Air Cooled Industrial Chiller Datasheet Reference

Reference technical data for compact, standard, industrial process, and large air cooled chillers used in process cooling applications.

- **Laser and CNC cooling**
- **Thermal spray auxiliary cooling**
- **Injection molding and electroplating**
- **Die casting and process cooling**
- **Factory equipment cooling**
- **1 HP to 100+ HP reference**

DATASHEET PREVIEW

RANGE	TYPICAL DIRECTION	REVIEW DATA
1-5 HP	Compact equipment-side cooling	Flow, tank, pump, temperature
5-20 HP	Standard industrial process cooling	Capacity, compressor, airflow
20-50 HP	Industrial process cooling	Duty cycle, pump pressure, ambient
50+ HP	Large air cooled chiller system	System layout, voltage, condenser

For project-specific air cooled chiller datasheets, send APT the heat load, target temperature, fluid type, pump requirement, voltage, and installation details.

This document provides reference data for initial model comparison and quotation preparation. Final specifications should be confirmed according to actual heat load, chilled water temperature, ambient temperature, pump requirement, voltage, and installation conditions.

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COMPACT RANGE

1-5 HP Compact Air Cooled Chiller Datasheet Reference

Reference data for compact air cooled process chillers used for small equipment, laboratory systems, CNC spindle cooling, laser equipment, and compact process loops.

Data is for initial comparison only. Final air cooled chiller datasheet values depend on heat load, chilled water outlet temperature, ambient temperature, pump pressure, voltage, and installation conditions.

NOMINAL HP	COOLING CAPACITY	COMPRESSOR POWER	CHILLED WATER OUTLET RANGE	TYPICAL DELTA T	WATER FLOW RATE	PUMP POWER / PRESSURE	TANK VOLUME	POWER SUPPLY	TYPICAL APPLICATIONS
1 HP	Approx. 2.5-3.0 kW	Approx. 0.75 kW	5-35 deg C standard	5 deg C reference	Approx. 8-12 L/min	Approx. 0.37 kW pump, standard circulation pressure	Approx. 15-25 L	220V/1Ph/50Hz, 220V/1Ph/60Hz, project-reviewed	Small equipment, laboratory, spindle cooling
1.5 HP	Approx. 3.8-4.5 kW	Approx. 1.1 kW	5-35 deg C standard	5 deg C reference	Approx. 12-18 L/min	Approx. 0.37-0.55 kW pump	Approx. 20-35 L	220V/1Ph or 380V/3Ph, project-reviewed	Laser, CNC, compact process cooling
2 HP	Approx. 5.5-6.5 kW	Approx. 1.5 kW	5-35 deg C standard	5 deg C reference	Approx. 18-25 L/min	Approx. 0.55 kW pump	Approx. 30-45 L	220V/1Ph or 380V/3Ph, project-reviewed	Cold plunge, small laser, test loop cooling
3 HP	Approx. 7.5-9.0 kW	Approx. 2.2 kW	5-35 deg C standard	5 deg C reference	Approx. 25-35 L/min	Approx. 0.55-0.75 kW pump	Approx. 40-60 L	220V/1Ph or 380V/3Ph, project-reviewed	CNC spindle, laser, OEM equipment
5 HP	Approx. 12-15 kW	Approx. 3.7 kW	5-35 deg C standard	5 deg C reference	Approx. 40-55 L/min	Approx. 0.75-1.1 kW pump	Approx. 60-100 L	380V/3Ph/50Hz or project voltage	Machine cooling, small process cooling

Compact Datasheet Note

Compact air cooled chiller datasheet values are commonly used for early supplier review. Final model selection should confirm actual heat load, pump head, tank volume, fluid type, noise expectation, and installation space.

STANDARD RANGE

5-20 HP Standard Air Cooled Industrial Chiller Datasheet Reference

Reference technical data for standard air cooled industrial chillers used in thermal spray auxiliary cooling, electroplating, injection molding, laser processing, machine cooling, and general process cooling.

