



PME K12

Open cooling towers

TORRAVAL
cooling



PM Series - PME-E with Diploma N° 16.02.001

MITA participates in the ECP programme for Cooling Towers. Check ongoing validity of certificate: www.eurovent-certification.com



PME-E K12 SERIES COOLING TOWER

The PME-E K12 series cooling towers are manufactured with a high thickness (3-5 mm) steel bearing frame, which is hot-dip galvanized after all works and with fibreglass sandwich panels of 22 mm thickness.

This kind of panel is made by a double laminated layer with supporting expanded material in between. This construction grants, also on large surfaces, a great mechanical strength and a good dropping water noise absorption.

The surface of the fibreglass, moreover, is protected by a gel-coat that is resistant to UV rays, hot and cold water and abrasion due to weather and chemicals.

The filling material is made of self-extinguishing PVC with 12 mm flute.

The multi-blade axial fan grants high performances with low electrical power input.

The basin has a sloping bottom with rounded off corners, to enable an easy emptying to simplify its cleaning.

The PME-E K12 series includes 26 models, all available with

or without water basin. This series covers a capacity range (approximate cooling capacity referred to temperatures conditions 40°C in, 30°C out, 24°C wet bulb) between 770 and 4.345 kW.



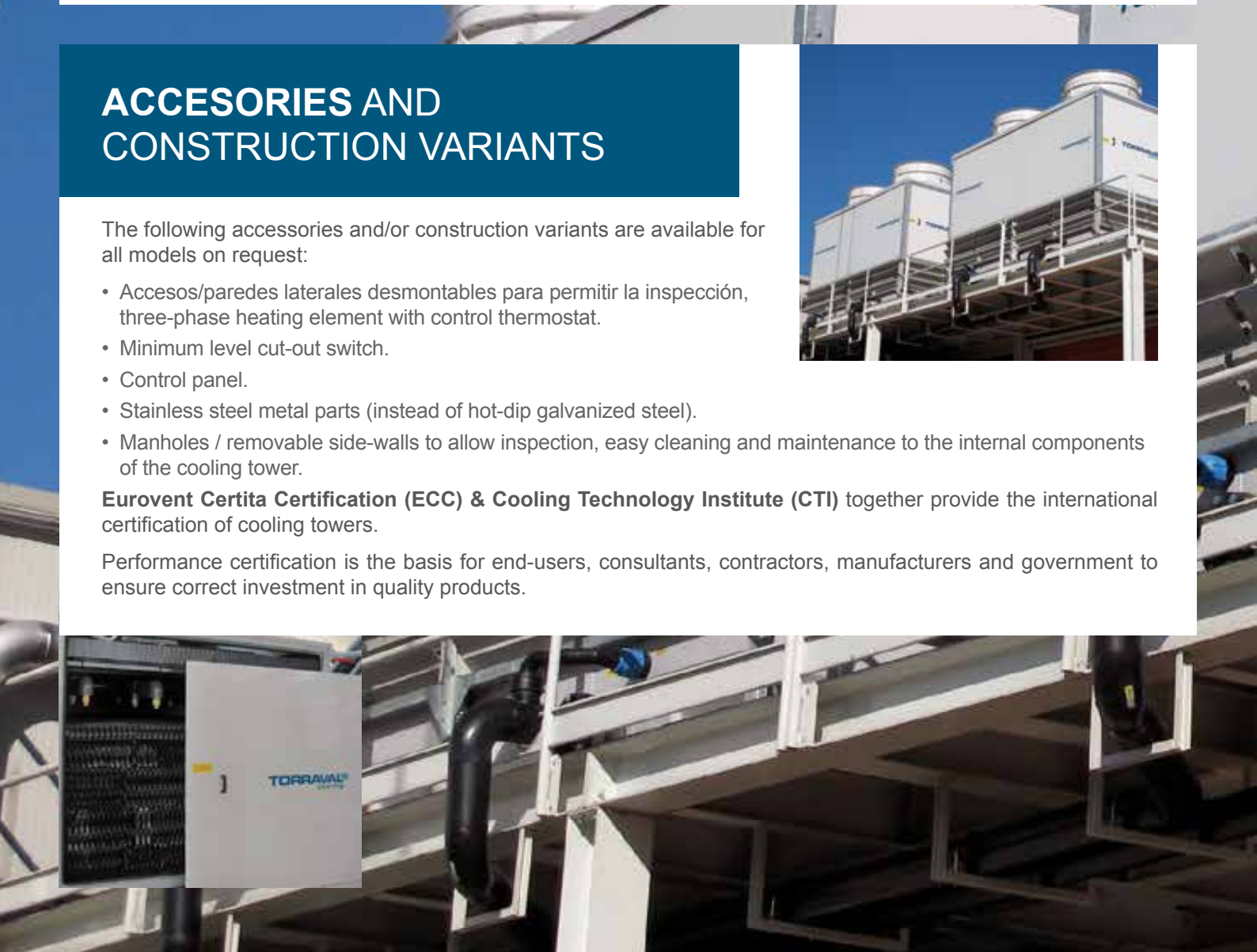
ACCESORIES AND CONSTRUCTION VARIANTS

The following accessories and/or construction variants are available for all models on request:

- Accesos/paredes laterales desmontables para permitir la inspección, three-phase heating element with control thermostat.
- Minimum level cut-out switch.
- Control panel.
- Stainless steel metal parts (instead of hot-dip galvanized steel).
- Manholes / removable side-walls to allow inspection, easy cleaning and maintenance to the internal components of the cooling tower.

Eurovent Certita Certification (ECC) & Cooling Technology Institute (CTI) together provide the international certification of cooling towers.

Performance certification is the basis for end-users, consultants, contractors, manufacturers and government to ensure correct investment in quality products.





1 Structure and casing

Material:

Bearing frame in hot-dip galvanized steel after all works, fibreglass sandwich panels, thickness 22 mm.

Characteristics:

- Gran resistencia mecánica.
- Protección externa de gel de fibra de vidrio resistente a los rayos UVA, al agua caliente y fría, a la abrasión debida a la intemperie y sustancias químicas.
- Buena absorción del ruido.
- Resistente a la corrosión.

2 Water basin (optional) and top cap

Material:

Orthophthalic polyester resin, reinforced with several layers of glass fibre matting..

Characteristics:

- External fibreglass gel-coat protection resistant to uv rays, hot and cold water and abrasion due to weather and chemicals.
- Internal waterproof protection thanks to an impermeable, water repellent, paraffin- containing orthophthalic gelcoat.
- Sloping bottom with rounded off corners, to enable an easy emptying to simplify its cleaning.
- Light-weight.
- Non-corroding.

3 Filling material

(or heat exchange surface)

Material:

PVC autoestinguente.

Characteristics:

- 12 mm flute (air/water passage).

- Reinforced top layer to better absorb dynamic stress caused by the under pressure sprayed water from the nozzles.

4 Multi-blade axial fan

Material:

Motor support: hot dip galvanized steel (after all works), fan blades: plastic material reinforced with glass fibre, or aluminium, fan screening grid: stainless steel.

Characteristics:

- High performance, low electrical power input.
- Directly coupled to the electric motor.
- Unalterable safety over time thanks to the fan screening grid
- Non-corroding.

5 Hot water distribution system

Material:

PN 10 unified PVC pipes, polypropylene nozzles.

Characteristics:

- Non-corroding.
- Uniform and total spraying of the heat exchange filling pack.
- Torraval exclusive nozzles design, with non-clogging wide passages for a full cone spray.

6 Anti-splash louvers on air intake openings

Material:

Fibreglass louvers (on request: PP panels in a suitable galvanized steel frame).

Characteristics:

- Non-corroding.
- Easy to remove even after many years of use.

CONSTRUCTION DETAILS

7 Manhole or totally removable side wall (optional)

Material:

Fibreglass sandwich panel, thickness 22 mm, in a suitable hot dip galvanized steel frame.

8 Junction box

Material:

Technopolymer.

Characteristics:

- Easy connection of the electric motor to the stream supply line.

9 Bolts, nuts and washers

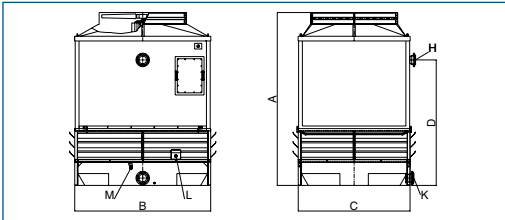
Material:

Acciaio inossidabile 304 (nessun utilizzo di bulloni autofilettanti).

