	38.63"	34.00"	68.58"	827	1,052	1,159
PSR15	15.0	2.0	2.5	2.0	2.0 / 3.0	38.63"	34.00"	68.58"	870	1,095	1,202

- To convert to cm, multiply by 2.54. Add to height dimension based on mounting options.
- Weight is for standard chiller. Some optional features will increase weight.
- Operating weight is with a full 40-gallon (151 liter) reservoir tank of water.

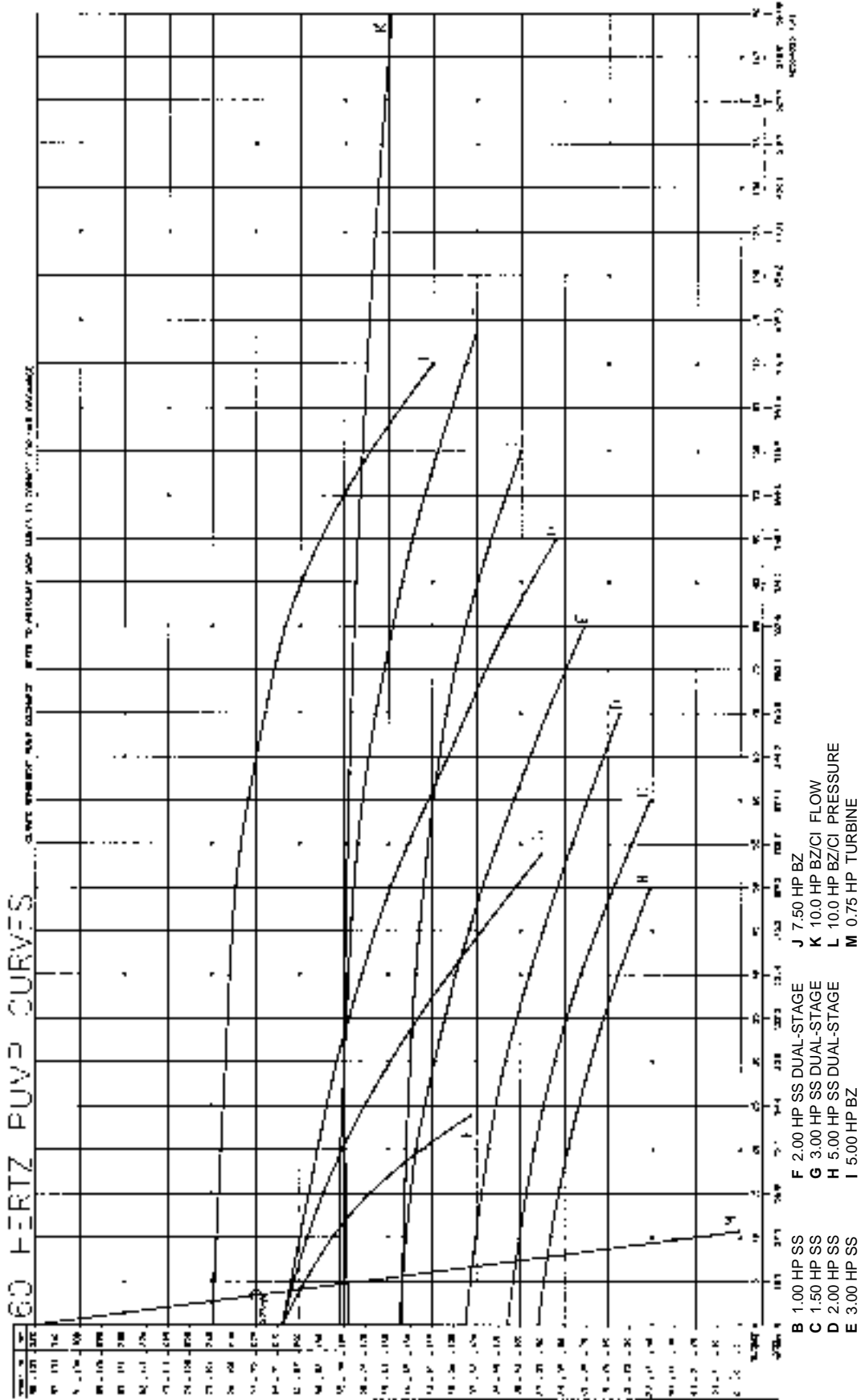
Optional Pump Amperages • PSA • PSW • PSR

