Precision Cooling for
Business-Critical Continuity

Liebert HPS

06-14 kW High Performance Split Air Conditioner

Liebert®

EMERSON™
Network Power

High Performance Air Conditioning

Liebert HPS

Efficiency, Compactness, Flexibility!

HPS is the newest high performance split air conditioner designed to assure proper environmental conditions inside technological environments, especially BTS and Node B for Mobile Networks.
It's efficient thanks to the effective air distribution reached through the displacement cooling concept; it's energy and space saving thanks to the high efficiency components and the compactness of the innovative freecooling version; it's extremely flexible thanks to the possibility of selecting among several versions: HPS can be configured depending on the main application drivers (noise level, environmental conditions range etc.) and the desired options (freecooling, emergency freecooling, heating etc.).

Distribute the air in the best way

HPS delivers the cold air straight down, close to the racks suction area and intakes the hot air out coming from the heat sources, into the cabinet sides (frontal and lateral).
In this way the mixing effect between conditioner cold air and electronic equipment hot air is denied resulting in a double beneficial effect: the rack is fed by cold air where it is needed and the air conditioner treats only the hot air maximizing its efficiency.
Proper temperature inside the racks, high efficiency of the cooling equipment, hot spot absence in the site: distributing the air in a smart way is very effective.

Save energy and space

The use of the optional freecooling gives the possibility to stop the compressor and use the external fresh air to cool the site: the annual energy absorption, requested to cool the site, goes sensibly down. The 0-100% fine modulation allows to keep constantly the desired set point inside the site. No adding module is requested: the innovative rotary freecooling system keeps unchanged the requested space to install the unit.

Maximize site reliability

Remote nodes need to exchange data continuously, always working at proper environmental conditions. Therefore the air conditioner reliability is not an option: it's a must. The most modern design and components such as scroll compressor and plug-type fans, heat exchanger surfaces and airflows generously designed allow the unit to work 24h/day, 365 days. Maximize the unit reliability selecting the emergency cooling option: in case of main supply fault the air conditioner is supplied by alternative energy sources like 48 VDC batteries or independent AC generator.

Choose the cooling unit suitable to your application

HPS assures optimal air distribution, efficiency, energy saving, reliability, compactness whatever its configuration. More stringent requirements in terms of noise level emission and maximum external working temperature, can be satisfied selecting HPS advanced version: 45 dB(A) at 3m f.f and 50° C with internal air intake conditions of 30° C, 35% R.H.

Technical Data

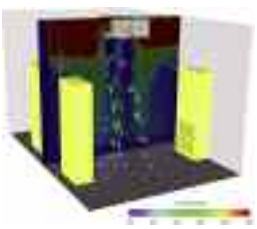
Model HPSE + HPSC		06	08	10	12	14
Evaporating side installation		Ceiling mounting				
Main power supply		230/1N/50	400/3N/50	400/3N/50	400/3N/50	400/3N/50
Emergency power supply (opt)		48V DC or 230/1N/50				
Performances						
Total cooling capacity(1)	kW	6,4	8,1	10,1	12,5	14,6
Sensible cooling capacity(1)	kW	6,4	8,1	10,1	12,5	14,6
Compressor power input(1)	kW	1,7	2,2	3,0	3,7	4,6
Condenser fan power input (1)	kW	0,24	0,24	0,12	0,15	0,15
Evaporator fan power input (1)	kW	0,18	0,35	0,35	0,33	0,33
Evaporator airflow	m^3/h	1.510	2.360	2.360	2.770	2.750
Condenser max.airflow	m^3/h	2.970	2.970	6.300	5.675	5.675
Outdoor sound pressure level(2)	dB(A)	48,5	48,5	52	54	56
Indoor sound pressure level(2)	dB(A)	58	62,5	62,5	63	63
Max.ambient temperature(3)	°C	52	50	50	50	50
Refrigeration circuit						
Compressor type/quantity		scroll / 1				
Refrigerant		R407C				
Expansion device		thermostatic valve				
Evaporator fan						
Quantity/type/poles version		1/Axial/4				
Driven/motor protection		direct / IP44		direct / IP54		
Condenser fan						
Quantity/type/poles		1 / axial / 6		2 / axial / 6		
Driven/motor protection		direct / IP54				
Control system		variable speed				
Air filtery						
Filter type / efficiency		pleated / G3				
Heating						
Electric heating (opt)	kW	1,5			4,5	
Cabinet						
Frame		galvanized steel				
Painting		polyester – RAL 7035				
Insulation type/thikness	- / mm	polyurethane class A1 /10				
Evaporator Width	mm	800			900	
Evaporator Depth	mm	800			900	
Evaporator Height	mm	310			375	
Evaporator Weight	kg	50	53	53	58	58
Condenser Width	mm	920		920		
Condenser Depth	mm	390		390		
Condenser Height	mm	840		1190		
Condenser Weight	kg	80	82	97	103	111

(1) Ref. conditions: 30°C, 35% R.H indoor air intake, 35°C outdoor.

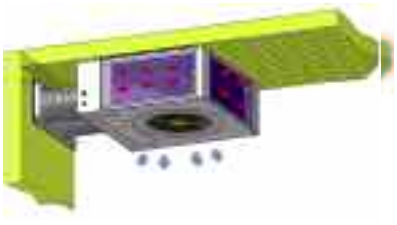
(2) Measured with outdoor temperature 35°C, 2 meters from the unit, free field conditions (factory set).

(3) Referred to 30°C indoor air intake.

Data referred to HPS standard version (no options)



HPS effect: air intake from the hottest part of the room (top), cold air delivery directly to the electronic equipment



HPS in direct expansion mode: hot air intake from three sides to maximise the energy efficiency

HPS in free cooling mode: use of external fresh air to maximise the energy saving

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