

Sr.No	Description	SRC (Small Room Cooling)/DM	Conventional	Remarks
1	Life span	10+ years	3-4 years	Lower replacement and hence lower capex cost
2	Compressor	Scroll	Rotary	Scroll has much more efficiency and longer life
3	Operation Hrs	24 x 7	5-6 Hrs a day	Need stand by unit for cyclic duty
4	Input Electrical connection	3 phase	1 phase	in 3 phase equal load distribution in all phases
5	Sensible heat ratio(SHR)	0.95	0.6	Delivery of higher capacity for equipment cooling, lower capasity SRC will fullfill colling requirement
6	CFM /TR	High (550 + CFM/TR)	Lower (330 CFM/TR)	Faster cooling of equipments
7	Indoor fan type	Direct EC fan	Non EC fan	Lower power consumption in EC fans
8	Out door fans	With fan speed controller option	Normal fan with out fan speed controller	Lower power consumption during night and low ambient conditions
9	RH control	Better	Nil	Life and efficiency of equipment's increases with controlled RH
10	Remote monitoring	Yes	No	Better monitoring even at unmanned locations
11	Over all power consumption	Low	High	Better saving in SRC
12	Sequencing	In built	External	No additional equipment required for sequencing
13	Service	Better	Normal	Lower down time
14	Total cost of ownership	Very Low	Very High	ROI in less than 2 years in most of the applications.
15	Body construction	Full metal	Full plastic	Fire retardant
16	Operation at high ambient	Possible	Not possible	Lower failure
17	Refrigerant used	Green (R407C)	R22 which is phased out	Environmental friendly
18	Filters	10 micron Filters	20 micron filters	Better filtration
19	Expansion valve	Thermostatic expansion valve	Capillary expansion	Better effieency
20	In door to out door distance	30 Mts	10 Mts	Lower installation issues
21	Hydrophilic coating	Yes	Nil	Higher life span even in corosive enviornment.
22	Fire safety	High	Low	Low risk of fire hazards





Liebert[®]

SRC[™]

3-11 kW

Thermal Management Solution
for Small Equipment Rooms



WE ARE VERTIV

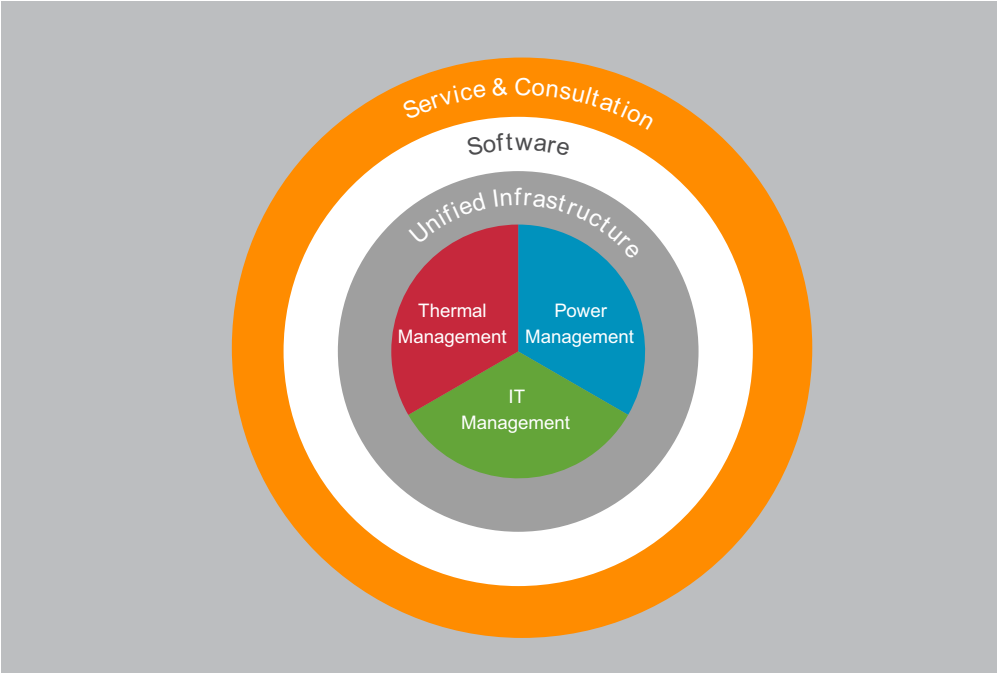
Vertiv, formerly Emerson Network Power, designs, builds, and services mission critical technologies that enable vital applications for data centers, communication networks, and commercial & industrial environments



