

## ► Air Cooled Condensing Units

# CLC 182 to 602



41 to 150 kW



HFC 407C



**Technical Brochure**  
TM CLC-A.1GB  
Date : October 2004  
Supersedes : None

*Airwell*

# Specifications

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## General characteristics

The CLC air cooled condensing units have been designed to operate with the **HFC 407C** refrigerant.

They are complete with **two independent refrigerant circuits** fitted with a high efficiency and low vibration level Scroll compressor on each circuit.

These units are suitable for outdoor installation on the roof of a building or on the ground.

All the CLC units are completely factory tested in compliance with the internal quality system specifications and procedures, and are ready for field installation.

Thanks to the versions and options available, the CLC air cooled condensing units can fit all the demands of the market.

The CLC range is available in **5 versions**; each version is composed of **9 sizes**.

**CLC STD : Standard version** fitted with standard equipment intended for reliable operation. The CLC STD units cover a nominal cooling capacity range from 41 to 150 kW.

**CLC LN : Low noise version** having same equipment as STD version, except that it is fitted with low speed type larger size fans. The CLC LN units cover a nominal cooling capacity range from 41 to 150 kW.

**CLC ELN : Extra low noise version** fitted with greater heat exchange surface area condenser coils, very low speed type fans and a stepless fan speed controller. Furthermore, the ELN version is equipped with a reinforced soundproofing :

- mufflers mounted on compressor discharge lines (all sizes),
- soundproofing jacket on compressor (sizes 182 to 302),
- sound insulation on compressor compartment (sizes 352 to 602).

The CLC ELN units cover a nominal cooling capacity range from 41 to 150 kW.

**CLC HPF : High pressure fan version** having same equipment as STD version, except that larger size fans with 80 Pa external static pressure are fitted on this HPF version. The CLC HPF units cover a nominal cooling capacity range from 41 to 145 kW.

**CLC HT : High temperature version** having same equipment as STD version, except that it is fitted with fans allowing unit to operate at high ambient temperatures (up to +48 °C). The CLC HT units cover a nominal cooling capacity range from 44 to 155 kW.

## Reference standards

The following applies to all the sizes and versions belonging to the CLC units :

- ✓ Performance test EN 12055
- ✓ Machine Directive CEE 89 / 392
- ✓ Low Voltage Directive CEE 73/23 (EN 60204-1)
- ✓ Electromagnetic Compatibility Directive CEE 89/336 as modified by Directive CEE 92/31 (EN 50081-1, EN 50082-2)

## Cabinet and structure

The unit structure shall be of heavy gauge galvanized steel fastened with non-corrosive screws and bolts. Galvanized steel parts shall be painted with baked on enamel colored white (**RAL 9001**).

## Compressors

Each unit shall be equipped with 2 Scroll hermetic compressors.

Compressors on all models shall be mounted on rubber anti-vibration pads and have direct on line starting.

The compressor motors shall be refrigerant gas cooled, with integral thermistor protection against overloads. The overload protection is automatically reset.

The motor terminal boxes shall have IP-54 weather protection.

## Condenser coils

The condenser coils shall be seamless copper tubes, arranged in staggered rows, mechanically expanded into corrugated aluminum fins.

## Condenser coil fans

The condenser fans shall be direct drive with aluminum aerofoil blades. Each fan will have a painted galvanized steel protection guard.

The totally enclosed fan motors shall have IP 54 degree of protection and thermo-contact protection embedded in their windings.

## Fan controls

Each unit can be equipped, as optional , with a stepless fan speed controller, operating on the basis of condensing pressure, to keep fan rpm under control in order to operate at a low ambient temperature (-18 °C).

This fan speed controller is supplied as standard on the ELN units. However, it is not available on HPF and HT units.

## Refrigerant circuits

All the units are composed of two independent and separate refrigerant circuits. All the components that constitute each circuit are shown on the functional diagram (see chapter "Refrigerant flow diagram").

## Power and control panel

The control compartment shall contain an electronic circuit board and a key control panel with display of operating parameters, alarms and stops.

Thermal relays and fuses are supplied to protect compressors and fans from overloading.

## Safety devices

- ✓ Fan thermal protection.
- ✓ Compressor thermal protection.
- ✓ High pressure switch.
- ✓ Low pressure switch.
- ✓ Crankcase heater.

# Specifications (continued)

## Factory-installed accessories and options

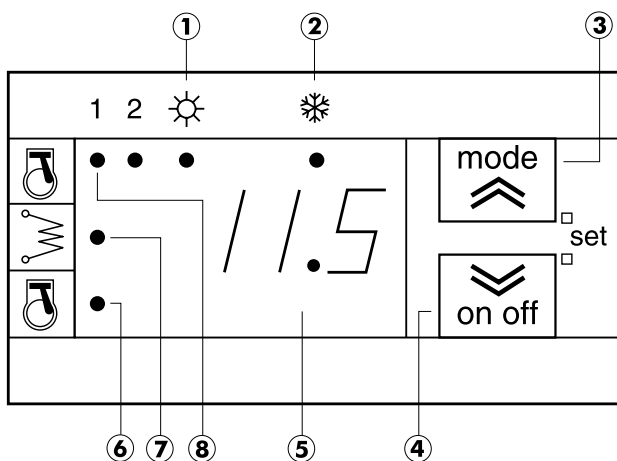
- ✓ Coils with hydrophilic coated fins.
- ✓ Coils with vinyl coated fins.
- ✓ Coils with polyurethane coated fins.
- ✓ Copper / Copper coils.
- ✓ LP & HP manometers.
- ✓ Condenser coil guards.
- ✓ Compressor overload protection.
- ✓ Phase monitor.
- ✓ Stepless fan speed controller (STD and LN versions).

## Field-installed accessories

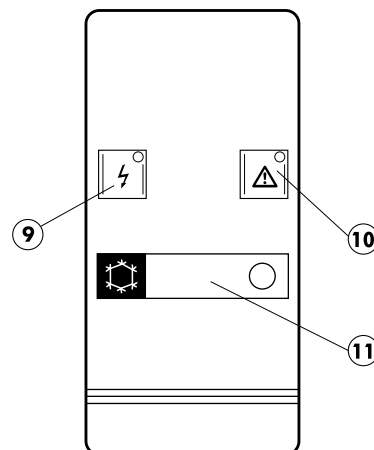
- ✓ Spring anti-vibration mounts.
- ✓ Remote On/Off control kit.
- ✓ Modbus interface kit.
- ✓ Remote keyboard panel.
- ✓ Chiller sequencer (4 units maximum).

# Control

Controller display panel



Remote control kit (optional)



The controller provides information on status of operation, configuration and alarms through a display and LEDs on the front panel.

### Display

It allows mainly to show :

- the entering water temperature of the unit in tenths of degrees Celsius with a decimal point,
- the alarm code if at least one alarm is active.

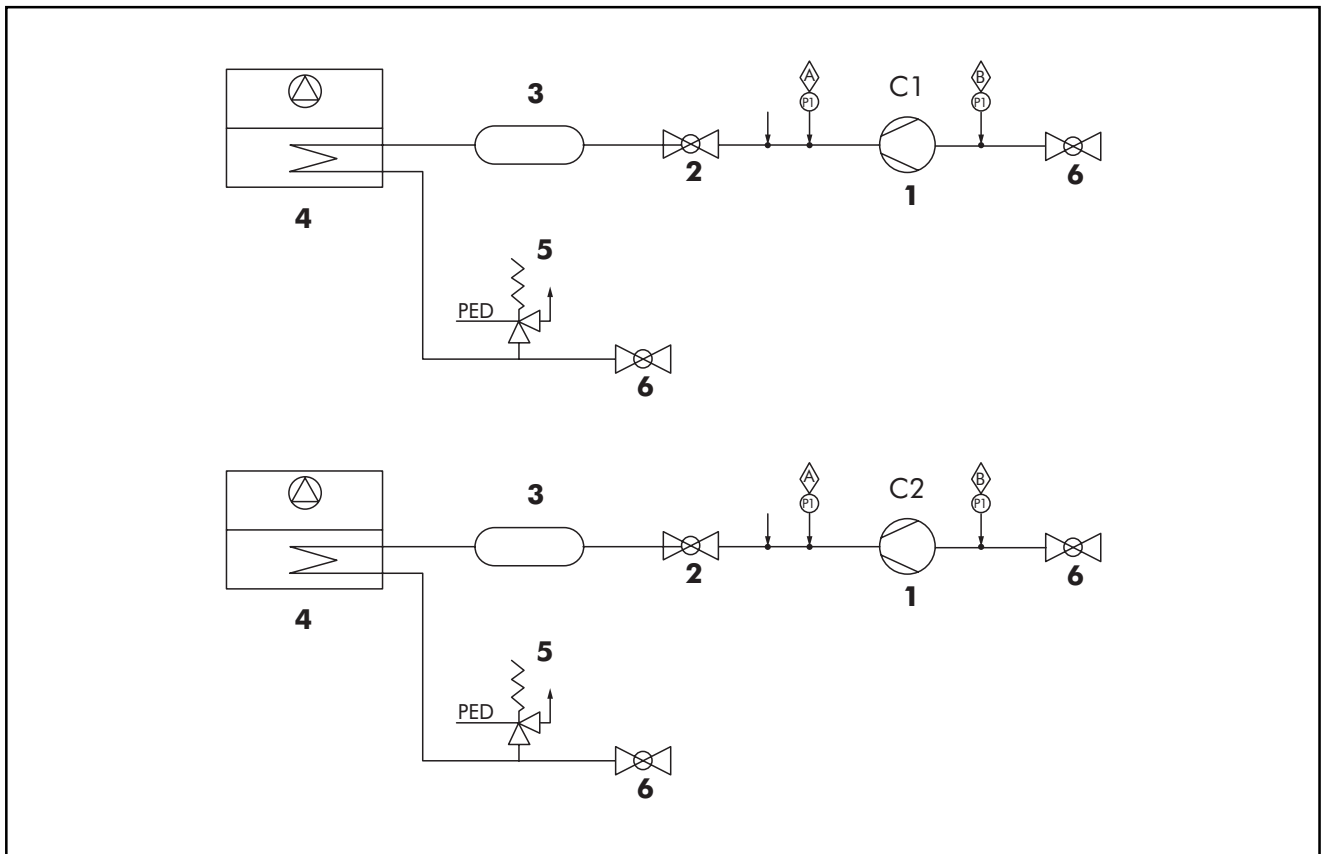
### LEDs

- 1 - Heating mode display : not used
- 2 - Cooling mode display
- 3 - Operating mode selection
- 4 - Unit On/Off; Alarm restoration
- 5 - Display
- 6 - Compressor 2 ON LED (Blink : time delay in progress)

- 7 - Electric resistance ON LED : not used
- 8 - Compressor 1 ON LED (Blink : time delay in progress)
- 9 - Voltage ON LED
- 10 - Unit activated alarm LED
- 11 - Start key and LED - Cooling

If COOLING LED is OFF, the controller is in STANDBY mode.