NOMINAL HP	COOLING CAPACITY	COMPRESSOR POWER	CHILLED WATER OUTLET RANGE	WATER FLOW RATE	PUMP POWER / PRESSURE	TANK VOLUME	CONDENSER TYPE	POWER SUPPLY	APPLICATION NOTES
5 HP	Approx. 12-15 kW	Approx. 3.7 kW	5-35 deg C standard	Approx. 40-55 L/min	Approx. 0.75-1.1 kW pump	Approx. 60-100 L	Air cooled condenser	380V/3Ph/50Hz or project-reviewed	Small injection molding, CNC, laser, equipment cooling
8 HP	Approx. 20-24 kW	Approx. 6.0 kW	5-35 deg C standard	Approx. 65-85 L/min	Approx. 1.1-1.5 kW pump	Approx. 100-150 L	Air cooled condenser	380V/3Ph/50Hz, 460V/3Ph/60Hz, project-reviewed	Medium machine cooling and factory equipment
10 HP	Approx. 25-30 kW	Approx. 7.5 kW	5-35 deg C standard	Approx. 85-105 L/min	Approx. 1.5-2.2 kW pump	Approx. 120-180 L	Air cooled condenser	380V/3Ph/50Hz, 460V/3Ph/60Hz, project-reviewed	Injection molding, laser cutting, process tanks
15 HP	Approx. 38-45 kW	Approx. 11 kW	5-35 deg C standard	Approx. 130-160 L/min	Approx. 2.2-3.0 kW pump	Approx. 180-250 L	Air cooled condenser	380V/3Ph/50Hz, 460V/3Ph/60Hz, project-reviewed	Electroplating, thermal spray, production equipment
20 HP	Approx. 50-60 kW	Approx. 15 kW	5-35 deg C standard	Approx. 170-210 L/min	Approx. 3.0-4.0 kW pump	Approx. 250-350 L	Air cooled condenser	380V/3Ph/50Hz, 460V/3Ph/60Hz, project-reviewed	Thermal spray, plating, injection molding, process cooling

Common Applications

Thermal spray auxiliary cooling, electroplating, injection molding, laser processing, machine cooling, and general process cooling.

Quotation Review

Confirm cooling capacity, target water temperature, pump pressure, tank volume, ambient temperature, and voltage before final datasheet preparation.

INDUSTRIAL PROCESS RANGE

20-50 HP Industrial Process Air Cooled Chiller Datasheet Reference

Reference data for larger air cooled industrial process chillers used for thermal spray cooling, die casting, coating lines, multi-station equipment cooling, and continuous factory process cooling.

NOMINAL HP	COOLING CAPACITY	COMPRESSOR TYPE / QUANTITY	COMPRESSOR POWER	CHILLED WATER OUTLET RANGE	WATER FLOW RATE	PUMP POWER / PRESSURE	TANK VOLUME	CONDENSER DESIGN	TYPICAL APPLICATIONS
20 HP	Approx. 50-60 kW	Scroll or semi-hermetic compressor, project-reviewed	Approx. 15 kW	5-35 deg C standard	Approx. 170-210 L/min	Approx. 3.0-4.0 kW pump	Approx. 250-350 L	Air cooled finned condenser, airflow reviewed by installation	Thermal spray, injection molding, electroplating
25 HP	Approx. 62-75 kW	Scroll or semi-hermetic compressor, project-reviewed	Approx. 18.5 kW	5-35 deg C standard	Approx. 210-260 L/min	Approx. 4.0-5.5 kW pump	Approx. 300-450 L	Air cooled finned condenser, standard or high ambient design	Plastics, process tanks, factory equipment
30 HP	Approx. 75-90 kW	Scroll or semi-hermetic compressor, project-reviewed	Approx. 22 kW	5-35 deg C standard	Approx. 260-310 L/min	Approx. 4.0-5.5 kW pump	Approx. 400-600 L	Air cooled condenser, ventilation clearance reviewed	Die casting, coating lines, chemical process loops
40 HP	Approx. 100-120 kW	Single or multiple compressors, project-reviewed	Approx. 30 kW	5-35 deg C standard, custom range available	Approx. 340-420 L/min	Approx. 5.5-7.5 kW pump	Approx. 500-800 L	Standard or T3 high ambient condenser	High ambient factories and continuous duty cooling
50 HP	Approx. 125-150 kW	Single or multiple compressors, project-reviewed	Approx. 37 kW	5-35 deg C standard, custom range available	Approx. 430-520 L/min	Approx. 7.5 kW pump or project-selected pump	Approx. 600-1000 L	Large air cooled condenser, service clearance reviewed	Multi-station equipment and factory process cooling

