SmartRack® Close-Coupled Cooling for IT Environments

Efficient, flexible, manageable cooling reduces costs and simplifies installation.

Cooling Engineered for IT Environments

SmartRack cooling solutions are designed for the needs of the IT department. IT staff can install most models without outside assistance, quickly reconfigure them to respond to new challenges and manage them over the network like other IT resources.

COMPACT AND EFFICIENT COOLING

SmartRack cooling solutions pack powerful cooling into compact footprints. They help prevent equipment problems caused by overheating and temperature fluctuations. Close-coupled cooling delivers cold air near the IT heat load to help prevent recirculation of warm air, improve predictability and enable right-sized modular cooling for efficient expansion.

SIMPLIFIED INSTALLATION

Air conditioning units plug into standard NEMA wall outlets and fit almost anywhere. Installation is do-it-yourself simple, with no need for disruptive construction projects, external condensers, refrigerant piping, plumbing, raised floors or costly specialists. Although chilled water solutions are not quite as simple, they still offer best-in-class convenience.

UNATTENDED OPERATION

Air conditioning units support automated on/off scheduling and restart automatically after power outages with last-used settings. They also include built-in evaporators to prevent condensation from accumulating, so you won't need to empty a water collection tank or install a floor drain.
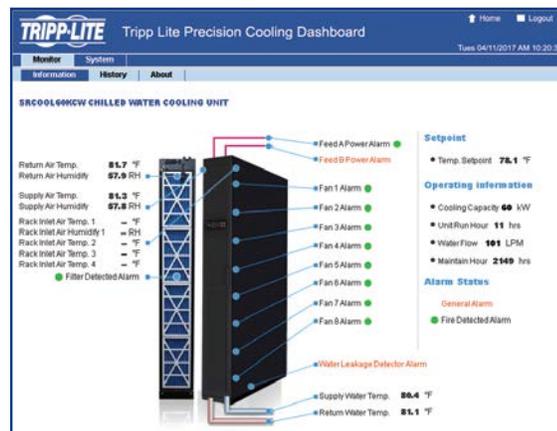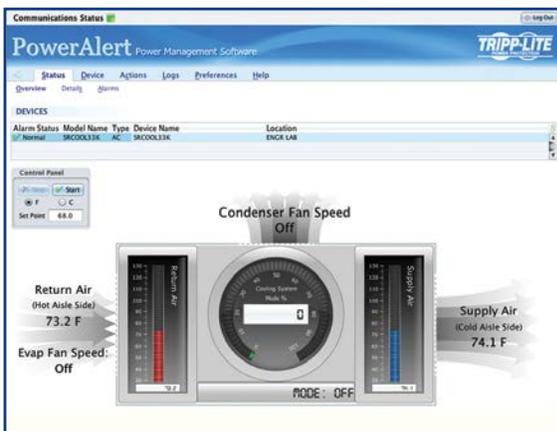
FLEXIBILITY

Retrofit, reconfigure or expand cooling on the fly to handle new equipment, increasing power density and troublesome hot spots. Direct area cooling through adjustable louvers or use flexible output ducts to focus cold air where it's needed most. Modular cooling means you're always ready for change, which is the one constant in every IT environment.

RESILIENCE

With cooling distributed across multiple units, a single problem won't disable your data center. Engineered to meet the rigorous requirements of high-availability IT environments, SmartRack cooling solutions are less likely to have problems in the first place, and they respond gracefully to external problems like power outages.

MANAGEABILITY

All units support network management, allowing you to monitor temperatures, change settings, define threshold warnings, receive alerts, access logs and automate operation remotely via SNMP, Web, SSH or telnet.

All Tripp Lite cooling solutions support remote management, which is included with some units and offered as an optional upgrade with others. You can use Tripp Lite's free cooling management software to manage units over the network from any location. You can also monitor units via SNMP in conjunction with a third-party network management system.

Air Conditioning for Wall-Mount Cabinets (2,000 BTU/hr.)

CLEVER COOLING FOR WALL-MOUNT CABINETS

- **SRCOOL2KWM** provides 2,000 BTU/hr. (0.6 kW) of air conditioning for wall-mount rack enclosure cabinets.

- Works with wall-mount cabinets from most manufacturers.

CLOSE-COUPLED COOLING

- The compact air conditioning unit mounts to the top of the wall-mount cabinet, and the magnetic output duct directs cold air through the perforated front door to installed IT equipment.

PLUG-AND-PLAY POWER

- The 5-15P plug connects to commonly available 15-amp outlets.