# Refrigerant Flow Diagram



## Components (refrigerant circuits) :

- 1 - Compressors C1, C2
- 2 - Discharge valve
- 3 - Muffler (for ELN version only)
- 4 - Air cooled condenser
- 5 - PED pressure relief valve
- 6 - Isolating valves

## Safety / Control devices :

-  - High pressure switch
-  - Low pressure switch
-  - Pressure tapping and refrigerant charging/discharging points

# Operating Limits

## CLC 182 to 302

CLC			182		202		242		302		
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Evaporating temperature			°C		-8 to +13						
Ambient air	Air entering temperature	Cooling - STD / LN / HPF	°C	15	46	15	46	15	46	15	46
		Cooling - ELN	°C	-18	46	-18	46	-18	46	-18	46
		Cooling - HT	°C	15	48	15	48	15	48	15	48
	External static pressure	Standard fans	Pa	0							
		High pressure fans - HPF version	Pa	80							
Nominal supply voltage			400 V / 3 Ph / 50 Hz								

## CLC 352 to 602

CLC			352		402		502		552		602		
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Evaporating temperature			°C		-8 to +13								
Ambient air	Air entering temperature	Cooling - STD / LN / HPF	°C	15	46	15	46	15	44	15	44	15	44
		Cooling - ELN	°C	-18	46	-18	46	-18	44	-18	44	-18	44
		Cooling - HT	°C	15	48	15	48	15	46	15	46	15	46
	External static pressure	Standard fans	Pa	0									
		High pressure fans - HPF version	Pa	80									
Nominal supply voltage			400 V / 3 Ph / 50 Hz										

# Correction Factors

## Altitude correction factors

Altitude (m)	Cooling capacity correction factors	Power consumption correction factors
0	1.000	1.000
600	0.987	1.01
1200	0.973	1.02
1800	0.958	1.029
2400	0.943	1.038

## Condenser fouling factors

Fouling factors (m <sup>2</sup> .°C/kW)	Cooling capacity correction factors	Power consumption correction factors
0.044	1.000	1.000
0.088	0.987	1.023
0.176	0.955	1.068
0.352	0.91	1.135

# Physical Data - CLC STD

CLC STD sizes		182	202	242	302	352	402	502	552	602
Nominal cooling capacity (1)	kW	40.9	54.1	64.9	74.3	90.0	105.3	121.4	135.5	149.5
Compressor power input	kW	12.3	18.2	24.2	27.7	33.2	37.5	46.2	51.7	57.1
Maximum power input (2)	kW	18.8	25.4	30.0	35.6	42.5	49.0	59.4	64.7	71.8
EER		3.3	3.0	2.7	2.7	2.7	2.8	2.6	2.6	2.6
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Total unit capacity steps	%	50/100	50/100	50/100	50/100	43-57/100	50/100	50/100	43-57/100	50/100
<b>Refrigerant</b>										
Type		HFC 407 C								
Charge	kg	Nitrogen								
<b>Compressors</b>										
Number		2	2	2	2	2	2	2	2	2
Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
<b>Air cooled condensers</b>										
Number		2	2	2	2	2	2	2	2	2
Total coil face area per coil	m <sup>2</sup>	2.1	2.1	2.1	2.1	2.85	2.85	3.6	3.6	3.6
Number of rows		2	2	3	4	3	4	4	5	5
<b>Fans</b>										
Number		2	2	2	2	3	3	3	3	3
Total air flow	m <sup>3</sup> /h	21000	21000	20300	19700	30000	28700	30000	30000	30000
Power input	kW	0.96	0.96	0.96	0.96	1.44	1.44	1.44	1.44	1.44
<b>Refrigerant connections</b>										
Liquid line	inch	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Suction line	inch	7/8"	7/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"
<b>Dimensions</b>										
Length	mm	2110	2110	2110	2110	2760	2760	3110	3110	3110
Width	mm	1110	1110	1110	1110	1110	1110	1110	1110	1110
Height	mm	1750	1750	1750	1750	1750	1750	1750	1750	1750
<b>Weight</b>										
Shipping	kg	578	603	730	776	841	907	995	1131	1167
<b>Sound levels</b>										
Sound power levels	dB(A)	84	84	86	86	89	89	90	90	90
Sound pressure levels at 10 meters (3)	dB(A)	52	52	54	54	57	57	58	58	58

(1) Data based on 5 °C evaporating temperature and 35 °C ambient air temperature.

(2) Maximum power input includes : maximum compressor power input and maximum fan power input.

(3) Sound pressure level values refer to ISO standard 3744.

# Physical Data - CLC LN

CLC LN sizes		182	202	242	302	352	402	502	552	602
Nominal cooling capacity (1)	kW	40.9	54.1	64.9	74.3	90.0	105.3	121.4	135.5	149.5
Compressor power input	kW	12.3	18.2	24.2	27.7	33.2	37.5	46.2	51.7	57.1
Maximum power input (2)	kW	19.3	25.9	30.4	36.0	43.2	49.7	60.1	65.4	72.5
EER		3.3	3.0	2.7	2.7	2.7	2.8	2.6	2.6	2.6
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Total unit capacity steps	%	50/100	50/100	50/100	50/100	43-57/100	50/100	50/100	43-57/100	50/100
<b>Refrigerant</b>										
Type		HFC 407C								
Charge	kg	Nitrogen								
<b>Compressors</b>										
Number		2	2	2	2	2	2	2	2	2
Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
<b>Air cooled condensers</b>										
Number		2	2	2	2	2	2	2	2	2
Total coil face area per coil	m <sup>2</sup>	2.1	2.1	2.1	2.1	2.85	2.85	3.6	3.6	3.6
Number of rows		2	2	3	4	3	4	4	5	5
<b>Fans</b>										
Number		2	2	2	2	3	3	3	3	3
Total air flow	m <sup>3</sup> /h	21000	21000	21000	20100	30500	29000	31500	31500	31500
Power input	kW	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1	2.1
<b>Refrigerant connections</b>										
Liquid line	inch	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Suction line	inch	7/8"	7/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"
<b>Dimensions</b>										
Length	mm	2110	2110	2110	2110	2760	2760	3110	3110	3110
Width	mm	1110	1110	1110	1110	1110	1110	1110	1110	1110
Height	mm	1850	1850	1850	1850	1850	1850	1850	1850	1850
<b>Weight</b>										
Shipping	kg	578	603	730	776	841	907	995	1131	1167
<b>Sound levels</b>										
Sound power levels	dB(A)	80	80	82	82	85	85	86	86	86
Sound pressure levels at 10 meters (3)	dB(A)	48	48	50	50	53	53	54	54	54

(1) Data based on 5 °C evaporating temperature and 35 °C ambient air temperature.

(2) Maximum power input includes : maximum compressor power input and maximum fan power input.

(3) Sound pressure level values refer to ISO standard 3744.

# Physical Data - CLC ELN

CLC ELN sizes		182	202	242	302	352	402	502	552	602
Nominal cooling capacity (1)	kW	40.8	54.1	63.8	69.4	88.9	99.1	121.4	135.5	149.5
Compressor power input	kW	12.3	18.2	24.7	30.2	33.8	40.8	46.2	51.7	57.1
Maximum power input (2)	kW	19.3	25.9	30.4	36.0	43.2	49.7	60.1	65.4	72.5
EER		3.3	3.0	2.6	2.3	2.6	2.4	2.6	2.6	2.6
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Total unit capacity steps	%	50/100	50/100	50/100	50/100	43-57/100	50/100	50/100	43-57/100	50/100
<b>Refrigerant</b>										
Type		HFC 407C								
Charge	kg	Nitrogen								
<b>Compressors</b>										
Number		2	2	2	2	2	2	2	2	2
Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
<b>Air cooled condensers</b>										
Number		2	2	2	2	2	2	2	2	2
Total coil face area per coil	m <sup>2</sup>	2.1	2.1	2.1	2.1	2.85	2.85	3.6	3.6	3.6
Number of rows		3	3	4	4	4	4	4	5	5
<b>Fans</b>										
Number		2	2	2	2	3	3	3	3	3
Total air flow	m <sup>3</sup> /h	14400	14400	14400	13800	20100	19900	21650	31500	31500
Power input	kW	1.4	1.4	1.4	1.4	2.1	2.1	2.1	2.1	2.1
<b>Refrigerant connections</b>										
Liquid line	inch	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Suction line	inch	7/8"	7/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"
<b>Dimensions</b>										
Length	mm	2110	2110	2110	2110	2760	2760	3110	3110	3110
Width	mm	1110	1110	1110	1110	1110	1110	1110	1110	1110
Height	mm	1850	1850	1850	1850	1850	1850	1850	1850	1850
<b>Weight</b>										
Shipping	kg	620	641	772	786	903	919	1015	1151	1187
<b>Sound levels</b>										
Sound power levels	dB(A)	77	77	78	78	79	81	82	82	82
Sound pressure levels at 10 meters (3)	dB(A)	45	45	46	46	47	49	50	50	50

(1) Data based on 5 °C evaporating temperature and 35 °C ambient air temperature.

(2) Maximum power input includes : maximum compressor power input and maximum fan power input.

(3) Sound pressure level values refer to ISO standard 3744.



# Physical Data - CLC HPF

CLC HPF sizes		182	202	242	302	352	402	502	552	602
Nominal cooling capacity (1)	kW	40.9	54.1	64.9	74.3	90.0	105.3	121.4	133.4	145.4
Compressor power input	kW	12.3	18.2	24.2	27.7	33.2	37.5	46.2	51.7	57.1
Maximum power input (2)	kW	19.8	26.4	31.0	36.6	44.0	50.5	60.9	65.4	72.5
EER		3.3	3.0	2.7	2.7	2.7	2.8	2.6	2.6	2.5
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Total unit capacity steps	%	50/100	50/100	50/100	50/100	43-57/100	50/100	50/100	43-57/100	50/100
<b>Refrigerant</b>										
Type		HFC 407C								
Charge	kg	Nitrogen								
<b>Compressors</b>										
Number		2	2	2	2	2	2	2	2	2
Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
<b>Air cooled condensers</b>										
Number		2	2	2	2	2	2	2	2	2
Total coil face area per coil	m <sup>2</sup>	2.1	2.1	2.1	2.1	2.85	2.85	3.6	3.6	3.6
Number of rows		2	2	3	4	3	4	4	5	5
<b>Fans</b>										
Number		2	2	2	2	3	3	3	3	3
Total air flow	m <sup>3</sup> /h	21000	21000	20300	19700	30000	28700	30000	30000	30000
Power input	kW	1.96	1.96	1.96	1.96	2.94	2.94	2.94	2.94	2.94
<b>Refrigerant connections</b>										
Liquid line	inch	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Suction line	inch	7/8"	7/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"
<b>Dimensions</b>										
Length	mm	2100	2100	2100	2100	2760	2760	3110	3110	3110
Width	mm	1110	1110	1110	1110	1110	1110	1110	1110	1110
Height	mm	1850	1850	1850	1850	1850	1850	1850	1850	1850
<b>Weight</b>										
Shipping	kg	578	603	730	776	841	907	995	1131	1167
<b>Sound levels</b>										
Sound power levels	dB(A)	87	87	89	89	92	92	93	93	93
Sound pressure levels at 10 meters (3)	dB(A)	55	55	57	57	60	60	61	61	61

(1) Data based on 5 °C evaporating temperature and 35 °C ambient air temperature.