LARGE SYSTEM RANGE

50+ HP Large Air Cooled Chiller System Datasheet Reference

Reference system-level data for large air cooled chiller projects where condenser margin, pump configuration, voltage, tank volume, and installation layout must be reviewed together.

CAPACITY GROUP	COOLING CAPACITY	WATER FLOW RATE	PUMP CONFIGURATION	CONDENSER DESIGN	ELECTRICAL CONFIGURATION	INSTALLATION NOTES	CUSTOM OPTIONS
50 HP	Approx. 125-150 kW	Approx. 430-520 L/min	Standard or high-pressure pump according to piping loss	Large air cooled condenser	380-460V, 50/60Hz by destination	Confirm airflow clearance and service access	High ambient condenser, stainless tank, special voltage
60 HP	Approx. 150-180 kW	Approx. 520-620 L/min	Single or dual pump configuration available	Air cooled condenser with project-reviewed airflow	Project-reviewed power supply	Suitable for production line process cooling	Remote control, stronger pump, outdoor structure
80 HP	Approx. 200-240 kW	Approx. 690-830 L/min	Project-selected pump and buffer tank	Large condenser bank, ambient condition reviewed	Electrical design by destination standard	Review noise, ventilation, and maintenance space	Dual pump, buffer tank, PLC interface
100 HP	Approx. 250-300 kW	Approx. 860-1040 L/min	Project-specific pump, tank, condenser, and electrical design	Multiple condenser fan layout	Project-specific electrical control	Review factory layout and outdoor/indoor installation	Custom pump station, remote monitoring, special control
Project-specific	Reviewed according to heat load, outlet temperature, ambient temperature, and installation condition	Calculated by heat load and Delta T	Selected by pipe resistance and process loop requirement	Standard, high ambient, or custom condenser	Voltage and frequency by project	Final datasheet after engineering review	OEM interface, skid layout, special protection logic

Large System Datasheet Note

Large air cooled chiller system datasheets are usually project-reviewed rather than selected only by nominal HP. Confirm heat load, water flow, pump head, ambient temperature, and installation space before quotation.

TECHNICAL NOTES

How to Read This Air Cooled Chiller Datasheet

The following notes help engineers and purchasers interpret air cooled industrial chiller specifications before requesting a final project datasheet.

Cooling Capacity

Cooling capacity is affected by chilled water outlet temperature and ambient temperature. Lower outlet temperature or higher ambient temperature may reduce available cooling capacity.

Water Flow Rate

Water flow rate is usually calculated according to heat load and temperature difference. Final flow should match process equipment requirements.

Pump Pressure

Pump pressure must be checked according to pipe distance, height difference, valves, filters, and equipment pressure loss.

Tank Volume

Tank volume may vary according to temperature stability, process load fluctuation, and installation space.

Power Supply

Voltage, phase, and frequency should be confirmed according to country and site electrical system.

Final Datasheet

The listed data is for initial comparison. Final datasheet should be confirmed after reviewing actual operating conditions.

SELECTION NOTES

Air Cooled Chiller Selection Notes

Air cooled chillers are often selected when a cooling tower is not preferred, when installation flexibility is important, or when a standalone process cooling system is required.