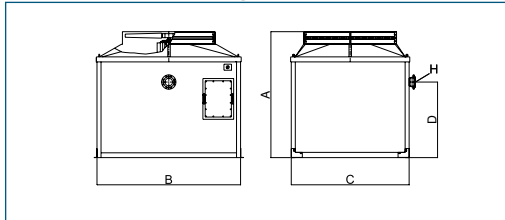
Characteristics:

- Non-corroding.
- Easy to remove even after many years of use.

PME-E K12 series, single fan with water basin



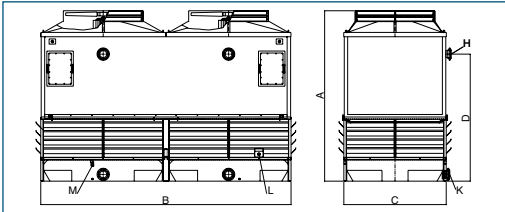
PME-E K12 series, single fan without water basin



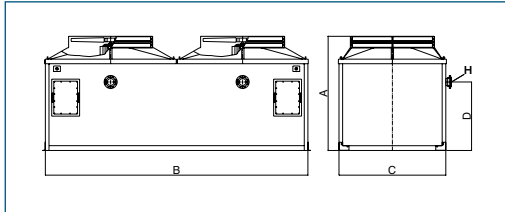
DIMENSIONS AND WEIGHTS

Model	Dimensions				Water connections				Nominal water flow rate *	Total nameplate fan motor power per model *	Total rated fan motor power per model *	Weights		
	A	B	C	D	H	K	L	M				empty	in operation	
	mm	mm	mm	mm	Ø in	Ø in	Ø in	Ø in				kg	kg	
with water basin														
PME-E 1803 K12	3575	1865	1865	2150	5"	6"	1 1/2"	2"	17,04	5,5	4,6	645	1850	
PME-E 1804 K12	3575	1865	1865	2450	5"	6"	1 1/2"	2"	20,17	7,5	6	675	1880	
PME-E 2053 K12	3775	2030	2360	2350	5"	6"	1 1/2"	2"	25,02	7,5	5,9	930	2835	
PME-E 2054 K12	3775	2030	2360	2650	5"	6"	1 1/2"	2"	27,47	11	7,7	965	2870	
PME-E 2403 K12	3775	2360	2360	2350	6"	6"	1 1/2"	2"	29,25	11	7,5	1010	3230	
PME-E 2404 K12	3775	2360	2360	2650	6"	6"	1 1/2"	2"	30,06	11	10,9	1045	3265	
PME-E 2853 K12	3775	2870	2360	2350	6"	6"	1 1/2"	2"	35,78	11	9,3	1175	3880	
PME-E 2854 K12	3775	2870	2360	2650	6"	6"	1 1/2"	2"	39,25	15	11,9	1225	3930	
PME-E 3103 K12	3775	3120	2360	2350	6"	8"	1 1/2"	2"	38,97	15	10,7	1235	4160	
PME-E 3104 K12	3775	3120	2360	2650	6"	8"	1 1/2"	2"	42,56	15	13,5	1285	4210	
PME-E 3353 K12	3775	3370	2360	2350	6"	8"	1 1/2"	2"	42,17	15	12,5	1295	4490	
PME-E 3354 K12	3775	3370	2360	2650	6"	8"	1 1/2"	2"	46,25	18,5	15,4	1345	4540	
PME-E 3603 K12	3775	3620	2360	2350	6"	8"	1 1/2"	2"	45,36	15	14,4	1350	4760	
PME-E 3604 K12	3775	3620	2360	2650	6"	8"	1 1/2"	2"	49,75	18,5	18,2	1410	4820	
without water basin														
PME-E 1803 K12	3085	1865	1865	1660	5"				17,04	5,5	4,6	490	540	
PME-E 1804 K12	3085	1865	1865	1960	5"				20,17	7,5	6	520	570	
PME-E 2053 K12	2625	2010	2340	1200	5"				25,02	7,5	5,9	685	910	
PME-E 2054 K12	2625	2010	2340	1500	5"				27,47	11	7,7	720	945	
PME-E 2403 K12	2625	2340	2340	1200	6"				29,25	11	7,5	740	1025	
PME-E 2404 K12	2625	2340	2340	1500	6"				30,06	11	10,9	775	1060	
PME-E 2853 K12	2625	2850	2340	1200	6"				35,78	11	9,3	890	1215	
PME-E 2854 K12	2625	2850	2340	1500	6"				39,25	15	11,9	940	1265	
PME-E 3103 K12	3285	3120	2360	1860	6"				38,97	15	10,7	935	1265	
PME-E 3104 K12	3285	3120	2360	2160	6"				42,56	15	13,5	985	1315	
PME-E 3353 K12	2625	3350	2340	1200	6"				42,17	15	12,5	980	1360	
PME-E 3354 K12	2625	3350	2340	1500	6"				46,25	18,5	15,4	1030	1410	
PME-E 3603 K12	3285	3620	2360	1860	6"				45,36	15	14,4	1015	1390	
PME-E 3604 K12	3285	3620	2360	2160	6"				49,75	18,5	18,2	1075	1450	