(2) Maximum power input includes : maximum compressor power input and maximum fan power input.

(3) Sound pressure level values refer to ISO standard 3744.

# Physical Data - CLC HT

CLC HT sizes		182	202	242	302	352	402	502	552	602
Nominal cooling capacity (1)	kW	43.9	58.3	70.0	79.4	93.4	109.2	125.9	140.4	155.0
Compressor power input	kW	12.2	17.7	23.3	25.9	31.8	35.8	44.3	49.5	54.7
Maximum power input (2)	kW	19.8	26.4	31.0	36.6	44.0	50.5	60.9	65.4	72.5
EER		3.6	3.3	3.0	3.1	2.9	3.1	2.8	2.8	2.8
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2
Total unit capacity steps	%	50/100	50/100	50/100	50/100	43-57/100	50/100	50/100	43-57/100	50/100
<b>Refrigerant</b>										
Type		HFC 407C								
Charge	kg	Nitrogen								
<b>Compressors</b>										
Number		2	2	2	2	2	2	2	2	2
Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
<b>Air cooled condensers</b>										
Number		2	2	2	2	2	2	2	2	2
Total coil face area per coil	m <sup>2</sup>	2.1	2.1	2.1	2.1	2.85	2.85	3.6	3.6	3.6
Number of rows		2	2	3	4	3	4	4	5	5
<b>Fans</b>										
Number		2	2	2	2	3	3	3	3	3
Total air flow	m <sup>3</sup> /h	36700	36700	35500	25500	38800	37200	39600	30000	30000
Power input	kW	1.96	1.96	1.96	1.96	2.94	2.94	2.94	2.94	2.94
<b>Refrigerant connections</b>										
Liquid line	inch	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Suction line	inch	7/8"	7/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"	1"5/8"
<b>Dimensions</b>										
Length	mm	2100	2100	2100	2100	2760	2760	3110	3110	3110
Width	mm	1110	1110	1110	1110	1110	1110	1110	1110	1110
Height	mm	1850	1850	1850	1850	1850	1850	1850	1850	1850
<b>Weight</b>										
Shipping	kg	578	603	730	776	841	907	995	1131	1167
<b>Sound levels</b>										
Sound power levels	dB(A)	87	87	89	89	92	92	93	93	93
Sound pressure levels at 10 meters (3)	dB(A)	55	55	57	57	60	60	61	61	61

(1) Data based on 5 °C evaporating temperature and 35 °C ambient air temperature.

(2) Maximum power input includes : maximum compressor power input and maximum fan power input.

(3) Sound pressure level values refer to ISO standard 3744.

# Electrical Data

## Compressors @ 400 V / 3 Ph / 50 Hz

CLC models		Power input at nominal conditions per compressor (kW)	Current at nominal conditions per compressor (A)	Power input at max. conditions per compressor (kW)	Current at max. conditions per compressor FLA (A)	Start up current LRA (A)	Power factor at nominal conditions	Crankcase heater @ 230 V/1Ø (W)	Unit fuse (A)	Cable section (mm <sup>2</sup> )
182	Circuit 1	6	10.1	9	15	99	0.84	70	50	16
	Circuit 2	6	10.1	9	15	99	0.84	70		
202	Circuit 1	8.5	14.4	12	21	127	0.84	70	63	25
	Circuit 2	8.5	14.4	12	21	127	0.84	70		
242	Circuit 1	12	20	15	24	150	0.87	65	63	25
	Circuit 2	12	20	15	24	150	0.87	65		
302	Circuit 1	13.7	24.3	17	29	175	0.81	75	80	35
	Circuit 2	13.7	24.3	17	29	175	0.81	75		
352	Circuit 1	13.7	24.3	17	29	175	0.81	75	100	35
	Circuit 2	18.6	31.4	24	38.5	215	0.86	130		
402	Circuit 1	18.6	31.4	24	38.5	215	0.86	130	100	35
	Circuit 2	18.6	31.4	24	38.5	215	0.86	130		
502	Circuit 1	23	38.5	29	47	270	0.86	130	125	50
	Circuit 2	23	38.5	29	47	270	0.86	130		
552	Circuit 1	20.3	34.3	28	48	272	0.84	150	125	70
	Circuit 2	25.3	44.2	35	58.5	320	0.83	150		
602	Circuit 1	25.3	44.2	35	58.5	320	0.83	150	160	70
	Circuit 2	25.3	44.2	35	58.5	320	0.83	150		

## Units @ 400 V / 3 Ph / 50 Hz

CLC STD models		182	202	242	302	352	402	502	552	602
Nominal current input	A	22.2	30.6	41.9	50.5	58.5	65.6	79.8	81.3	91.2
Maximum current input	A	32.1	43.3	49.9	59.9	70.3	79.8	97.2	108.8	119.8
Nominal power input	kW	13.0	18.0	25.0	28.4	33.7	38.6	47.5	47.0	52.0
Maximum power input	kW	18.8	25.4	30.0	35.6	42.5	49.0	59.4	64.7	71.8
Starting current (LRA)	A	116	150	176	206	247	256	320	370	381

CLC LN / ELN models		182	202	242	302	352	402	502	552	602
Nominal current input	A	22.6	31.0	42.3	50.9	59.2	66.3	80.5	82.0	91.9
Maximum current input	A	32.5	43.7	50.3	60.3	71.0	80.5	97.9	109.5	120.5
Nominal power input	kW	13.4	18.4	25.4	28.8	34.4	39.3	48.1	47.7	52.7
Maximum power input	kW	19.3	25.9	30.4	36.0	43.2	49.7	60.1	65.4	72.5
Starting current (LRA)	A	116	150	176	206	247	257	321	371	382

CLC HPF / HT models		182	202	242	302	352	402	502	552	602
Nominal current input	A	23.7	32.1	43.4	52.0	60.8	67.9	82.1	83.6	93.5
Maximum current input	A	33.6	44.8	51.4	61.4	72.6	82.1	99.5	111.1	122.1
Nominal power input	kW	14.0	19.0	26.0	29.4	35.2	40.1	49.0	48.5	53.5
Maximum power input	kW	19.8	26.4	31.0	36.6	44.0	50.5	60.9	64.7	73.3
Starting current (LRA)	A	118	151	177	207	249	259	322	373	384

# Sound Levels

## Sound power levels Lw-dB(A)

CLC STD sizes	Frequency (Hz)							Lw global dB(A)
	125	250	500	1000	2000	4000	8000	
<b>182 STD</b>	84	82	81	80	78	68	57	<b>84</b>
<b>202 STD</b>	84	82	81	80	78	68	57	<b>84</b>
<b>242 STD</b>	86	84	83	82	80	70	59	<b>86</b>
<b>302 STD</b>	86	84	83	82	80	70	59	<b>86</b>
<b>352 STD</b>	89	87	86	85	83	73	62	<b>89</b>
<b>402 STD</b>	89	87	86	85	83	73	62	<b>89</b>
<b>502 STD</b>	90	88	87	86	84	74	63	<b>90</b>
<b>552 STD</b>	90	88	87	86	84	74	63	<b>90</b>
<b>602 STD</b>	90	88	87	86	84	74	63	<b>90</b>

## Sound pressure levels Lp-dB(A)

CLC STD sizes	Frequency (Hz)							Lp global dB(A)
	125	250	500	1000	2000	4000	8000	
<b>182 STD</b>	52	50	49	48	46	36	25	<b>52</b>
<b>202 STD</b>	52	50	49	48	46	36	25	<b>52</b>
<b>242 STD</b>	54	52	51	50	48	38	27	<b>54</b>
<b>302 STD</b>	54	52	51	50	48	38	27	<b>54</b>
<b>352 STD</b>	57	55	54	53	51	41	30	<b>57</b>
<b>402 STD</b>	57	55	54	53	51	41	30	<b>57</b>
<b>502 STD</b>	58	56	55	54	52	42	31	<b>58</b>
<b>552 STD</b>	58	56	55	54	52	42	31	<b>58</b>
<b>602 STD</b>	58	56	55	54	52	42	31	<b>58</b>

**Note :** Sound pressure levels are given at 10 meters according to ISO 3744.

CLC LN sizes	Frequency (Hz)							Lw global dB(A)
	125	250	500	1000	2000	4000	8000	
<b>182 LN</b>	80	78	77	76	74	64	53	<b>80</b>
<b>202 LN</b>	80	78	77	76	74	64	53	<b>80</b>
<b>242 LN</b>	82	80	79	78	76	66	55	<b>82</b>
<b>302 LN</b>	82	80	79	78	76	66	55	<b>82</b>
<b>352 LN</b>	85	83	82	81	79	69	58	<b>85</b>
<b>402 LN</b>	85	83	82	81	79	69	58	<b>85</b>
<b>502 LN</b>	86	84	83	82	80	70	59	<b>86</b>
<b>552 LN</b>	86	84	83	82	80	70	59	<b>86</b>
<b>602 LN</b>	86	84	83	82	80	70	59	<b>86</b>

CLC LN sizes	Frequency (Hz)							Lp global dB(A)
	125	250	500	1000	2000	4000	8000	
<b>182 LN</b>	48	46	45	44	42	32	21	<b>48</b>
<b>202 LN</b>	48	46	45	44	42	32	21	<b>48</b>
<b>242 LN</b>	50	48	47	46	44	34	23	<b>50</b>
<b>302 LN</b>	50	48	47	46	44	34	23	<b>50</b>
<b>352 LN</b>	53	51	50	49	47	37	26	<b>53</b>
<b>402 LN</b>	53	51	50	49	47	37	26	<b>53</b>
<b>502 LN</b>	54	52	51	50	48	38	27	<b>54</b>
<b>552 LN</b>	54	52	51	50	48	38	27	<b>54</b>
<b>602 LN</b>	54	52	51	50	48	38	27	<b>54</b>

**Note :** Sound pressure levels are given at 10 meters according to ISO 3744.

CLC ELN sizes	Frequency (Hz)							Lw global dB(A)
	125	250	500	1000	2000	4000	8000	
<b>182 ELN</b>	77	75	74	73	71	61	50	<b>77</b>
<b>202 ELN</b>	77	75	74	73	71	61	50	<b>77</b>
<b>242 ELN</b>	78	76	75	74	72	62	51	<b>78</b>
<b>302 ELN</b>	78	76	75	74	72	62	51	<b>78</b>
<b>352 ELN</b>	79	77	76	75	73	63	52	<b>79</b>
<b>402 ELN</b>	81	79	78	77	75	65	54	<b>81</b>
<b>502 ELN</b>	82	80	79	78	76	66	55	<b>82</b>
<b>552 ELN</b>	82	80	79	78	76	66	55	<b>82</b>
<b>602 ELN</b>	82	80	79	78	76	66	55	<b>82</b>

