

# Condensing unit

## VLC 524-1204

 154-347 kW

 HFC 410A

 Scroll

### Technical features

- 8 sizes.
- Cooling capacity from 154 to 347 kW.
- 4 versions:
  - STD (Standard);
  - HSE (High Seasonal Efficiency);
  - HT (High Temperature);
  - SIF (Special Invert Fans).
- 3 acoustic versions:
  - BLN (Basic Low Noise);
  - LN (Low Noise);
  - ELN (Extra Low Noise).
- Two refrigerant circuits.
- Scroll compressors.

### Accessories and options

- Unit protection grilles.
- Sofstart.
- BMS interface.
- Overload protection for compressors.
- Automatic circuit breaker.
- Fan speed control (-18°C).
- Power factor corrector capacitors.
- Sequence phases control.
- Compressors acoustic box (standard).
- Compressors jackets.



**Operating limit**
**VLC 524-804**

VLC		524		604		704		804	
		Min	Max	Min	Max	Min	Max	Min	Max
Evaporating temperature		°C from +3 to +15							
Air temperature	BLN	°C	from 0 to +46 (1)	from -5 to +47 (1)	from -5 to +47 (1)	from -5 to +47 (1)	from 0 to +46 (1)		
	LN/ELN	°C	from 0 to +44 (1)	from -5 to +45 (1)	from -5 to +45 (1)	from -5 to +45 (1)	from 0 to +44 (1)		
	HT	°C	from -18 to +48 (1)	from -18 to +49 (1)	from -18 to +49 (1)	from -18 to +49 (1)	from -18 to +48 (1)		

(1) At high pressure 40.5 bar.

**VLC 904-1204**

VLC		904		1004		1104		1204	
		Min	Max	Min	Max	Min	Max	Min	Max
Evaporating temperature		°C from +3 to +15							
Air temperature	BLN	°C	from 0 to +46 (1)	from 0 to +46 (1)	from 0 to +45 (1)	from 0 to +45 (1)	from 0 to +45 (1)		
	LN/ELN	°C	from 0 to +45 (1)	from 0 to +44 (1)	from 0 to +42 (1)	from 0 to +42 (1)	from 0 to +42 (1)		
	HT	°C	from -18 to +49 (1)	from -18 to +48 (1)	from -18 to +47 (1)	from -18 to +47 (1)	from -18 to +47 (1)		

(1) At high pressure 40.5 bar.

### Technical feature VLC STD/HSE/SIF 524–1204 BLN

Modello VLC STD/HSE/SIF-BLN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	154,0	174,0	199,0	224,0	258,0	283,0	315,0	347,0
Power input (2)	kW	47,5	52,5	63,0	69,0	79,0	83,0	98,0	112,0
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
<b>Compressor</b>									
Type		Scroll							
Qty		4							
<b>Condenser</b>									
Qty		2							
Frontal surface	m <sup>3</sup>	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
<b>Fan</b>									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	900	900	900	900	900	900	900	900
Air flow	m <sup>3</sup> /h	46.300	63.000	68.300	68.300	85.000	80.000	75.500	75.500
Total air flow	kW	3,8	5,7	5,7	5,7	7,6	7,6	7,6	7,6
Total air flow*	kW	2,6	4,0	4,0	4,0	5,3	5,3	5,3	5,3
Available static pressure	Pa	from 0 to 120 Pa**							
<b>Refrigerant connection</b>									
Inlet diameter	inch	7/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"
Outlet diameter	inch	1 1/8"	1 1/8"	1 1/8"	1 1/8"	2 1/8"	2 1/8"	2 1/8"	2 1/8"
<b>Dimensions</b>									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
<b>Weight</b>									
Shipping	kg	1.080	1.300	1.490	1.615	1.700	1.825	1.910	1.920
<b>Additional weights</b>									
Version HSE	kg	30	30	30	30	40	40	40	40
Version SIF	kg	10	10	10	10	15	15	15	15
<b>Acoustical data</b>									
Sound power level (3)	dB(A)	92	93	93	93	94	94	95	95
Sound pressure level at 10 m (4)	dB(A)	60	61	61	61	62	62	63	63

\* For HSE version with Special Inverter Fans.

\*\* For SIF version with Special Inverter Fan with high static pressure.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