No Cooling Tower

Air cooled condensers reject heat directly to ambient air and do not require condenser water or a cooling tower.

Ambient Temperature

High ambient conditions should be reviewed because condenser capacity affects available cooling performance.

Installation Clearance

Confirm condenser airflow direction, service space, exhaust air path, and hot-air recirculation risk.

Pump and Tank

Pump power and tank volume should match the real process loop and temperature stability requirement.

Custom Configuration

Air cooled chillers can be customized with high ambient design, special voltage, stronger pumps, stainless tank, or PLC interface.

Quotation Preparation

Prepare heat load, target temperature, flow rate, fluid type, voltage, ambient temperature, and installation photos.

APPLICATION FIT

Typical Applications for Air Cooled Industrial Chillers

The same industrial chiller cooling capacity table should be interpreted according to application heat load, process sensitivity, pump requirement, and operating conditions.

APPLICATION	WHY AIR COOLED CHILLER FITS	DATASHEET FOCUS
Thermal Spray Cooling	Independent cooling system for spray equipment, power supply, and auxiliary circuits.	Cooling capacity, pump pressure, temperature stability, continuous operation.
Laser Cooling	Compact installation and stable water temperature for laser sources and optics.	Temperature control accuracy, clean water circuit, flow protection.
Injection Molding Cooling	Suitable for mold cooling and machine auxiliary cooling where cooling tower is not preferred.	Cooling capacity, flow rate, tank volume, pump pressure.
Electroplating Cooling	Useful for tank temperature control and process liquid cooling.	Material compatibility, heat exchanger, corrosion risk, flow rate.
CNC Machine Cooling	Supports spindle, cutting fluid, and machine thermal control.	Compact structure, pump flow, temperature range.
Laboratory Cooling	Suitable for small equipment cooling and controlled circulation.	Compact size, low noise, temperature stability.

FINAL DATASHEET REQUEST

Information Needed Before Requesting a Final Datasheet

Send your operating conditions to APT for a project-specific air cooled chiller datasheet.

- Required cooling capacity or process heat load
- Required water flow rate
- Pump flow and pressure requirement
- Ambient temperature
- Application equipment type
- Special material requirement
- Chilled water inlet and outlet temperature
- Fluid type
- Voltage / phase / frequency
- Installation location
- Continuous or intermittent operation
- Communication or control requirement

Project-Specific Datasheet Preparation

APT can prepare a final air cooled process chiller technical data sheet after reviewing the actual heat load, target temperature, fluid condition, pump requirement, voltage, and installation conditions.

FAQ

Air Cooled Chiller Datasheet FAQ

Common questions when reviewing air cooled industrial chiller specifications for quotation preparation.

Are the cooling capacity values final selection data?

No. The values are reference data for initial comparison. Final cooling capacity should be checked according to heat load, outlet temperature, ambient temperature, and operating conditions.

Why does cooling capacity change with outlet temperature?

Lower chilled water outlet temperature usually reduces available cooling capacity. The final datasheet should confirm the required temperature point.

How should I compare water flow rate?

Water flow rate is related to heat load and temperature difference. The final flow rate should match the process equipment and pipe system.

Can pump flow and pressure be customized?

Yes. Pump flow and pressure can be selected according to pipe distance, pressure loss, equipment resistance, and required circulation condition.

Can voltage be customized for export projects?

Yes. APT can review voltage options such as 380V/3Ph/50Hz, 220V/3Ph/60Hz, 460V/3Ph/60Hz, and other project-specific requirements.

Can APT provide a final datasheet for my project?

Yes. APT can prepare a project-specific datasheet after reviewing capacity, target temperature, ambient temperature, fluid, pump requirement, voltage, and installation conditions.

Contact APT for Final Air Cooled Chiller Datasheet

Website: https://applied-chiller.com/

Email: sales@applied-chiller.com

Please include heat load, chilled water temperature, ambient temperature, fluid type, pump requirement, voltage, and installation details when requesting a project-specific datasheet.