CLC ELN sizes	Frequency (Hz)							Lp global dB(A)
	125	250	500	1000	2000	4000	8000	
<b>182 ELN</b>	45	43	42	41	39	29	18	<b>45</b>
<b>202 ELN</b>	45	43	42	41	39	29	18	<b>45</b>
<b>242 ELN</b>	46	44	43	42	40	30	19	<b>46</b>
<b>302 ELN</b>	46	44	43	42	40	30	19	<b>46</b>
<b>352 ELN</b>	47	45	44	43	41	31	20	<b>47</b>
<b>402 ELN</b>	49	47	46	45	43	33	22	<b>49</b>
<b>502 ELN</b>	50	48	47	46	44	34	23	<b>50</b>
<b>552 ELN</b>	50	48	47	46	44	34	23	<b>50</b>
<b>602 ELN</b>	50	48	47	46	44	34	23	<b>50</b>

**Note :** Sound pressure levels are given at 10 meters according to ISO 3744.

CLC HPF/HT sizes	Frequency (Hz)							Lw global dB(A)
	125	250	500	1000	2000	4000	8000	
<b>182</b>	87	85	84	83	81	71	60	<b>87</b>
<b>202</b>	87	85	84	83	81	71	60	<b>87</b>
<b>242</b>	89	87	86	85	83	73	62	<b>89</b>
<b>302</b>	89	87	86	85	83	73	62	<b>89</b>
<b>352</b>	92	90	89	88	86	76	65	<b>92</b>
<b>402</b>	92	90	89	88	86	76	65	<b>92</b>
<b>502</b>	93	91	90	89	87	77	66	<b>93</b>
<b>552</b>	93	91	90	89	87	77	66	<b>93</b>
<b>602</b>	93	91	90	89	87	77	66	<b>93</b>

CLC HPF/HT sizes	Frequency (Hz)							Lp global dB(A)
	125	250	500	1000	2000	4000	8000	
<b>182</b>	55	53	52	51	49	39	28	<b>55</b>
<b>202</b>	55	53	52	51	49	39	28	<b>55</b>
<b>242</b>	57	55	54	53	51	41	30	<b>57</b>
<b>302</b>	57	55	54	53	51	41	30	<b>57</b>
<b>352</b>	60	58	57	56	54	44	33	<b>60</b>
<b>402</b>	60	58	57	56	54	44	33	<b>60</b>
<b>502</b>	61	59	58	57	55	45	34	<b>61</b>
<b>552</b>	61	59	58	57	55	45	34	<b>61</b>
<b>602</b>	61	59	58	57	55	45	34	<b>61</b>

**Note :** Sound pressure levels are given at 10 meters according to ISO 3744.

# Cooling Capacities - CLC 182 ÷ 352 STD / LN / HPF

CLC models	Evap. Temp. (°C)	Ambient air temperature (°C)													
		25		30		32		35		40		43		46	
		Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)
182	-8	32.7	8.6	31.6	10.9	31.1	9.8	30.3	10.2	27.7	11.5	23.9	12.4	24.1	12.7
	-4	36.1	9.2	34.9	12.0	34.3	10.4	33.5	10.9	30.7	12.2	27.5	13.0	27.4	13.3
	0	39.5	9.8	38.2	13.1	37.6	11.0	36.7	11.5	33.7	12.9	31.2	13.7	30.7	14.0
	4	42.3	10.4	40.9	11.4	40.4	11.7	39.3	12.2	36.2	13.6	34.0	14.3	33.3	14.8
	5	44.0	10.5	42.5	11.5	42.0	11.8	<b>40.9</b>	<b>12.3</b>	37.6	13.7	35.4	14.5	34.7	15.0
	6	44.8	10.6	43.4	11.6	42.8	11.9	41.7	12.5	38.3	13.9	37.7	14.6	36.4	15.2
	8	46.5	10.9	44.9	31.4	44.4	12.2	43.2	12.8	39.8	14.2	39.1	15.0		
	10	48.0	11.2	46.5	12.2	45.9	12.6	44.7	13.1	41.2	14.6	40.5	15.3		
	13	50.3	11.7	48.6	12.8	48.1	13.0	46.8	13.6	43.2	15.1	42.5	15.8		
202	-8	43.2	12.8	41.8	16.2	41.1	14.5	40.0	15.1	36.6	17.0	31.6	18.3	31.9	18.8
	-4	47.7	13.6	46.2	17.8	45.4	15.4	44.3	16.1	40.6	18.0	36.4	19.3	36.3	19.7
	0	52.2	14.5	50.5	19.4	49.8	16.3	48.5	17.0	44.5	19.0	41.3	20.2	40.6	20.7
	4	55.9	15.4	54.1	16.8	53.4	17.2	52.0	18.0	47.8	20.1	44.9	21.2	44.1	22.0
	5	58.2	15.6	56.2	17.0	55.5	17.5	<b>54.1</b>	<b>18.2</b>	49.8	20.3	46.8	21.4	45.9	22.2
	6	59.3	15.8	57.3	17.2	56.6	17.7	55.1	18.4	50.7	20.6	49.8	21.7	48.1	22.5
	8	61.5	16.2	59.4	46.5	58.7	18.1	57.2	18.9	52.6	21.1	51.7	22.1		
	10	63.5	16.6	61.4	18.1	60.7	18.6	59.2	19.4	54.5	21.6	53.6	22.6		
	13	66.5	17.3	64.3	18.9	63.6	19.3	62.0	20.1	57.1	22.4	56.2	23.3		
242	-8	51.7	16.9	50.0	21.5	49.3	19.2	48.0	20.0	43.9	22.5	37.9	24.4	38.2	25.0
	-4	57.1	18.1	55.2	23.6	54.5	20.4	53.1	21.3	48.6	23.9	43.7	25.7	43.5	26.3
	0	62.5	19.2	60.5	25.7	59.7	21.6	58.2	22.6	53.4	25.3	49.5	26.9	48.7	27.6
	4	67.0	20.4	64.8	22.3	64.0	22.9	62.4	23.9	57.3	26.7	53.9	28.2	52.9	29.2
	5	69.8	20.7	67.4	22.6	66.5	23.2	<b>64.9</b>	<b>24.2</b>	59.7	27.0	56.1	28.5	55.0	29.5
	6	71.1	20.9	68.7	22.9	67.9	23.5	66.1	24.5	60.7	27.3	59.7	28.8	57.7	29.9
	8	73.7	21.5	71.3	61.7	70.4	24.1	68.6	25.1	63.1	28.0	62.0	29.4		
	10	76.2	22.1	73.7	24.1	72.7	24.7	70.9	25.8	65.3	28.7	64.2	30.1		
	13	79.8	23.0	77.1	25.1	76.2	25.7	74.3	26.8	68.4	29.8	67.3	31.0		
302	-8	59.4	19.5	57.4	24.7	56.5	22.0	55.0	23.1	50.3	25.9	43.4	27.9	43.8	28.6
	-4	65.6	20.8	63.4	27.1	62.4	23.4	60.8	24.5	55.7	27.4	50.0	29.3	49.8	30.1
	0	71.7	22.1	69.3	29.5	68.3	24.8	66.6	25.9	61.1	29.0	56.6	30.8	55.8	31.6
	4	76.8	23.4	74.2	25.6	73.3	26.2	71.4	27.4	65.6	30.6	61.7	32.2	60.5	33.4
	5	79.9	23.7	77.2	25.9	76.2	26.6	<b>74.3</b>	<b>27.7</b>	68.3	30.9	64.2	32.6	63.0	33.8
	6	81.4	24.0	78.7	26.2	77.7	26.9	75.7	28.1	69.5	31.3	68.4	33.0	66.1	34.2
	8	84.4	24.6	81.6	70.7	80.6	27.6	78.5	28.7	72.2	32.1	71.0	33.7		
	10	87.2	25.3	84.3	27.6	83.2	28.3	81.2	29.5	74.7	32.8	73.5	34.4		
	13	91.3	26.3	88.2	28.7	87.3	29.4	85.0	30.6	78.3	34.1	77.1	35.5		
352	-8	71.9	23.3	69.5	29.6	68.4	26.4	66.6	27.5	60.8	31.1	52.5	33.3	52.9	34.2
	-4	79.4	24.9	76.7	32.5	75.6	28.1	73.6	29.3	67.4	32.9	60.5	35.1	60.2	36.0
	0	86.8	26.4	83.9	35.4	82.8	29.7	80.7	31.0	74.0	34.8	68.5	36.9	67.5	37.8
	4	93.0	28.0	89.9	30.7	88.8	31.4	86.5	32.8	79.5	36.6	74.7	38.6	73.3	40.0
	5	96.8	28.4	93.5	31.0	92.3	31.9	<b>90.0</b>	<b>33.2</b>	82.7	37.1	77.8	39.1	76.3	40.5
	6	98.6	28.7	95.3	31.4	94.1	32.2	91.7	33.6	84.2	37.5	82.8	39.5	80.0	41.0
	8	102.2	29.5	98.8	84.7	97.6	33.0	95.1	34.4	87.5	38.5	86.0	40.4		
	10	105.6	30.3	102.1	33.0	100.8	33.9	98.4	35.4	90.5	39.3	89.1	41.3		
	13	110.6	31.5	106.9	34.4	105.7	35.2	103.0	36.7	94.9	40.8	93.4	42.6		

Note : Power input values are given for compressors only.