REMOTE MANAGEMENT

- An optional network card enables remote monitoring and control.

SRCOOL2KWM is specially designed for "piggyback" mounting on most wall-mount rack cabinets.

Rack-Mounted Air Conditioning (7,000 BTU/hr.)

AIR CONDITIONING MOUNTED IN THE RACK

- **SRCOOL7KRM** provides 7,000 BTU/hr. (2 kW) of in-rack air conditioning for standard rack enclosures.

- The EIA-compliant cabinet fits in 8U at the bottom of the rack.

CLOSE-COUPLED COOLING

- Close-coupled cooling delivers cold air to heat loads inside the rack, discouraging recirculation and increasing efficiency.

PLUG-AND-PLAY POWER

- The 5-15P plug connects to commonly available 15-amp outlets.

REMOTE MANAGEMENT

- An optional network card enables remote monitoring and control.

FLEXIBLE INSTALLATION

- An optional exhaust duct adds support for open frame racks.

SRCOOL7KRM is the first rack-mounted air conditioning unit designed to cool IT equipment.

Find it fast! Try our interactive selector at **www.tripplite.com/cooling** or contact our application team at **773.869.1236** or **solutions@tripplite.com**.

Portable Air Conditioning (12,000 BTU/hr.)

PORTABLE COOLING FOR SMALL SPACES

- **SRCOOL12K** provides 12,000 BTU/hr. (3.5 kW) of portable cooling capacity for network closets and small rooms.

CLOSE-COUPLED COOLING

- Close-coupled cooling delivers cold air near heat loads to discourage recirculation and increase energy efficiency.

PLUG-AND-PLAY POWER

- The 5-15P plug connects to commonly available 15-amp outlets.

REMOTE MANAGEMENT

- An optional network module enables remote monitoring and control.

Tripp Lite's award-winning portable cooling is #1!

Source: NPD Group channel sales data.

SRCOOL12K is compact enough to cool small network closets, back offices and other locations where other cooling solutions wouldn't fit. IT staff can set it up quickly and leave it to run unattended in remote locations for long periods.

Portable Air Conditioning (18,000 BTU/hr.)

HIGH-CAPACITY PORTABLE COOLING FOR DEMANDING IT ENVIRONMENTS

- **SRCOOL18K** provides 18,000 BTU/hr. (5.275 kW) of portable and backup cooling for server rooms and data centers.

CLOSE-COUPLED COOLING

- Close-coupled cooling delivers cold air near heat loads in rack rows to discourage recirculation and increase energy efficiency.

PLUG-AND-PLAY POWER

- The L6-20P plug connects to common data center outlets.

REMOTE MANAGEMENT

- An optional network card enables remote monitoring and control.

SRCOOL18K can focus cooling through a flexible output duct or provide area cooling through an adjustable vent (shown).

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Portable Air Conditioning (24,000 BTU/hr.)

HIGH-CAPACITY PORTABLE COOLING WITH BUILT-IN REMOTE MANAGEMENT

- **SRCOOL24K** provides 24,000 BTU/hr. (7 kW) of portable and backup cooling for server rooms and data centers.
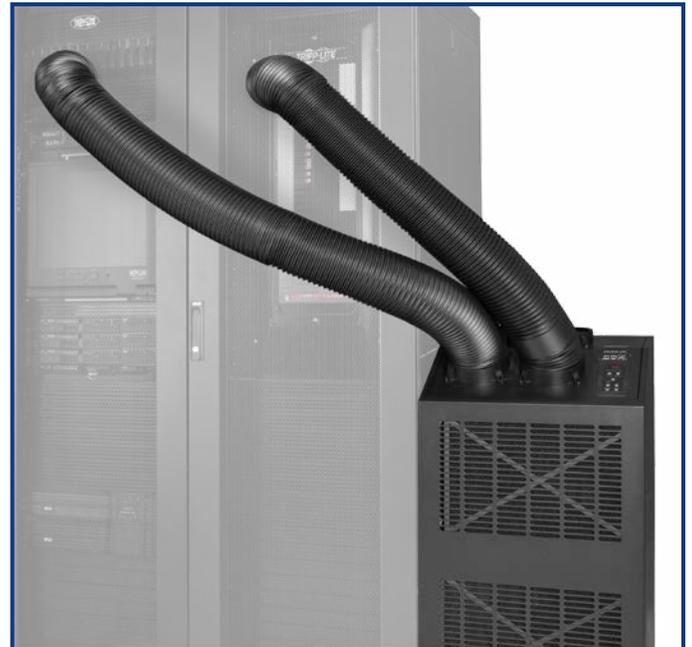
CLOSE-COUPLED COOLING

- Close-coupled cooling delivers cold air near heat loads in rack rows to discourage recirculation and increase energy efficiency.

