High Performance Air Conditioning

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### **Efficiency, Compactness, Flexibility**

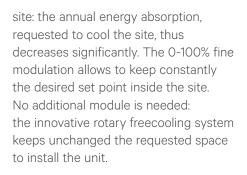
Liebert HPS is the high performance split air conditioner designed to ensure proper environmental conditions inside technological environments, especially for mobile networks. Liebert HPS guarantees an effective air distribution, while its highly efficient components ensure energy and space saving. The 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



#### **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		
PERFORMANCES						
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	m³/h	1510	2360	2360	2770	2750
Condenser max. airflow	m³/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		
EVAPORATOR FAN						
Quantity/type/poles version				1/Axial/4		
Driven/motor protection		direct	/ IP44		direct / IP54	
CONDENSER FAN						
Quantity/type/poles		1/ax	ial / 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 A1/1	0	
Evaporator Width	mm		800		9	000
Evaporator Depth	mm	800			9	000
Evaporator Height	mm		310		3	375
Evaporator Weight	kg	50	53	53	58	58
Condenser Width	mm	92	20		920	
Condenser Depth	mm	39	90		390	
Condenser Height	mm	84	40		1190	
Condenser Weight	kg	80	82	97	103	111

Ref. conditions: 30°C, 35% R.H indoor air intake, 35°C outdoor.
Measured with outdoor temperature 35°C, 2 meters from the unit, free field conditions (factory set).
Referred to 30°C indoor air intake.
Data referred to HPS standard version (no options)

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