PME-E K12

Open
cooling towers

MITA
cooling technologies

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PM Series - PME-E with Diploma N° 16.02.001

PM Series
CTI CERTIFIED
C56B-16R02

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 650 and 3.700 kW.

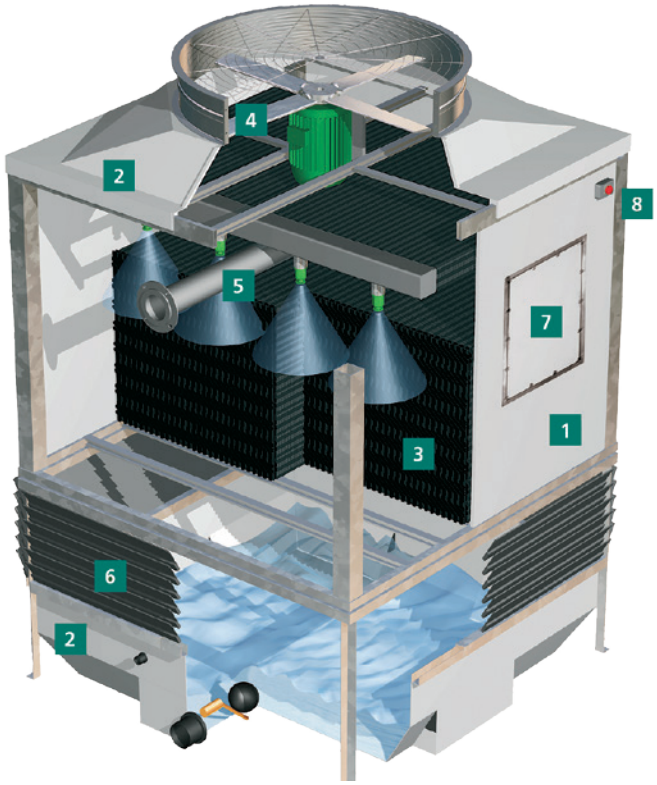
ACCESSORIES AND CONSTRUCTION VARIANTS

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

- 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.



CONSTRUCTION DETAILS

1 Structure and casing

Material:

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

Characteristics:

- great mechanical strength
- external fibreglass gel-coat protection resistant to UV rays, hot and cold water and abrasion due to weather and chemicals
- good noise absorption
- non-corroding.

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
- MITA 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.

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:

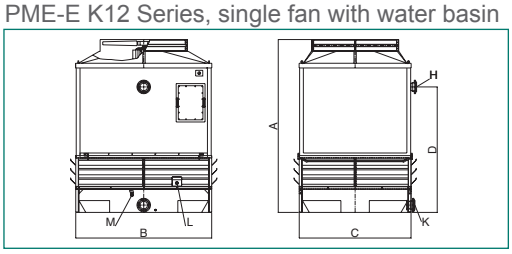
acciaio inossidabile 304 (nessun utilizzo di bulloni autofilettanti).

Characteristics:

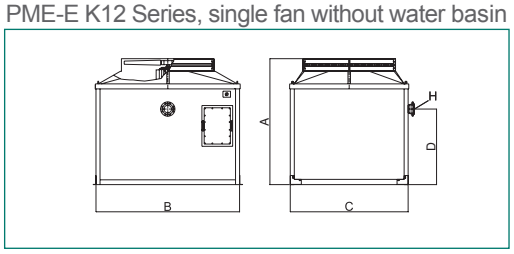
- non-corroding
- easy to remove even after many years of use.