PLUG-AND-PLAY POWER

- The L6-20P plug connects to common data center outlets.

REMOTE MANAGEMENT

- The built-in network card enables remote monitoring and control.

SRCOOL24K can focus cooling through two flexible output ducts (shown) or provide area cooling through an adjustable vent.

In-Row Air Conditioning (33,000 BTU/hr.)

INNOVATIVE IN-ROW COOLING

- **SRCOOL33K** provides 33,000 BTU/hr. (9.7 kW) of in-row air conditioning for server rooms and data centers.

INNOVATIVE COOLING TECHNOLOGY

- The variable-speed compressor provides precise temperature control and limits inrush current to save energy and reduce electrical disruptions inside the data center.

CLOSE-COUPLED COOLING

- Installed in a rack row, the output vent delivers cold air high in the cold aisle where it sinks to provide even distribution.

PLUG-AND-PLAY POWER

- The L6-30P plug connects to available data center outlets without requiring an electrician to hardwire input power connections.

REMOTE MANAGEMENT

- An optional network card enables remote monitoring and control.

SRCOOL33K resides in the rack row like a standard 42U rack enclosure to provide high-capacity close-coupled cooling.

In-Row Chilled Water Cooling (204,000 BTU/hr.)

HIGH CAPACITY

- **SRCOOL60KCW** provides 204,000 BTU/hr. (60 kW) of in-row chilled-water cooling for medium and large data centers.

CLOSE-COUPLED COOLING

- Installed in a rack row, the unit draws hot air from behind the row and delivers cold air to the front, perfect for supporting efficient hot-aisle/cold-aisle data center configurations.

INTELLIGENT MONITORING & CONTROL

- The smart controller automatically detects input and output air temperature through built-in sensors and adjusts operation to manage data center heat loads with precision and efficiency.
- The built-in network management card allows IT staff to monitor conditions, change settings and receive alerts in any location.
- The LCD control panel provides full-featured local management.

RESILIENCE & SERVICEABILITY

- Redundant power supplies and fans can be hot-swapped.
- Dual-input power supplies permit backup power connection.
- During a power failure, the unit automatically interrupts the chilled water flow to prevent condensation and leakage.
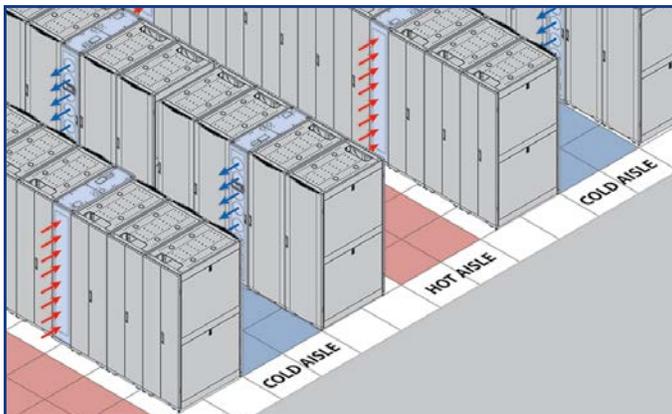
MODULAR SYSTEM EXPANSION

- Right-size cooling capacity to start and expand as needed, linking units to coordinate as a distributed system.

*Drawing in hot air at the back of each row and providing cold air at the front of each row, **SRCOOL60KCW** is a perfect match for efficient hot-aisle/cold-aisle data center configurations.*

SRCOOL60KCW packs 204,000 BTU/hr. (60 kW) of close-coupled cooling in a compact in-row footprint half the width of a standard rack.

Note: **SRCOOL60KCW** is not a standalone unit. It must connect to an existing chilled water system to operate.

