POWER-COOL™

Re-circulating Chiller System

For applications including semiconductor, medical, pharmaceutical, electronics, solar, and industrial.

ais

APPLIED INTEGRATED SYSTEMS

Power-Cool™

Re-circulating Chiller System

Introducing *Power-Cool* ™, Applied Integrated Systems' re-circulating chiller system for applications where temperature stability, reliability, and low cost are of critical importance.

Power-Cool ™ applications include semiconductor, medical, pharmaceutical, electronics, solar, and industrial.

Features and Benefits

- HIGH TEMPERATURE ACCURACY
  AIS's *Power-Cool*™ utilizes a combination of vapor compression and hot gas technologies to assure tight temperature accuracy is achieved.
- COMPATIBLE WITH A WIDE RANGE OF HEAT TRANSFER FLUIDS
  Wetted flow path can be configured for operation with a wide range of heat transfer fluids.
- MULTIPLE PUMP OPTIONS
  Various pump options are available to meet your flow and pressure requirements.
- COMPACT FOOTPRINT
  Highly efficient system architecture allows for very compact footprints.
- HIGH RELIABILITY
  The *Power-Cool*™ product series has been engineered with the highest quality components available in the market and the condensing unit is never turned on/off for temperature control resulting in years of maintenance free operation.
- COOLING AND HEATING CAPABILITY
  Power-Cool™ can be configured to operate either as a chiller or a heater/chiller making it ideal not only for cooling applications but also for a process requiring both heating and cooling.
- FULLY EQUIPPED
  Power-Cool™ comes fully equipped and ready to use with insulated lines, factory refrigerant charged, and all other components necessary for safe and reliable operation.
- FLEXIBLE DESIGN
  Modular design approach allows for a wide range of wattages, physical shapes, electrical configurations, plumbing connections, pump capacities, reservoir volume…all configured around your preference.
- USER FRIENDLY
  Intuitive design makes it simple to install and operate.
- ECO FRIENDLY
  Only non-ozone-depleting, nonflammable, recyclable and energy-efficient refrigerants are used.
- SAFETY
  Process temperature protection, reservoir low level, and redundant over-temperature interlocks. CE, SEMI, UL compliance.

Specifications

Wetted Flow Path Material	Optimized to meet your heat transfer fluid requirement
Cooling Capacity	Up to 150KW (512,250 BTU/HR)
Cooling Technology	Condensing Unit
Voltages	120 - 600 VAC, 1Ø, 3Ø, 50/60Hz
Temperature Control Range	-20˚C to 35˚C or up to 130˚C with high temperature option
Temperature Accuracy	±0.1˚C (varies with application)
Temperature Control Method	PID
Pump Flow Rate	Up to 150 lpm (40 gpm)
Pump Head Pressure	Up to 1.7 MPa (250 psi)
Reservoir Volume	Up to 900 liters
Reservoir Refill	Optional auto-refill
Fluid Connections	½" - ¾" compression, ½" -2" FNPT
Power Input Connection	Hard wired or connectors
Host Interface Connection	Hard wired or connectors
Enclosure Material	Powder coated steel
Compliance	CE, SEMI, UL
Warranty	12 months

Applied Integrated Systems reserves the right to change specifications without notice.

Safety Features

- Reservoir low level protection
- Heating/cooling module over-temp protection
- Process temperature protection
- Over-current and over-load protection
- Fire retardant enclosure
- Over-pressure protection
- CE, SEMI, UL compliance

Options

- Host communication via RS232, RS485, others
- Water cooled or air cooled condenser
- Tank-less configurations (single pass applications)
- Fluid filtration: 5, 25, 40, 100, 250 micron
- Air filter (air cooled condenser)
- High temperature configuration
- Noise reduction kit
- Reservoir volume
- Enclosure material
- Pump capacity (flow and pressure)
- Physical shape
- Plumbing connection size and type
- Electrical connection style and location
- DI water filtration for high purity or electrical isolation
- Automatic refill
- Leak detection
- Adjustable flow control valve
- Extended warranty
- Additional options upon request