# Cooling Capacities - CLC 402 ÷ 602 STD / LN / HPF

CLC models	Evap. Temp. (°C)	Ambient air temperature (°C)													
		25		30		32		35		40		43		46	
		Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)
402	-8	84.1	26.5	81.4	33.3	80.0	29.8	77.9	31.1	71.3	35.1	61.5	37.6	62.1	38.5
	-4	92.9	28.2	89.8	36.5	88.4	31.7	86.1	33.1	78.9	37.2	70.9	39.6	70.6	40.6
	0	101.6	29.9	98.2	39.8	96.8	33.6	94.3	35.1	86.6	39.3	80.2	41.6	79.1	42.6
	4	108.8	31.7	105.2	34.6	103.9	35.5	101.2	37.1	93.0	41.4	87.4	43.6	85.8	45.2
	5	113.3	32.1	109.4	35.0	108.0	36.0	<b>105.3</b>	<b>37.5</b>	96.8	41.9	91.0	44.1	89.3	45.7
	6	115.3	32.5	111.5	35.4	110.1	36.4	107.2	38.0	98.6	42.3	96.9	44.6	93.6	46.3
	8	119.6	33.3	115.6	35.7	114.2	37.3	111.2	38.9	102.3	43.4	100.6	45.6		
	10	123.6	34.2	119.5	37.3	118.0	38.3	115.1	40.0	105.9	44.4	104.2	46.6		
	13	129.4	35.6	125.0	38.9	123.7	39.8	120.5	41.5	111.0	46.1	109.2	48.1		
502	-8	97.0	32.4	93.8	41.1	92.2	36.9	89.8	38.4	82.2	43.2	71.0	46.6		
	-4	107.0	34.6	103.6	45.1	101.9	39.2	99.2	40.8	91.0	45.8	81.8	49.0		
	0	117.1	36.8	113.3	49.2	111.6	41.5	108.7	43.2	99.8	48.4	92.6	51.4		
	4	125.4	39.0	121.3	42.7	119.7	43.8	116.7	45.7	107.3	51.0	100.8	53.8		
	5	130.6	39.5	126.1	43.2	124.5	44.4	<b>121.4</b>	<b>46.2</b>	111.6	51.6	104.9	54.4		
	6	133.0	40.0	128.6	43.6	126.9	44.9	123.6	46.8	113.6	52.2	111.8	55.0		
	8	137.9	41.1	133.3	43.9	131.7	46.0	128.2	47.9	118.0	53.5				
	10	142.5	42.2	137.8	46.0	136.0	47.2	132.7	49.2	122.1	54.7				
	13	149.2	43.9	144.1	47.9	142.6	49.0	139.0	51.1	128.0	56.8				
552	-8	108.1	36.2	104.6	45.9	102.8	41.1	100.2	42.9	91.7	48.2	79.1	51.9		
	-4	119.4	38.7	115.5	50.4	113.7	43.7	110.8	45.6	101.5	51.1	91.1	54.6		
	0	130.6	41.1	126.3	54.9	124.5	46.3	121.4	48.3	111.4	54.0	103.2	57.4		
	4	139.9	43.6	135.3	47.7	133.6	48.9	130.2	51.1	119.7	57.0	112.4	60.1		
	5	145.7	44.2	140.7	48.2	138.9	49.6	<b>135.5</b>	<b>51.7</b>	124.5	57.6	117.0	60.8		
	6	148.3	44.7	143.5	48.8	141.6	50.2	137.9	52.3	126.8	58.3	124.7	61.5		
	8	153.9	45.9	148.7	49.1	146.9	51.4	143.1	53.6	131.6	59.8				
	10	159.0	47.2	153.7	51.4	151.8	52.7	148.1	55.1	136.2	61.2				
	13	166.5	49.1	160.8	53.6	159.1	54.8	155.0	57.1	142.8	63.5				
602	-8	119.3	40.1	115.5	50.8	113.5	45.5	110.6	47.5	101.2	53.3	87.3	57.4		
	-4	131.8	42.8	127.5	55.8	125.5	48.3	122.3	50.4	112.1	56.5	100.6	60.4		
	0	144.2	45.4	139.4	60.7	137.4	51.2	133.9	53.4	122.9	59.7	113.9	63.4		
	4	154.4	48.2	149.4	52.7	147.5	54.1	143.7	56.5	132.1	63.0	124.1	66.4		
	5	160.8	48.8	155.3	53.3	153.3	54.8	<b>149.5</b>	<b>57.1</b>	137.5	63.7	129.2	67.2		
	6	163.7	49.4	158.4	53.9	156.3	55.4	152.3	57.9	139.9	64.5	137.6	67.9		
	8	169.8	50.8	164.2	54.7	162.1	56.8	157.9	59.2	145.3	66.1				
	10	175.5	52.1	169.7	56.8	167.5	58.3	163.4	60.9	150.4	67.6				
	13	183.8	54.2	177.5	59.2	175.6	60.6	171.1	63.1	157.6	70.2				

**Note :** Power input values are given for compressors only.

# Cooling Capacities - CLC 182 ÷ 352 ELN

CLC models	Evap. Temp. (°C)	Ambient air temperature (°C)													
		25		30		32		35		40		43		46	
		Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)
182 ELN	-8	32.6	8.7	31.5	11.0	31.0	9.8	30.2	10.3	27.6	11.5	23.8	12.4	24.0	12.7
	-4	36.0	9.2	34.8	12.1	34.3	10.4	33.4	10.9	30.6	12.2	27.5	13.1	27.3	13.4
	0	39.4	9.8	38.1	13.1	37.5	11.1	36.6	11.5	33.6	12.9	31.1	13.7	30.6	14.0
	4	42.2	10.4	40.8	11.4	40.3	11.7	39.2	12.2	36.1	13.6	33.9	14.4	33.3	14.9
	5	43.9	10.6	42.4	11.5	41.9	11.9	<b>40.8</b>	<b>12.3</b>	37.5	13.8	35.3	14.5	34.6	15.1
	6	44.7	10.7	43.2	11.7	42.7	12.0	41.6	12.5	38.2	13.9	37.6	14.7	36.3	15.2
	8	46.4	11.0	44.8	31.5	44.3	12.3	43.1	12.8	39.7	14.3	39.0	15.0		
	10	47.9	11.3	46.3	12.3	45.7	12.6	44.6	13.2	41.1	14.6	40.4	15.3		
	13	50.2	11.7	48.5	12.8	48.0	13.1	46.7	13.6	43.0	15.2	42.4	15.8		
202 ELN	-8	43.2	12.8	41.8	16.2	41.1	14.5	40.0	15.1	36.6	17.0	31.6	12.4	31.9	12.7
	-4	47.7	13.6	46.1	17.8	45.4	15.4	44.3	16.1	40.6	18.0	36.4	13.1	36.2	13.4
	0	52.2	14.5	50.5	19.4	49.8	16.3	48.5	17.0	44.5	19.1	41.2	13.7	40.6	14.0
	4	55.9	15.4	54.1	16.8	53.4	17.3	52.0	18.0	47.8	20.1	44.9	14.4	44.1	14.9
	5	58.2	15.6	56.2	17.0	55.5	17.5	<b>54.1</b>	<b>18.2</b>	49.8	20.3	46.8	14.5	45.9	15.1
	6	59.3	15.8	57.3	17.2	56.6	17.7	55.1	18.5	50.7	20.6	49.8	14.7	48.1	15.2
	8	61.5	16.2	59.4	46.5	58.7	18.1	57.2	18.9	52.6	21.1	51.7	15.0		
	10	63.5	16.6	61.4	18.1	60.6	18.6	59.2	19.4	54.4	21.6	53.6	15.3		
	13	66.5	17.3	64.3	18.9	63.6	19.3	61.9	20.1	57.1	22.4	56.1	15.8		
242 ELN	-8	50.9	17.4	49.2	22.0	48.4	19.7	47.2	20.5	43.2	23.0	37.2	24.8	37.6	25.5
	-4	56.2	18.5	54.4	24.1	53.5	20.9	52.2	21.8	47.8	24.4	42.9	26.1	42.8	26.8
	0	61.5	19.7	59.5	26.3	58.6	22.1	57.2	23.1	52.5	25.8	48.6	27.4	47.9	28.1
	4	65.9	20.9	63.7	22.8	62.9	23.4	61.3	24.4	56.4	27.2	53.0	28.7	52.0	29.8
	5	68.6	21.1	66.3	23.1	65.4	23.7	<b>63.8</b>	<b>24.7</b>	58.7	27.6	55.1	29.1	54.1	30.1
	6	69.9	21.4	67.6	23.3	66.7	24.0	65.0	25.0	59.7	27.9	58.7	29.4	56.7	30.5
	8	72.5	22.0	70.1	63.0	69.2	24.6	67.4	25.6	62.0	28.6	61.0	30.0		
	10	74.9	22.5	72.4	24.6	71.5	25.2	69.7	26.3	64.2	29.3	63.1	30.7		
	13	78.4	23.5	75.8	25.6	74.9	26.2	73.0	27.3	67.3	30.4	66.2	31.7		
302 ELN	-8	55.4	21.1	53.6	26.9	52.8	24.1	51.4	25.1	46.9	28.2	40.5	30.3	40.8	31.2
	-4	61.2	22.6	59.1	29.5	58.4	25.6	56.8	26.7	52.0	29.9	46.7	31.9	46.4	32.8
	0	67.0	24.0	64.7	32.1	63.9	27.1	62.2	28.3	57.1	31.6	52.9	33.5	52.1	34.4
	4	71.7	25.5	69.3	27.9	68.5	28.6	66.7	29.9	61.3	33.3	57.6	35.1	56.5	36.4
	5	74.7	25.8	72.1	28.2	71.2	29.0	<b>69.4</b>	<b>30.2</b>	63.8	33.7	60.0	35.5	58.8	36.8
	6	76.0	26.1	73.5	28.5	72.6	29.3	70.7	30.6	65.0	34.1	63.9	35.9	61.7	37.3
	8	78.8	26.9	76.2	77.1	75.3	30.0	73.3	31.3	67.4	35.0	66.3	36.7		
	10	81.5	27.6	78.8	30.0	77.8	30.8	75.9	32.2	69.8	35.8	68.7	37.5		
	13	85.3	28.7	82.4	31.3	81.5	32.0	79.4	33.4	73.2	37.1	72.0	38.7		
352 ELN	-8	70.9	23.7	68.7	30.1	67.5	26.9	65.6	28.0	60.1	31.5	51.9	34.0	52.4	34.9
	-4	78.3	25.3	75.8	33.0	74.6	28.6	72.6	29.8	66.6	33.4	59.8	35.8	59.6	36.7
	0	85.7	26.9	82.9	36.0	81.7	30.3	79.6	31.6	73.1	35.3	67.7	37.6	66.8	38.5
	4	91.8	28.5	88.8	31.2	87.7	32.0	85.4	33.4	78.5	37.3	73.8	39.3	72.4	40.8
	5	95.6	28.9	92.4	31.6	91.1	32.5	<b>88.9</b>	<b>33.8</b>	81.7	37.7	76.8	39.8	75.4	41.2
	6	97.4	29.3	94.2	31.9	93.0	32.8	90.5	34.2	83.2	38.2	81.8	40.2	79.1	41.7
	8	101.0	30.1	97.6	86.2	96.4	33.6	93.9	35.0	86.4	39.2	85.0	41.1		
	10	104.3	30.9	100.9	33.6	99.6	34.5	97.2	36.0	89.4	40.0	88.0	42.0		
	13	109.3	32.1	105.6	35.0	104.4	35.9	101.8	37.4	93.7	41.6	92.2	43.3		

Notes : Power input values are given for compressors only.