We support today's growing mobile and cloud computing markets with our portfolio of power, thermal and infrastructure management products, software and solutions, all complemented by our extensive global service network.

We help strengthen the world's most vital applications by bringing together global reach and local knowledge, and our decades-long heritage, including brands like Chloride, Liebert, NetSure, and Trellis.

Vertiv
Your Vision, our Passion
With a unique combination of industry expertise, technology, and resources, our mission is to support and power mission-critical technologies that drive possibility.



Chloride[®]

Our global industrial power solutions meet the most demanding technical specifications and provide safe, reliable power- no matter the challenge

Liebert[®]

Our global power and thermal management solutions are some of the world's most efficient and reliable power and cooling technologies

NetSure[™]

Our global intelligently engineered DC power systems deliver high availability, energy efficiency, and scalability for converged networks

Trellis[™]

Our industry-leading software gives customers an integrated view of operations across IT and facilities resources, enabling better decisions that save time and money

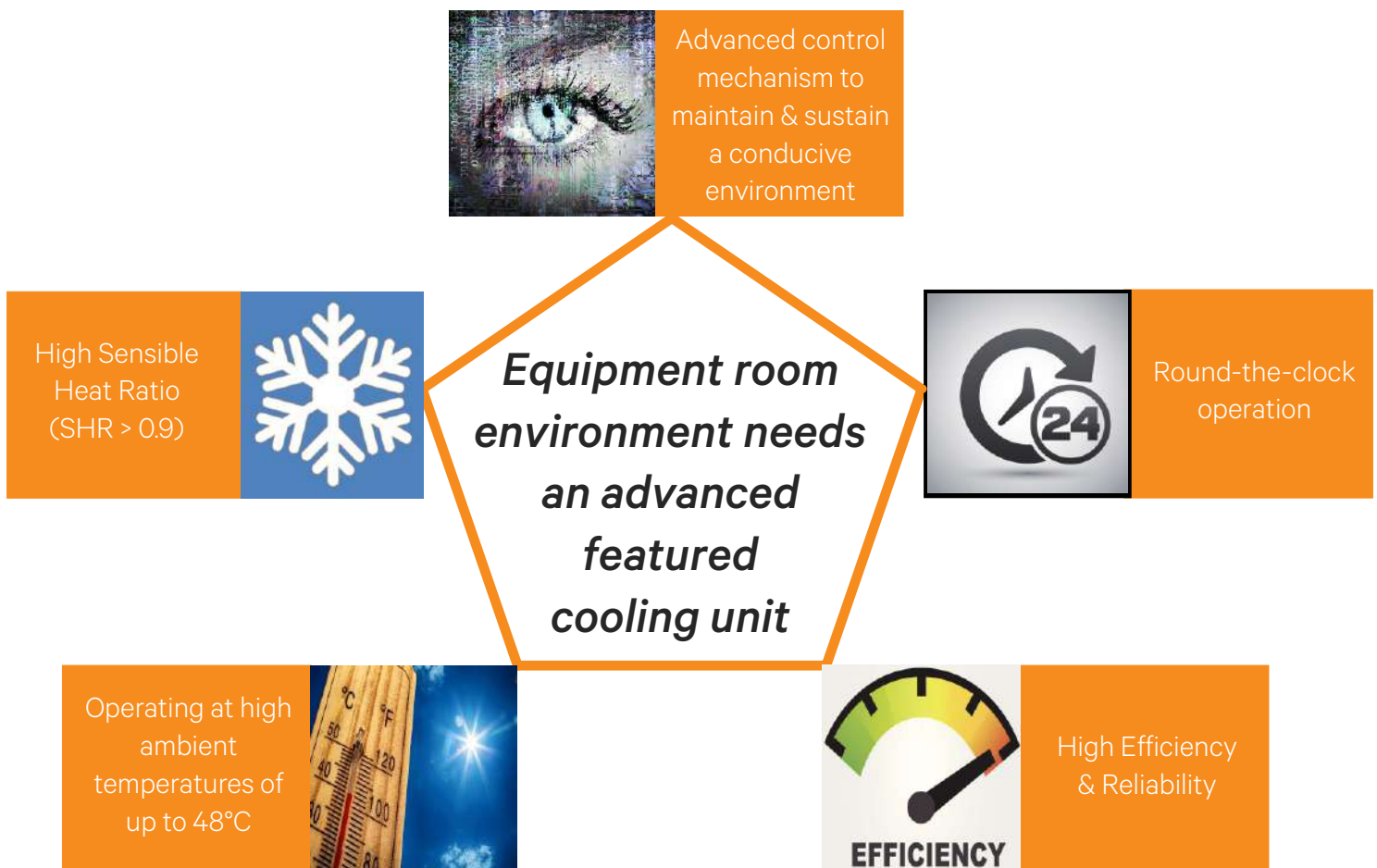
In recent times, technological innovations have enabled world-wide connectivity to become a major catalyst for the growth of businesses. This has led to businesses heavily relying on their support systems to ensure their core applications are always performing efficiently.