PME-E K12 series, double fan with water basin



PME-E K12 series, double fan without water basin



Model	Dimensions				Water connections				Nominal water flow rate *	Total nameplate fan motor power per model *	Total rated fan motor power per model *	Weights		
	A	B	C	D	H	K	L	M				empty	in operation	
	mm	mm	mm	mm	Ø in	Ø in	Ø in	Ø in				kg	kg	
with water basin														
PME-E 4103 K12	3775	4080	2360	2350	2 x 5"	2 x 6"	2"	2"	50,91	15	12	1775	5580	
PME-E 4104 K12	3775	4080	2360	2650	2 x 5"	2 x 6"	2"	2"	55,86	22	16,1	1845	5650	
PME-E 4803 K12	3775	4750	2360	2350	2 x 6"	2 x 6"	2"	2"	59,47	22	15,5	1950	6395	
PME-E 4804 K12	3775	4750	2360	2650	2 x 6"	2 x 6"	2"	2"	65,25	22	19,8	2020	6465	
PME-E 5703 K12	4055	5770	2360	2630	2 x 6"	2 x 6"	2"	2"	72,5	22	19,2	2325	7740	
PME-E 5704 K12	4055	5770	2360	2930	2 x 6"	2 x 6"	2"	2"	79,52	30	24,2	2425	7840	
PME-E 6203 K12	4055	6270	2360	2630	2 x 6"	2 x 8"	2"	2"	78,89	30	21,5	2415	8270	
PME-E 6204 K12	4055	6270	2360	2930	2 x 6"	2 x 8"	2"	2"	86,52	30	26,9	2515	8370	
PME-E 6703 K12	4055	6770	2360	2630	2 x 6"	2 x 8"	2"	2"	85,3	30	24,9	2520	8900	
PME-E 6704 K12	4055	6770	2360	2930	2 x 6"	2 x 8"	2"	2"	93,6	37	30,7	2620	9000	
PME-E 7203 K12	3955	7270	2360	2530	2 x 6"	2 x 8"	2"	2"	91	30	28,8	2625	9440	
PME-E 7204 K12	3955	7270	2360	2830	2 x 6"	2 x 8"	2"	2"	99,86	37	35	2735	9550	
without water basin														
PME-E 4103 K12	2625	4060	2340	1200	2 x 5"				50,91	15	12	1335	1795	
PME-E 4104 K12	2625	4060	2340	1500	2 x 5"				55,86	22	16,1	1405	1865	
PME-E 4803 K12	2625	4730	2340	1200	2 x 6"				59,47	22	15,5	1460	2035	
PME-E 4804 K12	2625	4730	2340	1500	2 x 6"				65,25	22	19,8	1530	2105	
PME-E 5703 K12	2625	5750	2340	1200	2 x 6"				72,5	22	19,2	1755	2415	
PME-E 5704 K12	2625	5750	2340	1500	2 x 6"				79,52	30	24,2	1855	2515	
PME-E 6203 K12	3565	6270	2360	2140	2 x 6"				78,89	30	21,5	1835	2495	
PME-E 6204 K12	3565	6270	2360	2440	2 x 6"				86,52	30	26,9	1935	2595	
PME-E 6703 K12	2625	6750	2340	1200	2 x 6"				85,3	30	24,9	1920	2670	
PME-E 6704 K12	2625	6750	2340	1500	2 x 6"				93,6	37	30,7	2020	2770	
PME-E 7203 K12	3565	7270	2360	2140	2 x 6"				91	30	28,8	1990	2740	
PME-E 7204 K12	3565	7270	2360	2440	2 x 6"				99,86	37	35	2100	2850	

* Nominal temperature conditions: 40°C in - 30°C out - 24°C wet bulb.

Technical data not binding

For data concerning other versions, please write to: info@torraival.com.



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