

Technical Specification

Models	HL-i3	HL-i5	HL-i8	HL-i9	HL-i10	HL-i15	HL-i20	HL-i30	HL-i40	HL-i50	HL-i55	HL-i70	HL-i90	HL-i105	HL-i150	HL-i180
Duty																
Cooling capacity@15°C (1)kW	3	4.5	7.2	7.5	9.7	13	20	28.8	38	46	53	63	90.5	103	152	182
Cooling capacity@7°C (2)kW	2.5	3.4	5.5	5.3	6.8	9.9	14.5	20.5	28	33.5	37.5	45	66	76	109	131
(3)compressor power kW	0.7	1.25	1.7	1.72	2.1	3.65	5.45	7.3	9.2	12.3	12.5	2 × 7.3	2 × 12.3	2 × 12.5	4 × 9.2	4 × 12.3

Electric supply																
V/Ph/Hz	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
(1)nominal current A	5.9	8.7	11.2	3.63	4.22	7.65	10.4	14.1	17	22	23	27.5	47.7	48	76.4	93.6
Maximum current A	7.7	10.6	13.7	4.8	5.7	9.5	14.3	20.8	27.2	33.4	33.5	38.6	69.8	70	108.7	135

Compressor																
Type	Panasonic	Panasonic	Highly	Maneurop	Maneurop	Maneurop	Maneurop	Maneurop	Maneurop	Maneurop	Maneurop	Maneurop	Maneurop	Maneurop	Maneurop	Maneurop
Number of circuits	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
Number of compressor	1	1	1	1	1	1	1	1	1	1	1	2	2	2	4	4

Axial fans																
Number of fans	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
Total nominal power kW	0.05	0.14	0.17	0.15	0.15	0.61	0.61	0.78	1.22	1.22	1.56	1.56	1.96	1.96	4.00	4.00
(1)nominal air flow m³/h	1100	3100	4000	3800	3800	6500	6500	8600	13000	12400	17200	17200	26856	26800	44000	44000

Pump 3bar(standard)																
Type	WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	GRUNDFOS	GRUNDFOS
Total nominal power kW	0.55	0.55	0.55	0.55	0.55	0.55	0.55	1.1	1.1	1.1	1.1	1.5	1.85	1.85	5.5	5.5
(1)water flow m³/h	0.45/5.1	0.58/5.1	0.9/5.1	0.89/5.1	1.1/5.1	1.6/8	2.5/8	3.7/12	4.9/12	6.0/12	6.9/12	7.6/12	12.1/25	13.9/25	19.3/60	23.2/60
(1)available pressure kPa	330/80	315/80	300/80	410/115	505/115	315/75	300/75	345/185	320/185	310/185	290/185	385/235	290/110	280/110	335/205	330/205

Pump 5bar(optional)																
Type					WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	WILO	GRUNDFOS	GRUNDFOS
Total nominal power kW					0.75	0.75	1.1	1.1	1.85	1.85	1.85	1.85	1.85	2.5	2.5	11
(1)water flow m³/h					0.89/5.1	1.1/5.1	1.6/8	2.5/8	3.7/12	4.9/12	6.0/12	6.9/12	7.6/12	12.1/25	13.9/25	19.3/67
(1)available pressure kPa					530/160	505/160	540/160	425/160	560/300	530/300	510/300	490/300	460/300	400/140	375/140	575/380

Tank capacity																
Tank litres L	25	25	30	60	60	110	110	175	250	250	300	400	400	400	600	600

Water connections																
In/out inch (BSP)	1/2"	1/2"	3/4"	3/4"	3/4"	1"	1"	1.1/2"	1.1/2"	1.1/2"	1.1/2"	2"	2"	2"	2.1/2"	2.1/2"

