

Liebert DS precision cooling system provides efficient, precise, reliable control of room temperature, humidity and airflow for proper operation of critical electronic equipment. The flexible Liebert DS offers high energy efficiency, user-friendly iCOM controls, modular frame, front service access, and compressor options.

For more information about this product and its applications, go to www.liebert.com or contact your local Liebert Representative



Features & Benefits		
Flexibility:	Higher Availability:	Lowest Total Cost Of Ownership:
<ul style="list-style-type: none"> ▪ Air, Water, Glycol and GLYCOOL™ models. ▪ Upflow and downflow models available. ▪ Provides a complete environmental control package, including both precision air conditioning and humidity control. ▪ Choice of compressors, including Digital Scroll™, Scroll and semi-hermetic four-step models. ▪ Total front access for service. ▪ Modular frame construction for easy installation. ▪ Liebert iCOM control brings high-level supervision to networking multiple mission-critical cooling units. 	<ul style="list-style-type: none"> ▪ Built with Liebert quality components from the most trusted name in the industry. ▪ New Copeland Digital Scroll™ Compressors stepless variable capacity control for ultimate control and reliability. ▪ The Liebert DS is built for year-around operation. ▪ Uses environmentally friendly R-407c refrigerant. 	<ul style="list-style-type: none"> ▪ Ultra energy efficient GLYCOOL and Dual Cool hybrid models available. ▪ NEMA premium efficiency motors enable the unit to exceed today's most stringent government efficiency requirements. ▪ Liebert precision air conditioning products are backed by the Liebert Service Partner Network (LSNP) - the largest nationwide network of service providers in our industry - for installation, start-up and preventive maintenance.

Frequently Asked Questions	
Question	Resolution
Why is a Liebert DS precision cooling system better than ordinary building air conditioning?	The Liebert DS offers a much higher level of reliability compared to comfort cooling systems. It uses rugged refrigeration components that are designed to operate 24 hours a day, 365 days a year. The Liebert DS also provides the precise temperature and humidity control required by sensitive electronic computer equipment.
Does this type of cooling system use a lot more energy?	No, due to a greater sensible heat removal capability compared to a comfort cooling system of the same size, the Liebert DS will save money and even pay back part of your investment over the life of the system.
What if you don't have a raised floor in your data center?	The Liebert DS is available in upflow models for use in facilities without raised flooring, as well as downflow models designed to be used with raised floors.
Does the Liebert DS cost more to operate than a regular building air conditioning system?	Specifically designed for the demanding requirements of year-round operation, the Liebert DS is actually less expensive to operate over its life cycle compared to both comfort cooling equipment and competitive precision air conditioning products.

Competitive Advantages

You may be asked about the advantages of the Liebert DS cooling system compared to building air conditioning or other types of cooling systems. Here are some important differences that make the Liebert solution the right choice for many applications:

Feature	
Wide Choice of Capacities	Downflow models (for raised floor applications) from 35-105 kW (8-30 tons) capacities and upflow models (for non-raised floor applications) in 35-105 kW (8-12 tons) sizes.
High Reliability Compared to Comfort Cooling Systems	Reliable refrigeration components designed to operate 24 hours a day, 365 days a year.
Easy Maintenance	Front access for easy service access to internal components.
Energy Efficient	Combined with greater sensible heat removal, the Liebert DS also utilizes a digital scroll compressor for maximum efficiency.
Lower Total Cost of Ownership	In addition to energy efficiency, the Liebert DS is designed to withstand the test of time.



Specifications

Air-cooled capacity data - R-407C refrigerant

Model Size (kW)	035	053	070	105
Compressor Size	Digital Scroll	Digital Scroll	Digital Scroll	4 step semi hermetic
Net capacity data kW (BTUH), standard air volume and evaporator fan motor 72 °F DB, 58.6 °F WB (22.2 °C DB, 14.8 °C WB) 45% RH				
Total kW (BTUH)	33.0 (112,700)	49.3 (168,400)	61.7 (210,600)	85.4 (291,400)
Sensible kW (BTUH)	33.0 (112,700)	49.3 (168,400)	57.2 (195,100)	80.5 (274,600)

Indoor Unit Dimensions, In (mm)

Model No. (kW)	Height	Depth	Length
035	76 (1930)	34 3/4 (883)	73 (1854)
053	76 (1930)	34 7/8 (886)	98 (2489)
070	76 (1930)	34 7/8 (886)	98 (2489)
105	76 (1930)	34 7/8 (886)	132 (3353)

Indoor Unit Dry Weights - down flow, air cooled lb (kg) Approx.

Model No.	035	053	070	105
Air Cooled	1440 (653)	1920 (873)	1970 (896)	3040 (1379)

Indoor Unit Electrical Data

Reheat Options		Electric, Standard, kW			
Humidifier Options		Infrared or Steam Generating Canister			
Model	Motor hp	Volts	208	230	480
035	3.0	FLA	72.9	69.4	34.5
		WSA	88.5	84.4	41.9
		OPD	90	90	45
053	3.0	FLA	112.1	107.2	53.9
		WSA	137.5	131.6	66.2
		OPD	150	125	70
070	5.0	FLA	127.5	122.1	59.5
		WSA	155.2	148.8	72.5
		OPD	175	150	80
105	10.0	FLA	171.6	164.4	89.8
		WSA	201.1	197.6	103.0
		OPD	225	225	125

Outdoor Unit Condenser Selection

Refrigerant	Air-Cooled Condenser Selection		Liebert DS Size			
	Condenser Type	Ambient Temperature °F (°C)	035	053	070	105
R-407C	Outdoor Condenser	95° (35°)	CD-205	CD-251	CD-308	CD-415
		100° (38°)	CD-205	CD-308	CD-415	CD-616
		105° (41°)	CD-251	CD-415	CD-415	CD-616

Outdoor Unit Condenser Dimensions

Condensor Cabinet (with legs) Dimensions, inches (mm)

Size	Height	Width	Length	Net Weight lb (kg)
CD-165	43 1/8 (1095)	43 9/16 (1106)	91 1/2 (2324)	425 (193)
CD-205	43 1/8 (1095)	43 9/16 (1106)	91 1/2 (2324)	495 (225)
CD-251	43 1/8 (1095)	43 9/16 (1106)	131 1/2 (3340)	500 (227)
CD-308	43 1/8 (1095)	43 9/16 (1106)	131 1/2 (3340)	670 (305)
CD-415	43 1/8 (1095)	43 9/16 (1106)	171 1/2 (4356)	815 (370)
CD-510	43 1/8 (1095)	43 9/16 (1106)	171 1/2 (4356)	1188 (540)
CD-616	43 1/8 (1095)	87 1/8 (2213)	131 1/2 (3340)	1380 (627)

Liebert DS Related Products



Liebert Liqui-tect® Leak Detection Systems

Provide quick sensing, accurate reporting and precise location of leaks below the floor or above the ceiling in critical facilities, allowing you to find and correct a leak before moisture can damage computers, wiring connections or other sensitive electronics.



Liebert Universal Monitor

This all-purpose, simple to use monitoring panel features multi-sensing, remote monitoring and remote control capabilities.



Liebert Nform

A simple to use monitoring and communications software solution that combines full-scale monitoring with cost-effective deployment through the use of the existing network infrastructure.



Liebert IntelliSlot Webcard

Delivers SNMP, Telnet and web-management capability for enhanced communications and control of Liebert UPS, Power Management or Precision Cooling systems. The card manages a wide range of operating parameters, alarms and notifications, transmitting data over the network.