



Egea NCA R407C

Air cooled water chillers, heat pumps and condensing units with axial fans
Capacities from 80 to 235 kW

The EGEA-NCA series offers an innovative product designed for the climate control of large volume residential, commercial and industrial premises.

The use of hermetic scroll compressors with R407C refrigerant permits high efficiency performance in compliance with the latest environment protection policies.

The cooling only and the heat pump versions are also available in the low noise version for applications where the quiet operation is a priority. A condensing unit version is also available to provide the customer with greater versatility in systems solutions.



> Versions

- F** cooling only version available in 6 different sizes.
- H** heat pump version available in 6 different sizes.
- FL** low noise cooling only version available in 5 different sizes.
- HL** low noise heat pump version available in 5 different sizes.
- MF** condensing unit version available in 6 different sizes.
- MFL** low noise condensing unit version.

> Accessories

Electronic fan speed regulator regulates the fan speed according to the unit cooling load.

Low temperature kit allows the unit to operate with external temperatures down to -10°C.

Hydraulic kit Complete with pump, water filter, expansion tank, safety valve and air relief valve. Also available the versions with twin pump with and without a storage tank.


Evaporator electric heater.


Coil protection grille.

Remote control panel.

Antivibration mounts.

>Main technical data

Basic models		110		130		160		180		200		240	
Version		F	H	F	H	F	H	F	H	F	H	F	H
Cooling capacity ¹	kW	103,4		127,3		151,3		174,6		197,8		236,7	
Input power ¹	kW	37,1		44,5		58,1		66,4		74,8		97,1	
Heating capacity ²	kW	-	110,6	-	136,2	-	161,9	-	186,8	-	211,6	-	253,7
Power supply		400 V – 3 ph – 50 Hz											
Nominal input current	A	63		76		96		111		126		162	
Compressors / Circuits	n°	2/1		2/1		2/1		4/2		4/2		4/2	
Water flow	m ³ /h	17,8		21,9		26,0		30,0		34,0		40,7	
Fans	n°	3		3		3		4		4		4	
Total air flow rate	m ³ /h	60.000		57.000		54.000		72.000		72.000		72.000	
Sound pressure 	dB(A)	59		59		59		61		61		61	
Total maximum current	A	112		150		156		186		216		292	
Starting current	A	277		351		424		351		381		493	
Hydraulic connections		2" gas		2" gas		2" gas		DN80		DN80		DN80	

Silenced models		110		130		160		180		200	
Version		FL	HL	FL	HL	FL	HL	FL	HL	FL	HL
Cooling capacity ¹	kW	103,4		124,6		154,6		171,6		188,5	
Input power ¹	kW	37,1		46,1		56,3		68,1		79,8	
Heating capacity ²	kW	110,6		133,3		165,4		183,5		201,6	
Power supply		400 V – 3 ph – 50 Hz									
Nominal input current	A	63		78		94		114		133	
Compressors / Circuits	n°	2/1		2/1		2/1		4/2		4/2	
Water flow	m ³ /h	17,8		21,4		26,6		29,5		32,4	
Fans	n°	3		4		4		4		4	
Total air flow rate	m ³ /h	42.000		58.000		56.000		56.000		56.000	
Sound pressure 	dB(A)	51		52		52		53		53	
Total maximum current	A	107		147		153		179		209	
Starting current	A	272		348		421		344		374	
Hydraulic connections		2" gas		2" gas		2" gas		DN80		DN80	


cooling

heating

¹ External air 35 °C, evaporator inlet/outlet 12/7 °C.

² External air 5° C, 85% R.H., condenser inlet/outlet 40/45° C.


 Sound pressure in free field at a distance of 10 m.

Version MF		110		130		160		180		200		240	
Cooling capacity ³	kW	103,4		127,3		151,3		174,6		197,8		236,7	
Input power ³	kW	37,1		44,5		58,1		66,4		74,8		97,1	
Power supply		400 V – 3 ph – 50 Hz											
Nominal input current	A	63		76		96		111		126		162	
Compressors / Circuits	n°	2/1		2/1		2/1		4/2		4/2		4/2	
Capacity control		50-100		50-100		50-100		25-50-75-100		25-50-75-100		25-50-75-100	
Fans	n°	3		3		3		4		4		4	
Total air flow rate	m ³ /h	60.000		57.000		54.000		54.000		54.000		54.000	
Sound pressure 	dB(A)	59		59		59		61		61		61	
Total maximum current	A	112		150		156		186		216		292	
Starting current	A	277		351		424		351		381		493	

cooling

heating

³ External air temperature 35 °C, Working conditions of the compressors same as the F version.