Optional pump full load amps (FLAs) at 460/3/60									
hp	amps	hp	amps	hp	amps	hp	amps	hp	amps
1 hp single	1.8 amps	2 hp single	3.1 amps	3 hp single	4.2 amps	2 hp dual	3.2 amps	3 hp dual	4.5 amps
5 hp dual	6.6 amps	5 hp bronze	5.7 amps	7½ hp bronze	9.0 amps	10 hp bronze	12.6 amps	10 hp cast iron	12.6 amps

PS Series Pump Curves • 60 Hz

Abbreviations: SS = Stainless Steel SNGL = Single

BZ = Bronze CI = Cast Iron

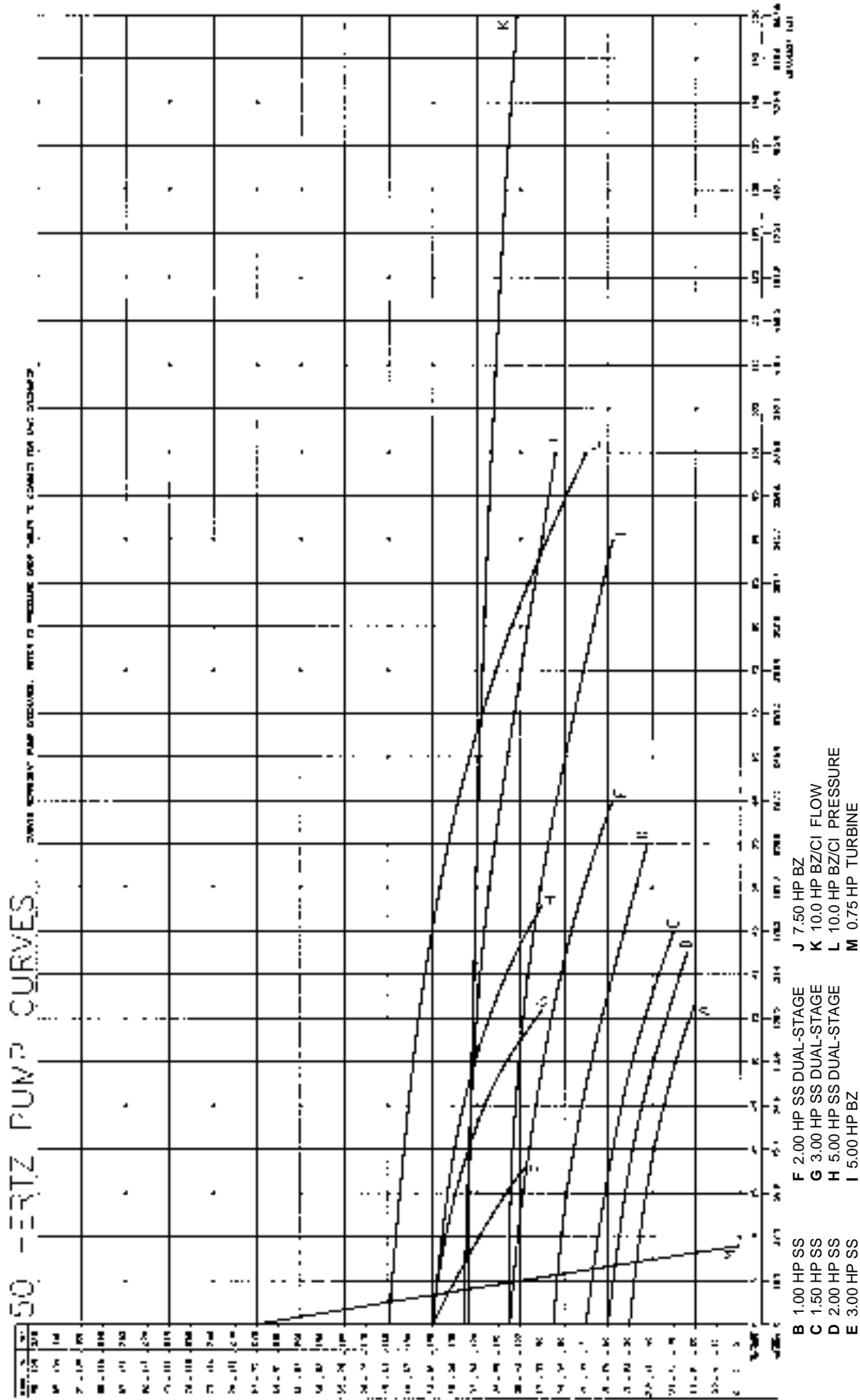


Important! Curves represent **pump discharge pressures and flows only**. You must subtract pressure drops from the tables on Page 12 for accurate To Process flow and pressure values.

