

# LIEBERT® HPS from 6 to 14 kW

High Performance Air Conditioning



## Efficiency, Compactness, Flexibility

Liebert HPS is the high performance split air conditioner designed to ensure proper environmental conditions inside technological environments, especially for mobile networks. Liebert HPS guarantees an effective air distribution, while its highly efficient components ensure energy and space saving. The unit is available in several cooling versions thus guaranteeing extreme flexibility for any site application. Liebert 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.).

### Optimized Air Distribution

Liebert HPS delivers 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 supplied with cold air where needed and the air conditioner treats only the hot air maximizing its efficiency. This allows for proper temperature inside the racks, high efficiency of the cooling equipment and hot spot absence in the site.

### Energy and Space Saving

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, thus decreases significantly. The 0-100% fine modulation allows to keep constantly the desired set point inside the site. No additional module is needed: the innovative rotary freecooling system keeps unchanged the requested space to install the unit.

### Maximizing Site Reliability

Remote nodes need to exchange data continuously, always working at proper environmental conditions. The most modern design and components such as scroll compressor and plugtype fans, heat exchanger surfaces and airflows guarantee a 24/7 unit operation. Moreover, in case of main supply fault the air conditioner is supplied by alternative energy sources like 48 VDC batteries or independent AC generator.

### Suitable for Any Site Application

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



Liebert HPS - Evaporative Ceiling-Mounted Module



Liebert HPS - Condensing Module



Liebert HPS - Condensing Module

## Technical Specifications

MODELS 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				
<b>PERFORMANCES</b>						
Total cooling capacity <sup>(1)</sup>	kW	6.4	8.1	10.1	12.5	14.6
Sensible cooling capacity <sup>(1)</sup>	kW	6.4	8.1	10.1	12.5	14.6
Compressor power input <sup>(1)</sup>	kW	1.7	2.2	3.0	3.7	4.6
Condenser fan power input <sup>(1)</sup>	kW	0.24	0.24	0.12	0.15	0.15
Evaporator fan power input <sup>(1)</sup>	kW	0.18	0.35	0.35	0.33	0.33
Evaporator airflow	m <sup>3</sup> /h	1510	2360	2360	2770	2750
Condenser max. airflow	m <sup>3</sup> /h	2970	2970	6300	5675	5675
Outdoor sound pressure level <sup>(2)</sup>	dB(A)	48.5	48.5	52	54	56
Indoor sound pressure level <sup>(2)</sup>	dB(A)	58	62.5	62.5	63	63
Max. ambient temperature <sup>(3)</sup>	°C	52	50	50	50	50
<b>REFRIGERATION CIRCUIT</b>						
Compressor type/quantity		scroll / 1				
Refrigerant		R407C				
Expansion device		thermostatic valve				
<b>EVAPORATOR FAN</b>						
Quantity/type/poles version		1/Axial/4				
Driven/motor protection		direct / IP44	direct / IP54			
<b>CONDENSER FAN</b>						
Quantity/type/poles		1 / axial / 6	2 / axial / 6			
Driven/motor protection		direct / IP54				
Control system		variable speed				
<b>AIR FILTERY</b>						
Filter type / efficiency		pleated / G3				
<b>HEATING</b>						
Electric heating (opt)	kW	1.5				4.5
<b>CABINET</b>						
Frame		galvanized steel				
Painting		polyester – RAL 7035				
Insulation type/thickness	-/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)

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