 Sound pressure in free field at a distance of 10 m.

For the data of the MFL version please refer to the technical manual.

> Characteristics

Compressors: hermetic scrolls complete with internal thermal protection and direct start up. Cooling capacity control through capacity steps depending on the number of compressors installed. The compressors are housed in a special soundproof compartment. Standard phase sequence monitoring.

Evaporator: brazed plate AISI 316 stainless steel heat exchanger type with anti-condensate closed-cell polyurethane insulation. Differential pressure switch supplied as standard.

Condenser: Cu/Al coil with corrugated surface fins.

Fans: axial fans directly coupled to the motor shaft with internal thermal protection and with protection mesh.

Control and safety devices: microprocessor type including the control of the cooling capacity on one or more capacity steps, setting of operating parameters, display of the evaporator inlet and outlet temperature, display and reset of the alarms, setting of the compressor protection timing functions, automatic start up after power failures and management of the circulation pump. Management of the defrosting cycles and inversion of the cycle for the heat pump version.

Electrical panel: made with double door execution, it includes an automatic general switch, thermomagnetic switches to protect the auxiliary circuit, contactors for compressors and fans. Terminal plate.

Cooling circuit

Version F thermostatic valve, drier-filter, manual reset high pressure switch, automatic reset low pressure switch, high and low pressure safety valves.

Version H thermostatic valve, drier-filter, manual reset high pressure switch, automatic reset low pressure switch, high and low pressure safety valves, four-way valve for cycle inversion, liquid receiver, no-return valve.

Version MF drier-filter, manual reset high pressure switch, automatic reset low pressure switch, high and low pressure safety valves.

Structure: High-thickness galvanised steel panels, painted with polyester powders. Stainless steel bolts and screws.

Low noise version for the installations that give priority to the noise level



Scroll compressors and R407C refrigerant



Wide range of accessories

>Sizes and weights

			Versions	110	130	160	180	200	240
Length	L	mm	F-H-MF	3.308	3.308	3.308	4.308	4.308	4.308
			FL-HL-MFL	3.308	4.308	4.308	4.308	4.308	–
Width	W	mm	F-H-MF	1.206	1.206	1.206	1.206	1.206	1.206
			FL-HL-MFL	1.206	1.206	1.206	1.206	1.206	–
Height	H	mm	F-H-MF	2.311	2.311	2.311	2.311	2.311	2.311
			FL-HL-MFL	2.311	2.311	2.311	2.311	2.311	–
Weights		kg	F-H	1.148-1.178	1.186-1.213	1.237-1.264	1.882-1.912	2.032-2.064	2.066-2.095
			FL-HL	1.267-1.301	1.326-1.357	1.426-1.457	1.952-1.983	2.102-2.135	–
			MF-MFL	1.190-1.215	1.228-1.262	1.279-1.348	1.749-1.819	1.875-1.945	1.877



>Accessories compatibility

Versions	110-130-160			180-200-240		
	F-H	FL-HL	MF-MFL	F-H	FL-HL	MF-MFL
Differential pressure switch	●	●	–	●	●	–
Door lock general switch	●	●	●	●	●	●
Microprocessor	●	●	○	●	●	○
Electronic fan speed control	○	●	○ (● MFL)	○	●	○ (● MFL)
Low temperature kit (-10 °C external air)	○	○	–	○	○	–
Remote control panel	○	○	○	○	○	○
Refrigerant pressure gauges	○	○	–	○	○	–
Rubber anti-vibration mounts	○	○	○	○	○	○
Coil protection grille	○	○	○	○	○	○
Pump hydraulic kit 1	○	○	–	○	○	–
Pump hydraulic kit 2	○	○	–	○	○	–
Pump and tank hydraulic kit 1	○	○	–	○	○	–
Pump and tank hydraulic kit 2	○	○	–	○	○	–
Evaporator electric heater	○	○	–	○	○	–
Crankcase heater	○	○	○	○	○	○
Water filter	○	○	–	–	–	–

● Standard, ○ Optional, – Not available.