

09VE

COOLING



Slim design

Acoustic comfort

**40% smaller
footprint**

Drycoolers in this range are mainly designed for cooling water or glycol/water mix for:

- Condensers for water chillers,
- Free cooling.

These devices are designed to be installed outdoors.

Range

- More than 220 models
- A range of sizes, from 6 to 20 fans
- 2 impeller diameters, 800 or 910 mm
- Several rotation speeds, from 300 to 1 000 rpm
- Various combinations of these elements, as well as the choice of a number of options, allow us to provide devices that are adapted to a wide range of applications and environments.









Electrical specifications









I: maximum input current

P: maximum power input

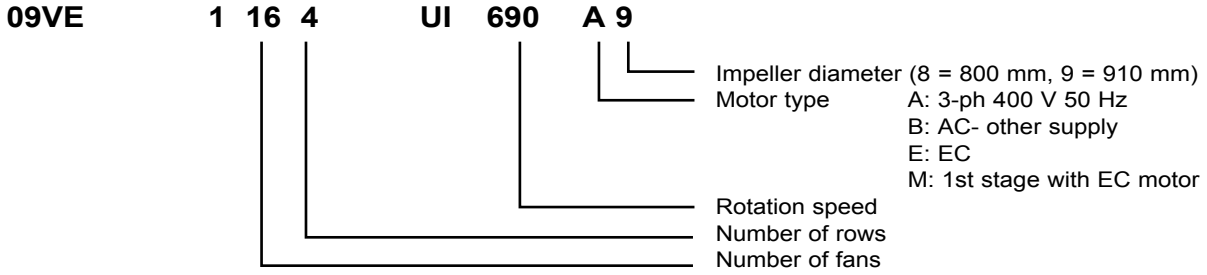
The currents and power actually absorbed depend on the operation point and will be indicated in detail when the unit is selected.

COOLING

		AC MOTORS (A9)						EC MOTOR (E9)			
		Impeller Ø 910 mm						Impeller Ø 910 mm			
Speed	Wiring	1270		980		900		690		1000	
		I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)
1060		46.80	27.60	28.80	17.40	31.80	15.90	18.00	11.04	26.40	17.88
1080		62.40	36.80	38.40	23.20	42.40	21.20	24.00	14.72	35.20	23.84
1100		78.00	46.00	48.00	29.00	53.00	26.50	30.00	18.40	44.00	29.80
1120		93.60	55.20	57.60	34.80	63.60	31.80	36.00	22.08	52.80	35.76
1140		109.20	64.40	67.20	40.60	74.20	37.10	42.00	25.76	61.60	41.72
1160		124.80	73.60	76.80	46.40	84.80	42.40	48.00	29.44	70.40	47.68
1180		140.40	82.80	86.40	52.20	95.40	47.70	54.00	33.12	79.20	53.64
1200		156.00	92.00	96.00	58.00	106.00	53.00	60.00	36.80	88.00	59.60

		AC MOTORS (A8)						EC MOTOR (E8)									
		Impeller Ø 800 mm						Impeller Ø 800 mm									
Speed	Wiring	900		700		690		560		425		300		510		740	
		I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)	I (A)	P(kW)
1060		21.90	11.88	14.40	8.58	12.60	5.37	6.30	3.36	2.52	1.16	2.10	0.45	2.94	1.78	8.40	5.50
1080		29.20	15.84	19.20	11.44	16.80	7.16	8.40	4.48	3.36	1.55	2.80	0.60	3.92	2.38	11.20	7.34
1100		36.50	19.80	24.00	14.30	21.00	8.95	10.50	5.60	4.20	1.94	3.50	0.75	4.90	2.98	14.00	9.18
1120		43.80	23.76	28.80	17.16	25.20	10.74	12.60	6.72	5.04	2.32	4.20	0.90	5.88	3.57	16.80	11.01
1140		51.10	27.72	33.60	20.02	29.40	12.53	14.70	7.840	5.88	2.71	4.90	1.05	6.86	4.17	19.60	12.85
1160		58.40	31.68	38.40	22.88	33.60	14.32	16.80	8.96	6.72	3.10	5.60	1.20	7.84	4.76	22.40	14.68
1180		65.70	35.64	43.20	25.74	37.80	16.11	18.90	10.08	7.56	3.49	6.30	1.35	8.82	5.36	25.20	16.52
1200		73.00	39.60	48.00	28.60	42.00	17.90	21.00	11.20	8.40	3.88	7.00	1.50	9.80	5.96	28.00	18.36

Designation (Example)