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SmartRack Close-Coupled Cooling Solutions

Model	SRCOOL2KWM	SRCOOL7KRM	SRCOOL12K	SRCOOL18K	SRCOOL24K	SRCOOL33K	SRCOOL60KCW
Cooling Capacity	2,000 BTU/hr. (0.6 kW)	7,000 BTU/hr. (2 kW)	12,000 BTU/hr. (3.5 kW)	18,000 BTU/hr. (5.275 kW)	24,000 BTU/hr. (7 kW)	33,000 BTU/hr. (9.7 kW)	204,000 BTU/hr. (60 kW)
Cooling Type	Direct Expansion	Direct Expansion	Direct Expansion	Direct Expansion	Direct Expansion	Direct Expansion	Chilled Water
Form Factor	Piggyback Unit for Wall-Mount Cabinets	Rack-Mounted Unit, 8U (4-Post Mount)	Compact Portable Unit	Rack-Width Portable Unit	Rack-Width Portable Unit	Rack-Width In-Row Unit	½ Rack-Width In-Row Unit
Recommended Applications	Wall-Mount Rack Enclosure Cabinet Cooling	Rack Cooling (Add SRCOOL7KDUCT for Open Frame Racks)	1. Rack/Spot Cooling 2. Area Cooling 3. Backup Cooling	1. Rack Cooling 2. Area Cooling 3. Backup Cooling	1. Rack Cooling 2. Area Cooling 3. Backup Cooling	1. Rack Row Cooling 2. Area Cooling	1. Data Center Cooling 2. Rack Row Cooling
Dimensions (H x W x D)	11.1 x 13.5 x 13.5 in.	13.9 x 17.4 x 22.5 in.	30.6 x 11.8 x 19.9 in.	38.2 x 20.5 x 21.7 in.	38.2 x 20.5 x 21.7 in.	78.5 x 23.6 x 43 in.	78.7 x 11.8 x 42.9 in.
Unit Weight	35 lb.	61.6 lb.	73.9 lb.	175.4 lb.	175.4 lb.	700 lb.	416.7 lb.
Rolling Casters	No	No	Yes	Yes	Yes	Yes	Yes
AC Input	120V, 60 Hz	120V, 60 Hz	120V, 60 Hz	208/240V, 60 Hz	208/240V, 60 Hz	200-240V, 50/60 Hz	208/230V, 50/60 Hz
230V Version	No	No	SRXCOOL12K	No	No	SRXCOOL33K	Same
Plug Type	NEMA 5-15P	NEMA 5-15P	NEMA 5-15P	NEMA L6-20P	NEMA L6-20P	NEMA L6-30P	Dual Hardwire Input
Cord Length	6 ft.	7 ft.	6 ft.	6.6 ft.	6.6 ft.	10 ft.	N/A
Refrigerant Type	R134A	R410A	R410A	R410A	R410A	R410A	Chilled Water
Refrigerant Capacity	7.76 oz.	18.7 oz.	22.4 oz.	36.68 oz.	42.33 oz.	134 oz.	17.6 gal./min.[1]
Dehumidifying Capacity[2]	0.22 gal./hr.	0.33 gal./hr.	0.66 gal./hr.	12.5 gal./hr.	15 gal./hr.	2.5 gal./hr.	N/A
Nominal Air Circulation	Evaporator: 78 CFM Condenser: 130 CFM	198.25 CFM	Evaporator: 329 CFM Condenser: 311 CFM	Evaporator: 634 CFM Condenser: 640 CFM	Evaporator: 634 CFM Condenser: 640 CFM	1,200 CFM	4,400 CFM
Nominal Input Current	2.5A	8.5A	10.5A	10.5A	13.5A	24A (Variable)	12.6A
Compressor Type	Rotary	Rotary	Rotary	Rotary	Rotary	Variable-Speed[3]	N/A
Audible Noise (Max.)	55 dB	57 dB	57 dB	59 dB	65 dB	75 dB	88 dB
Remote Management	Add SRCOOLNET2	Add SRCOOLNET2	Add SRCOOLNET	Add SRCOOLNET2	Included	Modbus Included[4]	Included
External Sensor	Included with SRCOOLNET2[5]	Included with SRCOOLNET2[5]	Included with SRCOOLNET[5]	Included with SRCOOLNET2[5]	Included	Add SNMPWEBCARD and ENVIROSENSE[5]	4 Options[6]
Close-Coupled Cooling	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Eco-Friendly Refrigerant	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Automatic Restart	Yes	Yes	Yes	Yes	Yes	Yes	No
On/Off Scheduling	Yes	Yes	Yes	Yes	Yes	Yes	No
Condensation Evaporator	Yes	Yes	Yes	Yes	Yes	Yes	No
Condensation Drainage	Optional[7]	Optional[7]	Optional[7]	Optional[7]	Optional[7]	Optional[7]	Required
Cooling Output Vent	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Flexible Cooling Duct	No	No	Yes	Yes	Yes (2 Ducts)	No	No
Flexible Exhaust Duct	Yes	Add SRCOOL7KDUCT	Yes	Yes (2 Ducts)	Yes (2 Ducts)	Yes (2 Ducts)[8]	No
Self-Contained	Yes	Yes	Yes	Yes	Yes	Yes	No[9]
Installation Kit[10]	Included	Included[11]	Included	Included	Included	Included[12]	No[13]
Standards	UL 484 (ETL), CSA, NOM, RoHS	UL 484 (ETL), CSA, NOM, EIA-310-E, RoHS	UL 484 (ETL), CSA, RoHS	UL 484 (ETL), CSA, NOM, RoHS	UL 484 (ETL), CSA, NOM, RoHS	UL 484 (ETL), CSA, FCC Class A, RoHS	UL 1995, CSA, CE, FCC Class B, RoHS