However, most of the businesses are unaware that the equipment / processes that support their operations also need a conducive environment to operate at their best efficiency all the time.

RIGHT TO KNOW

- Maintaining a comfortable environment for machines is far more different than for human beings.
- Machines & processing equipment constantly release 100% dry heat during their operational time.
- Unlike humans, equipment requires 24x7x365 continuous cooling even during soaring outdoor temperatures of up to 48°C.

How do I maintain a conducive environment for my equipment to perform efficiently???



Liebert® SRC™

An Innovative Cooling Solution For Equipment Rooms



HIGHEST EFFICIENCY

- Efficient compressor
- High efficiency EC fan with high airflow (> 500 CFM/TR)
- Advanced coil design delivering high SHR > 0.9



HIGH AMBIENT OPERATION

- Sustain up to 48° C outdoor temperature
- Hydrophilic coated coil
- Metallic construction



ADVANCED CONTROLLER

- Sequencing up to 8 units
- Monitoring & alarm generation
- Auto-startup on power failure
- Remote monitoring feature
- Authorized access control



EASY MAINTENANCE & SERVICE

- Self diagnostic feature
- Ease of internal access to parts
- 24 hours call center
- Global presence with experienced personnel

IT'S ABOUT CHOOSING THE RIGHT COOLING SYSTEMS FOR YOUR EQUIPMENT ROOM APPLICATIONS

Rack Room



Network Room



Switch Room



UPS Room



Battery Room



Electrical Room



Control Room



Hub Room



ATM Room



And many more Equipment Room Applications ...

Indoor Unit



AIR FILTER



- G4 rated filters
- HDPE Media
- Large filtration area
- Washable

COOLING COIL



- High SHR > 0.9 with large surface area
- Internally grooved Copper tubed coil with aluminum fins

EXPANSION VALVE



- Tight control on the evaporating temperature
- Handling higher refrigerant flow rates

EC FANS



- High efficiency
- Step-less speed modulation
- Lowest power consumed
- 4 directional airflow

CONTROLLER



- Latest technology advanced monitoring & control
- Auto-sequencing, alarm generation
- Remote monitoring features
- Coded Remote control
- Self Diagnostic capabilities

Outdoor Unit



CONDENSER COIL



- Large surface area
- Hydrophilic coating
- Sustains outside temperature up to 48°C