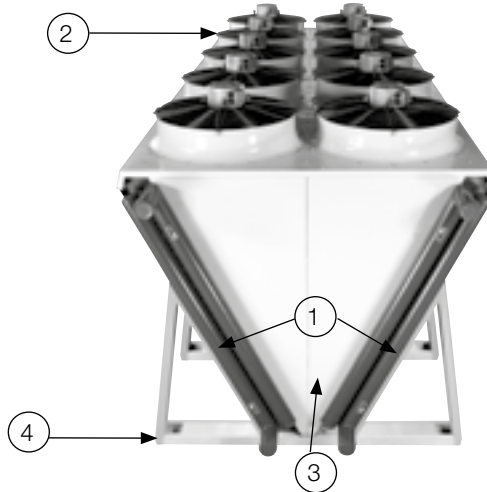
Options for each application

	Options	Description/Assets
Protection adapted for the environment	Pre-coated aluminium fins	Improves the resistance of the blades to corrosion For low corrosion environments
	High-efficiency coating on the finned bundle: ALUCOAT@507 or HERESITE	Improves the resistance of the blades to corrosion For relatively corrosive environments
	Stainless steel tubing bundle	For corrosive fluids
	Corrosiveness resistance category C5M	Casing and fan motor assemblies for corrosive environments
Quick and simple installation	Terminal box	Connection to the terminals of each motor on the front panel of the device
	Protection cabinet	Protected by a thermal-magnetic circuit breaker on each motor
	Control cabinet with DRY-PIC	Protection for motors and stage regulation provided by an electronic board according to temperature
	Control cabinet with stages on terminals	Motor protection and stages controlled by customer regulation
	Flanges	NFE 1092-1 type 01A PN16 steel
	Counter-flanges	In steel, with gaskets and bolts
Optimisation of electrical consumption and noise	Blade protective screen	Impact protection
	EC (electrically commutated) motor	Variable speed control from 0 to 100% using a 0/10V signal. With the control cabinet via electronic board option, the device is self-regulating
Application for water without glycol	Drainable coil	Device located on a slope to prevent frost - Drainage by gravity
Free cooling application	Free cooling valve kit	Valves with motor and sensor, controlled by the electronic board Controlled according to the operation of the drycooler or chiller
Adiabatic cooling application	ADIABATIC COOLER (water misting into the air flow)	Size of the unit reduced by cooling of the ambient air Operates completely safely due to the antibacterial treatment applied to the water

Description

Excellent resistance to corrosion

The casing boasts category C3 protection against corrosion, in line with ISO standard 12944-2.



1 2 Coils

Copper tubes and high-performance aluminium fins, resistant to fouling.
Manifolds and piping: steel painted with graphite grey RAL 7024.

2 Fan motor assemblies

Galvanised steel profiled collars with polyester powder coating on the internal and external faces (light grey RAL 7035 paint) or composite collar (black RAL 9005) for 1270/980 rpm motor.
Aluminium + polypropylene propeller.
Class F motors - IP54 - TRI400V +/-10% 50Hz+/-2% - Standard connection to motor terminal boxes.
Black protective grille compliant with standard BS ISO 12499.
The motors are also available in a 60 Hz version or in other voltages.

3 Casing

Galvanised steel with polyester powder coating on the internal and external faces (light grey RAL 7035 paint).

4 Feet

Galvanised steel with polyester powder coating on the internal and external faces (light grey RAL 7035 paint).

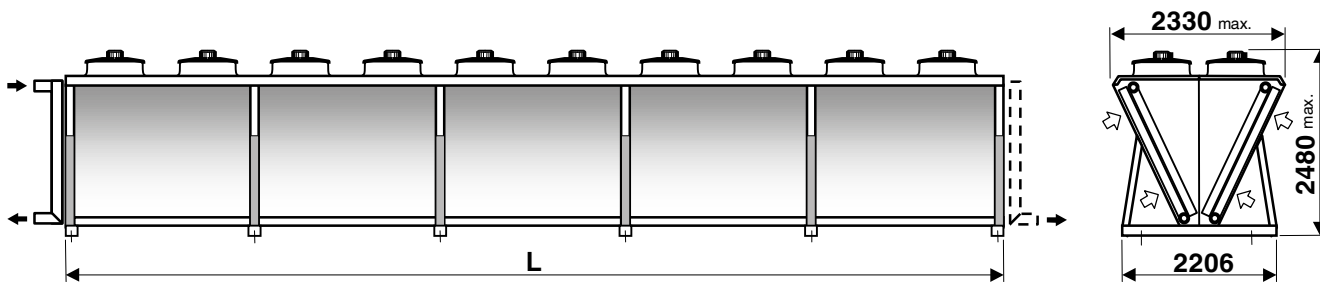
Each device is tested:

- The air tightness of the coil is subjected to an underwater airtightness test.
- For devices with the terminal box or electrical cabinet option: rotation tests, dielectric tests, current measurement.

The range complies with the following European directives:

- Machinery Directive 2006/42/EC,
- EMC Directive 2004/108/EC,
- Pressure Equipment Directive (PED) 97/23 EC.

Dimensions



	1060	1080	1100	1120	1140	1160	1180	1200
L (mm)	3550	4700	5850	7000	8150	9300	10450	11660
Max. empty weight without options (kg)	1700	2100	2600	3000	3500	4000	4500	4900

Up to size 1180, these units can be transported by container.

Installation recommendations

- These units are designed to operate outside.
When starting up, frost and snow could adversely impair its operation.
As a general measure, all steps should be taken to avoid the risk of air recycling. This is especially important when the installation comprises several units.
It is not recommended to install units near the hot air extraction duct outlet or close to deciduous plants (this could cause clogging).
- Allow a clearance of 1.5 m around the device. Where the use of antivibration mounts is required, use a rigid frame which locks the feet together.
- If speed regulators other than those recommended by the manufacturer are used, check that these are compatible with the electric motors.
- Commissioning and maintenance: refer to the instruction manual.
- These units comply with the European directives. The installer is responsible for ensuring the compliance of the installation. The installer must ensure safety and protective devices (emergency stop, shut-off valves, lightning protection, etc.) are put in place and are accessible.