PS Series Pump Curves • 50 Hz

Abbreviations: SS = Stainless Steel SNGL = Single

BZ = Bronze CI = Cast Iron



Important! Curves represent **pump discharge pressures and flows only**. You must subtract pressure drops from the tables on Page 12 for accurate To Process flow and pressure values.

Flow and Pressure Considerations for PS Series Portable Chillers • Pressure is proportional to flow

Model number	Design flow		Design ΔP		Standard pump power		Discharge pressure			To Process pressure		
	gpm	lpm	psig	kPa	hp	kW	psi	kPa	bars	psi	kPa	bars
PS5	12.11	45.8	2.15	8.14	1	0.746	37	255.1	2.6	34.85	240.3	2.4
PS7.5	16.55	62.6	3.00	11.36	1	0.746	36	248.2	2.5	33.00	227.5	2.3
PS10	24.76	93.7	4.13	28.48	2	1.492	49	337.9	3.4	44.87	309.4	3.1
PS15	37.11	140.4	6.41	44.20	2	1.492	42	289.6	2.9	35.59	245.4	2.5

Recirculation pump is required for values exceeding those listed

- Evaporator flow range: 2.2 to 4.8 gpm/ton (3.00 to 6.00 lpm per 1,000 Kcal/hr)

Model number	Recirc. power		Minimum flow		Δ pressure		Maximum flow		Δ pressure		
	hp	kW	gpm	lpm	psi	kPa	gpm	lpm	psi	kPa	bars
PS5	0.50	0.373	11.0	41.6	1.83	12.6	24.22	91.7	7.28	50.2	0.5
PS7.5	0.50	0.373	15.0	56.8	2.63	18.1	33.10	125.3	12.74	87.8	0.9
PS10	0.75	0.595	22.0	83.3	4.73	32.6	49.52	187.4	20.00	103.4	1.3
PS15	0.75	0.595	33.0	124.9	5.48	37.8	74.22	280.9	25.00	172.4	1.7

PS Series Pressure Drop Tables

- Notes:**
- A recirculation pump is required for flows greater than the maximum or less than the minimum indicated.
 - Process flow less than 2.2 gpm per ton (2.75 lpm per 1,000 Kcal/hr) or greater than 4.8 gpm per ton (6.00 lpm per 1,000 Kcal/hr) requires a recirculation pump.

PS-5 to PS-15 models

Pressure drops in ΔP , psig and kPa															
PS-5				PS-7.5				PS-10				PS-15			
Flow		ΔP		Flow		ΔP		Flow		ΔP		Flow		ΔP	
gpm	lpm	psig	kPa	gpm	lpm	psig	kPa	gpm	lpm	psig	kPa	gpm	lpm	psig	kPa
10.0	37.9	1.52	10.48	12.0	45.4	2.34	16.13	22.0	83.3	4.73	32.61	30.0	113.6	4.54	31.30
12.0	45.4	2.15	14.82	16.0	60.6	2.91	20.06	26.0	98.4	6.18	42.61	36.0	136.3	6.41	44.20
18.0	68.1	4.66	32.13	20.0	75.7	4.95	34.13	30.0	113.6	8.28	57.09	40.0	151.4	7.50	51.71
24.0	90.8	7.28	50.20	24.0	90.8	6.87	47.37	34.0	128.7	10.63	73.29	45.0	170.3	9.85	67.91
				28.0	106.0	9.56	65.92	38.0	143.8	12.91	89.01	50.0	189.3	12.35	85.15
				33.0	124.9	12.74	87.84	42.0	159.0	15.32	105.63	55.0	208.2	12.75	87.91
								46.0	174.1	16.77	115.63	60.0	227.1	17.81	122.80
								50.0	189.3	20.00	137.90	65.0	246.0	19.69	135.76
												70.0	264.9	24.16	166.58
												75.0	283.9	25.89	178.51

Note: These pressure drop values are valid for single- and no-pump PS Series portable chillers.

Calculating Chiller Nominal Flow and Pressure to Process

- **Flow rate:** Obtain the flow reading from the pump curve you selected on Page 10 or 11.
- **Pressure:** Obtain a corresponding pressure reading from the pump curve you selected on Page 10 or 11, then **subtract** the one-pump pressure drop listed in the above table using the appropriate chiller hp and flow rate.
- Two-pump 5 to 15 hp (3.73 to 11.20 kW) chillers follow the pump curve with some minimal pressure drop up to the 4.8 gpm per ton (6.00 lpm per 1,000 Kcal/hr) flow rate. After twice nominal flow, the pressure drop is **substantial**, and it has not been noted here.