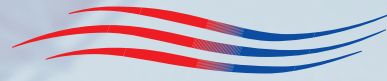


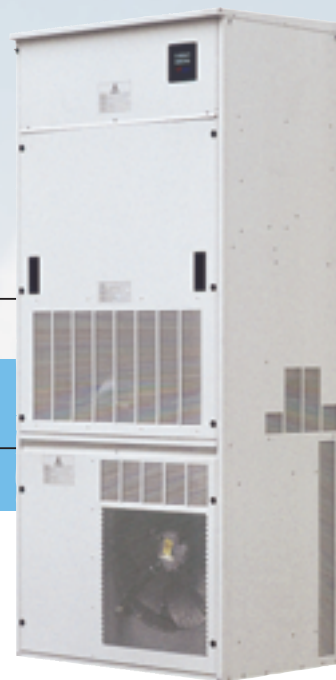
Liebert HIROSS



Hiwall-TT

HIGH PERFORMANCE AIR CONDITIONING

Hiwall TT is the newest package, direct expansion type air conditioner range, with built-in air cooled condenser, for outdoor installation. Optimised for UMTS networks as far as unique features, cooling capacity and user friendliness are concerned.



Energy Saving And Cost Effective Cooling

The most modern design and components such as scroll compressor, plug-type fans and the freecooling mode assure high energy saving and greatly reduce running and lifetime cost.

High Reliability

Hiwall TT can be powered by either 48VDC or 230/1/50 in case of mains failure, ventilating and maximising freecooling to keep the indoor temperature below the shut-down limit and guarantee continued operation of the telecommunication equipment.

Invest-As-You-Grow

Wall cut-outs among Hiwall TT models are compatible: the unit can be replaced by a more powerful one when the heat load increases significantly: the right solutions for flexibility and reduced investment costs when rolling out 2G and 3G networks.

Vandal Proof

Heavy gauge steel cabinet with special openings and screws protect sensitive components.

Low Noise

Hiwall TT is designed to perfectly suit installation in urban sites, where low noise level is of the highest value. That is assured by the careful selection of low noise components and by the enhancement of cabinet rigidity which eliminates spurious vibrations.

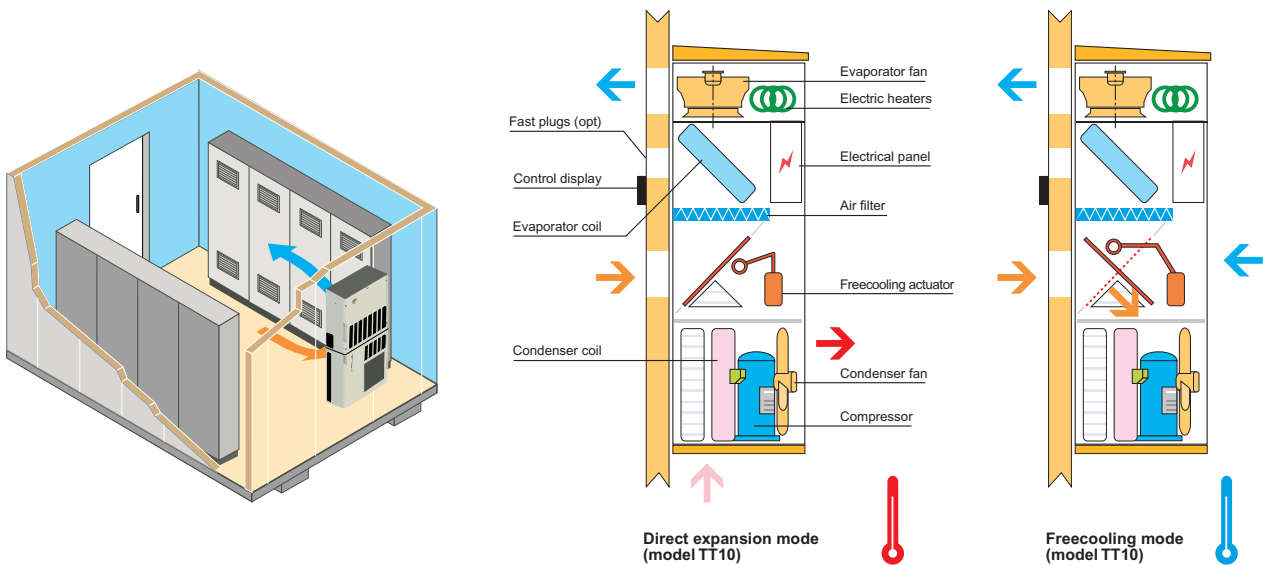
Faster Start-Up

The cooling circuit is pre-charged, fine tuned and fully tested before delivery. No pressure test is required on site. Installation is speeded up by using the fast-plug electrical connections (on request) and the automatic commissioning software: installation and commissioning are completed in less than 25 mins without need of specialized personnel on site.