For more information, contact AIS at: sales@appliedintegratedsystems.com

COOLING CAPACITY REFERENCE TABLE

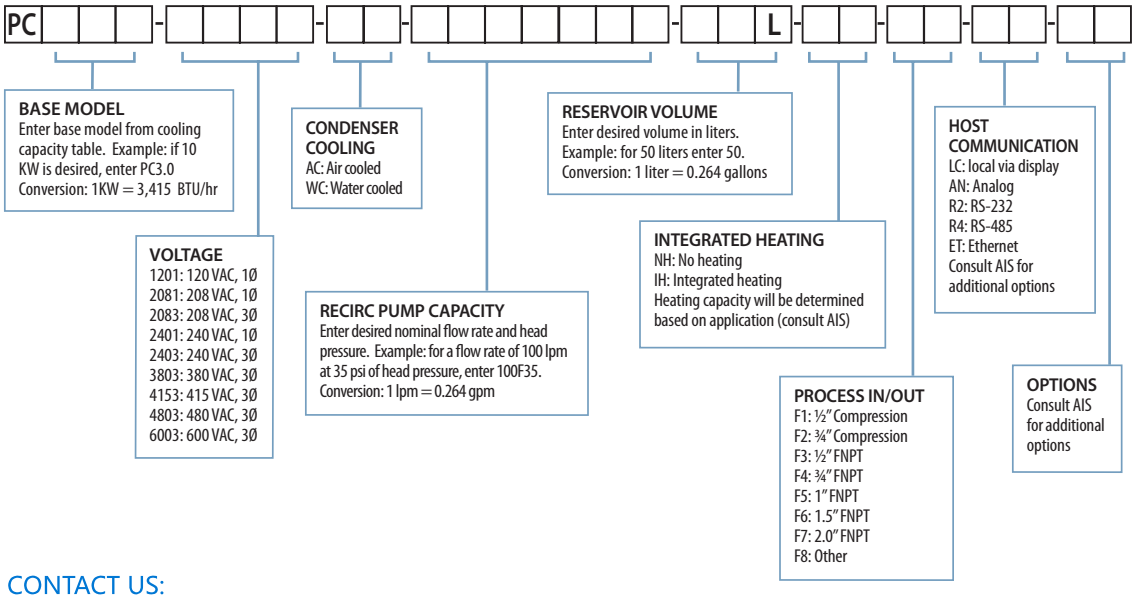
Power-Cool Base Model	Cooling Capacity (at 20˚C)	Dimensions: L x W x H (air cooled condenser)	Dimensions: L x W x H (water cooled condenser)
PC0.25	860 Watts	16" x 14" x 26"	20" x 15" x 24"
PC0.33	1,130 Watts	16" x 14" x 26"	20" x 15" x 24"
PC0.50	1,840 Watts	18" x 15" x 28"	20" x 15" x 24"
PC0.75	2,600 Watts	20" x 16" x 28"	20" x 15" x 24"
PC1.0	3,450 Watts	26" x 19" x 32"	29" x 16" x 30"
PC1.5	6,000 Watts	26" x 19" x 32"	26" x 19" x 30"
PC2.0	7,800 Watts	27" x 36" x 34"	26" x 19" x 30"
PC2.5	8,200 Watts	27" x 36" x 34"	28" x 24" x 30"
PC3.0	10,000 Watts	27" x 36" x 34"	28" x 24" x 30"
PC3.5	11,800 Watts	27" x 36" x 34"	28" x 24" x 38"
PC4.5	15,000 Watts	30" x 46" x 42"	42" x 19" x 46"
PC5.0	16,250 Watts	30" x 46" x 42"	42" x 19" x 46"
PC8.0	18,500 Watts	30" x 46" x 52"	42" x 19" x 46"
PC9.0	21,200 Watts	30" x 46" x 52"	42" x 19" x 46"
PC10	23,200 Watts	30" x 46" x 52"	48" x 19" x 46"
PC12	29,500 Watts	46" x 36" x 52"	54" x 19" x 46"
PC15	64,000 Watts	N/A	54" x 20" x 48"
PC20	71,500 Watts	N/A	66" x 22" x 52"
PC30	105,500 Watts	N/A	66" x 22" x 52"
PC35	130,000 Watts	N/A	80" x 24" x 52"
PC40	154,000 Watts	N/A	92" x 24" x 52"

Consult factory for other cooling capacities.

ORDERING INFORMATION

Please don't hesitate to contact us to help you determine the best product for your application. You may compose the part number of your *Power-Cool*™ chiller by using the guideline below or simply call one of our product specialists for assistance.

You may also e-mail us at **sales@appliedintegratedsystems.com**



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