Dimensions of units																
Width mm	689	689	689	538	538	743	743	743	743	743	743	892	892	892	1250	1250
Depth mm	548	548	548	1096	1096	1203	1203	1766	1766	1766	1966	2330	2330	2330	3694	3694
Height mm	876	876	876	1219	1219	1412	1412	1415	1409	1409	1519	2055	2055	2055	1976	1976
Net weight kg	105	118	135	165	170	205	235	340	432	435	460	800	880	880	1695	1700

Dimensions of package																
Width mm	775	775	775	630	630	880	880	880	880	880	880	990	990	990	1395	1395
Depth mm	650	650	650	1155	1155	1285	1285	1835	1835	1835	2035	2435	2435	2435	3815	3815
Height mm	1060	1060	1450	1450	1450	1615	1615	1615	1615	1615	1725	2250	2250	2250	2230	2230
Gross weight kg	111	124	145	200	205	240	270	380	457	460	490	845	950	950	1745	1750

Sound Pressure Level																
(4) dB(A)	45	49	49	52	52	55	55	56	56	56	57	58	59	59	63	63

Capacity correction factors(indicative values): refrigerating capacity or heat=nominal value × Cf1 × Cf2 × Cf3

Water outlet temperature°C	(5)	0	5	7	10	12	15
Cf1	0.63	0.77	0.93	1	1.1	1.2	1.3

Air inlet temperature°C	15	20	25	30	32	35	40	43
(Air) Cf2	1.19	1.12	1.07	1.02	1	0.97	0.91	0.85

Ethylene glycol weight %	0	5	10	15	20	25	30	35	40	50	45	50
Cf3	1	0.995	0.99	0.985	0.98	0.975	0.97	0.965	0.96	0.94	0.95	0.94

Compressor power input correction factors(indicative values): compressor power=nominal value × Pf1 × Pf2 × Pf3

Water outlet temperature°C	(5)	0	5	7	10	12	15
Pf1	0.79	0.84	0.95	1	1.045	1.084	1.11

Air inlet temperature °C	15	20	25	30	32	35	40	43
(Air) Pf2	0.688	0.767	0.858	0.957	1	1.05	1.17	1.3

Ethylene glycol weight %	0	5	10	15	20	25	30	35	40	50	45	50
Pf3	1	0.997	0.995	0.99	0.985	0.98	0.975	0.97	0.965	0.95	0.96	0.95

Note:
(1) water outlet temp = 15°C ; water DELTA T = 5°C; ambient temperature = 25°C.
(2) water outlet temp = 7°C ; water DELTA T = 5°C; ambient temperature = 32°C.
(3) refers to compressor, fans, and pump absorbed power
(4) refers in free field at 10m distance from the unit at condenser side and at 1.2m from the ground.
(5) when water outlet temperature required at -5°C, need to change the LP switch from standard part No. T5303-23 (0.3MPa On, 0.15MPa Off) to part No. T5303-24 (0.2MPa On, 0.1MPa Off). (except model HL i70-i180)

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HL Cooling



HL-i Water Chillers
A Revolution in Industrial Cooling



Air Cooled Water Chillers

With Standard High Volume Integral Stainless Steel Tank
and High Pressure Pump



HL-i Water Chillers

A Revolution in Industrial Cooling

The HL-i range of air cooled water chillers offer the most advanced design to satisfy today's industrial cooling equipment requirements.

The entire range is packed with the latest technology and assembled with components developed with our world-renowned manufacturing partners including Maneurop, Danfoss, Carel, Siemens Wilo, Grundfos Ziehl-abegg. The complete HL-i range of packaged air cooled water chillers offer maximum efficiency together with total reliability and are manufactured to the highest quality standard.

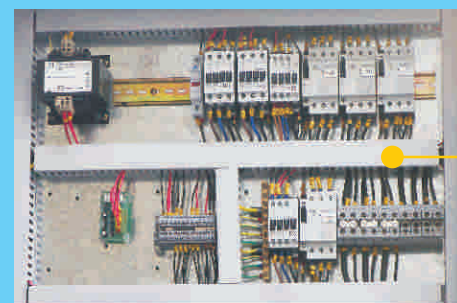
This new generation of water chillers are built on years of experience, the result of which is the HL-i range which incorporates many major advanced standard features that other suppliers charge as extra.