# Cooling Capacities - CLC 402 ÷ 602 ELN

CLC models	Evap. Temp. (°C)	Ambient air temperature (°C)													
		25		30		32		35		40		43		46	
		Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)
402 ELN	-8	79.1	28.6	76.5	36.3	75.3	32.4	73.4	33.9	67.1	38.0	57.8	41.1	58.3	42.0
	-4	87.4	30.5	84.4	39.8	83.2	34.5	81.1	36.1	74.3	40.3	66.7	43.2	66.3	44.2
	0	95.6	32.4	92.4	43.4	91.1	36.5	88.8	38.2	81.5	42.6	75.5	45.4	74.4	46.4
	4	102.4	34.4	99.0	37.7	97.8	38.6	95.3	40.4	87.6	45.0	82.3	47.5	80.7	49.2
	5	106.6	34.9	102.9	38.1	101.6	39.2	<b>99.1</b>	<b>40.8</b>	91.1	45.5	85.6	48.0	84.0	49.8
	6	108.5	35.3	105.0	38.5	103.6	39.6	100.9	41.3	92.7	46.1	91.2	48.6	88.1	50.3
	8	112.6	36.3	108.8	104.1	107.5	40.6	104.7	42.3	96.3	47.3	94.7	49.6		
	10	116.3	37.2	112.5	40.6	111.0	41.7	108.3	43.5	99.7	48.3	98.1	50.7		
	13	121.8	38.8	117.7	42.3	116.4	43.3	113.4	45.1	104.5	50.2	102.8	52.3		
502 ELN	-8	97.0	32.4	93.8	41.1	92.2	36.9	89.8	38.4	82.2	43.2	71.0	46.6		
	-4	107.0	34.6	103.6	45.1	101.9	39.2	99.2	40.8	91.0	45.8	81.8	49.0		
	0	117.1	36.8	113.3	49.2	111.6	41.5	108.7	43.2	99.8	48.4	92.6	51.4		
	4	125.4	39.0	121.3	42.7	119.7	43.8	116.7	45.7	107.3	51.0	100.8	53.8		
	5	130.6	39.5	126.1	43.2	124.5	44.4	<b>121.4</b>	<b>46.2</b>	111.6	51.6	104.9	54.4		
	6	133.0	40.0	128.6	43.6	126.9	44.9	123.6	46.8	113.6	52.2	111.8	55.0		
	8	137.9	41.1	133.3	117.9	131.7	46.0	128.2	47.9	118.0	53.5				
	10	142.5	42.2	137.8	46.0	136.0	47.2	132.7	49.2	122.1	54.7				
	13	149.2	43.9	144.1	47.9	142.6	49.0	139.0	51.1	128.0	56.8				
552 ELN	-8	108.1	36.2	104.6	45.9	102.8	41.1	100.2	42.9	91.7	48.2	79.1	51.9		
	-4	119.4	38.7	115.5	50.4	113.7	43.7	110.8	45.6	101.5	51.1	91.1	54.6		
	0	130.6	41.1	126.3	54.9	124.5	46.3	121.4	48.3	111.4	54.0	103.2	57.4		
	4	139.9	43.6	135.3	47.7	133.6	48.9	130.2	51.1	119.7	57.0	112.4	60.1		
	5	145.7	44.2	140.7	48.2	138.9	49.6	<b>135.5</b>	<b>51.7</b>	124.5	57.6	117.0	60.8		
	6	148.3	44.7	143.5	48.8	141.6	50.2	137.9	52.3	126.8	58.3	124.7	61.5		
	8	153.9	45.9	148.7	131.8	146.9	51.4	143.1	53.6	131.6	59.8				
	10	159.0	47.2	153.7	51.4	151.8	52.7	148.1	55.1	136.2	61.2				
	13	166.5	49.1	160.8	53.6	159.1	54.8	155.0	57.1	142.8	63.5				
602 ELN	-8	119.3	40.1	115.5	50.8	113.5	45.5	110.6	47.5	101.2	53.3	87.3	57.4		
	-4	131.8	42.8	127.5	55.8	125.5	48.3	122.3	50.4	112.1	56.5	100.6	60.4		
	0	144.2	45.4	139.4	60.7	137.4	51.2	133.9	53.4	122.9	59.7	113.9	63.4		
	4	154.4	48.2	149.4	52.7	147.5	54.1	143.7	56.5	132.1	63.0	124.1	66.4		
	5	160.8	48.8	155.3	53.3	153.3	54.8	<b>149.5</b>	<b>57.1</b>	137.5	63.7	129.2	67.2		
	6	163.7	49.4	158.4	53.9	156.3	55.4	152.3	57.9	139.9	64.5	137.6	67.9		
	8	169.8	50.8	164.2	145.7	162.1	56.8	157.9	59.2	145.3	66.1				
	10	175.5	52.1	169.7	56.8	167.5	58.3	163.4	60.9	150.4	67.6				
	13	183.8	54.2	177.5	59.2	175.6	60.6	171.1	63.1	157.6	70.2				

Notes : Power input values are given for compressors only.



# Cooling Capacities - CLC 182 ÷ 352 HT

CLC models	Evap. Temp. (°C)	Ambient air temperature (°C)															
		25		30		32		35		40		43		46		48	
		Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)
182 HT	-8	35.1	8.5	33.8	10.8	33.3	9.7	32.4	10.0	29.7	11.3	25.6	12.3	25.8	12.5	24.9	12.9
	-4	38.7	9.1	37.4	11.9	36.8	10.3	35.9	10.7	32.9	12.0	29.6	12.9	29.4	13.2	28.4	13.5
	0	42.4	9.7	40.9	13.0	40.3	10.9	39.3	11.3	36.1	12.7	33.5	13.5	33.0	13.8	32.0	14.2
	4	45.4	10.3	43.9	11.2	43.3	11.5	42.2	12.0	38.8	13.4	36.5	14.2	35.8	14.7	34.8	15.1
	5	47.3	10.4	45.6	11.4	45.0	11.7	<b>43.9</b>	<b>12.2</b>	40.4	13.6	38.0	14.3	37.2	14.8	36.2	15.3
	6	48.1	10.5	46.5	11.5	45.9	11.8	44.7	12.3	41.1	13.7	40.4	14.5	39.1	15.0		
	8	49.9	10.8	48.2	31.1	47.7	12.1	46.4	12.6	42.7	14.1	42.0	14.8	40.6	14.2		
	10	51.6	11.1	49.9	12.1	49.2	12.4	48.0	13.0	44.2	14.4	43.5	15.1				
	13	54.0	11.6	52.2	12.6	51.6	12.9	50.3	13.5	46.3	15.0	45.6	15.6				
202 HT	-8	46.6	12.4	45.0	15.7	44.3	14.1	43.1	14.8	39.4	16.5	34.0	17.8	34.3	18.2	33.0	18.8
	-4	51.4	13.2	49.7	17.2	49.0	15.0	47.7	15.7	43.7	17.5	39.2	18.7	39.0	19.1	37.7	19.7
	0	56.3	14.0	54.4	18.8	53.6	15.8	52.2	16.6	47.9	18.5	44.4	19.6	43.8	20.1	42.5	20.6
	4	60.3	14.9	58.3	16.3	57.5	16.7	56.1	17.5	51.5	19.5	48.4	20.5	47.5	21.3	46.2	21.9
	5	62.7	15.1	60.6	16.5	59.8	17.0	<b>58.3</b>	<b>17.7</b>	53.6	19.7	50.4	20.8	49.4	21.5	48.0	22.2
	6	63.9	15.3	61.8	16.7	61.0	17.1	59.4	17.9	54.6	19.9	53.7	21.0	51.9	21.8		
	8	66.3	15.7	64.0	45.0	63.3	17.6	61.6	18.3	56.7	20.4	55.7	21.5	53.9	20.6		
	10	68.5	16.1	66.2	17.6	65.3	18.0	63.8	18.8	58.7	20.9	57.7	21.9				
	13	71.7	16.8	69.3	18.3	68.5	18.7	66.8	19.5	61.5	21.7	60.5	22.6				
242 HT	-8	55.7	16.3	53.9	20.6	53.2	18.4	51.8	19.2	47.4	21.6	41.0	23.5	41.2	24.1	39.8	24.7
	-4	61.5	17.4	59.6	22.6	58.8	19.6	57.3	20.4	52.5	23.0	47.2	24.7	46.8	25.3	45.4	25.9
	0	67.4	18.5	65.2	24.7	64.4	20.8	62.7	21.7	57.6	24.3	53.4	25.9	52.5	26.5	51.0	27.1
	4	72.2	19.6	69.8	21.4	69.0	22.0	67.3	23.0	61.8	25.7	58.1	27.1	57.0	28.1	55.4	28.9
	5	75.2	19.9	72.7	21.7	71.7	22.3	<b>70.0</b>	<b>23.3</b>	64.4	25.9	60.5	27.4	59.3	28.3	57.7	29.2
	6	76.6	20.1	74.1	22.0	73.2	22.6	71.2	23.5	65.4	26.2	64.4	27.7	62.2	28.7		
	8	79.4	20.7	76.9	59.3	75.9	23.2	73.9	24.1	68.0	26.9	66.8	28.3	64.6	27.2		
	10	82.1	21.2	79.4	23.2	78.4	23.7	76.4	24.8	70.4	27.6	69.2	28.9				
	13	86.0	22.1	83.1	24.1	82.1	24.7	80.1	25.8	73.7	28.6	72.5	29.8				
302 HT	-8	63.5	18.3	61.3	23.1	60.3	20.6	58.7	21.6	53.7	24.3	46.3	26.1	46.9	26.8	45.0	27.5
	-4	70.1	19.5	67.7	25.4	66.7	21.9	64.9	22.9	59.5	25.7	53.4	27.4	53.3	28.2	51.4	28.8
	0	76.6	20.7	74.0	27.6	73.0	23.2	71.1	24.3	65.3	27.2	60.5	28.8	59.7	29.6	57.8	30.2
	4	82.1	21.9	79.3	24.0	78.3	24.5	76.3	25.7	70.1	28.7	65.9	30.2	64.7	31.3	62.9	32.3
	5	85.4	22.2	82.5	24.3	81.4	24.9	<b>79.4</b>	<b>25.9</b>	73.0	28.9	68.6	30.5	67.3	31.7	65.4	32.5
	6	87.0	22.5	84.1	24.5	83.1	25.2	80.9	26.3	74.3	29.3	73.1	30.9	70.7	32.0		
	8	90.2	23.0	87.2	66.2	86.2	25.9	83.9	26.9	77.2	30.1	75.9	31.6	73.3	30.3		
	10	93.2	23.7	90.1	25.9	88.9	26.5	86.8	27.6	79.8	30.7	78.6	32.2				
	13	97.6	24.6	94.3	26.9	93.3	27.5	90.9	28.7	83.7	31.9	82.4	33.3				
352 HT	-8	74.7	22.3	72.0	28.5	71.0	25.3	69.1	26.4	63.2	29.8	54.4	31.9	54.8	32.9	52.7	33.6
	-4	82.4	23.8	79.5	31.2	78.4	26.9	76.4	28.1	70.0	31.5	62.8	33.6	62.4	34.5	60.3	35.3
	0	90.1	25.3	87.0	33.9	85.9	28.5	83.7	29.7	76.8	33.3	71.1	35.3	70.0	36.2	67.9	37.0
	4	96.5	26.8	93.2	29.4	92.1	30.1	89.7	31.4	82.5	35.1	77.5	37.0	76.0	38.3	73.9	39.5
	5	100.4	27.2	97.0	29.7	95.7	30.6	<b>93.4</b>	<b>31.8</b>	85.8	35.5	80.7	37.4	79.1	38.8	76.9	39.9
	6	102.3	27.5	98.8	30.1	97.6	30.8	95.1	32.2	87.3	35.9	85.9	37.8	83.0	39.3		
	8	106.0	28.3	102.5	81.1	101.2	31.6	98.6	32.9	90.8	36.9	89.2	38.7	86.2	37.2		
	10	109.5	29.0	105.9	31.6	104.6	32.5	102.1	33.9	93.9	37.6	92.4	39.6				
	13	114.7	30.2	110.9	32.9	109.6	33.7	106.8	35.1	98.4	39.1	96.9	40.8				

Notes : Power input values are given for compressors only.