COMPRESSOR



- High efficiency compressor
- Green refrigerant
- Quick response to fluctuating loads



- **Auto Standby Restart**
- **Cooling Load Sharing**
- **Access Control**
- **Remote Monitoring**

BEST-IN-CLASS CONTROLLER

- Advanced monitoring and control system specifically designed for technology room applications
- Best-in-industry operational logic helps to quickly achieve accurate room set-point conditions
- Remote monitoring capabilities via BMS helps to facilitate unmanned operations and quickly address the critical warnings and alarms
- Self diagnostic feature assists the servicing/maintenance process and drastically reduces the response time
- Authenticated access to the controls with a 3-level protection helps to restrict unauthorized access and unwanted tampering with the system operations

COOLING UNIT

- Specifically designed for 24x7 operation to enable functioning of equipment / processes that support core business applications.
- Industrial grade Powder coated metallic body construction for high durability even in adverse conditions.
- Large surface area hydrophilic coated cooling coil made of copper with aluminum fins designed for a high SHR > 0.9 which is best suited for dry heat applications.
- EC fans with high airflow rate and best-in-class efficiency to drastically minimize the power consumption.
- G4 rating filters as per industrial standards with high filtration rate to ensure the cooling environment is free of dust and dirt.



CONDENSING UNIT

- Robust Scroll/Rotary compressor which is highly efficient and quickly adapts to changes in the cooling environment.
- Large surface area condenser coil designed to sustain ambient temperatures up to 48°C which makes it versatile to operate during peak summers without tripping.
- Industrial grade aluminum body construction designed to withstand horrid outdoor conditions
- Axial Condenser fans made of aluminum for durability and longer life.



Technical Specifications

Parameter	Units	SRC03ES	SRC04ES	SRC07ES	SRC07ET	SRC11ET
Net Sensible Cooling Capacity ¹	kW	2.8	4.22	7.0	7.1	10.6
Net Sensible Cooling Capacity	TR	0.8	1.2	2.0	2.0	3.0
Sensible Heat Ratio (SHR)	-	> 0.9				
Airflow	CMH	750	1100	1900	1900	2800
Unit Power Supply	-	230 V, 1 PHASE, 50 HZ			410 V, 3 PHASE, 50 HZ	
Condenser Type	-	Air Cooled				
Refrigerant	-	R410A		R407C		
Compressor	-	Rotary		Scroll		
Dimensions (WxDxH)						
Indoor Unit	mm	1105 x 375 x 515				1405 x 375 x 515
Outdoor Unit	mm	850 x 325 x 590		970 x 390 x 800		970 x 390 x 1170
Weights						
Indoor Unit	kg	48	50	55	55	58
Outdoor Unit	kg	63	65	69	70	75
Refrigerant Piping Dimensions						
Hot Gas Line	Inch	3/8	3/8	3/8	3/8	1/2
Liquid Line	Inch	1/2	5/8	5/8	5/8	3/4
Controller	-	Microprocessor-based controller with corded remote				
Communication Protocol	-	RS 485 based Modbus				

Conditions apply

* Specification are subject to change without any further notification

* 1 - Effective usable capacities (Gross sensible capacity - fan power) mentioned are based on

Return air conditions of 27°C/40% RH at a condensing temperature of 45°C

**Vertiv Energy Private Limited**

Plot No C-20, Road No 19, Wagle Industrial Estate, Thane (W), Maharashtra - 400604, India

Tel: 91-71970000 Fax: 91-22-25828358, Toll Free No: 1-800-2096070, Email: marketing.india@vertivco.com

VertivCo.com

© 2017 Vertiv Co. All rights reserved. Vertiv and the Vertiv logo are trademarks or registered trademarks of Vertiv Co. All other names and logos referred to are trade names, trademarks or registered trademarks of their respective owners. While every precaution has been taken to ensure accuracy and completeness herein, Vertiv Co. assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or omissions. Specifications are subject to change without notice.

TM-EN-IN-R1-18-3