Standard Features

- Stainless steel large volume thermal buffer tank as standard across the entire HL-i range
- Coated condenser fins to protect the aluminium condenser from corrosion
- 100% non-ferrous water circuit (except HL-i150~i180)
- Strong galvanised epoxy coated steel frame construction
- Microprocessor control and alarm fault display
- Improved component positioning for easy service access
- Weatherproofed for external site HL-i10~i180(IP54)
HL-i3~i8(IP44)

Industrial applications:

- Plastics & Rubber
- Breweries
- Chemical
- Printers
- Pharmaceutical
- Engineering
- MRI machines
- Lasers
- Food



Electrical Panel:

Conforms to CE (EN60204-1) standards. Siemens as standard.



CAREL Controls:

Standard CAREL controls incorporating many advanced features and alarms.



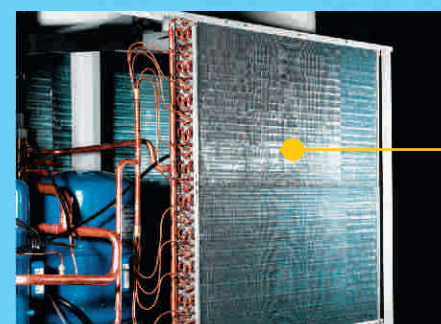
Water Fill & Vent Tank:

Fully fitted water fill & vent tank as standard.



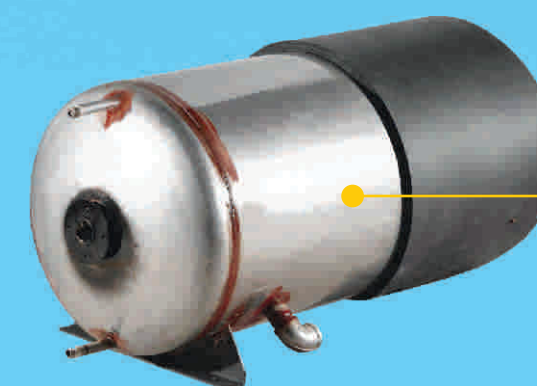
Compressor(s):

All models(except HL-i3~i8)feature "Maneurop" or "copeland" hermetic compressors. These highly reliable European or America manufactured units are protected by an internal thermal overload.



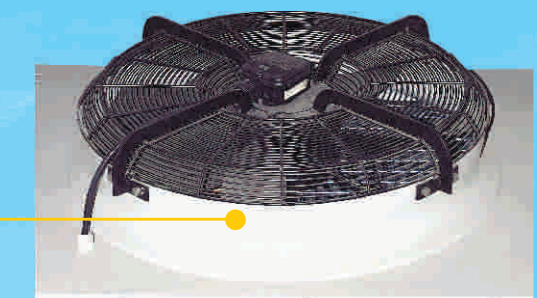
Coated Condenser Fins:

The aluminium fins on the condenser are coated with special anti-corrosion material ensuring long life of the condenser.



Integral Stainless Steel Water Tank:

The high volume integral water tank is manufactured entirely from stainless steel. The large water capacity maintains the water at optimum temperature for longer and reduces the compressor starts to a minimum ensuring longer compressor life and maximum efficiency.



Heavy Duty Fan:

Heavy duty industrial condenser fan(ZIEHL-ABEGG or EBM) with low ambient operation. This ensure good air flow across the condenser for higher performance.



Integral Pump:

Wilo centrifugal pumps is manufactured with a stainless steel water circuit and Grundfos is manufactured with an iron water circuit, both are standard 3 bar pressure. Higher pressure pumps available as an option.



Adjustable LP Switch:

Fitted as standard on model HL-i70~i180