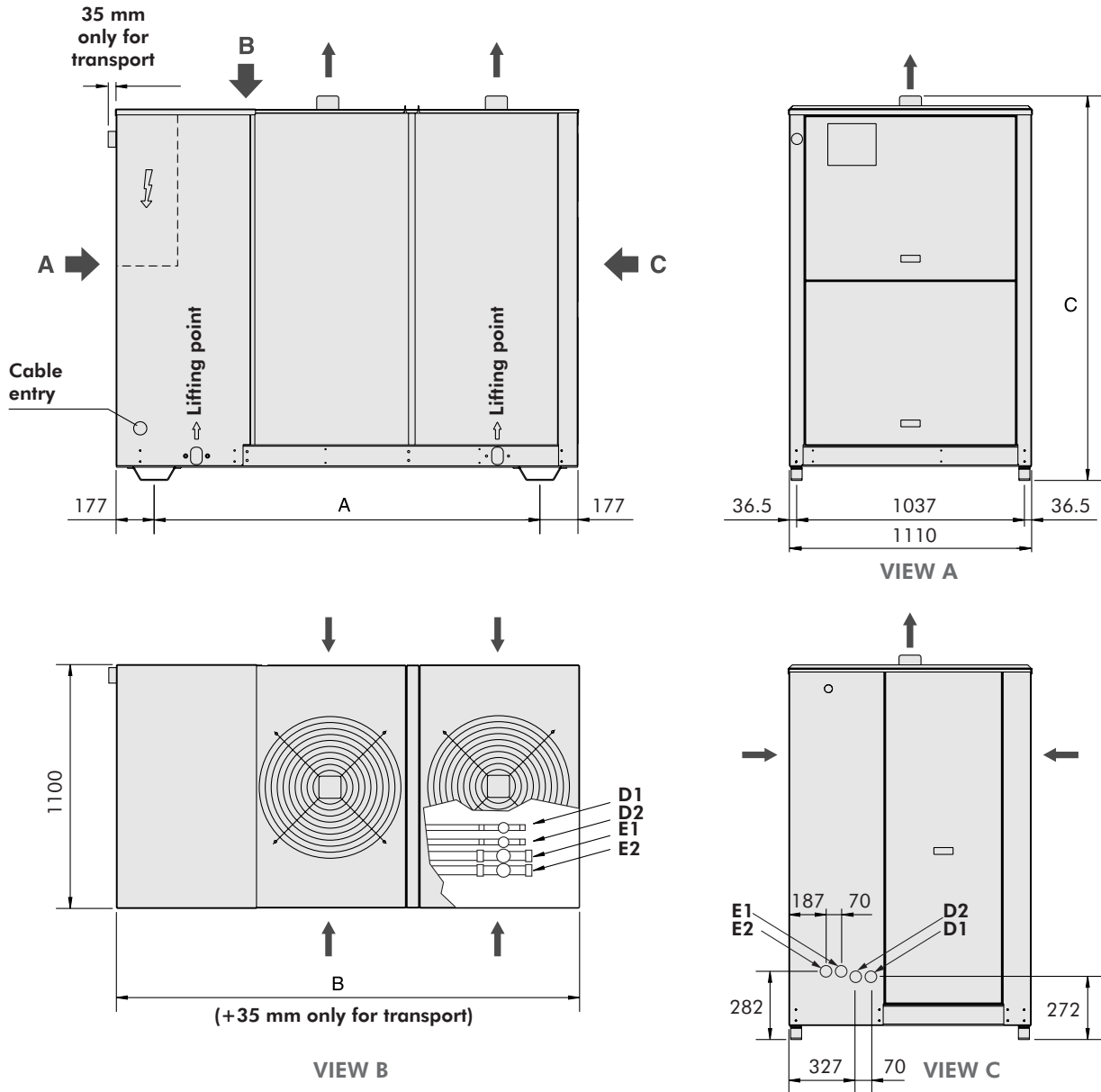
# Cooling Capacities - CLC 402 ÷ 602 HT

CLC models	Evap. Temp. (°C)	Ambient air temperature (°C)															
		25		30		32		35		40		43		46		48	
		Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)	Cool. Cap. (kW)	Power Input (kW)
402 HT	-8	87.2	25.3	84.4	31.6	82.9	28.5	80.9	29.7	73.9	33.5	63.8	35.9	64.4	36.8	61.9	37.8
	-4	96.3	26.9	93.1	34.8	91.6	30.3	89.4	31.6	81.8	35.5	73.5	37.8	73.2	38.8	70.7	39.8
	0	105.3	28.6	101.8	38.0	100.4	32.1	97.9	33.5	89.8	37.5	83.2	39.7	82.0	40.7	79.6	41.7
	4	112.8	30.3	109.1	33.0	107.7	33.9	104.9	35.4	96.4	39.5	90.6	41.6	89.0	43.2	86.5	44.4
	5	117.5	30.7	113.4	33.4	112.0	34.4	<b>109.2</b>	<b>35.8</b>	100.4	40.0	94.4	42.1	92.6	43.7	90.0	44.9
	6	119.6	31.0	115.6	33.8	114.2	34.8	111.2	36.3	102.2	40.4	100.5	42.6	97.1	44.2		
	8	124.0	31.8	119.9	31.4	118.4	35.6	115.3	37.2	106.1	41.5	104.3	43.6	100.8	41.8		
	10	128.2	32.7	123.9	35.6	122.4	36.6	119.3	38.2	109.8	42.4	108.0	44.5				
	13	134.2	34.0	129.6	37.2	128.3	38.0	124.9	39.6	115.1	44.0	113.2	45.9				
502 HT	-8	100.5	31.0	97.3	39.4	95.6	35.4	93.1	36.9	85.2	41.5	73.7	44.6	74.1	45.5		
	-4	111.0	33.1	107.3	43.2	105.7	37.6	102.9	39.2	94.3	43.9	84.8	46.9	84.3	47.9		
	0	121.4	35.2	117.4	47.1	115.7	39.8	112.7	41.4	103.5	46.4	96.0	49.2	94.5	50.3		
	4	130.0	37.4	125.8	40.9	124.1	42.0	121.0	43.8	111.2	48.9	104.5	51.5	102.5	53.4		
	5	135.4	37.8	130.7	41.4	129.1	42.5	<b>125.9</b>	<b>44.3</b>	115.7	49.4	108.8	52.1	106.7	53.9		
	6	137.9	38.3	133.3	41.8	131.6	43.0	128.1	44.8	117.8	50.0	115.9	52.7	112.0	54.6		
	8	143.0	39.4	138.2	112.9	136.5	44.1	132.9	45.9	122.3	51.2	120.3	53.8				
	10	147.7	40.4	142.9	44.1	141.0	45.2	137.6	47.1	126.6	52.4	124.5	55.0				
	13	154.7	42.1	149.4	45.9	147.8	46.9	144.1	48.9	132.7	54.4	130.5	56.7				
552 HT	-8	112.1	34.7	108.5	44.0	106.6	39.4	103.9	41.1	95.0	46.2	82.0	49.7	82.7	51.0		
	-4	123.8	37.0	119.7	48.3	117.9	41.9	114.8	43.7	105.3	49.0	94.5	52.3	94.0	53.6		
	0	135.4	39.4	131.0	52.6	129.1	44.4	125.8	46.3	115.5	51.7	107.0	55.0	105.4	56.3		
	4	145.1	41.8	140.3	45.7	138.5	46.9	135.0	49.0	124.1	54.6	116.6	57.6	114.4	59.7		
	5	151.1	42.3	145.9	46.2	144.0	47.5	<b>140.4</b>	<b>49.5</b>	129.1	55.2	121.3	58.2	119.0	60.3		
	6	153.8	42.8	148.7	46.7	146.8	48.0	143.0	50.1	131.4	55.9	129.3	58.9	124.9	61.0		
	8	159.5	44.0	154.2	126.2	152.3	49.2	148.3	51.3	136.5	57.3	134.2	60.2				
	10	164.8	45.2	159.4	49.2	157.3	50.5	153.5	52.7	141.2	58.6	139.0	61.5				
	13	172.6	47.0	166.7	51.3	165.0	52.5	160.7	54.7	148.1	60.8	145.7	63.4				
602 HT	-8	123.7	38.4	119.7	48.6	117.7	43.5	114.7	45.5	104.9	51.0	90.5	55.0	91.2	56.3		
	-4	136.6	41.0	132.1	53.4	130.1	46.3	126.8	48.3	116.2	54.1	104.3	57.9	103.8	59.3		
	0	149.5	43.5	144.6	58.2	142.5	49.0	138.9	51.2	127.5	57.2	118.1	60.8	116.3	62.2		
	4	160.1	46.2	154.8	50.5	152.9	51.8	149.0	54.1	136.9	60.3	128.7	63.6	126.3	66.0		
	5	166.7	46.8	161.0	51.1	158.9	52.5	<b>155.0</b>	<b>54.7</b>	142.5	61.0	133.9	64.4	131.4	66.7		
	6	169.7	47.3	164.2	51.7	162.1	53.1	157.9	55.4	145.1	61.8	142.7	65.1	137.8	67.5		
	8	176.1	48.6	170.2	139.6	168.1	54.4	163.7	56.7	150.6	63.4	148.1	66.5				
	10	181.9	49.9	175.9	54.4	173.7	55.9	169.4	58.3	155.9	64.8	153.4	68.0				
	13	190.5	52.0	184.0	56.7	182.1	58.0	177.4	60.5	163.4	67.3	160.8	70.1				

Notes : Power input values are given for compressors only.