Certifications vary with model. **(1)** Rated chilled water flow rate. **(2)** 86° F (30° C), 80% relative humidity. **(3)** Variable-speed compressor limits inrush current and saves energy. **(4)** Also supports SNMPWEBCARD, which replaces the included Modbus card. **(5)** ENVIROSENSE sensor reports temperature, humidity and status of contact closure connections. **(6)** TLNETEM reports temperature, humidity and status of contact closure connections. SRCOOL60KRT reports temperature. SRCOOL60KRTH reports temperature and humidity. SRCOOL60KWDR detects and reports water leaks. **(7)** Condensation drainage may be required in high-humidity conditions or dehumidification applications. **(8)** Also includes two intake ducts. **(9)** Requires connection to facility chilled water system. **(10)** Includes all parts required for standard installation. May require additional tools. Alternate applications may require additional parts. **(11)** Add SRCOOL7KDUCT for applications requiring an exhaust duct. **(12)** Add SRCEILINGADAPT to facilitate connection of ducts to dropped ceiling. **(13)** Ready for lower piping connection. Add SRCOOL60KTP for upper piping.

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Tripp Lite offers a variety of airflow management and heat removal solutions to help prevent downtime, increase efficiency and reduce operating costs. In addition, SmartRack premium rack enclosures allow abundant front-to-rear airflow and support high-density cable managers to help prevent cable clutter from obstructing rack airflow.

The SRTHERMDUCT thermal duct kit isolates and removes heat like a chimney.

Toolless 1U blanking panels prevent warm air from recirculating inside rack enclosures.

Airflow Optimization & Heat Removal Solutions

SR1UBRUSH	1U Cable Pass-Through Panel with Brush Strip
SR1UPANEL10	Toolless 1U Blanking Panel Kit (10 Pieces)
SR1UPANEL50	Toolless 1U Blanking Panel Kit (50 Pieces)
SR1UPANEL200	Toolless 1U Blanking Panel Kit (200 Pieces)
SRBRUSHWM	Brush Strip Plate for Wall-Mount Cabinets
SRFAN1U	1U Fan Tray with 3 Fans
SRFAN3U	3U Fan Panel with 3 Fans
SRFANROOF	Roof-Mounted Fan Panel with 6 Fans for Floor-Standing Rack Enclosures
SRFANWM	Roof Fan Kit with 2 Fans for Wall-Mount Cabinets
SRGASKET	Rack Enclosure Airflow Optimization Kit
SRSKIRT	Rack Enclosure Skirt Kit
SRSKIRT3	Rack Enclosure Skirt Kit for 3-inch Casters
SRSWITCHDUCT	Rack Enclosure Side Airflow Ducting Kit for Network Switches
SRTHERMDUCT	Thermal Duct Kit for Standard 42-48U Rack Enclosures
SRXUPANEL	4-Size Blanking Panel Kit (1U, 2U, 4U and 8U)

Rack-Mount Cable Managers

SRCABLEDUCT1U	1U Horizontal Cable Manager
SRCABLEDUCTVRT	6 ft. Vertical Cable Manager
SRCABLEDUCT1UHD	1U High-Capacity Horizontal Cable Manager
SRCABLEDUCT2UHD	2U High-Capacity Horizontal Cable Manager
SRCABLERING1U	1U Horizontal Cable Manager, Flexible Ring
SRCABLERING2U	2U Horizontal Cable Manager, Flexible Ring
SRCABLERINGVRT	6 ft. Vertical Cable Manager, Flexible Ring
SRCABLETRAY1U	1U Horizontal Cable Management Tray
SRCABLEVRT3	High-Capacity Vertical Cable Manager, 3 in. Wide
SRCABLEVRT6	High-Capacity Vertical Cable Manager, 6 in. Wide
SRCABLEVRT12	High-Capacity Vertical Cable Manager, 12 in. Wide

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