DIMENSIONS AND WEIGHTS

PME-E K12 Series, single fan with water basin

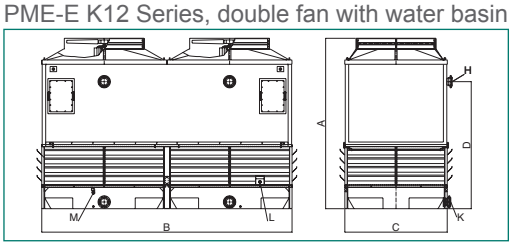


PME-E K12 Series, single fan without water basin

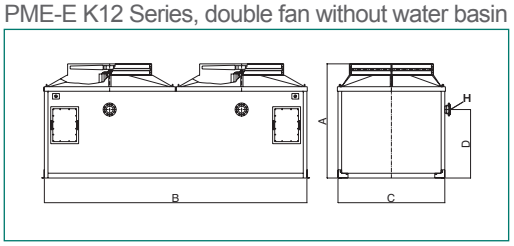


Model	Dimensions				Water connections				Nominal water flow rate*	Total nameplate fan motor power per model*	Total rated fan motor power per model*	Weights	
	A	B	C	D	H	K	L	M				empty	in operation
	mm	mm	mm	mm	Ø in	Ø in	Ø in	Ø in	l/s	kW	kW	kg	kg
with water basin													
PME-E 1803 K12	3575	1865	1865	2150	5"	6"	1 ½"	2"	15,5	5,5	5,4	645	1850
PME-E 1804 K12	3575	1865	1865	2450	5"	6"	1 ½"	2"	18,0	7,5	7,4	675	1880
PME-E 2053 K12	3775	2030	2360	2350	5"	6"	1 ½"	2"	22,3	7,5	7,4	930	2835
PME-E 2054 K12	3775	2030	2360	2650	5"	6"	1 ½"	2"	24,5	11	10,9	965	2870
PME-E 2403 K12	3775	2360	2360	2350	6"	6"	1 ½"	2"	26,0	11	10,9	1010	3230
PME-E 2404 K12	3775	2360	2360	2650	6"	6"	1 ½"	2"	30,6	11	10,9	1045	3265
PME-E 2853 K12	3775	2870	2360	2350	6"	6"	1 ½"	2"	31,8	11	10,9	1175	3880
PME-E 2854 K12	3775	2870	2360	2650	6"	6"	1 ½"	2"	34,9	15	14,9	1225	3930
PME-E 3103 K12	3775	3120	2360	2350	6"	8"	1 ½"	2"	34,7	15	14,9	1235	4160
PME-E 3104 K12	3775	3120	2360	2650	6"	8"	1 ½"	2"	37,9	15	14,9	1285	4210
PME-E 3353 K12	3775	3370	2360	2350	6"	8"	1 ½"	2"	37,5	15	14,9	1295	4490
PME-E 3354 K12	3775	3370	2360	2650	6"	8"	1 ½"	2"	41,2	18,5	18,3	1345	4540
PME-E 3603 K12	3775	3620	2360	2350	6"	8"	1 ½"	2"	40,4	15	14,9	1350	4760
PME-E 3604 K12	3775	3620	2360	2650	6"	8"	1 ½"	2"	44,3	18,5	18,3	1410	4820
without water basin													
PME-E 1803 K12	3085	1865	1865	1660	5"				15,5	5,5	5,4	490	540
PME-E 1804 K12	3085	1865	1865	1960	5"				18,0	7,5	7,4	520	570
PME-E 2053 K12	2625	2010	2340	1200	5"				22,3	7,5	7,4	685	910
PME-E 2054 K12	2625	2010	2340	1500	5"				24,5	11	10,9	720	945
PME-E 2403 K12	2625	2340	2340	1200	6"				26,0	11	10,9	740	1025
PME-E 2404 K12	2625	2340	2340	1500	6"				30,6	11	10,9	775	1060
PME-E 2853 K12	2625	2850	2340	1200	6"				31,8	11	10,9	890	1215
PME-E 2854 K12	2625	2850	2340	1500	6"				34,9	15	14,9	940	1265
PME-E 3103 K12	3285	3120	2360	1860	6"				34,7	15	14,9	935	1265
PME-E 3104 K12	3285	3120	2360	2160	6"				37,9	15	14,9	985	1315
PME-E 3353 K12	2625	3350	2340	1200	6"				37,5	15	14,9	980	1360
PME-E 3354 K12	2625	3350	2340	1500	6"				41,2	18,5	18,3	1030	1410
PME-E 3603 K12	3285	3620	2360	1860	6"				40,4	15	14,9	1015	1390
PME-E 3604 K12	3285	3620	2360	2160	6"				44,3	18,5	18,3	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	l/s	kW	kW	kg	kg
with water basin													
PME-E 4103 K12	3775	4080	2360	2350	2 x 5"	2 x 6"	2"	2"	45,3	15	14,9	1775	5580
PME-E 4104 K12	3775	4080	2360	2650	2 x 5"	2 x 6"	2"	2"	49,7	22	21,8	1845	5650
PME-E 4803 K12	3775	4750	2360	2350	2 x 6"	2 x 6"	2"	2"	52,9	22	21,8	1950	6395
PME-E 4804 K12	3775	4750	2360	2650	2 x 6"	2 x 6"	2"	2"	58,1	22	21,8	2020	6465
PME-E 5703 K12	4055	5770	2360	2630	2 x 6"	2 x 6"	2"	2"	64,5	22	21,8	2325	7740
PME-E 5704 K12	4055	5770	2360	2930	2 x 6"	2 x 6"	2"	2"	70,8	30	29,7	2425	7840
PME-E 6203 K12	4055	6270	2360	2630	2 x 6"	2 x 8"	2"	2"	70,2	30	29,7	2415	8270
PME-E 6204 K12	4055	6270	2360	2930	2 x 6"	2 x 8"	2"	2"	77,0	30	29,7	2515	8370
PME-E 6703 K12	4055	6770	2360	2630	2 x 6"	2 x 8"	2"	2"	75,9	30	29,7	2520	8900
PME-E 6704 K12	4055	6770	2360	2930	2 x 6"	2 x 8"	2"	2"	83,3	37	36,6	2620	9000
PME-E 7203 K12	3955	7270	2360	2530	2 x 6"	2 x 8"	2"	2"	81,0	30	29,7	2625	9440
PME-E 7204 K12	3955	7270	2360	2830	2 x 6"	2 x 8"	2"	2"	88,9	37	36,6	2735	9550
without water basin													
PME-E 4103 K12	2625	4060	2340	1200	2 x 5"				45,3	15	14,9	1335	1795
PME-E 4104 K12	2625	4060	2340	1500	2 x 5"				49,7	22	21,8	1405	1865
PME-E 4803 K12	2625	4730	2340	1200	2 x 6"				52,9	22	21,8	1460	2035
PME-E 4804 K12	2625	4730	2340	1500	2 x 6"				58,1	22	21,8	1530	2105
PME-E 5703 K12	2625	5750	2340	1200	2 x 6"				64,5	22	21,8	1755	2415
PME-E 5704 K12	2625	5750	2340	1500	2 x 6"				70,8	30	29,7	1855	2515
PME-E 6203 K12	3565	6270	2360	2140	2 x 6"				70,2	30	29,7	1835	2495
PME-E 6204 K12	3565	6270	2360	2440	2 x 6"				77,0	30	29,7	1935	2595
PME-E 6703 K12	2625	6750	2340	1200	2 x 6"				75,9	30	29,7	1920	2670
PME-E 6704 K12	2625	6750	2340	1500	2 x 6"				83,3	37	36,6	2020	2770
PME-E 7203 K12	3565	7270	2360	2140	2 x 6"				81,0	30	29,7	1990	2740
PME-E 7204 K12	3565	7270	2360	2440	2 x 6"				88,9	37	36,6	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 export@mitact.it

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