General Features

Model Hiwall TT		08	10	13	15	18	21
Air supply	-				upflow		
Main power supply					400V / 3Ph+N+PE / 50Hz		
Emergency power supply (opt)					48V DC or 230 V/1Ph/50Hz		
Performances							
Total cooling capacity ⁽¹⁾	kW	8,1	10,4	12,7	15,5	18,3	20,6
Sensible cooling capacity ⁽¹⁾	kW	8,1	10,0	12,3	15,5	17,6	19,6
Compressor AC power input ⁽¹⁾	kW	1,87	2,83	3,75	4,25	5,19	5,62
Condenser fan AC power input ⁽¹⁾	kW	0,24	0,24	0,24	0,23	0,23	0,73
Evaporator fan AC power input ⁽¹⁾	kW	0,37	0,37	0,48	0,72	0,72	0,88
Evaporator fan DC power input ⁽¹⁾	kW	0,31	0,31	0,39	0,62	0,62	0,78
Evaporator airflow	m ³ /h	2.900	2.900	3.100	4.900	4.900	5.200
Condenser max. airflow	m ³ /h	4.000	4.000	4.000	4.900	4.900	6.900
Freecooling max. airflow	m ³ /h	2.600	2.600	2.800	3.600	3.600	3.850
Outdoor sound pressure level ⁽²⁾	dB(A)	52	53	54	56	57	62
Indoor sound pressure level ⁽²⁾	dB(A)	56	56	57	58	59	60
Max. ambient temperature ⁽³⁾	°C	48	46	45	47	46	45
Refrigeration Circuit							
Compressor type / quantity	-				scroll/1		
Refrigerant					R407C		
Expansion device					thermostatic valve		
Evaporator Fan							
Quantity / type / poles AC version	-		1/plug/4			2/plug/4	
Quantity / type / poles DC version			1/plug/-			2/plug/-	
Driven / motor protection	-				direct/IP54		
Condenser Fan							
Quantity / type / poles					1/axial/6		1/axial/4
Driven / motor protection	-				direct/IP54		
Control system					variable speed		
Filter type / efficiency (CEN-EU)					pleated/G3		
Electric heating (opt)	kW		4,5			6,0	
Cabinet							
Frame	-				galvanized steel		
Painting					polyester - RAL 7035		
Insulation type / Thickness	-/mm				polyurethane class A1/10		
Width	mm		936			1010	
Depth	mm		630			760	
Height	mm		2.125			2.250	
Weight	kg	242	245	247	328	331	332

(1) Reference conditions are 27°C, &47% R.H indoor, 35°C outdoor; nominal power supply.
 (2) Measured with outdoor temperature 35°C, 2 meters from the unit, free field conditions.
 (3) Maximum outdoor temperature referred to indoor air temperature =24°C.



Liebert HIROSS Headquarters
 Via Leonardo da Vinci, 8
 35028 - Piove di Sacco (PD)
 tel. +39.0499719311 fax +39.0499719053
 info@liebert-hiross.com

High Performance Air Conditioning
 Via Leonardo da Vinci, 8
 35028 - Piove di Sacco (PD)
 tel. +39.0499719311 fax +39.0499719053
 info.hpac@liebert-hiross.com

Uninterruptible Power Supply
 Via Gioacchino Rossini, 6
 20098 - San Giuliano Milanese (MI)
 tel. +39.02982501 fax +39.0298250337
 info.ups@liebert-hiross.com

Services
 Via Gioacchino Rossini, 6
 20098 - San Giuliano Milanese (MI)
 tel. +39.02982501 fax +39.0298250338
 info.ups@liebert-hiross.com