# Dimensions

## Models CLC 182 to 302 STD/LN/ELN/HPF/HT



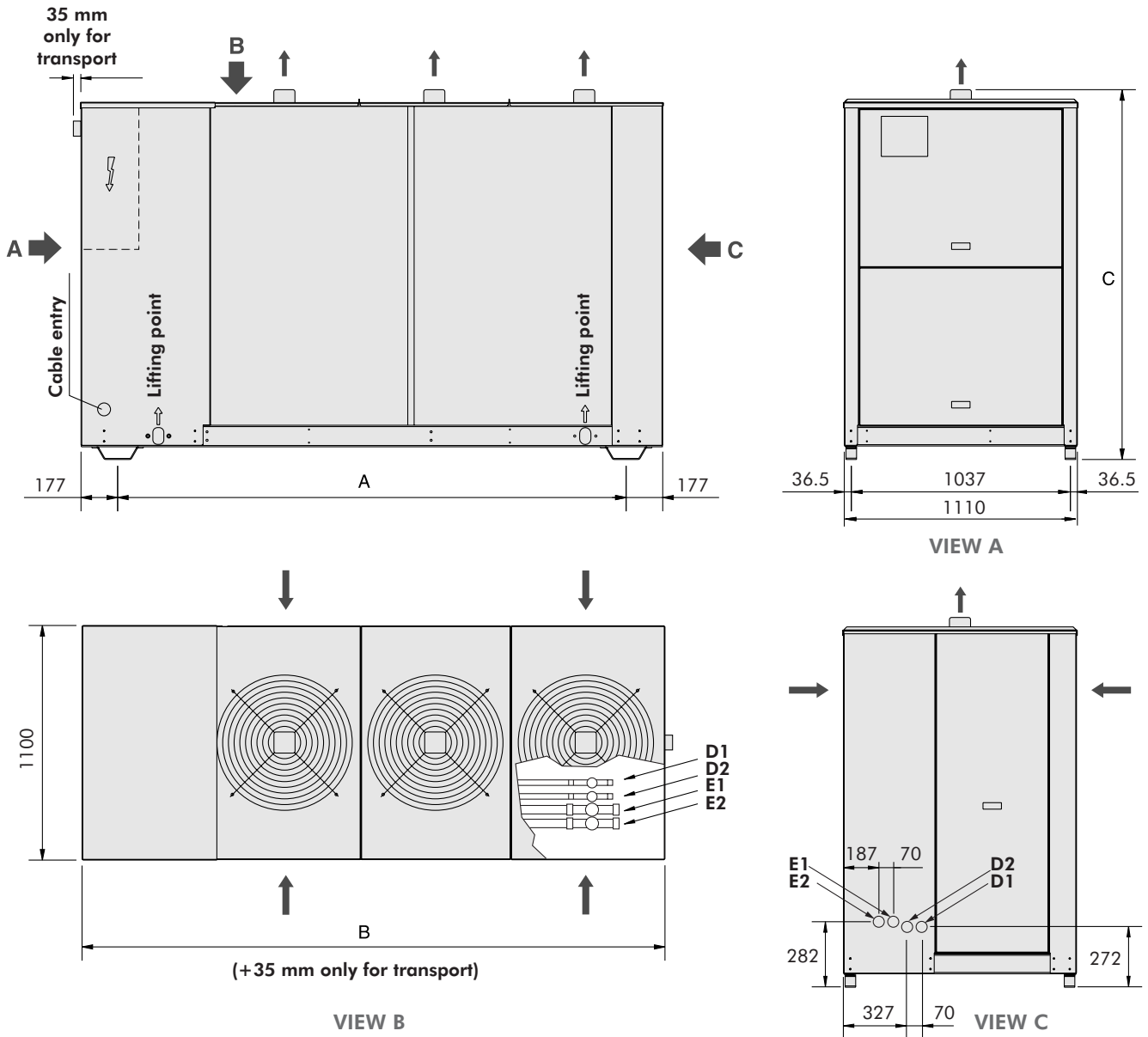
D1, D2 : Liquid lines.  
E1, E2 : Suction lines.

CLC	D1-D2	E1-E2
182-202	1/2"	7/8"
242-302	5/8"	1"5/8"

Models	Versions	Dimensions A (mm)	Dimensions B (mm)	Dimensions C (mm)	Number of fans
CLC 182	Standard	1756	2110	1750	2
	LN/HPF/HT	1756	2110	1850	2
	ELN	1756	2110	1850	2
CLC 202	Standard	1756	2110	1750	2
	LN/HPF/HT	1756	2110	1850	2
	ELN	1756	2110	1850	2
CLC 242	Standard	1756	2110	1750	2
	LN/HPF/HT	1756	2110	1850	2
	ELN	1756	2110	1850	2
CLC 302	Standard	1756	2110	1750	2
	LN/HPF/HT	1756	2110	1850	2
	ELN	1756	2110	1850	2

# Dimensions (continued)

## Models CLC 352 to 602 STD/LN/ELN/HPF/HT



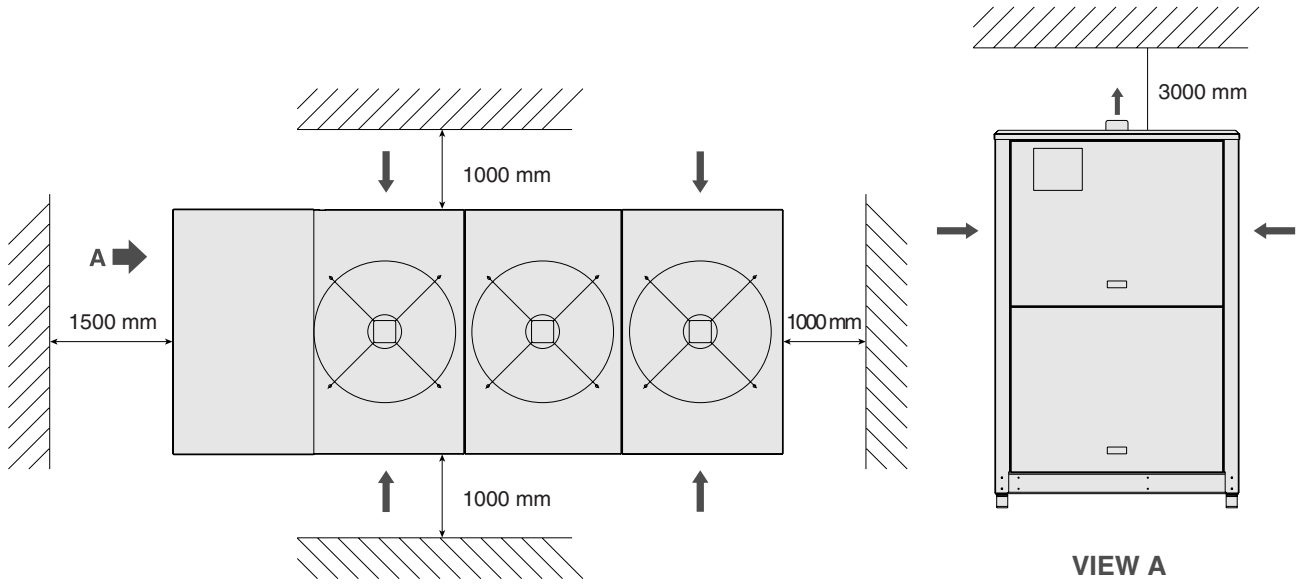
D1, D2 : Liquid lines.  
E1, E2 : Suction lines.

CLC	D1-D2	E1-E2
352 to 602	5/8"	1"5/8

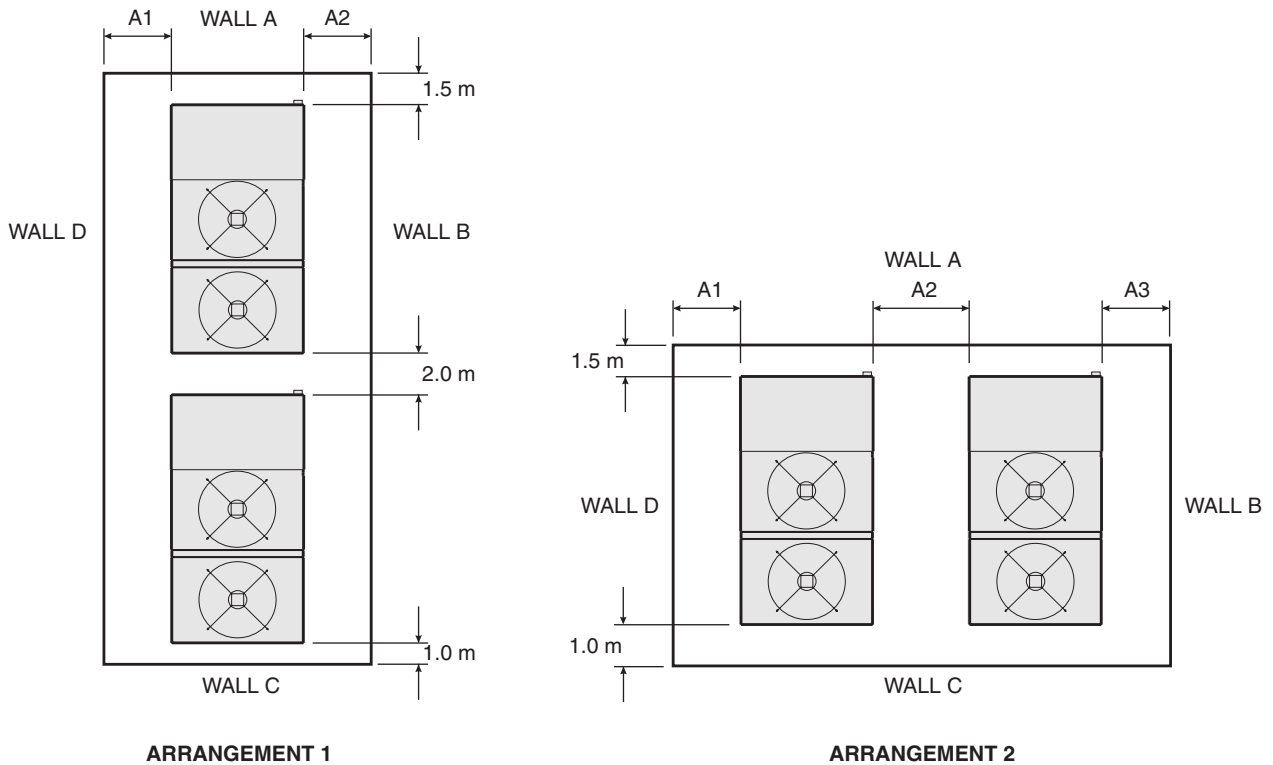
Models	Versions	Dimensions A (mm)	Dimensions B (mm)	Dimensions C (mm)	Number of fans
CLC 352	Standard	2406	2760	1750	3
	LN/HPF/HT	2406	2760	1850	3
	ELN	2406	2760	1850	3
CLC 402	Standard	2406	2760	1750	3
	LN/HPF/HT	2406	2760	1850	3
	ELN	2406	2760	1850	3
CLC 502	Standard	2756	3110	1750	3
	LN/HPF/HT	2756	3110	1850	3
	ELN	2756	3110	1850	3
CLC 552	Standard	2756	3110	1750	3
	LN/HPF/HT	2756	3110	1850	3
	ELN	2756	3110	1850	3
CLC 602	Standard	2756	3110	1750	3
	LN/HPF/HT	2756	3110	1850	3
	ELN	2756	3110	1850	3

# Space Requirements

## Single unit applications



## Multi units applications



	LOUVRED A & C SOLID B & D			SOLID A & B SOLID C & D			SOLID A & C LOUVRED B & D			LOUVRED A & B SOLID C & D			LOUVRED A & D SOLID B & C		
	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3	A1	A2	A3
<b>ARRANGEMENT 1</b>	1.0	1.0		1.0	1.0		0.8	0.8		1.0	0.8		0.8	1.0	
<b>ARRANGEMENT 2</b>	1.0	1.5	1.0	1.0	2.0	1.0	0.8	2.0	0.8	1.0	1.5	0.8	0.8	1.5	1.0

**Note :** No more than one wall can be higher than the unit.  
The area enclosed by the wall must be kept clear of all obstructions that would impede air flow to the unit.





**Airwell**

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