**Technical feature VLC STD/HSE 524-1204 LN**

Model VLC STD/HSE-LN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	149,0	169,0	194,0	218,0	251,0	272,5	301,0	330,0
Power input (2)	kW	50,0	55,0	66,0	73,0	83,0	88,0	104,0	121,0
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
<b>Compressor</b>									
Type		Scroll							
Qty		4							
<b>Condenser</b>									
Qty		2							
Frontal surface	m <sup>3</sup>	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
<b>Fan</b>									
Qty		2	3	3	3	4	4	4	4
Speed	rpm /min	700	700	700	700	700	700	700	700
Air flow	m <sup>3</sup> /h	35.400	47.300	52.200	52.200	63.700	58.800	54.900	54.900
Total air flow	kW	2,4	3,6	3,6	3,6	4,8	4,8	4,8	4,8
Total air flow*	kW	1,2	1,9	1,9	1,9	2,5	2,5	2,5	2,5
Available static pressure	Pa	0							
<b>Refrigerant connection</b>									
Liquid diameter	inch	7/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"
Gas diameter	inch	1 1/8"	1 1/8"	1 1/8"	1 1/8"	2 1/8"	2 1/8"	2 1/8"	2 1/8"
<b>Dimensions</b>									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
<b>Weight</b>									
Shipping	kg	1.080	1.300	1.490	1.615	1.700	1.825	1.910	1.920
<b>Additional weights</b>									
Version HSE	kg	30	30	30	30	40	40	40	40
<b>Acoustical data</b>									
Sound power level (3)	dB(A)	86	87	87	87	88	88	89	89
Sound pressure level at 10 m (4)	dB(A)	54	55	55	55	56	56	57	57

\* For HSE version with Special Inverter Fans.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

### Technical feature VLC STD/HSE 524-1204 ELN

Model VLC STD/HSE-ELN		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	144,0	164,5	188,5	211,0	244,0	264,5	292,0	319,0
Power input (2)	kW	52,5	57,0	69,0	76,5	86,5	91,5	108,0	127,0
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
<b>Compressor</b>									
Type		Scroll							
Qty		4							
<b>Condenser</b>									
Qty		2							
Frontal surface	m <sup>3</sup>	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
<b>Fan</b>									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	550	550	550	550	550	550	550	550
Air flow	m <sup>3</sup> /h	28.300	38.500	41.800	41.800	52.000	48.900	46.200	46.200
Total power input	kW	2	3	3	3	4	4	4	4
Total power input*	kW	0,6	0,9	0,9	0,9	1,2	1,2	1,2	1,2
Available static pressure	Pa	0							
<b>Refrigerant connection</b>									
Liquid diameter	inch	7/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"
Gas diameter	inch	1 1/8"	1 1/8"	1 1/8"	1 1/8"	2 1/8"	2 1/8"	2 1/8"	2 1/8"
<b>Dimensions</b>									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
<b>Weight</b>									
Shipping	kg	1.110	1.335	1.525	1.650	1.735	1.865	1.950	1.960
<b>Additional weight</b>									
Version HSE	kg	30	30	30	30	40	40	40	40
<b>Acoustical data</b>									
Sound power level (3)	dB(A)	83	83	83	83	84	84	85	85
Sound pressure level at 10 m (4)	dB(A)	51	51	51	51	52	52	53	53

\* For HSE version with special inverter fans.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.

**Technical feature VLC HT 524-1204**

Model VLC HT		524	604	704	804	904	1004	1104	1204
Cooling capacity (1)	kW	155,5	176,0	201,0	226,5	261,0	286,5	318,0	353,0
Power input (2)	kW	47,0	51,5	62,0	68,0	77,5	81,0	95,0	109,0
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Part load steps	%	25-50-75-100	28-57-78-100	20-50-70-100	25-50-75-100	28-50-78-100	25-50-75-100	23-50-73-100	25-50-75-100
<b>Compressor</b>									
Type		Scroll							
Qty		4							
<b>Condenser</b>									
Qty		2							
Frontal surface	m <sup>3</sup>	3,5	3,5	4,8	4,8	4,8	4,8	4,8	4,8
<b>Fan</b>									
Qty		2	3	3	3	4	4	4	4
Speed	rpm/min	1.110	1.110	1.110	1.110	1.110	1.110	1.110	1.110
Air flow	m <sup>3</sup> /h	51.700	71.800	76.200	76.200	95.800	91.200	87.600	87.600
Total power input*	kW	4,5	7,2	6,9	6,9	9,6	9,9	10,0	10,0
Available static pressure	Pa	0							
<b>Refrigerant connection</b>									
Liquid diameter	inch	7/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"
Gas diameter	inch	1 1/8"	1 1/8"	1 1/8"	1 1/8"	2 1/8"	2 1/8"	2 1/8"	2 1/8"
<b>Dimensions</b>									
Length	mm	3.300	3.300	4.300	4.300	4.300	4.300	4.300	4.300
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Height	mm	2.300	2.300	2.300	2.300	2.300	2.300	2.300	2.300
<b>Weight</b>									
Shipping	kg	1.110	1.330	1.520	1.645	1.740	1.865	1.950	1.960
<b>Acoustical data</b>									
Sound power level (3)	dB(A)	97	99	99	99	100	100	100	100
Sound pressure level at 10 m (4)	dB(A)	65	67	67	67	68	68	68	68

\* For HSE version with special inverter fans.

(1) Data based on 7°C water evaporating temperature and 35°C ambient air temperature.

(2) Only compressors.

(3) Acoustic data are at full load. Sound power values in accordance with ISO 3744 and Eurovent 8/1. Tolerance +2dBA.

(4) Pressure power values in accordance with ISO 3744.